



**REPORT OF THE
TWENTY-FOURTH
ANNUAL MEETING
OF THE COUNCIL**

Bar Harbor, Maine, USA

4 - 8 June 2007

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CNL(07)58

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***Report of the Twenty-Fourth Annual Meeting of the Council
of the North Atlantic Salmon Conservation Organization
Harborside Hotel and Marina, Bar Harbor, Maine, USA
4 - 8 June, 2007***

1. Opening Session

- 1.1 The President, Dr Ken Whelan, opened the meeting. Dr William J Brennan, Deputy Assistant Secretary of Commerce for International Affairs, National Oceanic and Atmospheric Administration (NOAA), USA, welcomed delegates to Bar Harbor (Annex 1). The President thanked Dr Brennan 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 The representative of the North Pacific Anadromous Fish Commission (NPAFC), Dr Shigehiko Urawa, made an Opening Statement (Annex 4).
- 1.4 An Opening Statement was made on behalf of all the 21 Non-Government Organizations (NGOs) attending the Annual Meeting (Annex 5).
- 1.5 The President expressed appreciation to the Parties and to the observer organizations for their statements and closed the Opening Session.
- 1.6 A list of participants is given in Annex 6.

2. Adoption of Agenda

- 2.1 The Council adopted its agenda, CNL(07)39 (Annex 7).

3. Financial and Administrative Issues

3.1 Report of the Finance and Administration Committee

The Chairman of the Finance and Administration Committee, Dr Boris Prischepa (Russian Federation), presented the report of the Committee, CNL(07)5. On the recommendation of the Committee, the Council took the following decisions:

- (i) to accept the audited 2006 annual financial statement, FAC(07)2;
- (ii) to adopt a budget for 2008 and to note a forecast budget for 2009, CNL(07)46 (Annex 8);
- (iii) to adopt a Memorandum of Understanding with ICES, FAC(07)6 (Annex 9), which would be signed by the President on behalf of NASCO;

- (iv) to appoint PricewaterhouseCoopers (PWC) of Edinburgh as auditors for the 2007 accounts, or such other company as may be agreed by the Secretary following consultation with the Chairman of the Finance and Administration Committee;
- (v) to adopt the report of the Finance and Administration Committee.

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

The representative of the European Union indicated that it is the policy in the European Commission to change auditors on a regular basis, and he indicated that he would propose that NASCO change auditors for 2008 and regularly thereafter.

4. Scientific, Technical, Legal and Other Information

4.1 Secretary's Report

The Secretary made a report to the Council on: status of accessions to the Convention; observers at NASCO's meetings; fishing for salmon in international waters; a review of international salmon-related literature published in 2006; and the Twenty-Year Milestones report, which has been very well received, and had been published in English, French and Russian and widely distributed.

In accordance with Financial Rule 5.5, the Secretary reported on the receipt of contributions for 2007. All contributions had been received and there were no arrears.

The Secretary reported (CNL(07)21 and CNL(07)28) that since the last Annual Meeting of the Council, five new non-government organizations had been granted observer status:

- Marine and Environmental Law Institute, Dalhousie University, Canada
- Atlantic Salmon Conservation Foundation, Canada
- Connecticut River Salmon Association, USA
- Clean Catch, USA
- College of the Atlantic, USA

In addition, WWF (Norway) had been readmitted as observers. In total, NASCO currently has 34 accredited NGOs. The Council welcomed these observer organizations.

4.2 Report on the Activities of the Organization in 2006

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 2006, CNL(07)6.

4.3 Announcement of the Tag Return Incentive Scheme Grand Prize

The President announced that the winner of the \$2,500 Grand Prize was Karl Kristian Kruse, Uummannaq, Greenland. The Council offered its congratulations to the winner.

4.4 Scientific Advice from ICES

The representative of ICES presented the report of the Advisory Committee on Fishery Management (ACFM) to the Council, CNL(07)7 (Annex 10). A separate report from ICES on the application of state-of-the-art genetic stock identification methods was also tabled, CNL(07)51.

4.5 Catch Statistics and their Analysis

The Secretary tabled a statistical paper presenting the official catch returns by the Parties for 2006, CNL(07)8 (Annex 11), and historical data for the period 1960-2006, CNL(07)9. The statistics for 2006 are provisional.

4.6 Special Session: Unreported Catches

A paper summarising the information provided by the Parties on unreported catches was tabled, CNL(07)10.

The Council held a Special Session on Unreported Catches so as to allow for a more detailed exchange of information among the Parties and their relevant jurisdictions on: the methods used to estimate unreported catches; trends in the estimates of unreported catches; the source of these unreported catches; and the measures being taken to minimise them. The programme for the Special Session is contained in document CNL(07)11.

There were presentations by all the Parties. Papers on unreported catches were tabled by Canada, CNL(07)38; Denmark (in respect of the Faroe Islands and Greenland), CNL(07)49; EU (UK - England and Wales), CNL(07)26; EU (Ireland), CNL(07)36; EU (UK - Northern Ireland), CNL(07)24; EU (UK - Scotland), CNL(07)25; Iceland, CNL(07)31; Norway, CNL(07)32; the Russian Federation, CNL(07)34; and the USA, CNL(07)33. The Council agreed that the Parties and jurisdictions should provide reports of their presentations for compilation into a report on the Special Session to be made available on the Organization's website. The Council agreed that in the light of the valuable information presented during the Special Session, the Parties might consider how the issues of improving estimates of, and further minimising, unreported catches can be incorporated into their Implementation Plans. The issue would remain on the Council's agenda for its Twenty-Fifth Annual Meeting.

4.7 Scientific Research Fishing in the Convention Area

A report on scientific research fishing conducted since the last Annual Meeting was made by EU (Ireland), CNL(07)35 (Annex 12). Norway reported that while there had been no dedicated research surveys for salmon, 46 post-smolts had been caught during research cruises for other pelagic species. Large salmon had been caught as far north as 79°N, suggesting a northerly extension in the area of salmon distribution.

4.8 Report of the International Atlantic Salmon Research Board

The report of the meeting of the Board, CNL(07)12 (Annex 13), 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 received a progress report on implementing and promoting the SALSEA programme. The Board had agreed to fund an extension to the West Greenland Sampling Programme to allow examination of trophic feeding state and condition of salmon – continent of origin and age at maturity comparisons. In the event that ICES organises a second workshop on the Development and Use of Historical Salmon Tagging Information from Oceanic Areas, the Board agreed to fund the participation of a GIS expert and oceanographer. The Board had unanimously elected Dr Ken Whelan as its new Chairman. The Board had also considered a number of finance and administrative issues.

The representative of the NGOs stated that the NGOs are very impressed with the inventory of research and commended the Parties for their ongoing research programmes. He indicated that Workpackage 3 of the SALSEA programme on studies into the migration and distribution of salmon at sea is currently undersubscribed in relation to the other Workpackages. Commitment to the marine surveys might be seen as an indicator of how successful NASCO is in fulfilling its objectives. He stated that the marine surveys in 2008 and 2009 offered an excellent opportunity for NASCO to raise its profile and he encouraged all Parties to explore fully the opportunity to contribute research vessels and other resources to the programme.

The President expressed sincere thanks on behalf of NASCO for the excellent work Mr Robichaud had done in guiding the work of the Board from its inception. His energy and dedication had been greatly appreciated.

4.9 Special Session: Salmon at Sea – Research Programmes in the North Pacific and North Atlantic Oceans

In 2002, NASCO, NPAFC, PICES, IBSFC and ICES had co-sponsored a workshop on mortality of salmon at sea. The report of this workshop had been published as NPAFC Technical Report 4. One of the recommendations of this workshop had been that there should be a major international symposium on factors influencing salmon mortality at sea in 2010. The IASRB has allocated funding to sponsor this symposium which would allow for presentation of the results of the SALSEA programme in the North Atlantic and the BASIS and BASIS2 programmes in the Pacific. However, following consultations with NPAFC it had been agreed that there could be benefits from an early further exchange of information between scientists working on research on salmon at sea in the North Pacific and North Atlantic Oceans and that such an exchange might raise the profile of ongoing research in the media. It had, therefore, been agreed that a Special Session would be held during NASCO's Twenty-Fourth Annual Meeting, to which scientists from the Pacific would be invited to participate, and in 2008 NPAFC would invite scientists from the North Atlantic to participate in the BASIS Symposium.

The programme for the Special Session is contained in document CNL(07)13. A report of the Special Session will be prepared by the Secretariat and made available on the Organization's website.

During the discussion period, a proposal was made by the representative of the NGOs that one approach to raising funding for research on salmon at sea that might be

explored would be the addition of a small levy on the sale of farmed salmon, to be paid by the consumer. The NGOs further noted that while there is clearly tremendous support for SALSEA among the Parties, they are concerned at the level of commitment to the marine surveys planned for 2008 and 2009. While applauding the commitments of vessel time made by Ireland, Norway and Faroes, the representative of the NGOs asked the other Parties if they had plans to contribute research vessel time. The representative of Canada indicated that his delegation was looking closely at the availability of research vessels but it was proving to be challenging to secure ship-time. The US indicated that it is difficult to allocate ship-time and the US was therefore looking at the possibility of providing other resources. The representative of the European Union indicated that the European Union was supporting the application for FP7 funding and discussions have been held on a number of occasions with Member States about the possibility of contributing research vessel time. He referred to the gear trials undertaken by Ireland in May 2007. The President indicated that in addition to the availability of research vessels, the Parties might explore the use of chartered fishing vessels, the availability of eco-vessels and the opportunity to trawl for salmon during research cruises for other species.

4.10 Report of the Standing Scientific Committee

The Chairman of the Standing Scientific Committee, Dr Peter Hutchinson, 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(07)14 (Annex 14). The Council agreed that to assist ICES in planning its work programme for the Working Group on North Atlantic Salmon, the aim should be to communicate the results of utilising the Framework of Indicators by 31 January.

5. Next Steps for NASCO

5.1 Special Session: Progress with the Next Steps Strategy

(a) *Report of the Ad Hoc Review Group on the Parties' Implementation Plans*

The Strategic Approach for NASCO's 'Next Steps' requires that each Party or jurisdiction develop an Implementation Plan focused around NASCO's three main agreements (which address fishery management, habitat protection and restoration, and aquaculture and associated activities) and which also takes into account NASCO's various guidelines. Guidelines for the preparation of these Implementation Plans, NSTF(06)10, were agreed by the Council and last June the Parties and relevant jurisdictions presented draft plans. It was agreed that the final plans would be provided to the Secretariat by October 2006 and these would then be subject to review by an *Ad Hoc* Review Group. The Implementation Plans submitted by the Parties are contained in document CNL(07)22.

The Coordinator of the *Ad Hoc* Review Group, Dr Malcolm Windsor, introduced the Group's report, CNL(07)15 (Annex 15). The focus of the assessment was the structure of the plans and their conformity to the guidelines. Consequently, to receive a favourable review a plan had to contain the key elements identified in the guidelines. The reviews were not about the adequacy or otherwise of each jurisdiction's record of salmon management. The reviews were simply about the commitments, timeframes and measurable outputs of the plan. Members of the *Ad*

Hoc Review Group then presented the Group's findings, CNL(07)42. Preliminary Implementation Plans were made available to the Council at the meeting for EU (Germany), CNL(07)37, and EU (France), CNL(07)56.

(b) *Responses to the Ad Hoc Review Group findings*

The Council concluded that the review had been a very valuable process. In the light of the *Ad Hoc* Review Group's assessment and in light of the discussions at the Special Session it was decided by the Council that plans should be submitted or re-submitted in final form by 1 November. The *Ad Hoc* Review Group would then conduct one final review, the results of which would be sent to the Parties by 1 March.

(c) *Report of the Public Relations Group*

One of the central themes of the Strategic Approach for NASCO's 'Next Steps', CNL(05)49, was the need for the Organization to better promote its work and achievements. The Council had, therefore, established a Public Relations Group to develop a clear public relations strategy aimed at enhancing NASCO's profile and ensuring the most effective publicity for its work and achievements. This group met in London in December 2006. The Chairman of the PR Group, Dr Malcolm Windsor, introduced the Group's report, CNL(07)16 (Annex 16).

The Group recognised that the term "stakeholders" is very broad and includes anyone with an interest in, or depending on, the Atlantic salmon. There are both internal stakeholders (e.g. other government departments, NGO membership) and external stakeholders (e.g. the public, politicians). A public relations strategy targeting the former would focus on communications while, for the latter, use of the media and communications would be appropriate.

The Group had reviewed the results of a pilot study to raise NASCO's profile conducted in 2005/2006, welcomed this initiative and recognised the need to build on the progress made. The Group had developed recommendations for a strategy to enhance NASCO's profile and increase publicity for its work. The Group had proposed that the main tasks in developing a public relations strategy are:

- to identify key messages;
- to identify target audiences;
- to identify products and methods for delivering the message. In this regard, the Group believes that NASCO should develop an annual 'State of Salmon Populations' report and undertake a major enhancement of the Organization's website;
- to identify educational programmes, with a view to establishing a database of such programmes on the basis of information provided by the Parties;
- to establish a network of media contacts within NASCO and the NGOs and to employ an Information Officer with good public relation skills.

The representative of the NGOs indicated that the NGOs would be willing to assist NASCO with its public relations work and if NASCO developed a publication outlining its objectives and activities, they would be willing to distribute this with their own publications and to make it available on their websites with links to

NASCO's website. ASF and WWF indicated that at the next Annual Meeting, they would be willing to arrange a press briefing to allow NASCO and the NGOs to present a coordinated message to the media.

5.2 Review of the 'Next Steps for NASCO' Special Session and Decisions by the Council

The Council decided that the next stage of the 'Next Steps' process would be to focus on the area of fisheries management in the Implementation Plans. An *Ad Hoc* Review Group to review this focus area was set up with terms of reference, composition and a timeframe, CNL(07)47 (Annex 17). The representative of the European Union stated that there could be a significant amount of work to prepare these reports and that, in the case of the European Union, some jurisdictions might find it difficult to meet the timetable. The President referred to possible sensitivities from the review outcome. He also suggested that jurisdictions that had difficulties might seek support from their partners in NASCO. The representative of the NGOs indicated that it would be unfortunate to limit the process, which should be independent. He felt it would be best for the Review Group to decide for itself how it might work.

With regard to a Communications Strategy the Council decided that, in the first instance, it would upgrade and improve the website of NASCO and of the IASRB. The Secretary was asked to produce a model 'State of the Salmon Stocks' document which would be easy to comprehend and attractively produced. He would use information from the Parties and from ICES to construct this publication and professional support would be needed to produce it. The Parties were asked to provide details of educational programmes concerning wild Atlantic salmon to the Secretariat for inclusion in a database of such programmes. The President strongly supported improving NASCO's communications. The representative of the US stated that NASCO needs to refine its Communications Strategy in the light of the valuable ideas emerging from the PR Group.

The representative of the NGOs stressed that it was important that NASCO does not lose momentum on this initiative and offered more partnership and support. It was agreed that the Secretariat and the NGOs should communicate on advancing these matters and report back to the Council next year.

5.3 EU Proposal for a Performance Review of the Work of NASCO

The Council considered, in some detail, proposals by the European Union, CNL(07)43 (Annex 18), in line with those requested from the various tuna RFMOs, and by the USA, CNL(07)48 (Annex 19), for a Performance Review of NASCO. The Council considered this matter in the light of the 'Next Steps' review process, which has been carried out in an open and public fashion over the past three years, and the detailed nature of the decisions taken by the Council to implement broad-ranging changes in the manner in which NASCO operates and its relationship with its NGOs. While recognizing that an assessment of the work of NASCO, the 'Next Steps' process and its performance would be a helpful and positive step, it was the Council's view that the timing of such a review was critically important given that the Organization was in the midst of implementing the core elements of the 'Next Steps' process. The Council decided that it would, in the future, undertake an additional external review, to be carried out by an appropriately experienced team of external

and internal reviewers, and that it would return to this subject during the 2008 Annual Meeting with a view to deciding on the timing and terms of reference for such a review, consistent with UN Resolution 61/105.

The representative of the European Union stated that he believed there had been a missed opportunity in not proceeding with a stronger commitment to the performance review. He hoped that when the Council returns to this issue at its 2008 Annual Meeting there will be a strong commitment to establish timings for the review within a short timescale. The European Union delegation regretted that it had not been possible to move further with their proposal, but in the spirit of consensus had accepted the approach proposed. The representative of Canada indicated that while the agreed approach did not meet all of Canada's expectations, it is an important step in the right direction. The representative of the NGOs suggested that if the Council had been subject to a performance review on this issue, it would not have scored too highly and he suggested that it was important that the Council find ways of dealing efficiently with such issues in the future without disrupting the Organization's business.

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

6.1 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(07)17 (Annex 20). Returns were also received from EU (Germany – Baden-Wuerttemberg) and EU (France), CNL(07)29 (Annex 21). In addition, Norway tabled a paper detailing the main features of the Norwegian policy for the preservation of wild salmon, CNL(07)27 (Annex 22).

6.2 Aquaculture, Introductions and Transfers, and Transgenics

(a) 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. Last year the Council had asked that the revised Resolution, CNL(06)48, be issued as a brochure and copies of this brochure had been issued to all delegates and to the Liaison Group. The Secretary indicated that it was hoped that the brochure could be distributed widely to the salmon farming industry, salmon managers, NGOs and other interested parties around the North Atlantic.

(b) Liaison with the Salmon Farming Industry

The Chair of the Liaison Group, Ms Mary Colligan (US), introduced the report of the Group's meeting, CNL(07)18 (Annex 23). She indicated that a welcome development at the meeting had been that, for the first time, NASCO's accredited NGOs had been able to participate. The Group had agreed that it should:

- share information on area management initiatives (local cooperation between wild and farmed salmon interests to address impacts of aquaculture on wild stocks, e.g. from sea lice) and promote area management to NASCO's Parties;
- continue to explore opportunities for cooperation between wild and farmed salmon interests and that reports of such initiatives should be made available to the Group;
- hold a one-day session at its next meeting focusing solely on the level and causes of escapes and opportunities to minimise them;
- encourage research into alternative treatments for sea lice and make representations to the authorities urging that they make effective sea lice treatments available as quickly as possible where these are environmentally acceptable.

The industry representatives at the Liaison Group had agreed to explore how they might support the SALSEA programme. They had also agreed to develop a discussion document on how NASCO could further support the salmon farming industry.

This discussion document had been received and was entitled 'Incentivising the Industry', CNL(07)30 (Annex 24). The Council noted the findings of the Bergen Symposium (see 6.2(c)), the continued high level of escapes as presented to the Liaison Group, and the suggestion by the International Salmon Farmers' Association of support for the dissemination of information on best practice and collaborative problem-solving.

The Council asked the Secretary to respond to ISFA welcoming their communication but indicating that there were proposals in their paper that would be unacceptable, some that could be the subject of cooperation and others that would need further consideration.

To advance this initiative, the Council agreed to propose to ISFA that a Joint Technical Task Force be set up with membership from the two Secretariats and two or three nominated expert participants from NASCO and ISFA. The Terms of Reference for this Group are:

- Taking account of the findings in the 2005 ICES/NASCO Bergen Symposium, the Joint ISFA/NASCO Trondheim Workshop and any other relevant scientific information regarding impacts from aquaculture on wild stocks, identify and agree on a series of best practice recommendations to address the continuing impacts of salmon farming on wild stocks (e.g. escapes, interbreeding, sea lice infestations, disease transfers to and from the wild). These recommendations will be designed to achieve the impact targets established by the NASCO Parties.

The Secretary was asked to liaise with ISFA with a view to the Task Force meeting before the next Annual Meeting of NASCO. The Task Force should, for the time being, replace the NASCO/North Atlantic Salmon Farming Industry Liaison Group.

The representative of the NGOs expressed the view that the proposals by ISFA made an assumption that the salmon farming industry had already achieved the condition where it posed no threat to wild salmon. This was certainly not the case and he trusted that the Council would, accordingly, make a robust response. He offered to provide a technical expert to the proposed Joint Technical Task Force.

(c) *Reports of the ICES/NASCO Bergen Symposium*

The Secretary informed the Council that two reports from the ICES/NASCO Symposium ‘Interactions between aquaculture and wild stocks of Atlantic salmon and other diadromous fish species: Science and Management, Challenges and Solutions’ had been published. The scientific papers have been published in a special issue of the ICES Journal of Marine Science (Volume 63) edited by the Assistant Secretary. A second report, focusing on the management issues, had been prepared by the Co-Conveners and published by the Norwegian Institute for Nature Research (NINA). Copies of both reports had been made available to delegates. The Conveners had concluded that if no action is taken now to address the remaining challenges identified at the Bergen Symposium (relating to minimising impacts of sea lice and escapes of farmed salmon), there is a real risk of losing genetic diversity in the wild stocks, with potentially serious consequences for their fitness, productivity and their ability to survive environmental changes. The Conveners did not believe that this was a precautionary situation. It had been suggested that one way forward would be to use the findings of the Bergen Symposium in the development of NASCO’s input to the group that was to be proposed to the industry, the Joint Technical Task Force, mentioned above. Support for some of the industry’s proposals would be conditional on their meeting certain quantitative standards of, for example, escapes and sea lice infestation.

6.3 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 Council’s agenda and ICES had been requested to provide relevant information, which is contained in document CNL(07)7. The EU (Ireland) tabled a document on Wild Salmon Management in Ireland, CNL(07)52.

6.4 Report of the Working Group on Bio-economic Modelling

The Council had previously agreed that a Technical Working Group (TWG) 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’, CNL(05)49, to continue and expand existing efforts to incorporate social and economic factors in the Organization’s work. However, for a number of reasons it had not been possible to organise a meeting of the TWG. The Council recognised that under the Strategic Approach the key issues identified are to:

- ensure that appropriate emphasis is given to the social and economic factors of the Atlantic salmon;
- strengthen the socio-economic data as a basis for managing Atlantic salmon;
- integrate social and economic aspects and considerations, in an open and transparent way, within a NASCO decision-making process;

- disseminate the information on the social and economic aspects of the wild Atlantic salmon in order to ensure that they are given due weight compared to other important economic and public interests.

The Council therefore decided to establish a Working Group on Socio-Economics to meet inter-sessionally at least once before the 2008 Annual Meeting. The Terms of Reference for the Group are contained in document CNL(07)59 (Annex 25). The Council asked that Norway and the United States consult with regard to appointing a Chairman for the Group.

The representative of the NGOs indicated that the NGOs have great expertise in the area of socio-economics and requested that they be invited to participate in the Group. The Council agreed to this request.

6.5 Progress with development of the Database of Salmon Rivers

In 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. This database had been made available for data entry by NASCO's Parties and the Council had 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; such data entry would be optional but would be of benefit to the database.

A report on progress with development of the database of salmon rivers was tabled, CNL(07)19. The progress report indicated that the Parties have started to update the rivers database information and some Parties have gone further and have started to enter habitat and habitat impacts information and salmon production data. Feedback from database coordinators had indicated that there may need to be some changes to the database to better reflect the available data. The Council agreed that any revisions to the database should be agreed by correspondence between the Secretariat and database coordinators. The Council encouraged the Parties to undertake the first task of validating the basic river data at the earliest opportunity as it is now publicly available on the Organization's website.

6.6 St Pierre and Miquelon Salmon Fishery

A report on the sampling programme at St Pierre and Miquelon in 2006, information on the regulatory framework for managing the fishery and details of licences issued and catches was made available to the Council, CNL(07)20 (Annex 26). 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 while the number of licences issued in 2006 had declined, the catch, while low, had increased compared to 2005 and was the highest catch in the period 1998-2006. The North American Commission believed that it would be beneficial if France (in respect of St Pierre and Miquelon) became a Party to the NASCO Convention and had asked that the Council pursue this matter with the French authorities.

The President expressed his concern that France (in respect of St Pierre and Miquelon) had not been present at the Twenty-Fourth Annual Meeting. The representative of the NGOs stated that they urged the government of France to become a Party to NASCO, since there were increasing harvests of salmon at St Pierre and Miquelon. In response to a question from the NGO representative, the representative of the European Union indicated that while France is a Member State, and participates in the European Union delegation to NASCO, this participation is for metropolitan France. France represents St Pierre and Miquelon as a French overseas territory, over which the European Community has no competence.

The Council authorised the President of NASCO to invite France (in respect of St Pierre and Miquelon) to accede to the Convention. The representative of Canada stated that it was important that France (in respect of St Pierre and Miquelon) participated in NASCO, since there are challenges that we need to understand and work cooperatively to address. He indicated that his delegation would be pleased to assist in encouraging the French authorities, on behalf of St Pierre and Miquelon, to become a Party to NASCO.

6.7 Impacts of Acid Rain on Atlantic Salmon

There were no interventions on the impacts of acid rain. The President noted that acidity in the oceans is an important factor for NASCO, and should be kept under review.

6.8 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.

7. Other Business

- 7.1 The representative of the NGOs referred to the fact that Baltic salmon are managed separately from Atlantic salmon and that the International Baltic Sea Fishery Commission had been disbanded since the Baltic States had joined the European Union. He hoped that information on Baltic salmon would be made available to NASCO. The representative of the European Union indicated that he would undertake to provide such information in the future.

8. Date and Place of Next Meeting

- 8.1 The Council accepted an invitation from the European Union, on behalf of Spain, to hold its Twenty-Fifth Annual Meeting at a venue to be decided in Spain during 2 - 6 June 2008.
- 8.2 The Council accepted an invitation from Norway to hold its Twenty-Sixth Annual Meeting at a venue to be decided in Norway during 1 - 5 June 2009.

9. Report of the Meeting

- 9.1 The Council agreed the report of the meeting.

10. Press Release

- 10.1 The Council adopted a press release, CNL(07)57 (Annex 27).

Note: A list of all Council papers is contained in Annex 28. The annexes mentioned above begin on page 31, following the French translation of the report of the meeting.

***Compte rendu de la Vingt-quatrième réunion annuelle du Conseil de
l'Organisation pour la Conservation du Saumon de l'Atlantique Nord
Hôtel et Marina Harborside, Bar Harbor, Maine, EUA
4 - 8 juin, 2007***

1. Séance d'ouverture

- 1.1 Le Président, le Dr Ken Whelan, a ouvert la réunion. Le Dr William J Brennan, Secrétaire Adjoint chargé du Commerce pour le Service des Affaires Internationales de l'Administration nationale océanique et atmosphérique (NOAA) des Etats-Unis a souhaité aux délégués la bienvenue à Bar Harbor (annexe 1). Le Président a remercié le Dr Brennan 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 Iles Féroé et le Groenland), de l'Union européenne, de l'Islande, de la Norvège, de la Fédération de Russie et des Etats-Unis d'Amérique ont chacun prononcé une déclaration d'ouverture (annexe 3).
- 1.3 Le Dr Shigehiko Urawa, représentant de la Commission des Poissons Anadromes du Pacifique Nord (CPAPN), a également prononcé une allocution d'ouverture (annexe 4).
- 1.4 Une déclaration d'ouverture a été prononcée conjointement, au nom des 21 organisations non gouvernementales (ONG) présentes à la Réunion annuelle (annexe 5).
- 1.5 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.
- 1.6 Une liste des participants figure à l'annexe 6.

2. Adoption de l'ordre du jour

- 2.1 Le Conseil a adopté l'ordre du jour, CNL(07)39 (annexe 7).

3. Questions administratives et d'ordre financier

3.1 Rapport de la Commission financière et administrative

Le Président de la Commission financière et administrative, le Dr Boris Prischepa (Fédération de Russie), a présenté le rapport de la Commission, CNL(07)5. Fort des recommandations de la Commission, le Conseil a pris les décisions suivantes :

- (i) accepter la déclaration financière révisée de 2006, FAC(07)2;
- (ii) adopter un budget pour 2008 et prendre acte du budget prévisionnel pour 2009, CNL(07)46 (annexe 8);

- (iii) adopter le protocole d'accord convenu avec le CIEM, FAC(07)6 (annexe 9). Ce document serait signé par le Président au nom de l'OCSAN ;
- (iv) nommer soit PricewaterhouseCoopers (PWC) d'Edimbourg, Commissaire aux comptes pour l'an 2007, ou toute autre société recevant l'approbation du Secrétaire après consultation auprès du Président de la Commission financière administrative ;
- (v) adopter le rapport de la Commission financière et administrative.

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

Le représentant de l'Union européenne a mentionné que celle-ci avait pour politique de changer régulièrement de Commissaire aux comptes. Il a de ce fait suggéré à l'OCSAN de nommer en 2008 un nouveau Commissaire aux comptes à remplacer fréquemment par la suite.

4. Questions scientifiques, techniques, juridiques et autres

4.1 Rapport du Secrétaire

Le Secrétaire a rendu compte au Conseil des questions suivantes : nombre d'accessions à la Convention; observateurs aux réunions de l'OCSAN ; pêche au saumon dans les eaux internationales ; examen des publications internationales portant sur le saumon parues en 2006; et rapport retraçant les Vingt années de l'OCSAN. Ce rapport, qui avait été très bien accueilli, avait été publié en anglais, français et russe et avait également fait l'objet d'une grande diffusion.

Conformément au règlement financier 5.5, le Secrétaire a dressé un rapport sur les contributions de 2007. Elles avaient toutes été perçues. Il n'y avait donc aucun arriéré.

Le Secrétaire a indiqué que, depuis la dernière Réunion annuelle du Conseil, cinq nouvelles organisations non gouvernementales avaient obtenu le statut d'observatrices (CNL(07)21 et CNL(07)28), à savoir :

- *Marine and Environmental Law Institute*, (MELI), Université de Dalhousie, Canada
- *Atlantic Salmon Conservation Foundation* (Fondation pour la Conservation du Saumon Atlantique), Canada
- *Connecticut River Salmon Association* (Association pour le saumon de la rivière Connecticut), Etats-Unis
- *Clean Catch*, Etats-Unis
- *College of the Atlantic* (College de l'Atlantique), Etats-Unis

De plus, le WWF (Norvège) avait été réadmis en tant qu'observateur. En tout, NASCO avait dorénavant 34 ONG accréditées. Le Conseil a souhaité la bienvenue à ces observateurs.

4.2 Rapport sur les activités de l'Organisation de 2006

Le Conseil a adopté le rapport d'activités 2006 de l'Organisation, CNL (07)6, adressé aux Parties conformément à l'article 5, paragraphe 6 de la Convention.

4.3 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 Karl Kristian Kruse, de Uummannaq, au Groenland. Le Conseil a présenté ses félicitations au gagnant.

4.4 Recommandations scientifiques du CIEM

Le représentant du CIEM a présenté au Conseil le rapport du Comité Consultatif sur la Gestion des Pêcheries (CCGP), CNL(07)7 (annexe 10). Il a également soumis un autre rapport du CIEM qui traitait de l'application de méthodes génétiques modernes à l'identification des stocks, CNL(07)51.

4.5 Statistiques de capture et analyse

Le Secrétaire a soumis un document statistique portant sur les déclarations de captures officielles effectuées par les Parties en 2006, CNL(07)8 (annexe 11), et sur les données historiques pour la période de 1960 à 2006, CNL(07)9. Les statistiques de 2006 sont provisoires.

4.6 Séance spéciale : Captures non déclarées

La synthèse des renseignements fournis par les Parties concernant les captures non déclarées a été présentée, CNL(07)10.

Le Conseil a tenu une séance spéciale sur ce thème des captures non déclarées afin de favoriser un plus grand échange d'informations ponctuelles entre les Parties et leurs juridictions sur les points suivants : méthodes employées pour estimer les captures non déclarées; tendances enregistrées dans les estimations de captures non déclarées ; origine de ces captures et mesures prises pour les réduire au maximum. Le document CNL(07)11 contient le programme de cette séance spéciale.

Les Parties ont, toutes, participé à cette séance. Des présentations sur le thème de la séance avaient été faites par le Canada, CNL(07)38 ; le Danemark (pour les Iles Féroé et le Groenland), CNL(07)49 ; l'UE (Royaume-Uni – Angleterre et Pays de Galles), CNL(07)26 ; l'UE (Irlande), CNL(07)36 ; l'UE (Royaume-Uni – Irlande du Nord), CNL(07)24 ; l'UE (Royaume-Uni – Ecosse), CNL(07)25 ; l'Islande, CNL(07)31 ; la Norvège, CNL(07)32 ; la Fédération de Russie, CNL(07)34 ; et les Etats-Unis, CNL(07)33. Le Conseil a convenu que les Parties et juridictions respectives devraient fournir des comptes rendus de leurs présentations qui seraient compilés dans un rapport consacré à la séance spéciale et diffusés sur le site Web de l'Organisation. La Séance spéciale avait mis en lumière des informations précieuses. De ce fait, le Conseil a indiqué qu'il serait bon que les Parties réfléchissent à la façon dont elles pourraient incorporer, dans leurs programmes de mise en application, les questions qui se rapportaient à l'amélioration des estimations des captures non déclarées et à

leur réduction maximale. Les captures non déclarées demeureraient un sujet à l'ordre du jour de la Vingt-cinquième réunion du Conseil.

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

Le représentant de L'Union Européenne (Irlande) a présenté un compte rendu sur la pêche qui avait été menée à des fins de recherche scientifique depuis la dernière Réunion annuelle, CNL(07)35 (annexe 12). Le représentant de la Norvège a indiqué que, malgré l'absence d'étude scientifique portant spécifiquement sur le saumon, 46 post-smolts avaient été capturés au cours de voyages de recherche scientifique concernant d'autres espèces pélagiques. Par ailleurs de gros saumons avaient été capturés jusqu'au 79°N, ce qui suggérerait un plus grand élargissement de la zone de répartition des saumons vers le nord.

4.8 Rapport de la Commission internationale de recherche sur le saumon atlantique

M. Jacques Robichaud, Président de la Commission internationale de recherche sur le saumon atlantique, a présenté le rapport de la réunion de ladite Commission, CNL(07)12 (annexe 13). 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 donné un certain nombre de conseils. La Commission avait également reçu un rapport d'avancement sur la mise en oeuvre et la promotion du programme SALSEA. Elle avait convenu de financer une extension supplémentaire au Programme d'échantillonnage du Groenland afin de permettre un examen de l'état trophique et de l'état du saumon – comparaisons entre le continent d'origine et l'âge à la maturité. Au cas où le CIEM organiserait un second atelier sur le développement et l'emploi des données historiques sur le marquage du saumon, propres aux zones océaniques, la Commission a convenu d'y financer la participation d'un océanographe et expert en Système d'information géographique (GIS). Elle a élu le Dr Ken Whelan, Président à l'unanimité et a également étudié quelques questions administratives et d'ordre financier.

Le représentant des ONG a déclaré que les ONG avaient été grandement impressionnées par l'inventaire des recherches. Aussi félicitaient-elles les Parties de la persévérance qu'elles démontraient dans leurs programmes de recherche. Le représentant des ONG a indiqué que le volet *Workpackage 3* du programme SALSEA qui se penchait sur la migration et la répartition du saumon en mer n'avait pas attiré autant d'intéressés que les autres *Workpackages*. Et pourtant, le degré d'engagement dans les études marines pourrait être perçu comme un indice du succès de l'OCSAN quant à la réalisation de ses objectifs. Le représentant des ONG a ajouté que les études marines de 2008 et de 2009 représentaient une excellente occasion pour l'OCSAN de mieux se faire connaître et a encouragé l'ensemble des Parties à examiner en profondeur comment elles pourraient mettre à la disposition du programme des bateaux de recherche ou autres ressources appropriées.

Le Président a exprimé, au nom de l'OCSAN, sa sincère gratitude à M. Robichaud, pour l'excellent travail qu'il avait accompli en guidant la Commission depuis sa création, dans l'exécution de sa tâche. Son énergie et son dévouement avaient été fort appréciés.

4.9 Séance spéciale : le saumon en mer – Programmes de recherche dans les océans du Pacifique Nord et de l'Atlantique Nord

En 2002, l'OCSAN, la CPAPN, la PICES, la CIPMB et le CIEM avaient co-financé un atelier concernant la mortalité du saumon en mer. Le rapport de cette rencontre avait été publié en tant que Rapport technique 4 de la CPAPN. L'une des recommandations de cet atelier avait été d'organiser un symposium majeur en 2010 qui aurait pour objet l'étude des facteurs qui influençaient la mortalité du saumon en mer. La Commission internationale de recherche sur le saumon atlantique (CIRSA) avait alloué des fonds à ce symposium qui permettrait de présenter les résultats du programme SALSEA dans l'Atlantique Nord et des programmes BASIS et BASIS2 dans le Pacifique. Cependant, suite aux consultations avec la CPAPN, il avait été convenu qu'il serait avantageux d'organiser, sans tarder, un autre échange d'information entre les scientifiques qui effectuaient les recherches sur le saumon en mer dans les océans du Pacifique Nord et ceux de l'Atlantique Nord. Il avait été reconnu qu'un échange de ce type pourrait augmenter la connaissance des médias sur la recherche en cours. Il a, par conséquent, été convenu de tenir une séance spéciale au cours de la Vingt-quatrième réunion annuelle du Conseil à laquelle les scientifiques du Pacifique seraient invités à participer. En 2008, la CPAPN inviterait en retour les scientifiques de l'Atlantique Nord à participer au symposium BASIS.

Le programme de la Séance spéciale figure au document CNL(07)13. Le Secrétariat en rédigera le compte rendu. Celui-ci sera diffusé sur le site Web de l'Organisation.

Au cours de la période de débat, le représentant des ONG a proposé que l'un des moyens de collecter les fonds nécessaires à la recherche sur le saumon en mer, digne d'être examiné, était l'imposition d'une taxe supplémentaire, modeste, à la vente de saumon d'élevage. Cette redevance serait à la charge du consommateur. Le représentant des ONG a par ailleurs fait remarquer que, malgré l'immense soutien démontré par les Parties pour SALSEA, le niveau d'engagement dans les études marines organisées pour 2008 et 2009 suscitait des inquiétudes. Bien qu'il applaudissait les engagements pris par l'Irlande, la Norvège et les Îles Féroé à offrir un temps navire, le représentant des ONG a demandé aux autres Parties si elles avaient elles aussi l'intention de permettre un temps d'accès aux navires de recherche (temps navire). Le représentant du Canada a indiqué que sa délégation étudiait avec attention la question de disponibilité des navires de recherche, mais qu'il s'avérait difficile d'obtenir un temps navire. Le représentant des États-Unis a indiqué qu'il était également difficile de fournir un temps navire et que les États-Unis envisageaient par conséquent la possibilité d'attribuer d'autres ressources. Le représentant de l'Union européenne a indiqué que l'Union européenne soutenait la demande de fonds auprès de la Commission Européenne (dans le cadre du septième programme-cadre [7^e PC]) et que des débats avaient eu lieu à plusieurs reprises avec les États membres à propos de la possibilité d'offrir un temps navire. Il a également mentionné les tests d'engins de pêche, entrepris par l'Irlande au mois de mai 2007. Le Président a suggéré aux Parties d'explorer, mise à part la disponibilité des navires de recherche, le recours aux navires de pêches affrétés, la disponibilité de « navires-éco » et l'occasion de pêcher le saumon au chalut, au cours de voyages de recherche effectuée sur d'autres espèces.

4.10 **Compte rendu du Comité scientifique permanent**

Le Dr Peter Hutchinson, Président du Comité scientifique permanent, a présenté une demande provisoire de recommandations scientifiques adressée au CIEM. Fort de l'avis du Comité, le Conseil a adopté la demande de recommandations scientifiques CNL(07)14 (annexe 14), adressée au CIEM. Le Conseil a également accepté d'apporter son assistance au CIEM en ce qui concernait l'organisation du programme de travail du Groupe de travail chargé du Saumon de l'Atlantique Nord, l'objectif étant de communiquer d'ici le 31 janvier les résultats de l'utilisation du cadre des indicateurs (CDI).

5. **Décisions à prendre à l'avenir par l'OCSAN**

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

(a) Rapport du Comité temporaire de révision sur les programmes de mise en application des Parties

L'approche stratégique prise dans le cadre des “décisions à prendre à l'avenir” par l'OCSAN nécessite de la part de chaque Partie ou juridiction de mettre au point un programme de mise en application, organisé autour des trois accords principaux de l'OCSAN qui concernent la gestion de la pêche, la protection et restauration de l'habitat et enfin l'aquaculture et activités connexes. Le programme de mise en application doit également tenir compte des différentes directives de l'OCSAN. Le Conseil avait approuvé des consignes pour la préparation de ces programmes de mise en application, NSTF(06)10. En juin de l'année dernière, les Parties et les juridictions appropriées avaient présenté des avant-projets de programmes. Il avait été convenu que les programmes définitifs seraient présentés au Secrétariat d'ici Octobre 2006 et qu'ils seraient examinés par un Comité temporaire de révision. Les programmes de mise en application soumis par les Parties figurent au document CNL(07)22.

Le Dr Malcolm Windsor, Coordinateur du Comité temporaire de révision, a présenté le rapport du Comité CNL(07)15 (annexe 15). L'examen avait surtout porté sur la structure des programmes et sur leur respect des directives. Par conséquent, pour obtenir une critique favorable, un programme devait contenir les éléments clés tels qu'ils avaient été définis dans les directives. Les examens ne portaient pas sur l'adéquation des performances de chacune des juridictions en terme de gestion du saumon. Ils concernaient simplement les engagements, le calendrier et les résultats quantifiables du programme. Les membres du Comité temporaire de révision ont ensuite présenté les conclusions du Comité, CNL(07)42. Des programmes provisoires pour l'UE (Allemagne) CNL(07)37, et pour l'UE (France), CNL(07)56, ont été soumis au Conseil au cours de la réunion.

(b) Réponses aux conclusions du Comité temporaire de révision

Le Conseil a conclu que la révision avait été un procédé utile. A la lumière de l'évaluation du Comité temporaire de révision et des débats qui avaient eu lieu lors de la Séance spéciale, il a décidé que les programmes devaient être soumis ou présentés à nouveau dans leur forme définitive le 1^{er} novembre au plus tard. Le Comité

temporaire de révision procèderait alors à un dernier examen, dont les résultats seraient envoyés aux Parties le 1er mars au plus tard.

(c) *Rapport du Groupe chargé des Relations publiques*

Parmi les thèmes principaux de l'Approche stratégique à appliquer dans le cadre des « décisions à prendre à l'avenir par l'OCSAN », CNL(05)49, figurait la nécessité pour l'Organisation de mieux promouvoir son travail et ses succès. Pour ce faire, le Conseil avait établi un Groupe chargé des questions de relations publiques avec pour mission de mettre au point une stratégie précise de relations publiques qui devait viser à mieux faire connaître l'OCSAN et à garantir une publicité des plus efficaces sur son travail et ses exploits. Ce groupe s'était rassemblé à Londres au mois de décembre 2006. Le Dr Malcolm Windsor, Président du Groupe de RP, a présenté le rapport du Groupe, CNL(07)16 (annexe 16).

Le Groupe reconnaissait que le terme “*stakeholders*” avait une signification très large qui incluait toute personne ou entité qui avait un enjeu ou un intérêt dans le saumon atlantique ou qui en dépendait. On distinguait ainsi des *stakeholders* dits internes (par exemple, d'autres services gouvernementaux, les membres des ONG) et des *stakeholders* dits externes (par exemple le public, les hommes politiques). Une stratégie de relations publiques s'adressant au premier groupe se concentrerait sur la communication, tandis que le recours aux médias en plus de la communication serait plus approprié pour le second groupe.

Le Groupe avait examiné les résultats d'une étude pilote menée en 2005/2006 et qui avait pour but de mieux faire connaître l'OCSAN. Le groupe avait bien accueilli cette initiative, avait reconnu la nécessité de tirer parti du progrès réalisé et avait élaboré des recommandations pour une stratégie qui améliorerait la connaissance de l'OCSAN et qui augmenterait la publicité sur son activité. Le Groupe avait défini les tâches principales suivantes qui sous-tendaient la mise au point d'une stratégie de relations publiques:

- identifier les messages clés ;
- identifier les audiences ciblées ;
- déterminer les supports et méthodes de transmission du message. A ce propos, le Groupe était d'avis que l'OCSAN devrait rédiger un rapport annuel portant sur “l'état des population de saumons” et améliorer grandement le site Web de l'Organisation ;
- identifier des programmes éducatifs, avec pour objectif de créer une base de données sur ces programmes à partir des informations fournies par les Parties ;
- établir un réseau de contacts médiatiques au sein de l'OCSAN et des ONG et embaucher un Préposé à l'information possédant des compétences solides en terme de relations publiques.

Le représentant des ONG a indiqué que ces dernières étaient prêtes à apporter leur assistance à l'OCSAN dans son travail de relations publiques. De plus si l'OCSAN produisait une publication résumant ses objectifs et activités, les ONG seraient en mesure de la distribuer avec leurs propres publications et d'en faciliter l'accessibilité à partir de leurs sites Web et de liens avec le site Web de l'OCSAN. La FSA et le WWF ont indiqué qu'ils pourraient organiser un briefing de presse lors de la prochaine

Réunion annuelle, afin de permettre à l'OCSAN et aux ONG de présenter un message coordonné aux médias.

5.2 Etude des conclusions de la Séance Spéciale traitant des « décisions à prendre à l'avenir par l'OCSAN » et Décisions du Conseil

Le Conseil a décidé que la prochaine étape du processus sur les « décisions à prendre à l'avenir par l'OCSAN » serait de se concentrer sur l'élément Gestion des pêcheries des programmes de mise en application. Un Groupe de révision temporaire a été créé avec pour mission d'étudier ce sujet particulier. La composition de ce groupe, son mandat et un calendrier, CNL(07)47 (annexe 17) ont été fixés. Le représentant de l'Union européenne a déclaré que ces rapports pourraient engendrer un important volume de travail et que, dans le cas de l'Union européenne, certaines juridictions pourraient avoir des difficultés à respecter les délais. Le Président s'est reporté aux conclusions de l'étude et plus particulièrement aux points qui pourraient être épineux. Il a également suggéré aux juridictions qui pourraient éprouver quelques difficultés de solliciter un soutien auprès de leurs partenaires au sein de l'OCSAN. Le représentant des ONG a indiqué qu'il serait dommage de limiter le processus, processus qui, du reste, devrait être indépendant. A son avis, il serait préférable de laisser le Groupe de révision décider de la marche à suivre de lui même.

Pour ce qui était d'une Stratégie de Communications, le Conseil a décrété que, dans un premier lieu, il mettrait à niveau et améliorerait le site de l'OCSAN et de la CIRSA. Le Secrétaire a également été prié de rédiger une première ébauche du document « Etat des stocks de saumons », document qui serait à la fois facile à comprendre et présenté d'une façon attrayante. Il baserait sa compilation sur les renseignements des Parties et du CIEM. Il aurait toutefois recours à des professionnels pour la production même du document. Il a été demandé aux Parties de fournir des renseignements sur les programmes éducatifs concernant le saumon atlantique sauvage au Secrétariat de façon à ce qu'ils puissent être inclus dans la base de données conçue à cet effet. Le Président a donné son entière approbation à la nécessité d'améliorer les communications de l'OCSAN. Le représentant des Etats-Unis a déclaré qu'il importait que l'OCSAN perfectionne sa stratégie de communication à la lumière des idées précieuses rassemblées par le Groupe de RP.

Le représentant des ONG a souligné qu'il était important que l'OCSAN ne perde pas d'élan à ce sujet et a offert un plus grand partenariat et soutien. Il a été convenu que le Secrétariat et les ONG travailleraient de paire sur ces questions et rendraient compte de leur travail l'année prochaine lors de la Réunion annuelle du Conseil.

5.3 Proposition émise par l'UE concernant une étude des résultats obtenus par l'OCSAN dans son travail

Le Conseil a examiné, en détail, les propositions de l'Union européenne CNL(07)43 (annexe 18), et des Etats-Unis, CNL(07)48 (annexe 19), demandant un examen des performances de l'OCSAN, en accord avec celles qui avaient été requises des différents Organismes régionaux de gestion des pêcheries (ORGP/*RFMO*) de thon. Le Conseil a étudié cette requête dans le cadre du processus de révision qui avait lieu au sujet des « Décisions à prendre à l'avenir par l'OCSAN ». Ce processus avait été entrepris publiquement et dans un esprit d'ouverture au cours des trois dernières années. Le Conseil a également examiné cette question à la lumière de la spécificité

des décisions qu'il avait pris pour rendre effectives les modifications apportées à la manière dont l'OCSAN opérait ainsi que pour modifier ses rapports avec les ONG. Il a été reconnu qu'une évaluation du travail de l'OCSAN, du processus concernant les « Décisions à prendre à l'avenir par l'OCSAN » et de ses performances serait une démarche utile et positive. Cependant, étant donné que l'Organisation était en train de mettre en oeuvre les éléments centraux du processus « Décisions à prendre à l'avenir par l'OCSAN », le choix du moment auquel cet examen devrait avoir lieu était, selon le Conseil, capital. Le Conseil a décidé, qu'à l'avenir, il entreprendrait une étude supplémentaire externe, effectuée par une équipe expérimentée de critiques internes et externes. Il aborderait ce sujet une fois de plus au cours de la Réunion annuelle de 2008 afin de déterminer le calendrier et le mandat de cette étude, en accord avec la Résolution des NU 61/105.

Selon le représentant de l'Union européenne, l'absence d'un engagement plus ferme pour une étude des performances représentait une occasion manquée. Il espérait que, lorsque le Conseil reviendrait sur cette question lors de la Réunion annuelle de 2008, il y aurait un fort engagement pour fixer rapidement un calendrier pour cet examen. La délégation européenne regrettait ne pas avoir pu faire avancer leur proposition, mais avait accepté, pour respecter le consensus, l'approche proposée. Le représentant du Canada a indiqué que, même si l'approche choisie ne satisfaisait pas toutes les attentes du Canada, elle représentait cependant un pas important dans la bonne direction. Le représentant des ONG a avancé que, si le Conseil avait été l'objet d'une évaluation des performances à ce sujet, il n'aurait pas obtenu un très bon score. Il a par conséquent suggéré au Conseil qu'il importait de trouver à l'avenir des solutions qui résoudre ces questions efficacement sans pour autant bouleverser les affaires de l'Organisation.

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

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

Le Secrétaire a présenté un compte rendu sur les renvois d'information effectués au terme des articles 14 et 15 de la Convention, CNL(07)17 (annexe 20). Il avait également reçu des renvois supplémentaires en provenance de l'Union européenne (Allemagne – Baden-Württemberg) et de l'Union européenne (France), CNL(07)29 (annexe 21). Le représentant de la Norvège a, par ailleurs, présenté un document qui exposait en détail les volets principaux de la politique de la Norvège en ce qui concernait la préservation du saumon sauvage, CNL(07)27 (annexe 22).

6.2 Aquaculture, introductions et transferts, et transgéniques

(a) *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. L'année dernière, le Conseil avait demandé que le texte révisé de la Résolution, CNL(06)48, soit publié sous forme de brochure. Des exemplaires avaient été envoyés à l'ensemble des délégués ainsi qu'au

Groupe de Liaison. Le Secrétaire a indiqué qu'il était prévu d'effectuer une grande diffusion de cette brochure et que des exemplaires seraient distribués au secteur salmonicole, aux gestionnaires de saumons, aux ONG et autres parties intéressées autour de l'Atlantique nord.

(b) *Liaison avec l'industrie salmonicole*

Ms Mary Colligan (Etats-Unis), Présidente du Groupe de Liaison, a présenté le rapport de la réunion du groupe, CNL(07)18 (annexe 23). Elle a indiqué que, pour la première fois, les ONG accréditées de l'OCSAN avaient pu y participer. Ceci représentait une évolution bienvenue. Le Groupe avait convenu de :

- partager les informations qui concernaient les initiatives de gestion de zones (coopération locale entre les représentants d'intérêts divergents : saumons d'élevage et saumons sauvages, afin de faire face aux effets nuisibles de l'aquaculture sur les stocks sauvage, provenant par exemple du pou du saumon) et de faire valoir le concept de gestion de zone aux Parties de l'OCSAN ;
- continuer à explorer les possibilités de coopération entre les représentants d'intérêts divergents : saumons d'élevage et saumons sauvages. On s'attendait à ce que toutes les initiatives de ce genre fassent l'objet d'un rapport qui devrait être mis à la disposition du Groupe ;
- organiser, lors de la prochaine réunion, une séance d'un jour dédiée uniquement au volume et aux causes de l'échappement d'élevage ainsi qu'aux possibilités de réduire ce phénomène au maximum
- encourager les recherches sur les traitements contre le pou du saumon ; faire des démarches auprès des autorités les incitant à procurer aussi rapidement que possible et aux endroits où leur utilisation serait acceptable du point de vue de l'environnement, des traitements efficaces contre ce parasite.

Les représentants du secteur salmonicole au Groupe de liaison avaient convenu d'étudier comment ils pourraient soutenir le programme SALSEA. Ils avaient également décidé d'élaborer un avant-projet sur la manière dont l'OCSAN pourrait soutenir plus largement le secteur salmonicole.

On avait reçu cet avant-projet, intitulé *Incentivising the Industry* (« Comment motiver le secteur salmonicole »), CNL(07)30 (annexe 24). Le Conseil a pris acte des conclusions du Symposium de Bergen (voir 6.2(c)), du fait que le volume d'échappements continuait à être important (d'après la présentation faite au Groupe de Liaison), et de la suggestion émise par l'Association Internationale des Eleveurs de Saumons (AIES). Cette suggestion consistait à offrir son soutien dans la dissémination d'information sur la meilleure pratique et dans la résolution collégiale de problèmes.

Le Conseil a demandé au Secrétaire de répondre à l'AIES, pour leur faire savoir que leur communication avait été bien accueillie. Cet avant-projet contenait toutefois des propositions qui seraient inacceptables, d'autres qui pourraient faire l'objet d'une coopération et d'autres enfin qui nécessiteraient un examen plus approfondi.

Pour faire progresser cette initiative, le Conseil a convenu de proposer à l'AIES de créer conjointement une Force opérationnelle (*Task Force*) technique. Cette *Task Force* aurait pour membres des représentants des deux Secrétariats et deux ou trois experts choisis parmi les participants à l'OCSAN et à l'AIES. Le mandat de cette *Task Force* est :

- de définir et de convenir d'une série de recommandations de meilleure pratique à adopter pour faire face à la persistance des effets nuisibles du saumon d'élevage sur les stocks sauvages (par exemple : poissons échappés d'élevage, croisement, infestations de poux du saumon, transmission de maladies vers et en provenance du milieu naturel.) Cet exercice exige à ce que l'on tienne compte des conclusions émises lors du Symposium OCSAN/CIEM de Bergen de 2005, de l'atelier commun AIES/OCSAN de Trondheim et de toutes autres informations scientifiques appropriées sur les effets nuisibles de l'aquaculture sur les stocks sauvages. Ces recommandations seront conçues de façon à satisfaire les objectifs fixés par les Parties de l'OCSAN contre les effets nuisibles.

Le Secrétaire a été prié de se mettre en rapport avec l'AIES afin de fixer une réunion de la *Task Force* avant la prochaine Réunion annuelle de l'OCSAN. En attendant, la *Task Force* remplacerait le Groupe de liaison OCSAN/Secteur salmonicole (saumon de l'Atlantique Nord).

Le représentant des ONG a émis l'opinion que les propositions effectuées par l'AIES suggéraient que le secteur salmonicole était déjà arrivé au stade où il ne posait plus de danger au saumon sauvage. Ceci n'était certainement pas le cas et, par conséquent, il espérait que le Conseil y répondrait avec fermeté. Le représentant des ONG a également offert les services d'un expert technique à la *Task Force technique* commune qui était proposée.

(c) *Rapports du Symposium de Bergen CIEM/OCSAN*

Le Secrétaire a informé le Conseil que deux rapports rédigés à la suite 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 » avaient été publiés. Les articles scientifiques étaient apparus dans une édition spéciale du *ICES Marine Science Journal* (Journal des Sciences Marines du CIEM, connu sous le nom de Journal du Conseil) (Volume 63), édité par le Secrétaire Adjoint. Un second rapport, qui traitait spécifiquement des questions de gestion, avait été rédigé par les co-organisateurs et publié par le *Norwegian Institute for Nature Research* (NINA) (l'Institut de la Recherche sur l'environnement de la Norvège). Des exemplaires des deux rapports avaient été mis à la disposition des délégués. Les organisateurs avaient conclu que si l'on n'agissait pas rapidement pour faire face aux problèmes qui restaient à résoudre, (voir le Symposium de Bergen et la réduction au maximum des effets nuisibles du poux du saumon et des saumons échappés d'élevage), on risquait grandement de perdre la diversité génétique chez les stocks sauvages, ce qui aurait des conséquences potentiellement graves pour leur santé, leur capacité de reproduction et leur aptitude d'adaptation aux modifications de l'environnement. Selon les organisateurs, il ne s'agissait pas là d'une question de précaution. Pour progresser en la matière, il avait

été suggéré de se servir des conclusions du symposium de Bergen comme point de départ pour définir l'apport de l'OCSAN au groupe collectif de la *Task Force* technique. La formation du groupe de la *Task Force*, tel qu'il avait été mentionné plus haut, serait proposée au secteur salmonicole. L'acceptation des propositions du secteur salmonicole dépendrait de la façon dont il satisfaisait certaines normes quantitatives en ce qui concernait, par exemple, les échappés d'élevage et l'infestation de poux du saumon.

6.3 Nouvelles opportunités ou opportunités naissantes pour, ou menaces contre, la conservation et la gestion du saumon

Conformément à l'Approche stratégique prise dans le cadre des « décisions à prendre à l'avenir par l'OCSAN », ce point avait été inclus à l'Ordre du jour du Conseil et le CIEM avait été prié de fournir les renseignements appropriés. Ces données d'information figurent au document CNL(07)7. L'UE (Irlande) a présenté un exposé sur la gestion du saumon sauvage en Irlande, CNL(07)52.

6.4 Rapport du Groupe de Travail chargé de la modélisation bioéconomique

Le Conseil avait déjà convenu qu'une réunion du Groupe de Travail Technique (GTTec) devrait avoir lieu pour étudier la mise au point d'une modélisation bioéconomique. Cette décision concordait avec la recommandation de l'Approche stratégique, CNL(05)49, à savoir qu'il importait non seulement de continuer mais d'accroître, le cas échéant, les efforts réalisés pour intégrer les facteurs socio-économiques au travail de l'Organisation. Cependant, pour nombre de raisons, une réunion du GTTec n'a pas pu être organisée. Le Conseil a reconnu que selon ladite Approche stratégique, les points clés étaient les suivants :

- garantir que l'on accorde l'attention qui leur est due aux facteurs socio-économiques liés au saumon atlantique ;
- consolider les données socio-économiques afin qu'elles puissent servir de base à la gestion du saumon atlantique ;
- intégrer les considérations et aspects socio-économiques dans le processus de prise de décision de l'OCSAN, et ce d'une façon ouverte et avec transparence ;
- disséminer l'information concernant les aspects socio-économiques que revêt le saumon atlantique sauvage afin qu'ils reçoivent la considération dont ils sont dignes par rapport à d'autres importants sujets d'intérêts publics et économiques.

Le Conseil a par conséquent décidé d'établir un Groupe de Travail chargé de la question des aspects socio-économiques liés au saumon. Ce groupe se rencontrerait en intersession, au moins une fois avant la Réunion annuelle de 2008. Le mandat du Groupe figure au document CNL(07)59 (annexe 25). Le Conseil a prié la Norvège et les Etats-Unis de se consulter sur la nomination d'un Président pour le Groupe.

Le représentant des ONG a indiqué qu'elles possédaient une grande expérience en matière de socio-économie. Il a par conséquent demandé qu'elles soient invitées à participer au Groupe. Le Conseil a accepté cette requête.

6.5 **Etat d'avancement de la base de données des rivières à saumons**

Entre 2004 et 2005, les Etats-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). Cette base de données avait été mise à la disposition des Parties de l'OCSAN pour qu'elles puissent y saisir leurs propres données. Le Conseil avait ainsi convenu que les Parties :

- se serviraient, chaque année, de la base de données étendue sur le Web 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 avait été établi que ce processus ne devrait pas prendre trop de temps et n'exigerait pas un très grand effort ;
- envisageraient d'utiliser 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.

Une présentation a été faite du rapport concernant les progrès réalisés dans l'élaboration de la base de données sur les rivières à saumons, CNL(07)19. Le rapport sur l'état de l'évolution du projet indiquait que les Parties avaient commencé à mettre l'information contenue dans la base de données des rivières à jour. Des Parties avaient progressé plus rapidement que d'autres et avaient déjà commencé à saisir des renseignements sur l'habitat et les effets nuisibles sur cet habitat ainsi que des données concernant la production de saumons. D'après les commentaires faits par les coordinateurs de la base de données, il s'avèrerait nécessaire de modifier légèrement la présentation de la base de données afin de mieux refléter le type d'informations disponibles. Le Conseil a convenu que toute révision qu'elle soit devait être approuvée par un échange de correspondance entre le Secrétariat et les coordinateurs de ladite base de données. Le Conseil a encouragé les Parties à entreprendre la tâche initiale de validation des données brutes de rivières à la première occasion puisqu'elles étaient désormais accessibles à partir du site Web de l'Organisation.

6.6 **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(07)20 (annexe 26). A ce document avaient été joints des renseignements concernant la réglementation qui encadrerait la gestion de la pêcherie ainsi que des détails sur les permis octroyés et les 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 remarqué que, malgré un nombre moins importants de permis octroyés en 2006, le nombre de captures – même s'il demeurait bas – avait augmenté par rapport à 2005 et représentait la plus grande prise de la période 1998-

2006. La Commission Nord Américaine a émis l'opinion qu'il serait avantageux d'admettre la France (au titre de Saint Pierre et Miquelon) comme membre à la Convention de l'OCSAN. Elle a de ce fait sollicité auprès du Conseil qu'il poursuive cette question avec les autorités françaises.

Le Président a exprimé son inquiétude quant à l'absence de la France (au titre de Saint Pierre et Miquelon) à la Vingt-quatrième réunion annuelle. Le représentant des ONG a déclaré qu'elles incitaient vivement les autorités françaises à devenir membres de l'OCSAN, puisqu'elles augmentaient leurs récoltes de saumons à Saint Pierre et Miquelon. En réponse à une question du représentant des ONG, le représentant de l'Union européenne a indiqué que, bien que la France soit un Etat membre et de ce fait faisait partie de la délégation Européenne à l'OCSAN, cette participation n'était que pour la France métropolitaine. Saint Pierre et Miquelon, sur lequel la Communauté n'exerçait aucune compétence, était représenté par la France en tant que territoire français d'outremer.

Le Conseil a autorisé le Président de l'OCSAN à inviter la France (au titre de Saint Pierre et Miquelon) à accéder à la Convention. Le représentant du Canada a déclaré qu'il importait que la France (au titre de Saint Pierre et Miquelon) participe au travail de l'OCSAN, puisque certains problèmes exigeaient d'être compris co-jointement et que leur résolution nécessitait un travail en coopération. Il précisa par la suite que sa délégation serait heureuse d'assister l'OCSAN pour encourager les autorités françaises (au titre de Saint Pierre et Miquelon), à devenir membres de l'OCSAN.

6.7 Effets nuisibles des pluies acides sur le saumon atlantique

Il n'y a eu aucune intervention sur les effets nuisibles des pluies acides. Le Président a fait remarquer que l'acidité dans le milieu marin était un facteur important pour l'OCSAN et que cette question nécessitait un examen continu.

6.8 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.

7. Divers

- 7.1 Le représentant des ONG a mentionné que le saumon de la mer Baltique était géré séparément du saumon Atlantique et que la Commission Internationale des Pêches de la mer Baltique (CIPMB) avait été dissoute depuis que les Etats de la mer Baltique étaient devenus membres de l'Union européenne. Il espérait que des renseignements sur le saumon de la mer Baltique seraient mis à la disposition de l'OCSAN. Le représentant de l'Union européenne a indiqué qu'il s'efforcerait dorénavant de fournir cette information.

8. Date et lieu de la prochaine réunion

- 8.1 Le Conseil a accepté l'invitation offerte par l'Union européenne, au nom de l'Espagne, de tenir sa Vingt-cinquième réunion annuelle en Espagne dans un lieu à décider du 2 au 6 juin 2008.

- 8.2 Le Conseil a accepté l'invitation offerte par la Norvège de tenir sa Vingt-sixième réunion annuelle en Norvège dans un lieu à décider du 1 au 5 juin 2009.

9. Compte rendu de la réunion

- 9.1 Le Conseil a adopté le compte rendu de la réunion

10. Communiqué de presse

- 10.1 Le Conseil a approuvé le communiqué de presse, CNL(07)57 (annexe 27).

Note: La liste intégrale des documents du Conseil figure à l'annexe 28.

***Welcoming Statement made by Dr William J Brennan
Deputy Assistant Secretary of Commerce for International Affairs,
National Oceanic and Atmospheric Administration, USA***

Good morning and welcome to the Twenty-Fourth Annual Meeting of the North Atlantic Salmon Conservation Organization. It is a privilege for the United States to host this meeting, and on behalf of my government, Commerce Secretary Gutierrez, and the National Oceanic and Atmospheric Administration, I would like to welcome the NASCO Secretariat, and NASCO's distinguished Commissioners, delegates, and observers. I would especially like to welcome NASCO President Ken Whelan, and thank him for inviting me to join you.

It is indeed an honor for me in my capacity as a United States Government representative to welcome you to my country, but it is with great personal pride that I am also able to welcome you to my home State of Maine.

I grew up just down the coast from here and for many years prior to my appointment to Washington, I was the Commissioner of Maine's Department of Marine Resources, which is now headed by my good friend and one of your Commissioners, George Lapointe.

During my time as the State's Commissioner, I was co-chair of Maine's Atlantic Salmon Commission and I had also been a NASCO commissioner. With that background, both personal and professional, I have great interest in, and affinity for, the issues that you address.

The last commercial salmon fishery in the United States was on the Penobscot River here in Maine, and it closed in the 1940s. Despite significant reductions in harvest and substantial sacrifices by all of the NASCO Parties, adult returns to home water continue to be low. All signs point to some common factors affecting salmon stocks while at sea.

The plight of Atlantic salmon highlights how little we know about the ocean and how critical it is to improve our knowledge and understanding. The NASCO Parties should be commended for recognizing the critical importance of international cooperation and collaboration to better understand marine migration and attempt to identify factors affecting survival through the SALSEA initiative.

The conservation of Atlantic salmon requires understanding and management of complex ecosystems. We recognize the need to restore connectivity between freshwater, estuarine and marine systems to allow for the unimpeded completion of the lifecycle for diadromous species. While restoration of this ecosystem is our goal, Atlantic salmon play a key role as a keystone indicator species. They provide us with a barometer of the health of the riverine, estuarine and marine environments and the current prognosis is not good.

For the benefit of all living marine resources, NOAA is strongly committed to increasing our understanding of marine ecosystems. We recognize the importance of understanding the physical, biological and chemical components of these systems. Improvements in technology provide us with tools and techniques that have greatly increased our knowledge of marine systems and provide great promise for unlocking the mystery of salmon at sea.

Much attention has been focused on climate change and the potential for significant and profound effects on marine resources, including Atlantic salmon throughout the North

Atlantic. NOAA's climate goal is to understand and describe climate variability and change to enhance society's ability to plan and respond.

The focus is on providing decision makers with a predictive understanding of the global climate system and to "translate" this information so the public can incorporate the information and products into their decisions. These outcomes are achieved through focused research to understand key climate processes, improved modeling capabilities, the development and delivery of climate information services, and through the implementation of a global observing system.

To that end, the United States is committed to the Global Earth Observation System of Systems or GEOSS. This system has the potential to provide us with the information we need to make sound policy decisions. GEOSS is a comprehensive, integrated and sustained Earth Observation System that will improve our global ability to, among other things, protect and monitor our ocean resource.

The full benefits of GEOSS and the implementation of an ecosystem approach depend upon consistently reported and accurate data and I am pleased to report that all NASCO Contracting Parties are among the 69 members of this important intergovernmental organization. As evidence of NASCO's commitment to the collection of accurate data, you will be having a Special Session this afternoon focusing on unreported catch.

Despite the significant challenges that face Atlantic salmon throughout their complex lifecycle, we remain optimistic about their future in the United States and abroad. Here in the US, we have a strong federal team with US Fish and Wildlife Service and NOAA Fisheries working closely together with our equally committed State partners.

NOAA is particularly pleased with its close and collaborative working relationship here in Maine with the Maine Department of Marine Resources and the Atlantic Salmon Commission. These federal and State efforts are complemented by extensive activities of our local partners including watershed councils, conservation organizations, industry representatives, and local citizens.

Despite the fact that we have no Atlantic salmon fisheries in the United States, we value this species highly. As an example of our strong commitment, the President's Budget for FY2008 includes \$10M to assist in the purchase and removal of main stem dams on the Penobscot River. The collaborative and cooperative spirit within NASCO also provides reason for optimism.

NASCO should be commended for the hard work, dedication and commitment of the Secretariat, President, the Parties and Observers. The work NASCO has undertaken to operationalize the Precautionary Approach and to critically review its fitness as an Organization through the "Next Steps" review process, establish it as a leader in Regional Fisheries Management Organizations. Recently the international community has called for a similar review of the performance of all RFMOs.

The conservation and management of Atlantic salmon stocks poses significant challenges and I wish you good success this week and a pleasant visit here in Bar Harbor.

Opening Statement made by the President of NASCO

Mr Deputy Assistant Secretary Brennan:

A cháirde uilligh, fáilte roibh go leir chuig on fiche is a ceathar crinniu don Aontas an Atlantaigh Thuaidh um Chaomhnu an Bhradain. Ladies and gentlemen, welcome to NASCO's Twenty-Fourth Annual Meeting here in this beautiful coastal area of Bar Harbor, Maine.

This is the second time NASCO has held its Annual Meeting in the United States and, as always, we are close to the wild salmon. In the past the great rivers of Maine supported an abundance of wild salmon stocks and major commercial and recreational fisheries, but over the past century stocks have declined to such an extent that in 2001 many of the stocks in this area were declared an endangered species and major restoration and conservation initiatives were put in place. This impressive work continues tirelessly to this day on major salmon rivers such as the Penobscot and the Kennebec. If you get the opportunity I would encourage you to visit the Acadia National Park, which surrounds Bar Harbor, and symbolises the unique natural history of this area, a familiar blend of marine, freshwater and terrestrial ecosystems so typical of the habitat favoured by the Atlantic salmon throughout its range.

For NASCO, the past year has yet again proven exceptionally busy and challenging but our small but highly efficient Secretariat have continued to do an outstanding job and we thank them most sincerely for their hard work and dedication.

For Malcolm and I, the past twelve months have largely centred on rolling out key aspects of the SALSEA programme. Through the good offices of our partners, Brakeleys, both Malcolm and I were retrained to ensure we were fit for purpose in the world of promotion and once we were considered to have achieved a modicum of skill in this area we were set loose on a carefully targeted set of potential SALSEA sponsors throughout Europe and North America. In parallel, partners in Europe, the US and Canada were busy profiling the programme and the issues relating to marine survival of salmon stocks. In this regard, I should like to particularly thank the International Atlantic Salmon Research Board, the SALSEA Steering Committee, the Atlantic Salmon Federation and Bud Bird, Canada's Mr SALSEA, for their advocacy role in North America, and both the Conservatoire National du Saumon Sauvage and the Atlantic Salmon Trust for their invaluable support. All of this combined effort is, at long last, bearing fruit and I look forward to briefing you on progress with the SALSEA programme during the Special Session on Thursday.

During this our Twenty-Fourth Annual Meeting, we will continue with the "Next Steps for NASCO" process and review the format of the Parties' Implementation Plans. I have been very impressed with the effort invested by all concerned in providing such detailed summaries of ongoing and planned conservation programmes and I thank you for your efforts. I should also like to thank the *Ad Hoc* Group, who meticulously reviewed the various plans for us. Their report has laid the basis for a very interesting debate during this afternoon's Special Session.

Ladies and gentlemen, we have before us an extensive and challenging agenda and three very full days of intensive discussion and debate. This year's NASCO Annual Meeting represents the largest attendance ever assembled, and I trust you will all have the opportunity to

contribute to the various debates throughout the three days of the meeting, and that you will leave at the end of this week with a firm belief that the conservation of the wild Atlantic salmon is in good hands and that there is serious intent to address in a timely fashion, on behalf of generations to come, the many major conservation issues facing the wild Atlantic salmon.

Opening Statements made by the Parties

Opening Statement made by Canada

Deputy Assistant Secretary Brennan, Mr. President, Distinguished Delegates, Observers, Ladies and Gentlemen:

First, I would like to thank the United States authorities and the Secretariat for bringing the NASCO delegations to the very beautiful town of Bar Harbor.

Mr Chairman, salmon stocks in Atlantic Canada in 2006 continued to be characterized by a low number of adult salmon, and more severe declines for the two-sea-winter salmon. However, in 2006, conservation limits were met in 50% of the 70 reference rivers. The returns of one-sea-winter salmon are unchanged from 2005 in Newfoundland and Labrador but have increased in all other areas.

Returns have continued to decline in the southern areas and many populations are threatened with extirpation. In other words, despite some sign of improvements, the overall situation is still a major concern.

To further support and enhance our conservation efforts with respect to Atlantic salmon, Canada has undertaken a number of initiatives in 2006.

The first is an overhaul of the *Fisheries Act*, which is currently being considered by the Canadian government. The *Fisheries Act* is the federal law that governs the management of fisheries and the protection of fish habitat in Canada. The proposed overhaul was presented to the Canadian Parliament in late 2006. The new Act contains strong commitments to the Precautionary Approach to conserve aquatic resources and to ensure a science-based ecosystem approach to fisheries management.

Secondly, the Department of Fisheries and Oceans finalized its Atlantic Wild Salmon Conservation Policy Framework. It is now ready for consultations.

The key elements of the Policy are:

- protecting the genetic and geographic diversity of salmon;
- ensuring shared decision-making and open, accountable public processes;
- addressing habitat challenges; and
- ensuring that decisions are based on good science, with consideration of biological, social and economic consequences.

This Policy aims to maintain and improve Atlantic salmon diversity and ensure that ecosystem considerations will be incorporated into salmon management, particularly in relation to marine survival.

The Policy will be an important element to incorporate in Canada's Implementation Plan. We look forward to hearing this week from the Review Group on their assessment of the Implementation Plans. We also look forward to learning from the experiences of other Parties and to discussing how NASCO's Next Steps Process responds to performance criteria being developed internationally and what additional steps may be required to demonstrate progress on this issue.

Another important Canadian endeavor was the official establishment of the \$30M Atlantic Salmon Endowment Fund (established January 23, 2007). The objective of the Fund is to help restore and conserve wild Atlantic salmon populations in rivers and streams in the Atlantic Provinces and Quebec. Proceeds from the Fund will finance projects that contribute to salmon restoration and conservation.

Mr President, as we all know, oceanic influences on salmon growth, behaviour and survival are very complex and costly in time and efforts to understand. The scale of research required demands cooperation and cost sharing domestically and internationally. This is why the work of the International Atlantic Salmon Research Board and SALSEA are important. It is also important that international salmon organizations cooperate and as such Canada strongly supports exchanges with the North Pacific Anadromous Fish Commission. The Special Session this week on research programs in the North Pacific and North Atlantic is most welcome.

To further Canada's commitment to research on understanding mortality at sea, the Department of Fisheries and Oceans has, in 2006, pursued its ongoing support of SALSEA projects in Canada to the tune of \$2M. Ten ongoing projects were included in the inventory of research relating to salmon mortality in the sea for 2006/2007. All ongoing projects can be assigned to tasks within the SALSEA Work Packages. For example, funding was provided for the purchase of acoustic tags for the tracking work related to movements and survival of Atlantic salmon. Other sponsored research activities included sponsoring samplers from Canada to participate in the West Greenland Commission sampling program. Funding was also provided for genetic identification to determine stock origin.

These activities complemented the \$35M Innovation Canada funding to Dalhousie University in Nova Scotia for its Oceans Tracking Network (OTN) to track all marine species. The Atlantic Salmon Federation is very involved in this project. Through the Network, thousands of commercial and endangered marine species will be tagged and monitored to help improve fishing practices and better understand the ocean's ecosystems. The OTN Research Themes include, among other things, the biology and behavior of migrating marine life and ocean physics modeling. This initiative will facilitate the management of numerous species, but it will also help address salmon ecology issues.

Mr President, SALSEA is an important endeavor for NASCO and for Canada. The Minister of Fisheries and Oceans has indicated he would contribute a cash amount of \$100,000 to SALSEA. I am hopeful that the process to transfer the funds will be approved shortly.

Thank you.

Opening Statement made by Denmark (in respect of the Faroe Islands and Greenland)

Mr President, Distinguished Delegates and Observers:

The Faroe Islands and Greenland are very pleased to participate in the Twenty-Fourth Annual Meeting of NASCO, which has brought us to Bar Harbor, Maine in the United States of America this year. It is always a great pleasure to take part in the NASCO Annual Meetings, which are organised so efficiently by the Organization's small Secretariat, and indulge in their pleasant combination of the useful and the agreeable in the form of, among other things, serious discussions on the future of the salmon and of NASCO as an organization, and enjoyable excursions and reunions with fellow delegates and colleagues from NASCO's member countries.

The salmon fishery was once very important to Greenland and the Faroe Islands. Unfortunately, this is now a long bygone past. Today, a salmon fishery in the Faroe Islands only exists in the form of farmed salmon, which is nevertheless very important to the country. As regards Greenland, since 2002 the fishery has been restricted to the amount used for internal subsistence consumption, i.e. we no longer even have a quota for salmon. Greenland still, however, retains the right to fix a quota.

Therefore, Faroe Islands and Greenland have looked forward to this meeting where the reports on the Parties' Implementation Plans will be discussed. Greenland and the Faroe Islands recognise the need to provide as accurate data as possible on salmon catches and we will continue this work.

One issue on which Greenland and the Faroe Islands continue to place great importance is the inclusion of homewater fisheries in the NASCO Convention. We have stressed this several times before and we reiterate this again now.

Hopefully, this Annual Meeting, and especially the further work on the Next Steps decided, will lead to some fruitful new initiatives whose results will soon be reflected in the Atlantic and in the salmon rivers, in future ICES reports, and, of course, in the fishery. With this in mind, Greenland and the Faroe Islands are ready to get started at this Twenty-Fourth Annual Meeting of NASCO.

Opening Statement made by the European Union

Deputy Assistant Secretary Bill Brennan, Mr President, Distinguished Delegates, Observers, Ladies and Gentlemen:

Firstly, on behalf of the European Union, I would like to thank the Government of the United States for organising this Twenty-Fourth Annual Meeting of NASCO in this very picturesque location of Bar Harbor in the beautiful State of Maine.

Secondly, may I say it gives me both personal and professional pleasure to be back again within the NASCO family as EU Head of Delegation, after many years of absence. Many things have changed within NASCO since that time, but I see Malcolm Windsor is still his breezy and efficient self, and doesn't seem to have aged a day!

Last year in Finland, NASCO introduced conservation measures designed to be applied on a multi-annual basis for both the West Greenland and the Faroe Islands fisheries, pending ICES producing a Framework of Indicators for multi-year catch advice. ICES has developed this advice, which would appear to meet NASCO's expectations for the West Greenland stock. We would hope that NASCO extends the measures adopted last year for West Greenland for the remainder of the multi-annual period. For the Faroes fishery, ICES was unable to produce a similar Framework of Indicators. Nonetheless, the advice is clear and arrives at the same outcome, to maintain the closure for a multi-annual period.

It is important also to take note of the initiatives taken during the last year in certain key fisheries jurisdictions to address the issue of the mixed stock fisheries. This is a clear demonstration that the homewater States, in particular within the EU, are in the process of implementing strong conservation measures. These will entail considerable socio-economic change for the coastal communities concerned and their impact should not be underestimated. However, such measures are necessary in order to conserve and manage, in a sustainable manner, the salmon stocks.

We particularly welcome the Special Session addressing Illegal, Unregulated and Unreported Activities, or IUU, as it is commonly known. For the EU this is a key issue, not only within the Community but also in the wider international context. The EU is currently developing a broad policy initiative to address IUU fishing activities. Along with other Parties we have been actively leading the debate in other Regional Fisheries Management Organisations, such as ICCAT, NEAFC and NAFO.

Without doubt, this scourge of IUU also affects the wild salmon fisheries and trade. Therefore, NASCO has its part to play in this issue. Already within NASCO, there are some jurisdictions that have introduced measures which go some way in countering IUU activities through the introduction of mandatory tagging regimes. Other initiatives which merit consideration by NASCO would be that of catch documentation schemes which track the fish on an individual basis throughout the process from the point of capture to when it is placed on the market. These are examples that NASCO should evaluate since they constitute possible directions to follow in combating IUU fisheries.

NASCO has addressed the implementation of the "Next Steps" approach in an impressive manner. The presentation of the individual Implementation Plans and the work of the *Ad hoc* Review Group demonstrated a firm commitment to undertake this work in a positive and transparent manner. Such Plans allow the Parties to review their progress in the application

of the objectives and agreements of NASCO, but also their own policy objectives. Given the understandably differing levels of advancement in the development and implementation of management policies among the Parties, it is natural that such differences will be reflected in the Plans provided to NASCO. In our view, it would be misleading, and even unfair, to judge the performance of Parties on the basis of whether, in the *Ad hoc* Group's work, a cross falls on one side of a line or another, since that would imply a questioning of the Parties' intent and commitment to respect NASCO.

In parallel to the "Next Steps" approach, which focuses the spotlight on the Parties and their respect of NASCO objectives, there has been a recent development in the international community with calls on regional fisheries management organisations to carry out performance reviews on their stewardship of the resources under their responsibility. Each RFMO is being asked to look critically at their own activities and measures to assess the degree to which they are fulfilling the conservation and management objectives laid down in their Conventions. Indeed, they are also asked to judge whether those objectives need to be refined and updated.

We have proposed, therefore, that NASCO undertake such a performance review on the basis of certain general guidelines already established. This exercise, in the view of the EU, is perfectly compatible with the "Next Steps" process. This is a task that has been, or is in the course of being, undertaken in other RFMOs. NASCO may indeed have been in the forefront of reviewing its activities through the "Next Steps" review, but we are of the view that a Performance Review undertaken by a Panel, composed of Members and external experts, would be extremely beneficial to NASCO.

Finally, I would like to thank the Executive Secretary and his team for the excellent preparation they have put into ensuring that this meeting will run as efficiently and effectively as possible, even if I'm sure that there will be a few more extra hours to be put in before the week is out.

With these thoughts, I would like to wish this Twenty-Fourth Annual Meeting every success and I would reiterate our willingness to work with all other Parties around the table to further the work of NASCO towards the ultimate objective of a sustainable fishery of wild North Atlantic salmon.

Opening Statement made by Iceland

Mr President, Distinguished Delegates, Ladies and Gentlemen:

It gives me great pleasure to attend this Annual Meeting in this beautiful setting in the State of Maine, which is one of the few remaining sanctuaries for Atlantic salmon in the continental United States. During a period of global warming and declining sea-survival of salmon, it is a real challenge to maintain viable salmon populations in southerly areas. The US government and its agencies are to be commended for their efforts to rebuild salmon populations in the face of these challenges.

Demonstrating the increased transparency of the NASCO process, we now have three Special Sessions on the agenda, two dealing with the sensitive subjects of unreported catches and the Implementation Plans of the NASCO Parties. Unreported catches have always been somewhat secretive within the NASCO forum and one must hope that we can all approach the subject openly and with candour, as the extent of such catches may partly hold the key to the apparent decline in the marine survival of salmon. The third session, on research on salmon at sea, should be of great interest to us all and relates to the valuable efforts of NASCO's International Atlantic Salmon Research Board.

In June 2006 new Icelandic salmonid fisheries acts were enacted. In this revision the all-inclusive "Salmonid Fisheries Act" was broken into 4 separate acts, the first one on salmonid fisheries, the second on salmonid farming, the third on salmonid enhancement and the fourth on prevention of fish diseases. The revision did not change the principles of the Icelandic management system but was a useful update of various provisions. These documents are currently only available in Icelandic but English translations will be available at a later date.

The Icelandic angling catch in 2006 amounted to over 45,000 salmon, which was 17% below the record catch of 2005. The catch, however, was still 25% higher than the 30-year average angling catch. Almost 15% of the catch was from the Rangá rivers, where angling is entirely sustained through smolt releases. "Catch and release" amounted to almost 20% of the angling and was more prominent in the two-sea-winter age class. Grilse runs were satisfactory despite a small average size, but the runs of two-sea-winter salmon remained conspicuously low, especially in northern areas.

Salmon aquaculture is gradually decreasing in Iceland and most of the land-based facilities have been turned over to the rearing of char and marine species. This is partly due to unfavourable conditions for sea-pen rearing in Iceland and partly due to the economics of salmon farming, which tend to be highly variable. As a result, no fish farm escapees were observed in Icelandic rivers in 2006. Pen-rearing of marine species, especially cod, is, however, increasing in some areas, which may have detrimental predatory effects on salmon populations if there are large escapes in the vicinity of salmon rivers.

Once more ICES warns us of the precarious state of the multi-sea-winter stocks and advises that in the light of the "Precautionary Approach" only maturing one-sea-winter salmon from rivers with full reproductive capacity should be fished. We should all agree that this can only be done in terminal fisheries in, or close to, the respective rivers. In the light of this advice all NASCO Parties should refrain from mixed stock fisheries of both one-sea-winter and multi-sea-winter salmon in all jurisdictions.

Finally, Mr President, I want to thank you and the NASCO Secretariat for the efficient preparation of the meeting and our US hosts for their hospitality.

Opening Statement made by Norway

Mr President distinguished Delegates, Observers, Ladies and Gentlemen:

Norway is very pleased to participate in this Twenty-Fourth Annual Meeting of NASCO here in Bar Harbor.

The last yearly assessment of the status of salmon stocks in Norway concluded that 45 of the 450 stocks were extinct and 81 threatened or near threatened. Future changes in status are highly dependent on the success of the *Gyrodactylus salaris* eradication programme, the stock re-introduction programmes in limed rivers, mitigating measures in regulated rivers and future success in solving aquaculture-related problems.

Although progress is being made in all these fields, we have to conclude that the status of wild salmon stocks in Norway is far from optimal.

In this situation the Government proposed to Parliament a set of measures aimed at strengthening wild Atlantic salmon stocks, including the completion of the National Salmon Rivers and Fjords Scheme. The proposition was approved by Parliament in May this year.

The objective of the National Salmon Rivers and Fjords is to provide enhanced protection to a number of Norway's most important salmon stocks. In these rivers and adjacent fjord areas, the conservation of the salmon and its habitat will be given priority over any new activity that may adversely affect salmon stocks. The scheme is now completed and today comprises of 52 rivers and 29 fjords, or about three-quarters of the total wild salmon production in Norway.

The Parliament also supported the Government's proposals on new and strengthened measures to protect and conserve salmon stocks, including habitat management, liming, fisheries management, combating *Gyrodactylus salaris* and counteracting adverse effects of aquaculture.

Boosted by the ICES-NASCO symposium on effects of aquaculture on wild salmon, along with two years with the highest numbers of escaped farmed salmon ever recorded, the Norwegian Government has stated that the introgression of escaped farmed salmon into wild stocks, together with the further spread of *Gyrodactylus salaris*, are the most severe threats to the long-term existence of wild salmon in Norway. Thus, the Government has decided to start a programme aimed at developing an economically competitive sterile salmon for use in aquaculture.

The Government has also strongly indicated that it will be necessary to implement further restrictions on salmon fisheries in the next five-year regulatory period. The regulations will be based on advice from ICES, which suggests that mixed stock fisheries should be further reduced. The new regulations will also be aimed at meeting spawning targets and reducing the relative abundance of escaped farmed salmon in spawning stocks.

In Vichy we agreed that the most important tool for further progress in implementation of various NASCO agreements should be the development of national Implementation Plans. I am pleased to say that in Norway this has increased efforts to obtain necessary data. Stock-recruitment relationships have been studied for different types of rivers. Salmon-producing areas in rivers have been calculated and spawning targets set. Work has also started on

developing feasible methods for assessing the potential impact of farmed salmon on the genetic diversity of single stocks.

A key area identified through the “Next Steps” process was to raise NASCO’s profile. We see it as particularly important to move on towards developing a status of the wild salmon report.

Mr President, I would also like to use this opportunity to thank our hosts and the Secretariat for having prepared marvellously for this meeting.

With these remarks I wish us all a good and productive meeting.

Opening Statement made by the Russian Federation

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

It is my pleasure, on behalf of the Russian Government, to greet all of you at this Annual Meeting of NASCO. I am particularly delighted to do this, because the meeting gathers people, who are not just mechanically doing routine work, but people who sincerely care for the future of salmon, people who are interested in progressing the cause, which has for many of them become the most important in their life. In my view, this has been convincingly demonstrated and proved by more than 20 years of work of this Organization.

In modern life, where technological progress is influencing all possible aspects of our living, and urbanization has reached the remotest depth of the countryside, coming to nature is, perhaps, the only possibility for us to, at least temporarily, get away from everyday chores and a hectic life, the pace for which we ourselves have set. Therefore, it is very important that the salmon, as a resource for recreation, generates interest amongst many people, and our task is not only to conserve and enhance this resource, but also to attract more attention to it, encourage people to know more about the mysteries of the salmon's life, to contribute to its conservation; this can only be done jointly and this is one of our main goals. Of no less importance is that recreational programmes are instrumental in addressing the socio-economic problems of many rural communities.

The Russian Federation attaches great importance to the development of recreational salmon fishing programmes. We can today boast significant achievements, though, the recreational fishery of Atlantic salmon began to develop in earnest in our country only 15 years ago. In this respect, I must mention the importance of not only the availability of necessary resources, but also the information on the best practices gathered through NASCO and used as a guide when recreational salmon fishing programmes were designed in Russia.

No one would ever doubt the importance of technological progress; however, at the same time it brings about adverse impacts, which have resulted in deteriorating salmon habitat and declining stocks. The unprecedented development of marine fisheries, aquaculture, national programmes on introductions and transfers, whose implementation only add to the problems in conservation of wild salmon, is also associated with the technological progress.

Therefore, NASCO's steps initiated recently to better address these challenges through enhanced implementation of existing NASCO Agreements and development of Implementation Plans by Contracting Parties were necessary and timely. It is obvious that, at the initial stage, certain difficulties may arise. In Russia, for instance, important pieces of legislation to support full implementation of the agreements are still lacking, but we are aware of the need to fill in the existing gaps and are prepared to work hard in order to preserve the biological diversity of wild salmon populations.

And, concluding this statement, I would like traditionally to address a few words to our hosts. Certainly, there is no point in giving once again praise to America and Americans; however, I want to commend the splendid arrangements for this meeting and express admiration for the beauty of this fantastic place. America has everything and in plenty. For example, picturesque towns like Bar Harbor. But the Atlantic salmon are not as plentiful in America as may be wished. I wish you good luck in restoring to abundance the stocks of these beautiful fish in your rivers. I would also like to thank you for your hospitality and wish you success with all of your initiatives. Thank you.

Opening Statement made by the United States of America

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

It is a pleasure for the United States to host the Twenty-Fourth Annual Meeting of NASCO, and I would like to add my welcome to that extended by Dr Brennan. I would like to extend a special welcome to two former Commissioners to NASCO who are attending as members of the US delegation this year – Mr Bob Jones and Mr Bucky Owen. It is very appropriate that the meeting is being held here in Maine, where we have focused a great deal of time, effort, and resources in an attempt to recover endangered populations of Atlantic salmon.

As noted by Dr Brennan, the challenges facing Atlantic salmon in Maine and elsewhere throughout the North Atlantic are very significant. The challenges we face this week are also considerable, but I am optimistic that the NASCO Parties will continue their tradition of working together collaboratively and cooperatively and that we will have great success.

NASCO has made a significant investment in the Next Steps process to enhance its operations and improve its ability to conserve and manage Atlantic salmon stocks, including utilizing the scientific expertise and advice offered by ICES to best advantage. The Implementation Plans represent a very important step in this process. Parties undertook the development of these Plans to more specifically identify and describe actions they had undertaken and planned to implement in order to carry out the objectives and mandates of NASCO. These Plans were designed to increase transparency and the accountability of Parties and of NASCO as an Organization.

We have now received the report from the *Ad Hoc* Review Committee. How we respond to these reviews will greatly shape the future of our Organization. It will also say a great deal about the level of our commitment to salmon conservation at home and to international cooperation through NASCO. This has been a learning process for all of us, and it is important that we review and critique ourselves and each other in order to achieve the goals we collectively established for ourselves in the Next Steps Process.

At this meeting we will have to carefully select our first focus area for reporting under the Implementation Plans, create a new *Ad Hoc* Review Group, and develop Terms of Reference for this review. These focus area reviews will allow for much more detailed reporting and discussion on a specific area of work. Further, they should be designed to facilitate information exchange and improve our overall ability to conserve and rationally manage salmon stocks in the North Atlantic.

The United States is pleased with the progress made last year to establish multi-annual regulatory measures and welcomes the additional report from ICES on the Framework of Indicators. We believe this framework sets out a logical and reasonable way to annually check to see if there has been a significant change in indicators such that the multi-year catch advice can be retained or a reassessment is warranted. With the Framework of Indicators provided by ICES, we are now in a position to strengthen our commitment to multi-year regulatory measures. We also believe this new approach will allow ICES to direct its time and efforts, most appropriately, on scientific issues with the greatest benefit to salmon.

Last year was our first year with our new rules for NGO participation in the Annual Meeting and we feel it was very successful. We look forward to thoughtful and constructive contributions from our NGO observers throughout this Annual Meeting. The future of

Atlantic salmon depends on the engagement and active participation of a wide variety of partners.

In closing, on behalf of the entire US delegation, I would like to thank the Secretariat for their assistance in making the arrangements for this meeting and welcome you to Bar Harbor and wish you a very pleasant visit.

Opening Statement made by the North Pacific Anadromous Fish Commission

Mr President, Mr Secretary, distinguished delegates, ladies and gentlemen:

On behalf of the North Pacific Anadromous Fish Commission (NPAFC), I would like to thank NASCO for inviting NPAFC to the Twenty-Fourth Annual Meeting at the very scenic spot of Bar Harbor.

Last year at our NPAFC Annual Meeting in Vancouver (Canada), we had a meeting with the NASCO Secretariat, and decided on several important issues. First, we agreed that the international joint symposium on marine mortality of salmon will be scheduled for the spring of 2010 in Europe. Second, in order to promote an early exchange of information between the scientists in the Atlantic and Pacific, and to raise the profile of the research program on salmon at sea, Special Sessions in conjunction with NASCO and NPAFC meetings in 2007 and 2008 were proposed. According to this agreement, a Special Session is scheduled at this Annual Meeting on the morning of June 7. We appreciate the NASCO Secretariat for its sincere response. This Special Session should be a good opportunity for both organizations to build up the research programs and partnership.

The NPAFC cooperative research program on the Bering–Aleutian Salmon International Survey (BASIS) 2002-2006 has learned much about the migratory habits of salmon and about the key factors influencing their growth and survival. To review the BASIS results and make a follow-up program, we have decided to hold the international BASIS symposium in Seattle (Washington, USA) in the fall of 2008. This symposium will focus on the effects of climate change on salmon production in the ocean. The first announcement and call for papers will be distributed this coming August. Scientists from the Atlantic will be invited to this symposium to continue the exchange of information.

Mr President, I wish you a very successful meeting and look forward to our cooperation over the coming years. Thank you.

Opening Statement made by Non-Government Organizations

Mr Deputy Assistant Secretary, Mr President, Delegates and Colleagues:

Since we are in North America, can I start by welcoming five new NGOs who are based here:

Clean Catch
College of the Atlantic
Connecticut River Salmon Association
Atlantic Salmon Conservation Foundation
Marine and Environmental Law Institute

Mr President, there are many pressing issues facing wild Atlantic salmon today and NASCO must be at the heart of conservation and restoration programmes for the species. That is why the NGO Group has campaigned for a more transparent and accountable Organization as part of the 'Next Steps' process. NASCO has delivered on the transparency issue, and of course we applaud that, but for us the bottom line is how effective the Parties are at delivering practical measures to implement NASCO agreements and guidelines, and how these impact on the status of stocks.

The key recommendation in this regard was that relating to the drafting of Implementation Plans; plans should contain a framework of commitments for management actions in line with NASCO agreements, coupled with associated timeframes. This would provide measurable outputs and enable critical evaluation of Parties' progress towards implementing agreements.

The results of the *Ad hoc* Review Committee will be examined in detail in a Special Session this afternoon. The results are revealing. Some Parties' plans seem to demonstrate a lack of engagement with NASCO agreements in their domestic salmon management policies. This criticism can also be extended to the NGO community.

The almost complete absence of commitments to action NASCO agreements with associated timeframes from the Plans of some Parties was also deeply disappointing. Many of the outstanding issues of concern to NGOs on both sides of the Atlantic, such as the remaining mixed stock coastal fisheries both in North America and Europe, the continuing impact of aquaculture on wild salmon, and the continued loss of salmon habitat in some countries, should have been addressed in these Implementation Plans; we are dismayed that in many cases they have not been, and we will be raising specific examples in the appropriate Commissions.

This is particularly appropriate for us meeting here in Maine, close to some of the most endangered stocks in North America. We very much hope that Parties will undertake to revise their plans in the light of examples of best practice, which the Review Group will identify.

Similarly, the apparent lack of commitment from some Parties to the SALSEA programme, which is investigating the key issue of survival in the marine environment, is disappointing.

However, we want to be positive about the whole 'Next Steps' review; in NASCO we are at the cutting edge of reform in international treaty organisations, and we want to encourage the process to continue. We will be picking up the theme of partnership between government and NGOs in promoting NASCO in general, and SALSEA in particular, later in the meeting.

In that vein there is much good news, in fact too much to list in this opening statement, to report from many countries on both sides of the Atlantic, and we will be highlighting that in the appropriate Commissions.

But I particularly want to congratulate the government of the Republic of Ireland on their decision to end drift netting for salmon at the end of the 2006 season - a decision we have campaigned for over the past 20 years - but is nevertheless welcome as it will benefit salmon stocks all over southern Europe, not least in Ireland itself. The Irish Government also took other robust measures, including the closing of two-thirds of its rivers for the killing of salmon.

Mr President, in finally ending drift netting, Ireland took a difficult political decision, with significant economic and social consequences for parts of its population, but they put salmon conservation first. That message should be uppermost in our minds throughout this meeting.

Thank you for your attention.

List of Participants

* Denotes Head of Delegation

CANADA

*Mr Guy Beaupré	<u>Representative</u> Department of Fisheries and Oceans, Ottawa, Ontario
Mr Bud Bird	<u>Representative</u> Fredericton, New Brunswick
Mr Serge Tremblay	<u>Representative</u> Ministère des Ressources Naturelles et de la Faune du Quebec, Québec
Ms Julia Barrow	Department of Fisheries and Oceans, Ottawa, Ontario
Mr Willie Bruce	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, Fredericton, New Brunswick
Mr Murray Hill	Department of Fisheries and Aquaculture, Pictou, Nova Scotia
Ms Chantal Lamadeleine	Department of Fisheries and Oceans, Ottawa, Ontario
Mr Stewart Lindale	Department of Fisheries and Oceans, Ottawa, Ontario
Mr Don MacLean	Department of Fisheries and Aquaculture, Pictou, Nova Scotia
Mr Maurice Mallet	Department of Fisheries and Oceans, Moncton, New Brunswick
Mr Brian Meaney	Department of Fisheries and Aquaculture, St John's, Newfoundland
Mr David Reddin	Department of Fisheries and Oceans, St John's, Newfoundland
Mr James Smith	New Brunswick Salmon Growers Association, New Brunswick

Mr Tim Young

Department of Fisheries and Oceans, Ottawa, Ontario

DENMARK (IN RESPECT OF THE FAROE ISLANDS AND GREENLAND)

* Mr Emanuel Rosing	<u>Representative</u> Department of Fisheries, Hunting and Agriculture, Nuuk, Greenland
Mr Andras Kristiansen	<u>Representative</u> Ministry of Fisheries and Maritime Affairs, Torshavn, Faroe Islands
Dr Jan Arge Jacobsen	Faroese Fisheries Laboratory, Torshavn, Faroe Islands
Mr Torsteen Overgaard	Department of Fisheries, Hunting and Agriculture, Nuuk, Greenland

EUROPEAN UNION

* Mr John Spencer	<u>Representative</u> European Commission, Brussels, Belgium
Mr Alan Gray	<u>Representative</u> European Commission, Brussels, Belgium
Ms Carmen Beraldi	Secretaria General de Pesca, Madrid, Spain
Mr Martin Brennan	Marine and Natural Resources, Dublin, Ireland
Dr Ciaran Byrne	Central Fisheries Board, Swords, Dublin, Ireland
Mr Richard Cowan	Department of Environment, Food and Rural Affairs, London, England, UK
Mr David Dunkley	Scottish Executive, Marine Directorate, Edinburgh, Scotland, 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 David Ford	Scottish Executive, Marine Directorate, Edinburgh, Scotland, UK
Dr Paddy Gargan	Central Fisheries Board, Swords, Dublin, Ireland
Dr Trevor Hastings	Fisheries Research Services, Pitlochry, Scotland, UK

Mr Richard Kennedy	River Bush Salmon Station, Co. Antrim, Ireland
Ms Eija Kirjavainen	Ministry of Agriculture and Forestry, Department of Fisheries and Game, Helsinki, Finland
Mr Marcus McAuley	Department of Culture, Arts and Leisure, Belfast, Northern Ireland, UK
Mr John McCartney	Loughs Agency, Londonderry, Northern Ireland, UK
Mr Julian C MacLean	Fisheries Research Services, Montrose, Scotland, UK
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, Newport, Ireland
Mr Ted Potter	Centre for Environment, Fisheries and Aquaculture Science, Lowestoft, England, UK
Mr Vincent Roche	North Western Regional Fisheries Board, Ballina, Co Mayo, Ireland
Mr Frank Sheridan	Department of Communications, Marine and Natural Resources, Dublin, Ireland
Dr Petri Suuronen	Finnish Game and Fisheries Research Institution, Helsinki, Finland
Dr Ken Whelan	<u>President of NASCO</u> Marine Institute, Newport, Ireland
Mr Godfrey Williams	Environment Agency, Darlington, England, UK

ICELAND

*Mr Arni Isaksson	<u>Representative</u> Agricultural Authority of Iceland, Selfoss
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NORWAY

* Mr Arne Eggereide	<u>Representative</u> Directorate for Nature Management, Trondheim
Mr Raoul Bierach	<u>Representative</u> Directorate for Nature Management, Trondheim

Dr Lars Petter Hansen	Norwegian Institute for Nature Research, Oslo
Mr Øyvind Walsø	Directorate for Nature Management, Trondheim

RUSSIAN FEDERATION

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Mr Alexey Grushko	Federal Agency for Fisheries, Moscow
Ms Svetlana Krylova	Murmanrybvod, Murmansk
Ms Elena Samoylova	PINRO, Murmansk
Mr Gennady Ustyuzkinsky	PINRO, (sevPINRO), Archangel
Dr Alexander Zubchenko	PINRO, Murmansk

USA

* Ms Patricia A Kurkul	<u>Representative</u> NOAA Fisheries, Gloucester, USA
Mr Stephen Gephard	<u>Representative</u> Department of Environmental Protection, Inland Fisheries Division, Old Lyme, Connecticut
Mr George Lapointe	<u>Representative</u> Maine Department of Marine Resources, Augusta, Maine
Ms Kimberly Blankenbeker	National Marine Fisheries Service, Silver Spring, Maryland
Dr William J Brennan	NOAA International Affairs, Washington DC
Ms Mary Colligan	National Marine Fisheries Service, Gloucester, Massachusetts
Dr K Alexandra Curtis	US Department of State, Washington DC
Mr Thomas Grasso	World Wildlife Fund, Washington DC
Mr Andrew Goode	Atlantic Salmon Federation (US), Brunswick, Maine
Mr James Hawkes	National Marine Fisheries Service, Orono, Maine
Mr Robert Jones	Connecticut River Salmon Association, S Windsor, Connecticut

Mr Patrick Keliher	Maine Atlantic Salmon Commission, Augusta, Maine
Mr Thomas King	US Fish and Wildlife Service, East Orland, Maine
Mr John Kocik	National Marine Fisheries Service, Orono, Maine
Ms Melissa Laser	Maine Atlantic Salmon Commission, Augusta, Maine
Ms Christine Lipsky	National Marine Fisheries Service Orono, Maine
Mr Greg Mackey	Maine Atlantic Salmon Commission, Bangor, Maine
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Mr Mike Millard	US Fish and Wildlife, Lamar, Pennsylvania
Dr Ray B. Owen	Orono, Maine
Ms Jessica Pruden	National Marine Fisheries Service, Gloucester, Massachusetts
Ms Janice Rowan	US Fish and Wildlife Service, Sunderland, Massachusetts
Mr Paul Santavy	US Fish and Wildlife Service, Ellsworth, Maine
Mr Rory Saunders	National Marine Fisheries Service, Orono, Maine
Mr Pasquale Scida	National Marine Fisheries Service, Gloucester, Massachusetts
Ms Joan Trial	Maine Atlantic Salmon Commission, Bangor, Maine

INTER-GOVERNMENTAL ORGANIZATIONS

Mr Godfrey Williams	European Inland Fisheries Advisory Commission
Dr James Irvine	Fisheries and Oceans, Nanaimo, British Columbia, Canada (representing NPAFC)
Mr Tim Sheehan	Chairman, ICES Working Group on North Atlantic Salmon, Woods Hole, Massachusetts, USA
Mr Henrik Sparholt	ICES, Copenhagen, Denmark
Dr Jack Helle	NOAA, Alaska Fisheries Science Center, Juneau, Alaska, USA (representing NPAFC)

Dr Shigehiko Urawa	North Pacific Anadromous Fish Commission, Vancouver, Canada (representing NPAFC)
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NON-GOVERNMENT ORGANIZATIONS *

Mr Chris Poupard	Chairman of NASCO's Accredited NGOs European Anglers' Alliance, Belgium
Dr Frederic Mazeaud Mr Christian Vernes	Association Internationale de Défense du Saumon Atlantique, France
Mr Hugh Campbell Adamson	Association of Salmon Fishery Boards, UK
Mr Stephen A Chase	Atlantic Salmon Conservation Foundation, Canada
Ms Sue Scott Ms Muriel Ferguson	Atlantic Salmon Federation (Canada)
Major General Seymour Monro	Atlantic Salmon Trust, UK
Ms Boyce Thorne-Miller	Clean Catch, USA
Professor Kenneth S Cline Dr Chris Peterson Dr Todd Little-Siebold	College of the Atlantic, USA
Mr James J Carroll, Jnr	Connecticut River Salmon Association, USA
Mr Patrick Martin	Conservatoire National du Saumon Sauvage, France
Mr Noel Carr	Federation of Irish Salmon and Sea-Trout Anglers, Ireland
Mr John Gregory	Institute of Fisheries Management, UK
Dr David VanderZwaag	Marine and Environmental Law Institute, Canada
Mr Patrick Byrne	National Anglers Representative Association, Ireland
Mr Aage Wold	Norskelakseelver (Norwegian Salmon Rivers), Norway
Mr Paul Knight	Salmon and Trout Association, UK
Mr Niall Greene	Salmon Watch Ireland (SWIRL), Ireland
Mr Ian Calcott	Scottish Anglers National Association, UK
Mr Robert Haughey	Ulster Angling Federation Limited, UK
Mr Martin Arnould	World Wide Fund for Nature, France

Ms Ruba Marshood WWF (US)
Dr Gareth Porter

**Only 2 representatives of a Non-Government Organization can attend meetings at any one time.*

SALMON LIAISON GROUP REPRESENTATIVE

Mr Sebastian Belle Maine Aquaculture Association, Haliwell, Maine, USA

INTERNATIONAL ATLANTIC SALMON RESEARCH BOARD

Mr Jacque Robichaud Chairman of IASRB

SECRETARIAT

Dr Malcolm Windsor Secretary

Dr Peter Hutchinson Assistant Secretary

Miss Margaret Nicolson PA to the Secretary

Ms Mairi Ferguson PA

Support Staff

Ms Elyssa Gelmann
Ms Marcia Hobbs
Ms Sarah Lawson-Stopps
Mr Kyle Ravona
Ms Sandy Seymour
Ms Jasmine Smith

CNL(07)39

**Twenty-Fourth Annual Meeting of the Council
Harborside Hotel and Marina, Bar Harbor, Maine, USA**

4 - 8 June, 2007

Agenda

- 1. Opening Session**
- 2. Adoption of Agenda** CNL(07)1
CNL(07)2
CNL(07)3
CNL(07)4
- 3. Financial and Administrative Issues**
 - 3.1 Report of the Finance and Administration Committee CNL(07)5
- 4. Scientific, Technical, Legal and Other Information**
 - 4.1 Secretary's Report CNL(07)21
 - 4.2 Report on the Activities of the Organization in 2006 CNL(07)6
 - 4.3 Announcement of the Tag Return Incentive Scheme Grand Prize
 - 4.4 Scientific Advice from ICES CNL(07)7
 - 4.5 Catch Statistics and their Analysis CNL(07)8
CNL(07)9
 - 4.6 Special Session: Unreported Catches CNL(07)10
CNL(07)11
 - 4.7 Scientific Research Fishing in the Convention Area
 - 4.8 Report of the International Atlantic Salmon Research Board CNL(07)12
 - 4.9 Special Session: Salmon at Sea - Research Programmes in the North Pacific and North Atlantic Oceans CNL(07)13
 - 4.10 Report of the Standing Scientific Committee CNL(07)14
- 5. Next Steps for NASCO**
 - 5.1 Special Session: Progress with the Next Steps Strategy
 - (a) Report of the *Ad Hoc* Review Group on the Parties' Implementation Plans CNL(07)15
CNL(07)22
 - (b) Responses to the *Ad Hoc* Review Group findings
 - (c) Report of the Public Relations Group CNL(07)16

- 5.2 Review of the 'Next Steps for NASCO' Special Session and Decisions by the Council
- 5.3 EU Proposal for a Performance Review of the Work of NASCO
- 6. Conservation, Restoration, Enhancement and Rational Management of Atlantic Salmon under the Precautionary Approach**
 - 6.1 Measures Taken in Accordance with Articles 14 and 15 of the Convention CNL(07)17
 - 6.2 Aquaculture, Introductions and Transfers, and Transgenics
 - (a) The Williamsburg Resolution
 - (b) Liaison with the Salmon Farming Industry
 - (c) Reports of the ICES/NASCO Bergen Symposium
 CNL(07)18
 - 6.3 New or Emerging Opportunities for, or Threats to, Salmon Conservation and Management
 - 6.4 Report of the Working Group on Bio-economic Modelling
 - 6.5 Progress with the Development of the Database of Salmon Rivers CNL(07)19
 - 6.6 St Pierre and Miquelon Salmon Fishery CNL(07)20
 - 6.7 Impacts of Acid Rain on Atlantic Salmon
 - 6.8 Reports on the Work of the Three Regional Commissions
- 7. Other Business**
- 8. Date and Place of Next Meeting**
- 9. Report of the Meeting**
- 10. Press Release**

Council

CNL(07)46

***North Atlantic Salmon Conservation Organization
2008 Budget and 2009 Forecast Budget and Schedule of Contributions
(Pounds Sterling)***

CNL(07)46

***North Atlantic Salmon Conservation Organization
2008 Budget and 2009 Forecast Budget (Pounds Sterling)***

Section	Description	Expenditure	
		Budget 2008	Forecast 2009
1	Staff-related costs	346,220	356,500
2	Travel and subsistence	43,000	43,900
3	Research and advice	46,560	47,900
4	Contribution to Working Capital Fund	40,000	40,000
5	Meetings	8,000	10,000
6	Office supplies, printing and translation	27,000	29,000
7	Communications	40,000	41,050
8	Headquarters Property	33,950	34,900
9	Office furniture and equipment	6,500	6,500
10	Audit and other expenses	10,750	11,100
11	Tag Return Incentive Scheme	4,200	4,500
12	International Atlantic Salmon Research Fund	0	0
13	Contribution to Contractual Obligation Fund	35,000	37,000
	Total	641,180	662,350

		Income	
		Budget 2008	Forecast 2009
14	Contributions - Contracting Parties	582,180	603,350
15	General Fund - Interest	6,000	6,000
16	Income from Headquarters Property	53,000	53,000
17	Surplus or Deficit (-) from 2006	0	0
	Total	641,180	662,350

**Adjustments to 2007 contributions (Pounds Sterling)
to take into account confirmed 2005 Catch Statistics**

Party	2005 Provisional catch	2005 Confirmed catch	2007 Contribution based on provisional catch	2007 Contribution based on confirmed catch	Adjustment to 2007 contribution
Canada	130	139	47,981	49,179	+1,199
Denmark (Faroe Islands and Greenland)	14	14	26,542	26,495	-47
European Union	854	884	181,788	184,378	+2,589
Iceland	149	149	51,492	50,994	-498
Norway	888	888	188,072	185,104	-2,969
Russian Federation	82	82	39,110	38,835	-274
USA	0	0	23,955	23,955	0
TOTAL	2,117	2,156	558,940	558,940	0

Note: A positive adjustment represents an underpayment in 2007.

**NASCO Budget Contributions for 2008 and Forecast
Budget Contributions for 2009 (Pounds Sterling)**

Party	2006 Provisional catch (tonnes)	Contribution for 2008	Adjustment from 2007	Adjusted contribution for 2008	Forecast contribution for 2009
Canada	132	51,942	+1,199	53,140	53,831
Denmark (Faroe Islands and Greenland)	23	29,654	-47	29,607	30,732
European Union	703	168,699	+2,589	171,288	174,834
Iceland	113	48,057	-498	47,559	49,804
Norway	931	215,320	-2,969	212,351	223,150
Russian Federation	91	43,558	-274	43,284	45,142
USA	0	24,951	0	24,951	25,858
TOTAL	1,993	582,180	0	582,180	603,350

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

Finance and Administration Committee

FAC(07)6

*Memorandum of Understanding
between
The North Atlantic Salmon Conservation Organization
and
The International Council for the Exploration of the Sea*

FAC(07)6

Memorandum of Understanding between The North Atlantic Salmon Conservation Organization and The International Council for the Exploration of the Sea

RECOGNISING that the North Atlantic Salmon Conservation Organization (“NASCO”)

- (a) desires to promote the acquisition, analysis and dissemination of scientific information pertaining to salmon stocks in the North Atlantic Ocean;
- (b) desires to promote the conservation, restoration, enhancement and rational management of salmon stocks in the North Atlantic Ocean through international cooperation, taking into account the best scientific evidence available;
- (c) seeks to establish working arrangements with the International Council for the Exploration of the Sea and other appropriate fisheries and scientific organizations with a view to obtaining the best available scientific evidence;

RECOGNISING that the International Council for the Exploration of the Sea (“ICES”)

- (a) exists to promote and encourage research and investigations for the study of the sea, in particular in relation to its living resources;
- (b) draws up the necessary programmes and organises such research and investigations as may appear necessary and publishes and disseminates the results of this work;
- (c) provides scientific information and advice to member countries and the regulatory commissions with which cooperative relationships have been established;
- (d) seeks to establish and maintain working arrangements with other international organisations having related objectives;

NASCO AND ICES have therefore reached the following understanding:

Provision of Scientific Information and Advice

1. At its Annual Meeting NASCO may adopt a request for scientific information and advice which may be addressed to ICES for response prior to the next or subsequent Annual Meeting of NASCO. Any such request will be transmitted formally to ICES on a timely basis.
2. In response to this request, scientific information and advice, which is independent and free from political influence, and has been peer-reviewed by the relevant ICES advisory procedure, will be provided to NASCO by ICES in accordance with this Memorandum of Understanding. This scientific information and advice will comprise annual recurring or “standard” advice according to the format contained in Annex 1, and “non-recurring” advice as requested by NASCO, such categorisation of the request to be mutually agreed.

3. (a) ICES will make every effort to provide the official scientific information and advice in the report(s) of the relevant Advisory Committee(s) to NASCO as early as possible before the Annual Meeting of NASCO.
- (b) The information on which the advice is based, in the form of Expert Group Reports, will be made available prior to the full ICES review process, with an annotation that the report has not been reviewed by ICES. Any other relevant reports published by ICES will be made available to NASCO.
4. The scientific information and advice will be presented at the NASCO Annual Meeting by the Chairman of an ICES Advisory Committee or a designate and, when appropriate, an ICES Professional Adviser.
5. ICES and NASCO will consult on ways in which cooperation between them can be further improved and extended. Further improvements may include joint activities, e.g. seminars, symposia or other meetings.

Finance

6. NASCO accepts ICES policy of achieving 100% cost recovery from Member Countries and international client commissions which request ICES to provide information, advice and services.
7. Recognising the desirability for stability in the payments made to ICES, NASCO agrees:
 - (a) to pay - following the procedure in Annex 2 - a fixed rate as agreed upon with ICES for the “standard” advice (i.e. recurring needs) as referred to in Annex 1, with an annual increase in accordance with the rate of inflation in Denmark (Danish Ministry of Finance figures), using DKK 353,648 (at 2006 prices) as the base. The components upon which the ICES costs are calculated are provided in Annex 3;
 - (b) to pay a contribution of DKK 39,253 (at 2006 prices) as NASCO’s contribution towards the stipend for an Advisory Committee Chair;
 - (c) to pay a contribution of DKK 59,962 (at 2006 prices) as NASCO’s contribution towards the ICES advisory quality assurance programme;
 - (d) to pay 100% of the costs for non-recurring advice on the basis of the costs agreed upon with ICES in accordance with Annexes 2 and 3.
 - (e) in the event that NASCO does not seek peer-reviewed advice from ICES in a particular year, but merely a compilation of information, to pay a contribution for ‘servicing’ the Expert Group and databases of 31.3% of the amount specified in paragraph 7(a) together with the amounts specified in paragraphs 7(b) and 7(c) (DKK 209,907 at 2006 prices);
 - (f) in the event that NASCO makes no request to ICES for information and advice in a particular year, to pay a contribution for ‘servicing’ the Expert Group and databases of 31.3% of the amount specified in paragraph 7(a) together with the amount specified in paragraph 7(b) (DKK 149,945 at 2006 prices).
8. When assessing the contributions to be paid by NASCO, due account shall be taken of contributions made by ICES Member Countries or other international Commissions of ICES with interests in the same stock and in the same geographical area.

9. ICES undertakes to elaborate, on an annual basis, costing-spreadsheets with details for providing standard and non-recurring advice to NASCO. The results will be reviewed jointly by ICES and NASCO during consultations as specified in Annex 2.

General Administrative Arrangements

10. NASCO is entitled to be represented in an observer capacity at the annual Statutory Meeting of the Council of ICES and at the ICES Annual Science Conference. In addition, ICES agrees to the participation of a representative of NASCO in an observer capacity at meetings of the Council's Advisory Committees. In that capacity NASCO's representative will have the right to ask for the floor and participate in meetings, but will have no voting right nor have freedom to change the meeting's agendas. ICES will be invited to be represented in an observer capacity at the Annual Meetings and as appropriate at other NASCO meetings.
11. NASCO will provide ICES with documents and reports circulated prior to, and as a result of, its Annual Meetings which are relevant to the work of ICES. ICES will provide NASCO with documents and reports circulated prior to, and as a result of, its meetings which are relevant to the work of NASCO.
12. Either NASCO or ICES may propose changes to this Memorandum of Understanding. Any such proposal will be made before the end of May in any calendar year. Any change will come into effect at the beginning of the calendar year after the change has been agreed by both ICES and NASCO unless otherwise agreed
13. If any dispute should arise between NASCO and ICES on the operation of this Memorandum of Understanding, both sides will make their best endeavour to resolve it, if necessary by the involvement of a mutually agreeable arbiter.
14. Either NASCO or ICES may propose a withdrawal from this Memorandum of Understanding. Any such proposal will be made before the end of May in any calendar year and, unless otherwise agreed, will come into effect not earlier than 1 January after a full 12 calendar months have elapsed following notice of the intention to withdraw having been given by either ICES or NASCO.
15. This Memorandum of Understanding will enter into force following its signature by both Parties.
16. The Parties will, every three years, carry out a full review of the terms and operation of this Memorandum of Understanding and agree any necessary amendments.

Signed on behalf of the North Atlantic Salmon Conservation Organization and the International Council for the Exploration of the Sea:

Signed: President	Signed: President
International Council for the Exploration of the Sea	North Atlantic Salmon Conservation Organization

ANNEX 1: Format of request to ICES from NASCO for recurring or “standard” advice

It is recognised that the content of the advice will be dependent on the request and on the availability of data and knowledge about biological and physical processes as well as economical and technical processes. It is understood that the following description of information which is of interest to managers defines a mutual intention to enhance the ICES contribution to fisheries management. It is understood that the advice should include, *inter alia*:

For the North Atlantic area:

- an overview of salmon catches and landings (including unreported catches by stock complex and catch and release) and worldwide production of farmed and ranched Atlantic salmon;
- an evaluation of non-catch fishing mortality for all salmon gear;
- a report on significant developments which might assist NASCO with the management of salmon stocks;
- a compilation of egg collections and juvenile releases;
- a compilation of microtag, finclip and external tag releases by ICES Member Country;
- other relevant questions related to specific aspects of salmon conservation and management

For each of NASCO’s three regional Commission areas:

- a description of events in the fisheries and of the status of stocks;
- provision of age-specific stock conservation limits for all stocks based on best available information;
- provision of catch options or alternative management advice with associated risk assessment relative to the stated management objective (presently exceeding stock conservation limits);
- evaluation of the effects on stocks and fisheries of management measures;
- identification of relevant data deficiencies and research requirements;
- other relevant questions related to specific aspects of salmon conservation and management.

It is understood that ICES should elaborate and make the advice as transparent and as understandable as possible, including explicit explanation of uncertainty associated with the advice.

Whereas the advice should be made available as documents it is also requested that the advice is made easily available in standard electronic format. This also includes the tabular data and/or graphs.

ANNEX 2: Schedule of key annual administrative procedures for NASCO and ICES

YEAR 1 June	NASCO agrees request for advice for Year 2 and formally transmits request to ICES. ICES provides proposed costs for NASCO for any non-recurrent elements of the Year 2 advice.
YEAR 2 March-April 10 May June	Consultations between ICES and NASCO to agree the sum due by NASCO in respect of the recurring and non-recurring advice for Year 2. NASCO undertakes to give its full agreement within 30 days of this consultation. Review of costing-spreadsheets for Year 1. Delivery of Advice Payment by NASCO to ICES for Year 2 recurrent advice
YEAR 3 January	Payment by NASCO to ICES for Year 2 non-recurrent advice

ANNEX 3: Components upon which the ICES Costs are calculated

It is the role of the Commissions to formulate policies and/or management actions for conservation of fisheries and the marine environment, and in order to do so they benefit from scientific advice from ICES. Therefore they accept financial responsibility for ICES' costs of providing this advice, including: (i) the costs of databases and analyses that are needed in order to prepare advice, but generally would not occur otherwise, and (ii) the preparation, quality assurance, and delivery of the advice.

On the basis of this recognition, the following costs incurred by ICES are approved for charges to NASCO:

- costs incurred by ICES (i.e. travel and per diem) related to meetings of its Advisory Committees in proportion to the time of these meetings spent on the NASCO advice;
- Secretariat staff salaries, including superannuation (with an indication of the number and grades of staff to be involved in the work), regarding preparation for, work during, and follow-up after: the Advisory Committee Meetings, and other recurring needs associated with Expert Group Meetings;
- travelling and subsistence costs of a Chairman of an ICES Advisory Committee (or a designate) and of an ICES Professional Adviser in attending NASCO's Annual Meeting to present the scientific advice;
- costs, including postage and packing, of producing the documents required by the NASCO with respect to the information and advice;
- database costs;
- computing costs;
- the cost of any work where ICES proposes to employ a consultant or contractor;
- other current expenditure.

Overheads:

The overhead costs will be calculated by means of an overhead percentage which is applied to the direct salary costs of each different activity mentioned in the ICES Work Programme. Overheads are based on the documented annual costs (e.g. invoices and payments) of running ICES Headquarters so that the Secretariat staff may legitimately carry out their duties. As these running-costs have to be applied to the hours in which the Secretariat staff work for ICES' own work programme, it is deemed reasonable that an equitable share of the running-costs are paid for by 'clients' in respect of the requests for information, advice, and services that they direct to ICES.

The overhead percentage is calculated as the ratio between the total overhead costs and the total direct salary costs. Included in the overhead costs are the following items:

- capital cost of computing and other capital equipment;
- central financial and personnel administration;
- computer system support and maintenance
- a fair share of the printing costs;
- rent of premises;
- office expenses including:
 - electricity
 - heating
 - watchmen, safety and security

- cleaning costs
- maintenance costs (e.g. photocopier)
- consumables
- postage
- telephone and fax
- office equipment
- insurance
- general office maintenance (e.g. painting)
- staff education and training

Council

CNL(07)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 2006 Statutory Meeting, ICES resolved (C. Res. 2006/2/ACFM14) that the Working Group on North Atlantic Salmon [WGNAS] (Chair: T Sheehan, USA) will meet in Copenhagen, Denmark, from 11 to 20 April 2007 to consider questions posed to ICES by the North Atlantic Salmon Conservation Organization (NASCO). The terms of reference were met and the sections of the report which provide the answers are below:

a) With respect to Atlantic salmon in the North Atlantic Area:	Section 2
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;	2.1 and 2.2
2) report on significant new or emerging threats to, or opportunities for salmon conservation and management;	2.3 and 2.6
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;	2.4
4) examine associations between changes in biological characteristics of all life stages of Atlantic salmon and variations in marine survival ¹ ;	2.5
5) provide a compilation of tag releases by country in 2006;	2.6.4
6) identify relevant data deficiencies, monitoring needs and research requirements ² .	Section 6
b) With respect to Atlantic salmon in the North East Atlantic Commission area:	Section 3
1) describe the key events of the 2006 fisheries and the status of the stocks ³ ;	3.8
2) provide any new information on the extent to which the objectives of any significant management measures introduced in recent years have been achieved;	3.9
3) further develop the age-specific stock conservation limits, where possible based upon individual river stocks;	3.3
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 ;	3.4 and 3.6
5) provide estimates of bycatch and non-catch fishing mortality of salmon in pelagic fisheries with an assessment of impacts on returns to homewaters.	3.10
c) With respect to Atlantic salmon in the North American Commission area:	Section 4
1) describe the key events of the 2006 fisheries (including the fishery at St Pierre and Miquelon) and the status of the stocks ³ ;	4.9
2) provide any new information on the extent to which the objectives of any significant management measures introduced in recent years have been achieved;	4.10
3) update age-specific stock conservation limits based on new information as available;	4.3
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 ;	4.4 and 4.7
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.	4.11

d) With respect to Atlantic salmon in the West Greenland Commission area:	Section 5
1) describe the events of the 2006 fisheries and the status of the stocks ^{3,5} ;	5.8
2) provide any new information on the extent to which the objectives of any significant management measures introduced in recent years have been achieved;	5.10
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 .	5.4
<p>Notes:</p> <p>1. <i>There is interest in determining whether 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).</i></p> <p>2. <i>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 in this task.</i></p> <p>3. <i>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.</i></p> <p>4. <i>Provide a detailed explanation and critical examination of any changes to the models used to provide catch advice.</i></p> <p>5. <i>ICES is requested to provide a brief summary of the status of North American and Northeast Atlantic salmon stocks. The detailed information on the status of these stocks should be provided in response to b1 and c1.</i></p>	

A complete list of acronyms used within this document is provided in Annex 1. References cited are in Annex 2.

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 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 NASCO’s Standing Committee on the Precautionary Approach interpreted this as being “to maintain both the productive capacity and diversity of salmon stocks” (NASCO, 1998).

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). These conservation limits are limit reference points (S_{lim}); having populations fall below these limits 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 bound 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 target reference points (S_{pa}). Therefore, stocks are regarded by ICES as being at full reproductive capacity only if they are above the precautionary target reference point. 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 (S_{lim}) 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 (S_{lim}) 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 to 2006. 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 Northeast Atlantic countries, also ranched fish. Reported catches for the three NASCO Commission Areas for 1996–2006 are provided below.

AREA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
NEAC	2750	2074	2225	2073	2736	2876	2495	2303	1977	1999	1844
NAC	294	231	159	154	155	150	150	144	164	142	136
WGC	92	59	11	19	21	43	9	9	15	14	21
Total	3135	2364	2396	2246	2913	3069	2654	2456	2156	2155	2001

The catch data for 2006 are provisional, but the total nominal catch of 2001 t is the lowest on record. Catches for most countries were below the recent 5- and 10-year averages, and in six countries were the lowest in the time-series.

The nominal catch (in tonnes) of wild fish in 2006 was partitioned according to whether the catch was taken in coastal, , or riverine fisheries. These are shown below for the NEAC and NAC Commission Areas. The delineations of these environments used within the NAC area were refined in 2006 to incorporate expert knowledge of these fisheries. It was not possible to apportion the small Danish catches in 2006 and these have been excluded from the calculation. The catch accounted for by each fishery varied considerably between countries. In total, however, coastal fisheries accounted for 47% of catches in Northeast Atlantic countries compared to 8% in North America, whereas in-river fisheries took 48% of catches in Northeast Atlantic countries and 59% in North America.

AREA	COAST		ESTUARY		RIVER		TOTAL
	WEIGHT	%	WEIGHT	%	WEIGHT	%	
NEAC	859	47	103	6	884	48	1,846
NAC	11	8	45	33	80	59	135

In the NEAC Northern area, catches since 1995 have fluctuated with no apparent trend (Figure 2.1.1.2); coastal fisheries have typically comprised about half of the total catch (although there are no coastal fisheries in Iceland and Finland). In Southern Europe, catches in all fishery areas have declined over the same period. While coastal fisheries make up the largest component of the catch in this area, these fisheries have declined the most, reflecting widespread measures to reduce exploitation in a number of countries. In North America, the total catch over the period 2000–2006 has been relatively constant, with that in coastal fisheries comprising 11 t or less. Catches in coastal and estuarine areas, predominantly aboriginal food fisheries, have increased slightly over the period.

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. These fish are not included in the nominal catches. For countries that reported such data in 2006, the percentage of the total rod catch that was released ranged from 18% in Iceland to 82% in Russia.

Catch and release rates have generally increased over the last decade. Overall, more than 153 000 salmon were reported to have been released in 2006.

2.1.3 Unreported catches

The estimated unreported catch within the NASCO Commission Areas in 2006 was 670 t (Table 2.1.1.1). The unreported catch, expressed as a percentage of the total North Atlantic catch (nominal and unreported), has fluctuated since 1987 (range 23–34%), but has remained fairly constant in the last three years at about 25%. Over recent years, efforts have been made to reduce the level of unreporting in a number of countries (e.g. through improved reporting procedures, carcase tagging, and logbook schemes). After 1994 there are no available data on the extent of possible salmon catches in international waters. Limited surveillance flights, which were the bases of past estimates of catches in international waters, have not reported any such salmon fishing in recent years. Estimates (in tonnes) of unreported catches for the three Commission Areas for the period 1996–2006 are given below:

AREA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
NEAC	947	732	1108	887	1135	1089	946	719	575	605	604
NAC	156	90	91	133	124	81	83	118	101	85	56
WGC	20	5	11	13	10	10	10	10	10	10	10
Int'l. waters	Not available										

Expressed as a percentage of the total North Atlantic catch, unreported catch estimates range from 0% to 15% 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 1% to 50% 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 2006 is 817 100 t. This represents a small increase on 2005 (804 908 t), but remains below the peak figure of 831 075 t produced in 2004. Most of the North Atlantic production took place in Norway (73%) and UK (Scotland) (17%).

World-wide production of farmed Atlantic salmon has been in excess of one million tonnes since 2002. Total production in 2006 is provisionally estimated at around 1 264 000 tonnes (Figure 2.2.1), the highest in the time-series. Production outside the North Atlantic is currently estimated to account for 35% of total farmed production, with Chile (370 000 t) contributing the largest proportion of the production in this area. World-wide production of farmed Atlantic salmon in 2006 was over 630 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 9 t in 2006 (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 new or emerging threats to, or opportunities for, salmon conservation and management

2.3.1 Recovery potential of Bay of Fundy and Southern Upland salmon populations

A model was developed to show how salmon populations are expected to respond to recovery activities in the Scotia–Fundy Region of Canada. The first part of the model gives the number of smolts produced as a function of egg deposition (Figure 2.3.1.1a), modelled using a Beverton–Holt stock–recruitment function. The second part, the egg-per-smolt relationship (Figure 2.3.1.1b), which gives the rate at which smolts were expected to produce eggs in their entire life, is calculated based on survival of juvenile salmon in the marine environment, age-at-maturity, fishing mortality, fecundity, and the number of times a fish spawns throughout its life. The population equilibrium is found by estimating the abundance at which the production of smolts by eggs equals the reciprocal of the production of eggs by smolts (Figure 2.3.1.1c). In the example provided, a decrease in smolt-to-adult survival shifts the equilibrium point to a smaller population size.

Four case studies were examined, two of which are reproduced here. For two populations, such as the LaHave River, Nova Scotia, only a single threat was examined. The population equilibrium, based on average at-sea survival rates for the period, is just over 50% the conservation requirement (Figure 2.3.1.2.). At the lowest at-sea survival rates observed during this period, the population is not viable, whereas at the highest rates observed, the population equilibrium is well above the conservation requirement for this river.

In the West River (Sheet Harbour, Nova Scotia) case study (Figure 2.3.1.3), little population-specific data exists so the model was developed using a combination of data from the LaHave River and information about habitat specific to the river. Besides low at-sea survival, West River is also impacted by acidification. The model illustrates that a small population may be achieved in this river if marine survival improves; the population would be expected to remain below its conservation requirement and may be below a size at which the population would be viable in the long term. Both an increase in at-sea survival and pH recovery is needed to increase this population to levels above its conservation requirement.

The approach is useful for evaluating the potential for recovery of salmon populations. Assuming that conditions in freshwater are not responsible for the low marine survival being experienced by Scotia–Fundy populations, the case studies illustrate the limiting effect that low marine survival can have on recovery actions focused only on improving freshwater habitat. However, at high at-sea survival rates the equilibrium population size is very sensitive to the amount of freshwater habitat. The LaHave River case study showed that in recent years, at-sea survival rates have in some years been high enough that if sustained, populations would be expected to increase to levels above the conservation spawner requirement given sufficient freshwater habitat. In these instances, recovery actions focused in freshwater may or may not be effective depending on the scope available for improvements in freshwater. The case studies also illustrated how freshwater habitat degradation such as acidification limits the potential for population growth in some rivers even if at-sea survival improves. These analyses could be extended to other populations and threats.

2.3.2 Timing and nature of density dependence in Atlantic Province salmon populations

Analyses of density dependence are an important step in model development for reference point estimation, assessment of extinction risk, and evaluating the effectiveness of proposed recovery activities. Density-dependent survival within freshwater was analysed using electrofishing data from nine populations in the Maritime Provinces. Smolt-to-adult return-rate data from 15 populations in eastern Canada were used to evaluate whether density dependence is important in the marine environment. As illustrated with data and fits for three of the populations in Figure 2.3.6.1, three spawner-recruit models, a Beverton–Holt, a Ricker, and a one-parameter density-independent model, were fit to each data series using maximum likelihood. Model fits were compared using likelihood ratio tests.

Within freshwater, no single, unequivocal pattern was evident with respect to the timing of density dependence. In the marine environment, density dependence was potentially detected in three of the 15 populations for 1SW salmon, but these three series were either short or highly variable. Density dependence was not detected in any of nine 2SW salmon populations. The variability in both the timing of density dependence and carrying capacity for parr highlights the need for population-specific data for establishing reference points or when planning recovery or enhancement activities. The three populations with the lowest estimated age-1 carrying capacity are located in the outer Bay of Fundy and Southern Upland, are in the southern half of the range of the included populations, and are populations with low at-sea survival. Assuming these estimates are correct, freshwater production has the potential to limit population growth in these populations even if at-sea survival improves.

2.3.3 Monitoring interactions between aquaculture and wild fisheries in Norway

Studies relevant to regulations and management – Ongoing studies in Norway clearly indicate that the impact from salmon lice infestations occurring in the migration areas of wild postsmolts may not only directly influence mortality rates but may also indirectly increase mortality through reducing growth rates of fish surviving the first infestations (Skilbrei and Wennevik, 2006a). These secondary effects have not

been previously demonstrated and may lead to an underestimation of the potential negative effects of aquaculture on wild salmon stocks.

Experimental trawling for wild postsmolts and hatchery postsmolts placed in cages along a fjord have demonstrated that a combination of enforcement of aquaculture regulations, and a strict programme of sea lice monitoring in fish pens together with voluntary actions from the farmers appears to reduce the numbers of sea lice to stated tolerance levels (Boxaspen, 2006; Finstad *et al.*, 2007). However, the continued increase in the number of fish farms and production of aquaculture highlight the importance of continued monitoring and surveillance. The results demonstrate that the level of sea lice infestation from aquaculture fish to migrating wild smolts can be reduced significantly given effective aquaculture regulations and enforcement, and coordinated de-lousing by fish farmers.

Capture fisheries following simulated escapes of aquaculture salmon suggest a low probability of successful recapture after a major escape, unless the fisheries are operated immediately (within a few days) and with the effort spread over a large area. A study showed that escapees can be dispersed over several square kilometres in the course of just a few days (Skilbrei *et al.*, 2007). In addition, immediately after an “escape” the fish may be in the deeper water layers avoiding capture by many gear types. After the initial period, surface gears may be more effective as the fish may be present on the surface. Recoveries from acoustic tagged salmon show that most of the tagged salmon were caught within a range of 20 kilometres from the release sites, indicating that high recapture rates are possible in fjord regions if the fishing effort is high. In sparsely populated areas, the efforts and resources required to recapture escaped salmon may be large. This includes farm sites close to the open sea where the salmon are believed to spread even faster than in the fjords (Skilbrei and Wennevik, 2006b; Skilbrei *et al.*, 2007). These results suggest that recapturing escaped farm salmon can be a resource intensive effort with a low probability of success.

Identification methods – Norwegian fish farmers are required to report escapes from their farms to the authorities. In autumn 2006, substantial numbers of escaped salmon were observed in a fjord in Western Norway, although none of the fish farmers in the area had reported any escapes. Samples were collected from all net cages in fish farms in the fjord and analyzed for 15 microsatellites. The DNA and fatty acid profiles of the escaped fish were then compared to the profiles of the different fish farms. The results showed with high probability that the escapees originated from one specific net cage and the Directorate of Fisheries in Norway proposes to apply similar procedures in similar cases in the future. These results demonstrate that with the proper baseline dataset, identifying the origin of escaped farm salmon can be conducted with high precision.

2.3.4 Cessation of mixed stock fisheries in Irish coastal waters from 2007

In 2005, an Irish Government decision was taken to end the at-sea mixed stock fisheries (predominantly driftnets) in 2007 and to operate fisheries only on single river stocks, which were shown to be meeting conservation limits (CLs). This was to align with the best international practice, comply with scientific advice from ICES, meet NASCO objective, and to afford greater protection to stocks designated under the EU Habitats Directive (Council Directive 92/43/EC;

http://ec.europa.eu/environment/nature/nature_conservation/eu_nature_legislation/habitats_directive/index_en.htm). In the absence of at-sea mixed stock fisheries, the methodology used to provide status of river stocks and catch advice has been modified for 2007 and thereafter. The major differences are related to the provision of catch advice on a river-specific basis as advised by the Standing Scientific Committee of the National Salmon Commission. In so doing, the status of stocks is related specifically to individual rivers rather than to district aggregations of stocks. In the absence of a driftnet fishery (or any other net fishery) at sea, in-river measures of abundance have been used (i.e. fish counter data and rod catch data) to provide a primary measure of spawning stocks and attainment of conservation limits.

The process of estimating CLs remains unchanged, as does the assessment of whether the stock (in this case the river stocks rather than the district stock as calculated in previous years) is above or below its CL. This eliminates the uncertainty associated with the previous assessment in assigning all fish in the district catch to rivers within that district.

In this manner fisheries will now only take place on the 43 rivers shown to be meeting CLs with the catch level set to allow at least a 75% chance of meeting the CL. Two estuarine fisheries have also been identified as having a catch option providing a 75% chance that the individual rivers entering the estuary will meet their CLs.

There are 34 rivers that do not have an identifiable surplus over the CL. Therefore, there are no harvest options available to allow a fishery to take place such that these stocks will meet their conservation limit. Where these rivers are meeting 65% or more of their conservation limit a directed catch and release fishery will be permitted, provided the regional fisheries authorities are satisfied that this will comply with set criteria and that the survival of released fish is within official limits.

There are 74 small rivers with no counter or an average rod catch of less than 10 salmon per annum. Given the tenuous state of many of the smaller rivers, the Standing Scientific Committee's general advice is that there should be no directed fishery (including catch and release) until other information is made available to indicate that these rivers are exceeding their CL and that there is a catch option that meets the management objectives.

2.3.5 Development of predictive models for returning salmon in Norway

A project to develop predictive models for the return of Norwegian salmon has recently been completed. The factors examined included hydrography, plankton production, the biomass and condition of pelagic marine fish species, and salmon growth and survival indices (e.g. catches, estimated marine survival rates). Models to forecast 1SW salmon were developed from environmental variables, plankton production, condition factor, and biomass of herring. This approach is based on the assumption that the smolt production is the same every year. To forecast pre-fishery abundance (PFA) of 1SW salmon, a multivariate regression method called PLS (Projection on Latent Structures, Martens and Martens, 2001) was applied. PLS models both the predictors and the response (1SW return) simultaneously to find the latent structures in the predictor space that best explain the response. Models were developed for the whole of Norway, for the three regions (southern, mid-, and northern Norway) and for a single river (River Drammen). For all models, except southern Norway, it was found that the total stock biomass of herring was the most influential predictor as it was negatively correlated with 1SW returns. The precision of the forecasts was variable, lowest in southern Norway and highest in northern Norway. This has been the first approach to forecast salmon runs to Norway, and work is continuing to further develop the models, including standardizing data sampling so that the quality of the appropriate time-series will be less variable. It is hoped this will improve the ability to predict homewater PFA for Norway.

2.3.6 Human activities impacting on aquatic diversity

ICES was informed of the first confirmed occurrence of a presumably non-native freshwater alga in a salmon river of eastern Canada.

Didymosphenia geminata, commonly referred to as “didymo” or “rock-snot”, is a freshwater diatomous alga that attaches to rocks and grows on gelatinous stalks. It prefers waters of low nutrient levels. It can develop into large mats of yellow-brown colour, which can cover the bottom of rivers and lakes. The mats have the texture of wet wool and when dry have the appearance of toilet paper or parchment paper. Didymo is not toxic and its impacts are most important to the aesthetics of the rivers (including angling quality).

Since the late 1980s, didymo blooms have been reported in a number of northern hemisphere countries within Europe and North America. In Iceland, didymo was not identified from aquatic surveys dating back to the 1940s, but it was subsequently identified in samples from 1994 from several rivers (Jonsson *et al.*, 2000). It seems that shortly after it first arrives in a river or to an area in a river it can have very dense growth, but generally retreats after a few years (although it still persists). It has now spread around the entire coast of Iceland, though not in all rivers. There have been no documented impacts on salmon or trout populations in Iceland. More detailed information and references on the characteristics of didymo can be found at the website of the Invasive Species Specialist Group (ISSG) of IUCN Species Survival Commission (<http://www.issg.org/database/species/ecology.asp?si=775&fr=1&sts=>).

2.3.7 Autumn downstream migration of juvenile Atlantic salmon in the UK – possible implications for the assessment and management of stocks

ICES received new information from a study undertaken in the River Frome (Pinder *et al.*, in press), which sought to quantify the size of the autumn migration and determine the physiological status of both migrants and non-migrants in this catchment. Large numbers of 0+ salmon parr were tagged in the Frome during September in both 2004 and 2005 with Passive Integrated Transponder (PIT) tags; the majority of salmon leave this river as one-year-old smolts. The subsequent movements of the tagged fish were monitored at a number of trapping facilities and by means of a full river PIT antenna detector array (Ibbotson *et al.*, 2004) located 4 km above the head of tide. The number of autumn migrants passing the antenna array between October 2005 and January 2006 was estimated at 2480 fish. This compares with a three-year mean smolt run estimate for the river (2004–06) of 9400. Electrofishing at low water in tidal sections of the river in February and March subsequently confirmed the presence of autumn migrating parr in the estuary.

It was concluded that the component of the population that migrated downstream in the autumn was not physiologically adapted to survive early entry into saltwater and was expected to remain in the lower river/estuary at least until the following spring. It is not clear whether the downstream migration reflects displacement from upstream areas or is a specific life history strategy. It is also not known whether marine survival varies between autumn and spring migrants. Future returns of PIT-tagged adult salmon to the Frome should provide new information in this context. The findings may have implications for stock assessment programmes, as autumn migrants are likely to be excluded from most current smolt run estimates and estimates of marine survival.

2.4 NASCO has asked ICES to 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

2.4.1 Study Group on Establishing a Framework of Indicators of Salmon Stock Abundance

In 2006, ICES provided multi-annual management advice for all three NASCO Commission Areas and presented a preliminary framework (Framework of Indicators) which would indicate whether any significant changes in the previously provided multi-annual management advice had occurred in subsequent years. The advice and Framework of Indicators (FWI) formed the basis for the multi-annual (3-year) regulatory measures, which were agreed upon in the West Greenland (salmon fishery in the waters off West Greenland; NASCO, 2006a) and North East Atlantic Commissions (salmon fishery in Faroese waters; NASCO, 2006b). The second and third year of the regulatory measures for both fisheries is dependant on ICES providing, and the Parties to each Commission Area accepting, a finalized Framework of Indicators.

ICES formed the Study Group on Establishing a Framework of Indicators of Salmon Stock Abundance (SGEFISSA, ICES, 2007a) which met in 2006. The SGEFISSA further developed the FWI that was originally presented by ICES (ICES, 2006).

2.4.2 Update of the Framework of Indicators for the 2007–2009 multi-year catch advice at West Greenland

ICES updated the FWI for the Greenland fishery. The update consisted of:

- Adding the values of the indicator variables for the most recent year;
- Running the objective function spreadsheet for each indicator variable and the variable of interest relative to the management objectives;
- Quantifying the threshold value for the indicator variables and the probabilities of a true high state and a true low state for those indicator variables retained for the framework;
- Revising/adding the indicator variables and the functions for evaluating the indicator score to the framework spreadsheet; and
- Providing the spreadsheet for doing the framework of indicators assessment.

The management objectives for the development of the catch options for the West Greenland fishery are presented in Table 2.4.2.1.

A total of 82 indicator variables were updated and analysed using the objective function spreadsheet. These variables included returns of 1SW or small salmon, 2SW or large salmon, and return rates as 1SW and 2SW salmon of wild and hatchery-origin fish. Based on the objective function spreadsheet and the criteria established by the SGEFISSA, a total of 32 indicator variables were retained (see below). Of these, four were return rate indicators of hatchery fish, while the remainder were of wild 2SW or large salmon (N = 15) and wild 1SW or small salmon (N = 13) returns to rivers.

Summary of indicator variables retained from North America							
ORIGIN	Wild	Wild	Wild	Wild	Hatchery	Hatchery	
TYPE OF DATA	Return	Return	Survival	Survival	Survival	Survival	
SIZE/AGE GROUP	Small/1SW	Large/2SW/ MSW	Small/1SW	Large/2SW	Small/1SW	Large/2SW	Total
Newfoundland	1						1
Quebec	6	8					14
Gulf	1	1					2
Scotia-Fundy	4	4			1	1	10
US ¹	1	2 ²			1	1	5
Total	13	15			2	2	32

¹ for US, returns include both wild and hatchery-origin fish.

² in one river (Narraguagus), returns are of age/size groups combined.

No indicator variables were retained for the Labrador area and for the southern NEAC non-maturing complex. All the retained indicator variables had a probability of at least 80% of identifying a true low state or a true high state (Figure 2.4.2.1).

ICES modified the FWI from a one-way test to a two-way test in order to evaluate the over-estimation of stock abundance by the forecast model.

2.4.3 Application of the framework indicator spreadsheet for signalling whether a significant change in management advice may occur for the fisheries in 2008 and 2009

The FWI spreadsheet is shown in Figure 2.4.3.1. The framework provides one of two conclusions for the user:

- 1) no significant change identified by the indicators;
- 2) reassess.

If no significant change has been identified by the indicators, then the multi-year catch advice for the year of interest could be retained. If a significant change is signalled by the indicators, the suggested response is to reassess.

The framework spreadsheet is designed to capture both fishing and non-fishing scenarios:

- multi-year advice provides no catch options greater than zero, but indicators are suggesting that the management objectives may be met (conclusion: Reassess);
- multi-year advice provides catch options greater than zero, but the indicators suggest the management objectives may not be met (conclusion: Reassess).

The FWI spreadsheet will be updated with the returns or return rate data for 2007 to evaluate the appropriateness of the 2008 advice, and with the returns or return rate data for 2008 to evaluate the appropriateness of the 2009 advice. It is anticipated that the data for the indicator variables to populate the framework would be available in January of the year of interest. The framework will be updated whenever a new set of multi-year catch advice is provided. Figure 2.4.3.2 illustrates the timeline of how the FWI would operate.

Applying the framework

There are two steps required by the user to run the framework. The first step is to enter the catch advice option for the West Greenland fishery (t). This feature provides the two-way evaluation of whether a change in management advice may be expected and a reassessment would be required. The second step is to enter the values for the indicator variables in the framework for the year of interest. The spreadsheet evaluation update is automated and the conclusion is shown in the row underneath “Overall Recommendation”.

Framework features

The conclusions from the framework evaluation are based on whether there is an indication of simultaneous achievement of the management objectives in the six stock areas of North America and the southern NEAC non-maturing complex (Figure 2.4.3.1). If there are no indicator variables for a geographic area, the attainment of the management objectives is evaluated as unknown and that area or complex is not used in the decision structure of the framework.

Within the geographic areas for which indicator variables are retained, all the available indicators are used to assess the indicator score. If an update value for an indicator variable is not available for the year of interest, the indicator variable is not used to quantify the indicator score for that area.

The average indicator score for the geographic area is used to determine whether management objectives could be met. Multiple indicators within the stock complex groupings are combined by arithmetic average of the product of the indicator state (-1, +1) and the probability of a correct assignment corresponding to the true low or true high states. An average geographic area or stock complex score equal to or greater than zero would suggest there is a likelihood of meeting the management objective for that grouping, based on the historic relation between the variable of interest (adult returns to a geographic area or PFA) and the indicators evaluated.

2.5 NASCO has asked ICES to examine associations between changes in biological characteristics of all life-stages of Atlantic salmon and variations in marine survival

New information was received on changes in the size and growth of 1SW fish in the Northeast Atlantic and in biological characteristics from two index rivers in Quebec, but ICES was unable to consider this topic in depth in the time available. It is recommended that co-ordinated efforts are made to collate information on biological characteristics throughout the geographic range, to include issues such as:

- Juvenile size-at-age (freshwater growth);
- Smolt age composition;
- Smolt run timing (and autumn parr movements);
- Post-smolt growth;
- Sea-age composition;
- Size at return (marine growth);
- Adult run timing;
- Sex ratios.

2.5.1 Small grilse size and growth during the first summer at sea in Scottish and Norwegian salmon populations

Sample data from three Scottish net fisheries suggest that over a wide area of Scotland and in each month of the season where data were available, grilse returning in 2006 were both substantially shorter and lighter than previous years. Samples from river fisheries in southern Norway show a similar pattern, while in mid- and northern Norway the grilse sizes in 2006 were closer to the average in the period 1989–2005. The Scottish data show that the existence of “small grilse” was the result of a general decline in the size of returning fish as a whole. Analysis of the back-calculated lengths of fish from scale samples from the North Esk net and coble fishery provides strong evidence for a substantial decline in the growth of the 2006 grilse either in the short period in freshwater before smolt emigration or, more likely, in the post-smolt phase of their life in 2005. Back-calculated lengths of first-year growth of grilse from rivers in the

southwestern part of Norway also show that the growth of the 2005 smolt cohort had declined substantially compared to the growth of previous cohorts.

Analysis of the time-series data for all six Scottish net fisheries indicates that both median fork length and fresh round weight of returning grilse show distinct declines over a 40-year time period, albeit with shorter time-scale variations also evident within the data set. Data for 2006 show a sharp decline, particularly in July and August. In rivers in the southern parts of Norway the mean weight of grilse (fish smaller than 3 kg) had varied since 1989, with 2006 showing the lowest values in the time-series. For Norway the data prior to 1989 is likely biased because of the size-selective driftnet fishery that mainly targeted large grilse and smaller MSW salmon.

Grilse weight and grilse catches were positively correlated in rivers in southern Norway and mid-Norway, suggesting that cohorts with reduced growth suffered reduced survival. However, in rivers in the northern part of Norway a similar pattern was not observed. Furthermore, the mean weight of grilse in the River Drammen was positively correlated to survival estimates from hatchery smolts released in the same river.

Sweden also reported that the grilse in 2006 were small and lean, with a mean weight in the sport fishery 17% less than that in 2005, although MSW salmon were of normal size. Quite a few of the fish caught by anglers were reported to be extremely thin and this raised concerns among fishers about the future. There was also evidence of significantly smaller grilse from parts of UK (England & Wales) and similar *ad hoc* reports from Ireland. This information and data demonstrate that reduced grilse size was a phenomenon that affected southern European areas, including southern Norway, in 2006.

2.6 Tracking and tagging studies

2.6.1 Acoustic tracking of migrating Atlantic salmon kelts from the LaHave River, Nova Scotia, Canada

The results of an acoustic tagging experiment in the LaHave River were reviewed. Salmon kelts were captured in early April by seining, angling, and at a downstream assessment facility 25 km above tide head. Thirty kelts were implanted with acoustic tags, including 5 tags that transmit depth data. The outward migration of 30 kelts and subsequent return of one consecutive spawning salmon was successfully documented using this method. All kelts left the estuary by the middle of May. The mortality rate of kelts to migration past the outer array was 10%. Location and duration of residency was recorded and environmental variables were compared to behaviour.

The results indicated that capture by angling was the most successful method and that kelts tolerated handling and surgery well. No mortalities due to capture, holding, or surgery occurred. The data on migration rate, diving behaviour, and high survival rate were new and important information for this stock, which is experiencing increased mortality to repeat spawning. One post-spawned 2SW female salmon returned to the estuary after 79 days, spent four days in the estuary, and reached the assessment facility in one day after entering the river. This consecutive repeat spawning salmon had increased its weight by 50%. The remaining 26 salmon that successfully migrated past the outer array are expected to reach the Labrador Sea within three months and possibly farther north within five months, similar to that expected for smolts. Based on the low mortality rate of kelts migrating past the outer arrays, the expected ocean migration, and the large size of kelts, tagging experiments utilizing this stage of salmon, particularly with newly evolving advanced technology tags, could provide critical insights into the migration, behaviour, and possibly survival rates to northern geographic areas.

2.6.2 Monitoring smolt migration in the River Rhine, Germany

The downstream migration of Atlantic salmon smolts was monitored in the River Rhine in 2006 and 2007 using the NEDAP Trail system (Breukelaar *et al.*, 1998). Overall, 88 tagged fish were released into two tributaries of the River Rhine about 350 km from the sea. The smolts (hatchery 2⁺, weight > 150 g) were tagged with a transponder (length 3.5 cm, weight 11.5 g) by implantation into the body cavity, and allowed to recover for a period of several days in the hatchery before release to the river. The tagged fish were detected by fixed antenna arrays when leaving the tributary and during their migration through the Rhine delta to the sea. The NEDAP trail system is based on inductive coupling

between an antenna loop on the river bottom and a ferrite rod antenna within the transponders. When the fish passes each detection station the unique ID-number of the transponder is recorded.

As of April 2007, 64 fish have been detected leaving the tributary of release (5 in 2006 and 59 in 2007, respectively) and 24 (1 in 2006 and 23 in 2007, respectively) have been recorded reaching the sea after passing through the Rhine delta. The study aims to investigate the success of downstream migration and the migration routes in relation to the obstructions within the partly dammed Rhine delta, and particularly the Haringvliet sluices. The study will be repeated after re-opening of the Haringvliet dam. This is scheduled to occur by the end of 2008, aimed specifically at improving conditions for migratory fish species during their passage from freshwater to the sea and vice versa.

2.6.3 Data storage tags and tagging studies in Iceland

Hatchery-reared smolts with implanted data storage tags (DST) were released in 2005 and 2006 in an Icelandic river. The first returns (5 salmon) were obtained in 2006. The DST tags recorded temperature and depth for the whole ocean cycle of these salmon. The salmon stayed in the surface layers throughout most of their ocean stay and all showed similar temperature profiles. The research provides new information on the conditions salmon experience at sea. Further analyses of these data as well as tags still to be recovered will provide considerable input to the understanding of the behaviour of salmon at sea.

2.6.4 Compilation of tag releases and fin clip data by ICES member countries in 2006

Data on releases of tagged, fin-clipped, and otherwise marked salmon in 2006 were provided by ICES and are compiled as a separate report (ICES, 2007b). A summary of tag releases is provided in Table 2.7.1.

2.6.5 Summary of the Workshop on the Development and Use of Historical Salmon Tagging Information from Oceanic Areas (WKDUHSTI)

Results from the Workshop on the Development and Use of Historical Salmon Tagging Information from Oceanic Areas (WKDUHSTI) were presented. A framework for analyses of data was developed, and a standard format for recording tag recoveries was agreed. Using GIS as a tool, examples of geographic distribution of recaptured salmon originating from different areas were provided, demonstrating the potential for the use of this tool. A number of hypotheses relating to oceanic migration and distribution that could be tested using tagging and recapture material, were discussed and developed. Tag recovery information could be complemented by genetic analyses of time-series of available scale or tissue samples in relation to salmon life-history information derived from scale pattern analyses of freshwater and marine growth characteristics. There is still a large amount of material available, but this has to be standardised and converted to the same format, as agreed in WKDUHSTI. The workshop recommended a framework which could be used for future contributions to the tag recovery data set. The Workshop considered that the integration of historical tagging data for NEAC and NAC provides a significant opportunity to advance the state of knowledge of the marine distribution and migration of salmon. It was recommended that a follow-up Workshop should include oceanographers to assist with describing salmon distributions and relating them to the ocean environment.

Table 2.1.1.1. Nominal catch of salmon by country (in tonnes round fresh weight), 1960–2006. (2006 figures include provisional data).

Year	NAC Area			NEAC (N. Area)							NEAC (S. Area)					Faroes & Greenland				Total	Unreported catches		
	Canada (1)	USA	St. P&M	Norway (2)	Russia (3)	Iceland		(West)	Den.	Finland	Ireland (4,5)	(E & W)	(N.Irl.) (5,6)	(Scotl.)	France (7)	Spain (8)	Faroes (9)	East	West	Reported Nominal Catch	NASCO Areas	International waters (13)	
						Wild	Ranch											Grld.	Grld.				Other (11)
1960	1,636	1	-	1,659	1,100	100		40	-	-	743	283	139	1,443	-	33	-	-	60	-	7,237	-	-
1961	1,583	1	-	1,533	790	127		27	-	-	707	232	132	1,185	-	20	-	-	127	-	6,464	-	-
1962	1,719	1	-	1,935	710	125		45	-	-	1,459	318	356	1,738	-	23	-	-	244	-	8,673	-	-
1963	1,861	1	-	1,786	480	145		23	-	-	1,458	325	306	1,725	-	28	-	-	466	-	8,604	-	-
1964	2,069	1	-	2,147	590	135		36	-	-	1,617	307	377	1,907	-	34	-	-	1,539	-	10,759	-	-
1965	2,116	1	-	2,000	590	133		40	-	-	1,457	320	281	1,593	-	42	-	-	861	-	9,434	-	-
1966	2,369	1	-	1,791	570	104	2	36	-	-	1,238	387	287	1,595	-	42	-	-	1,370	-	9,792	-	-
1967	2,863	1	-	1,980	883	144	2	25	-	-	1,463	420	449	2,117	-	43	-	-	1,601	-	11,991	-	-
1968	2,111	1	-	1,514	827	161	1	20	-	-	1,413	282	312	1,578	-	38	5	-	1,127	403	9,793	-	-
1969	2,202	1	-	1,383	360	131	2	22	-	-	1,730	377	267	1,955	-	54	7	-	2,210	893	11,594	-	-
1970	2,323	1	-	1,171	448	182	13	20	-	-	1,787	527	297	1,392	-	45	12	-	2,146	922	11,286	-	-
1971	1,992	1	-	1,207	417	196	8	18	-	-	1,639	426	234	1,421	-	16	-	-	2,689	471	10,735	-	-
1972	1,759	1	-	1,578	462	245	5	18	-	32	1,804	442	210	1,727	34	40	9	-	2,113	486	10,965	-	-
1973	2,434	3	-	1,726	772	148	8	23	-	50	1,930	450	182	2,006	12	24	28	-	2,341	533	12,670	-	-
1974	2,539	1	-	1,633	709	215	10	32	-	76	2,128	383	184	1,628	13	16	20	-	1,917	373	11,877	-	-
1975	2,485	2	-	1,537	811	145	21	26	-	76	2,216	447	164	1,621	25	27	28	-	2,030	475	12,136	-	-
1976	2,506	1	3	1,530	542	216	9	20	-	66	1,561	208	113	1,019	9	21	40	<1	1,175	289	9,327	-	-
1977	2,545	2	-	1,488	497	123	7	10	-	59	1,372	345	110	1,160	19	19	40	6	1,420	192	9,414	-	-
1978	1,545	4	-	1,050	476	285	6	10	-	37	1,230	349	148	1,323	20	32	37	8	984	138	7,682	-	-
1979	1,287	3	-	1,831	455	219	6	12	-	26	1,097	261	99	1,076	10	29	119	<0,5	1,395	193	8,118	-	-
1980	2,680	6	-	1,830	664	241	8	17	-	34	947	360	122	1,134	30	47	536	<0,5	1,194	277	10,127	-	-
1981	2,437	6	-	1,656	463	147	16	26	-	44	685	493	101	1,233	20	25	1,025	<0,5	1,264	313	9,954	-	-
1982	1,798	6	-	1,348	364	130	17	25	-	54	993	286	132	1,092	20	10	606	<0,5	1,077	437	8,395	-	-
1983	1,424	1	3	1,550	507	166	32	28	-	58	1,656	429	187	1,221	16	23	678	<0,5	310	466	8,755	-	-
1984	1,112	2	3	1,623	593	139	20	40	-	46	829	345	78	1,013	25	18	628	<0,5	297	101	6,912	-	-
1985	1,133	2	3	1,561	659	162	55	45	-	49	1,595	361	98	913	22	13	566	7	864	-	8,108	-	-
1986	1,559	2	3	1,598	608	232	59	54	-	37	1,730	430	109	1,271	28	27	530	19	960	-	9,255	315	-
1987	1,784	1	2	1,385	564	181	40	47	-	49	1,239	302	56	922	27	18	576	<0,5	966	-	8,159	2,788	-
1988	1,310	1	2	1,076	420	217	180	40	-	36	1,874	395	114	882	32	18	243	4	893	-	7,737	3,248	-
1989	1,139	2	2	905	364	141	136	29	-	52	1,079	296	142	895	14	7	364	-	337	-	5,904	2,277	-
1990	911	2	2	930	313	146	280	33	13	60	567	338	94	624	15	7	315	-	274	-	4,924	1,890	180-350

Table 2.1.1.1 continued

Year	NAC Area			NEAC (N. Area)							NEAC (S. Area)						Faroes & Greenland				Total	Unreported catches	
	Canada (1)	USA	St. P&M	Norway (2)	Russia (3)	Sweden		Den.	Finland	UK		(N.Irl.) (5,6)	(Scotl.) (7)	France (8)	Spain (9)	East		West (11)	Other (12)	Reported Nominal Catch			
						Iceland Wild	Ranch			(West)	(4,5)					(6)	(10)				(11)		
1991	711	1	1	876	215	130	345	38	3	70	404	200	55	462	13	11	95	4	472	-	4,106	1,682	25-100
1992	522	1	2	867	167	175	461	49	10	77	630	171	91	600	20	11	23	5	237	-	4,119	1,962	25-100
1993	373	1	3	923	139	160	496	56	9	70	541	248	83	547	16	8	23	-	-	-	3,696	1,644	25-100
1994	355	0	3	996	141	141	308	44	6	49	804	324	91	649	18	10	6	-	-	-	3,945	1,276	25-100
1995	260	0	1	839	128	150	298	37	3	48	790	295	83	588	10	9	5	2	83	-	3,629	1,060	-
1996	292	0	2	787	131	122	239	33	2	44	685	183	77	427	13	7	-	0	92	-	3,135	1,123	-
1997	229	0	2	630	111	106	50	19	1	45	570	142	93	296	8	3	-	1	58	-	2,364	827	-
1998	157	0	2	740	131	130	34	15	1	48	624	123	78	283	8	4	6	0	11	-	2,396	1,210	-
1999	152	0	2	811	103	120	26	16	1	62	515	150	53	199	11	6	0	0	19	-	2,246	1,032	-
2000	153	0	2	1,176	124	83	2	33	5	95	621	219	78	274	11	7	8	0	21	-	2,913	1,269	-
2001	148	0	2	1,267	114	88	0	33	6	126	730	184	53	251	11	13	0	0	43	-	3,069	1,180	-
2002	148	0	2	1,019	118	97	0	28	5	93	682	161	81	191	11	9	0	0	9	-	2,654	1,039	-
2003	141	0	3	1,071	107	110	0	25	4	78	551	89	56	192	13	7	0	0	9	-	2,456	847	-
2004	161	0	3	784	82	130	0	19	4	39	489	111	48	245	19	7	0	0	15	-	2,156	686	-
2005	139	0	3	888	82	149	0	15	8	47	422	97	52	215	11	13	0	0	14	-	2,155	700	-
2006	132	0	4	932	91	121	0	14	3	67	326	79	25	164	11	11	0	0	21	-	2,001	670	-
Average																							
2001-2005	147	0	3	1,006	101	115	0	24	5	77	575	128	58	219	13	10	0	0	18	-	2,498	890	-
1996-2005	172	0	2	917	110	114	35	24	4	68	589	146	67	257	12	8	2	0	29	-	2,554	991	-

Key:

1. Includes estimates of some local sales, and, prior to 1984, by-catch.
2. Before 1966, sea trout and sea charr included (5% of total).
3. Figures from 1991 to 2000 do not include catches taken in the recently developed recreational (rod) fishery.
4. Improved reporting of rod catches in 1994 and data derived from carcase tagging and log books from 2002.
5. Catch on River Foyle allocated 50% Ireland and 50% N. Ireland.
6. Angling catch (derived from carcase tagging and log books) first included in 2002.

7. Data for France include some unreported catches.
8. Weights estimated from mean weight of fish caught in Asturias (80-90% of Spanish catch).
9. Between 1991 & 1999, there was only a research fishery at Faroes. In 1997 & 1999 no fishery took place; the commercial fishery resumed in 2000, but has not operated since 2001.
10. Includes catches made in the West Greenland area by Norway, Faroes, Sweden and Denmark in 1965-1975.
11. Includes catches in Norwegian Sea by vessels from Denmark, Sweden, Germany, Norway and Finland.
12. Estimates refer to season ending in given year.

Table 2.4.2.1. Management objectives and equivalent number of fish relevant to the development of catch options at West Greenland for the six geographic areas in NAC and the southern NEAC non-maturing complex.

AREA	OBJECTIVE	NUMBER OF FISH
US	25% increase from 2SW returns during 1992 to 1996	2,548
Scotia–Fundy	25% increase from 2SW returns during 1992 to 1997	10,976
Gulf	2SW conservation limit	30,430
Quebec	2SW conservation limit	29,446
Newfoundland	2SW conservation limit	4,022
Labrador	2SW conservation limit	34,746
Southern NEAC non-maturing complex	Spawner escapement reserve	455,413

Table 2.7.1. Summary of Atlantic salmon tagged and marked in 2006 – ‘Hatchery’ and ‘Wild’ refer to smolts and parr; ‘Adults’ relates to both wild and hatchery-origin fish.

Country	Origin	Primary Tag or Mark				Total
		Microtag	External mark	Adipose clip	Pit tag/Internal tags ³	
Belgium	Hatchery	2,383	0	0	0	2,383
	Wild	0	0	0	0	0
	Adult	0	0	0	0	0
	Total	2,383	0	0	0	2,383
Canada	Hatchery	0	3,223	923,607	0	926,830
	Wild	0	19,768	7,216	280	27,264
	Adult	0	5,421	1,189	47	6,657
	Total	0	28,412	932,012	327	960,751
Germany	Hatchery	82,612	5480	136816	0	224,908
	Wild	0	0	0	0	0
	Adult	0	191	0	0	191
	Total	82,612	5,671	136,816	0	225,099
Iceland ¹	Hatchery	146,653	0	0	300	146,953
	Wild	2,658	0	0	0	2,658
	Adult	0	2,344	0	0	2,344
	Total	149,311	2,344	0	300	151,955
Ireland	Hatchery	258,012	0	0	0	258,012
	Wild	7,077	0	0	0	7,077
	Adult	0	0	0	0	0
	Total	265,089	0	0	0	265,089
Norway	Hatchery	12,299	41,170	0	0	53,469
	Wild	1,416	2,103	0	0	3,519
	Adult	0	2,110	0	0	2,110
	Total	13,715	45,383	0	0	59,098
Russia	Hatchery	0	0	754,985	0	754,985
	Wild	0	0	0	0	0
	Adult	0	2,568	0	0	2,568
	Total	0	2,568	754,985	0	757,553
Spain	Hatchery	189,195	0	339,588	0	528,783
	Wild	0	0	0	0	0
	Adult	0	0	0	0	0
	Total	189,195	0	339,588	0	528,783
Sweden	Hatchery	0	3,000	170,355	0	173,355
	Wild	0	400	0	0	400
	Adult	0	0	0	0	0
	Total	0	3,400	170,355	0	173,755
UK (England & Wales)	Hatchery	54,826	0	148,535	0	203,361
	Wild	16,778	0	16,749	0	33,527
	Adult	0	2,907	0	0	2,907
	Total	71,604	2,907	165,284	0	239,795
UK (N. Ireland)	Hatchery	17,751	3,904	54,004	0	75,659
	Wild	1832	0	0	0	1,832
	Adult	0	0	0	0	0
	Total	19,583	3,904	54,004	0	77,491
UK (Scotland) ²	Hatchery	30,070	0	0	0	30,070
	Wild	9,634	2,598	0	5,678	17,910
	Adult	0	1,375	0	0	1,375
	Total	39,704	3,973	0	5,678	49,355
USA	Hatchery	1,530	60	468,873	0	470,463
	Wild	526	0	0	0	526
	Adult	1,604	1,257	0	0	2,861
	Total	3,660	1,317	468,873	0	473,850
All Countries	Hatchery	795,331	56,837	2,996,763	300	3,849,231
	Wild	39,921	24,869	23,965	5,958	94,713
	Adult	1,604	18,173	1,189	47	21,013
	Total	836,856	99,879	3,021,917	6,305	3,964,957

¹ The number of microtagged hatchery fish in Iceland includes 18,326 fish reared in sea-pens.

² Pit tagged juvenile in Scotland also adipose finclipped.

³ Includes all larger internal tags

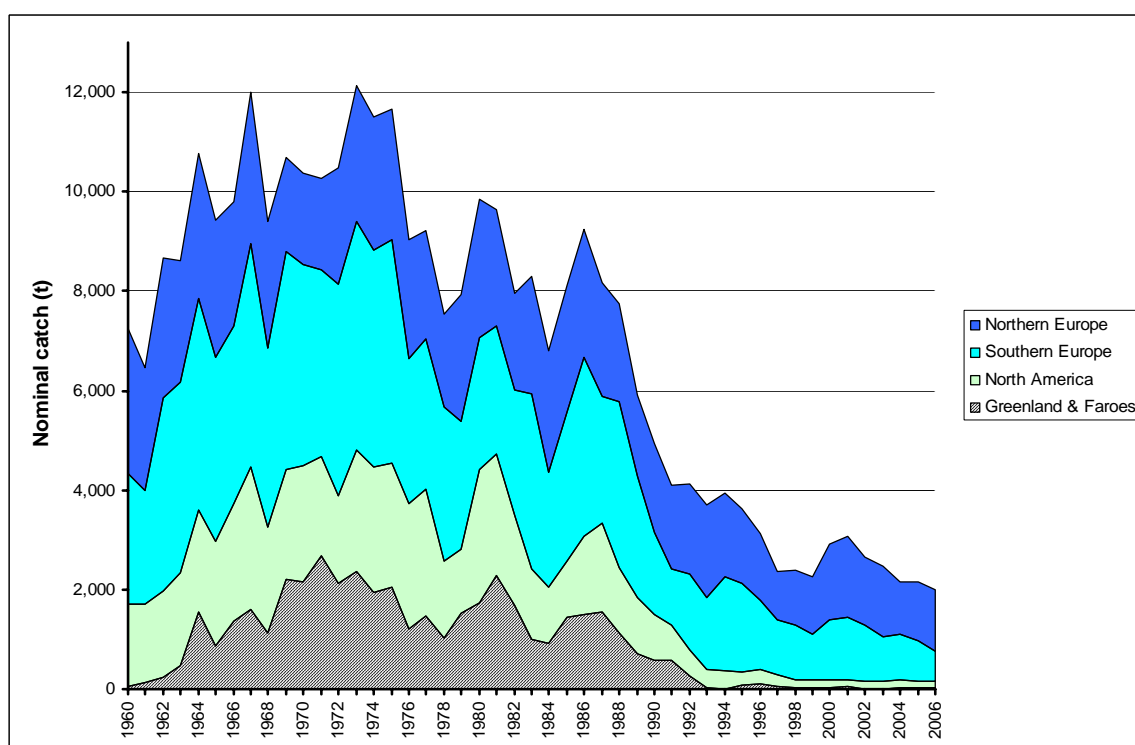


Figure 2.1.1.1. Nominal catches of salmon (tonnes round fresh weight) in four North Atlantic regions, 1960-2006.

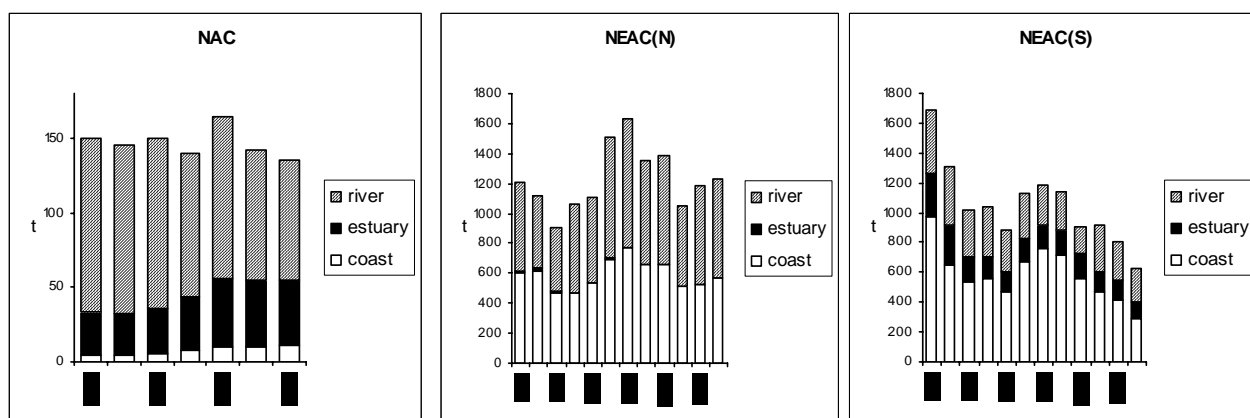


Figure 2.1.1.2. Nominal catch taken in coastal, estuarine, and riverine fisheries for the NAC area, and for the NEAC northern and southern areas. Note that time-series and y-axes vary.

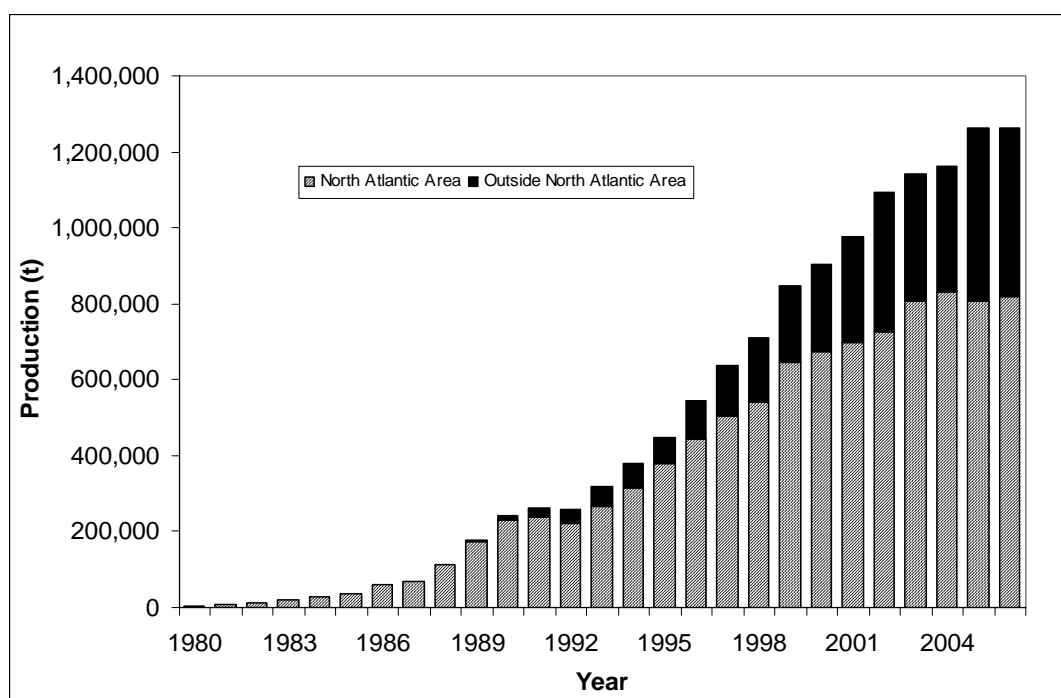


Figure 2.2.1. World-wide production of farmed Atlantic salmon, 1980–2006.

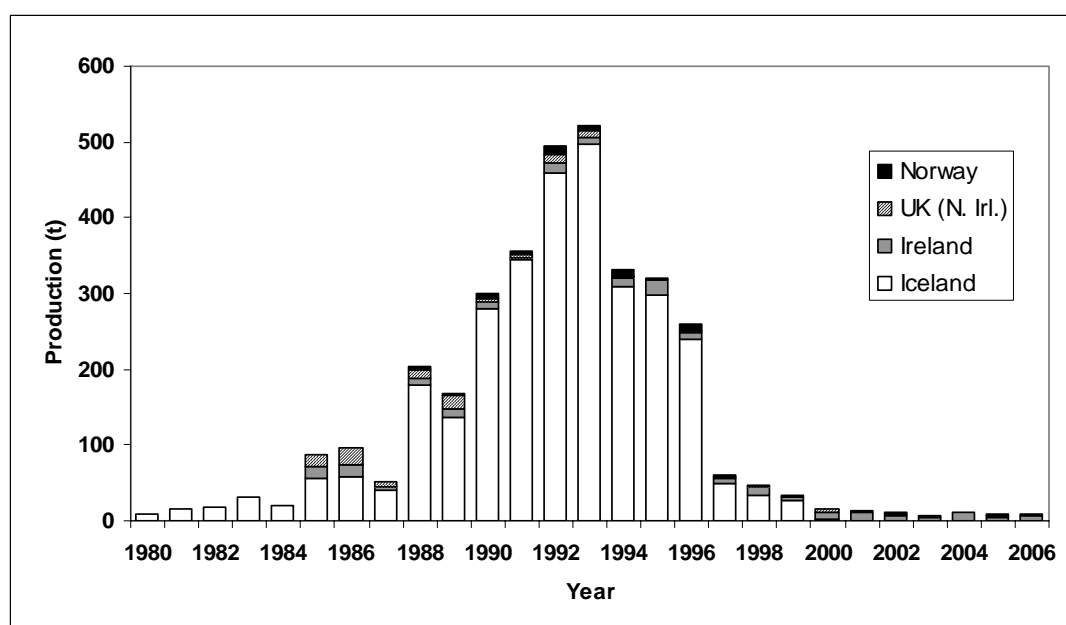


Figure 2.2.2. Production of ranched Atlantic salmon (tonnes round fresh weight) as harvested at ranching facilities in the North Atlantic, 1980–2006.

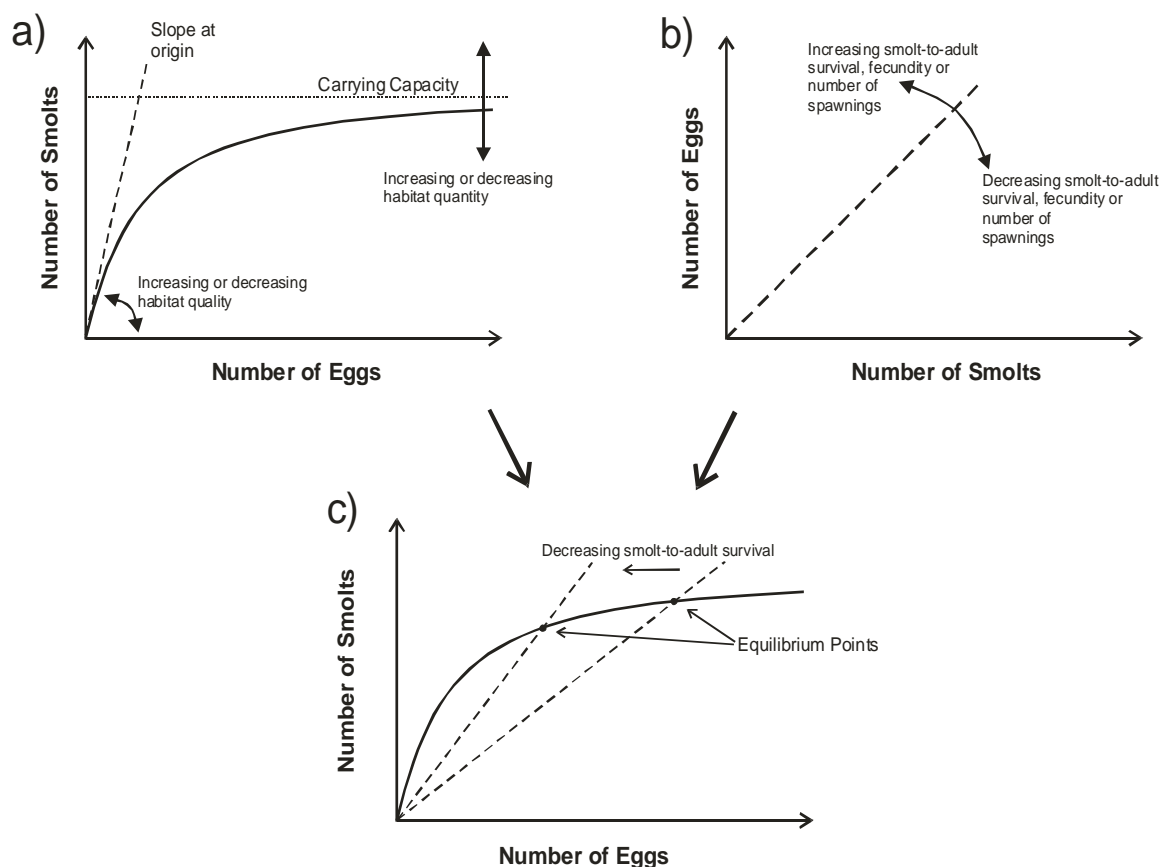


Figure 2.3.1.1. An equilibrium model linking habitat quality and quantity to fish population dynamics. A Beverton–Holt model is used to model the density-dependent relationship for survival from eggs to smolt (a). The slope at the origin of this model, which is the maximum number of smolts produced per egg in the absence of density-dependent effects, changes as habitat quality changes, whereas changes in the amount of habitat change the carrying capacity. The number of eggs produced per smolt (b) throughout its life changes with smolt-to-adult survival, fecundity, age-at-maturity, or the number of times a fish spawns throughout its life. The population equilibrium occurs at the population size where the production of smolts by eggs is in balance with the production of eggs by smolts throughout their lives, and is the size at which the population will stabilize if all rates and the carrying capacity remain unchanged (c). The population equilibrium changes as the vital rates change and can be used to assess how a population is expected to change in response to human activities.

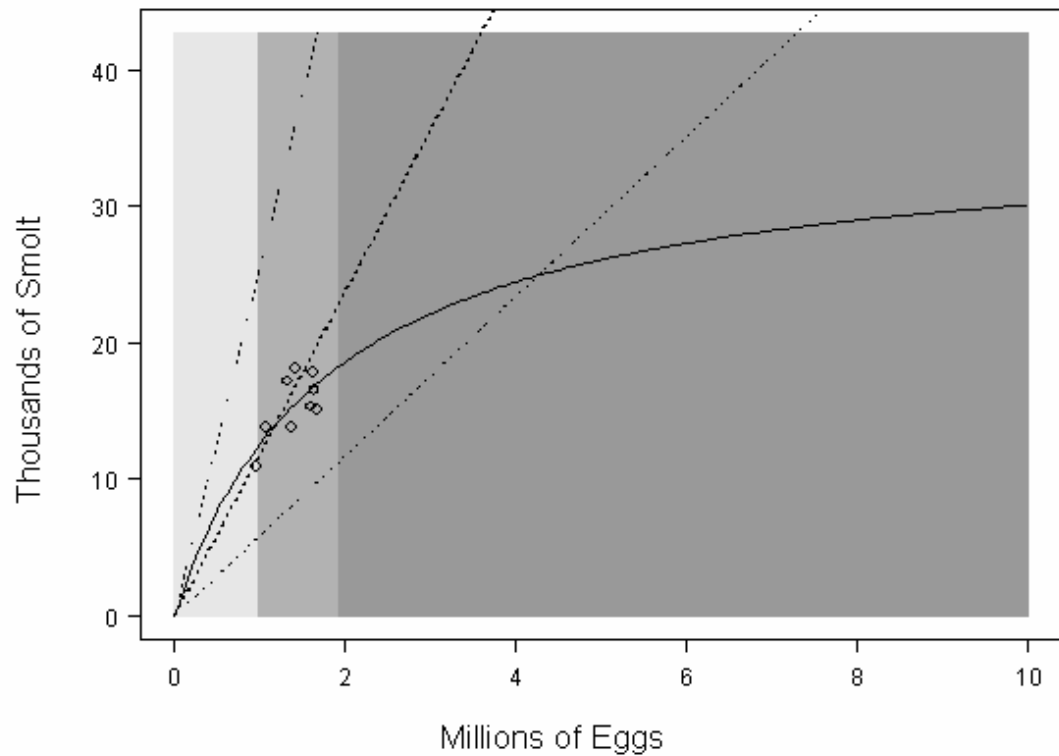


Figure 2.3.1.2. Dynamics of the LaHave River (above Morgan Falls) salmon population. The points are the observed egg depositions and smolt production for the 1994 to 2001 cohort years. The solid line is a Beverton–Holt model obtained by fitting these data to the population spawning above Morgan Falls. The dashed lines show the replacement lines calculated using the minimum, average, and maximum smolt-to-adult return rates observed for this population between 1996 and 2004. Shading indicates the status relative to the conservation egg requirement: dark shading is above the requirement, the medium shading is between 50% and 100% of the egg requirement, and the light shading is below the requirement.

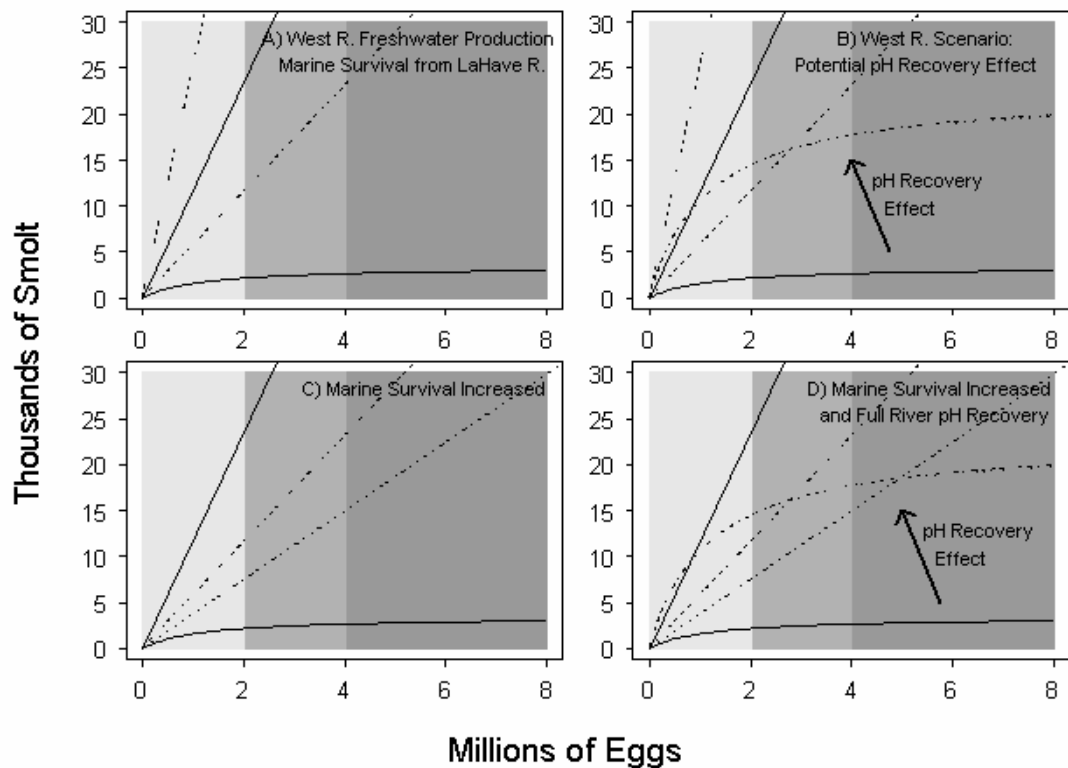


Figure 2.3.1.3. Equilibrium analysis of the recovery potential of salmon in West River (Sheet Harbour, NS). The upper left panel shows the present dynamics in which populations aren't viable as a result of low marine survival and reduced freshwater production due to acidification. The slopes of replacement lines are calculated using the mean, minimum, and maximum return rates for LaHave River salmon for the 1996 to 2004 return rates. The upper right panel shows the expected change in freshwater production if the acidification problem was addressed in the entire river. The lower left panel shows the dynamics if freshwater production remains unchanged and at-sea survival rates are the mean and maximum returns rates from the LaHave River, together with a hypothesized return rate increase to 6% for 1SW and 2% for 2SW salmon. The lower right panel shows a combined increased freshwater production and increased marine survival scenario in which the conservation egg requirement is reached. Shading indicates the status relative to the conservation egg requirement: dark shading is above the requirement, the medium shading is between 50% and 100% of the egg requirement, and the light shading is below the requirement.

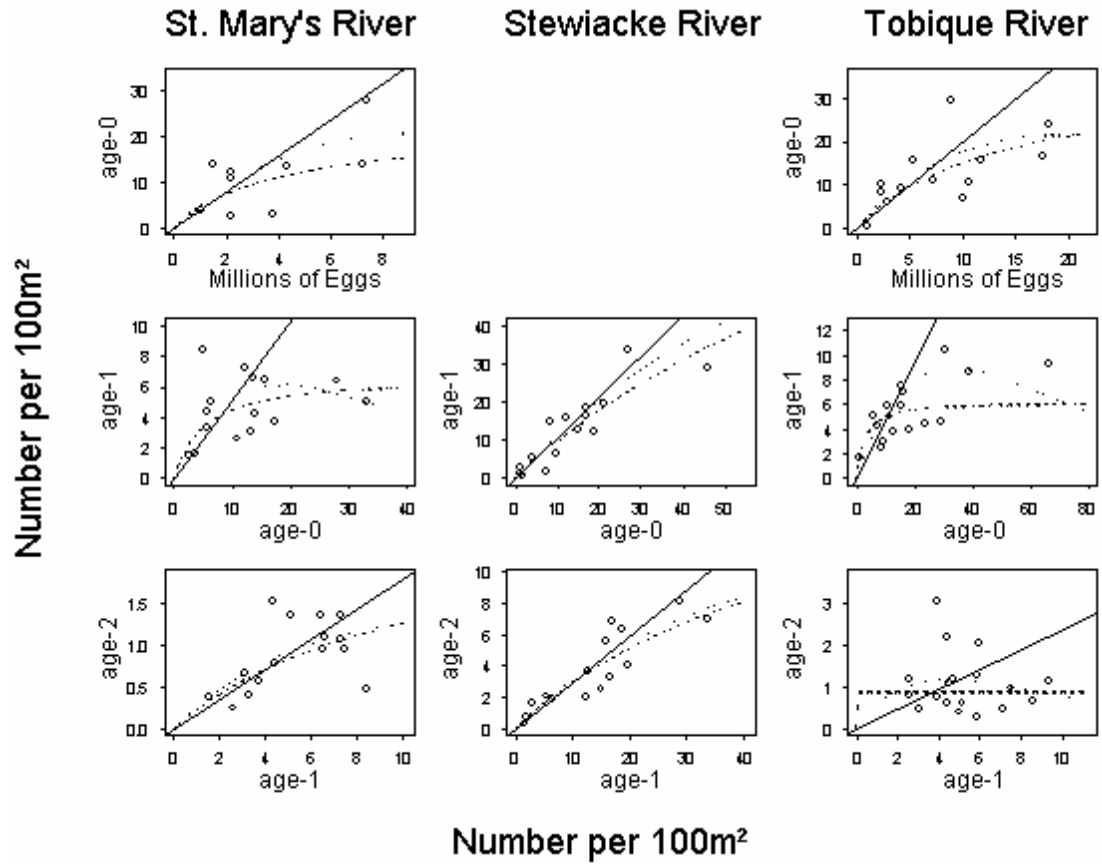


Figure 2.3.6.1. Observed (points) and predicted (lines) densities of Atlantic salmon obtained by fitting three models to the data. The data are the observed abundance or density within a cohort by age. The solid line is a one-parameter model that shows the fit obtained based on the assumption that survival is density independent. The dashed and dotted lines show the fits obtained from two-parameter Beverton–Holt and Ricker models respectively. Note: egg deposition time-series not available for the Stewiacke River.

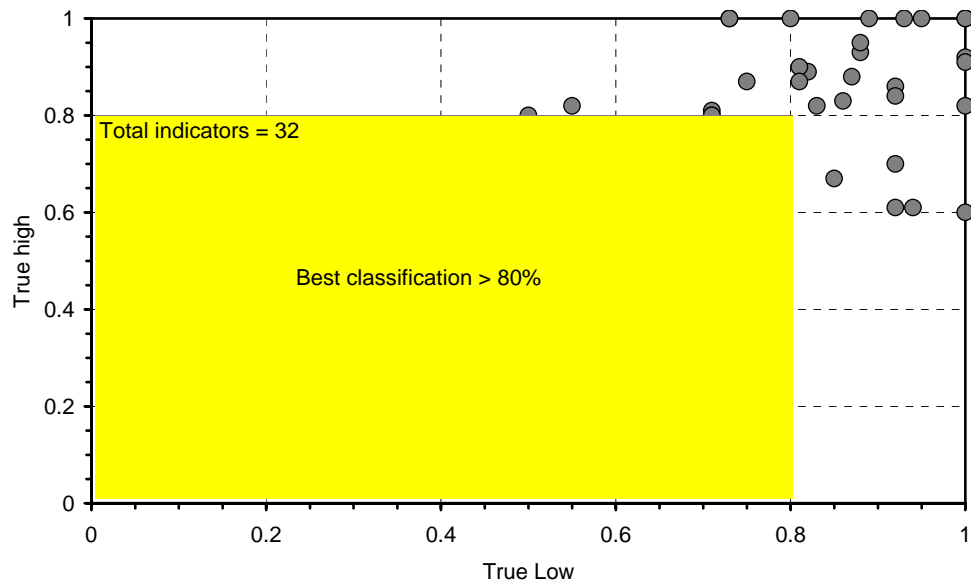


Figure 2.4.2.1. Comparative performance of the retained indicators (N = 32) at identifying a true low (i.e. management objective will not be met) and a true high (i.e. management objective will be met) for the West Greenland multi-year catch advice framework.

Derived multi-year catch advice
Catch option (t) 0

Overall Recommendation										
No Significant Change Identified by Indicators										
Geographic Area	River/ Indicator	2008 Value	Ratio Value to Threshold	Threshold	True Low	True High	Indicator State	Probability of Correct Assignment	Indicator Score	Management Objective Met?
USA	Penobscot 2SW Returns	727	51%	1415	100%	92%	-1	1	-1	
	Penobscot 2SW Rate (%)	0.12	50%	0.24	100%	60%	-1	1	-1	
	Penobscot 1SW Returns	290	59%	495	82%	89%	-1	0.82	-0.82	
	Penobscot 1SW Rate (%)	0.05	56%	0.09	85%	67%	-1	0.85	-0.85	
	Narraguagus Returns	22	22%	100	94%	61%	-1	0.94	-0.94	
	possible range				-0.92	0.74				
	Average		48%						-0.92	No
Scotia-Fundy	Saint John Return Large	458	20%	2,309	100%	91%	-1	1	-1	
	Lahave Return Large	148	49%	301	100%	100%	-1	1	-1	
	North Return Large	245	48%	509	93%	100%	-1	0.93	-0.93	
	St. Mary's Return Large	91	41%	221	100%	82%	-1	1	-1	
	Saint John Return Small	725	32%	2,276	81%	90%	-1	0.81	-0.81	
	Lahave Return Small	870	45%	1931	92%	86%	-1	0.92	-0.92	
	St. Mary's Return Small	857	54%	1583	92%	84%	-1	0.92	-0.92	
	North Return Small	137	63%	216	92%	70%	-1	0.92	-0.92	
	Saint John 2SW Rate (Hatchery %)	0.113	51%	0.222	87%	88%	-1	0.87	-0.87	
	Saint John 1SW Rate (Hatchery %)	0.514	69%	0.745	81%	87%	-1	0.81	-0.81	
	possible range				-0.92	0.88				
Average		44%						-0.92	No	
Gulf	Miramichi 2SW	9634	53%	18,119	95%	100%	-1	0.95	-0.95	
	Miramichi 1SW	30699	91%	33,610	92%	61%	-1	0.92	-0.92	
	possible range				-0.94	0.81				
	Average		72%						-0.94	No
Quebec	Bonaventure Large	1497	101%	1479	75%	87%	1	0.87	0.87	
	Grande Rivière Large	371	85%	437	100%	100%	-1	1	-1	
	Saint-Jean Large	716	97%	736	83%	82%	-1	0.83	-0.83	
	Dartmouth Large	643	85%	756	73%	100%	-1	0.73	-0.73	
	Sainte-Anne Large	356	86%	413	88%	93%	-1	0.88	-0.88	
	Mitis Large	364	99%	369	71%	81%	-1	0.71	-0.71	
	Godbout Large	469	80%	584	80%	100%	-1	0.8	-0.8	
	De la Trinite Large	286	74%	385	73%	100%	-1	0.73	-0.73	
	York Small	417	110%	380	50%	80%	1	0.8	0.8	
	Dartmouth Small	298	105%	284	55%	82%	1	0.82	0.82	
	Madeleine Small	468	108%	432	71%	80%	1	0.8	0.8	
	Sainte-Anne Small	205	129%	159	71%	80%	1	0.8	0.8	
	Godbout Small	425	84%	508	89%	100%	-1	0.89	-0.89	
	De la Trinite Small	373	93%	399	88%	95%	-1	0.88	-0.88	
	possible range				-0.76	0.90				
	Average		88%						-0.24	No
Newfoundland	Middle Brook Small	1640	94%	1,751	86%	83%	-1	0.86	-0.86	
	possible range				-0.86	0.83				
	Average		94%						-0.86	No
Labrador	possible range									
	Average								NA	Unknown
Southern NEAC	possible range									
	Average								NA	Unknown

Figure 2.4.3.1. Framework of indicators spreadsheet for the West Greenland fishery. For illustrative purposes, the average of the most recent ten years of returns or return rates for the 32 retained indicators is entered in the cells corresponding to the annual indicator variable values.

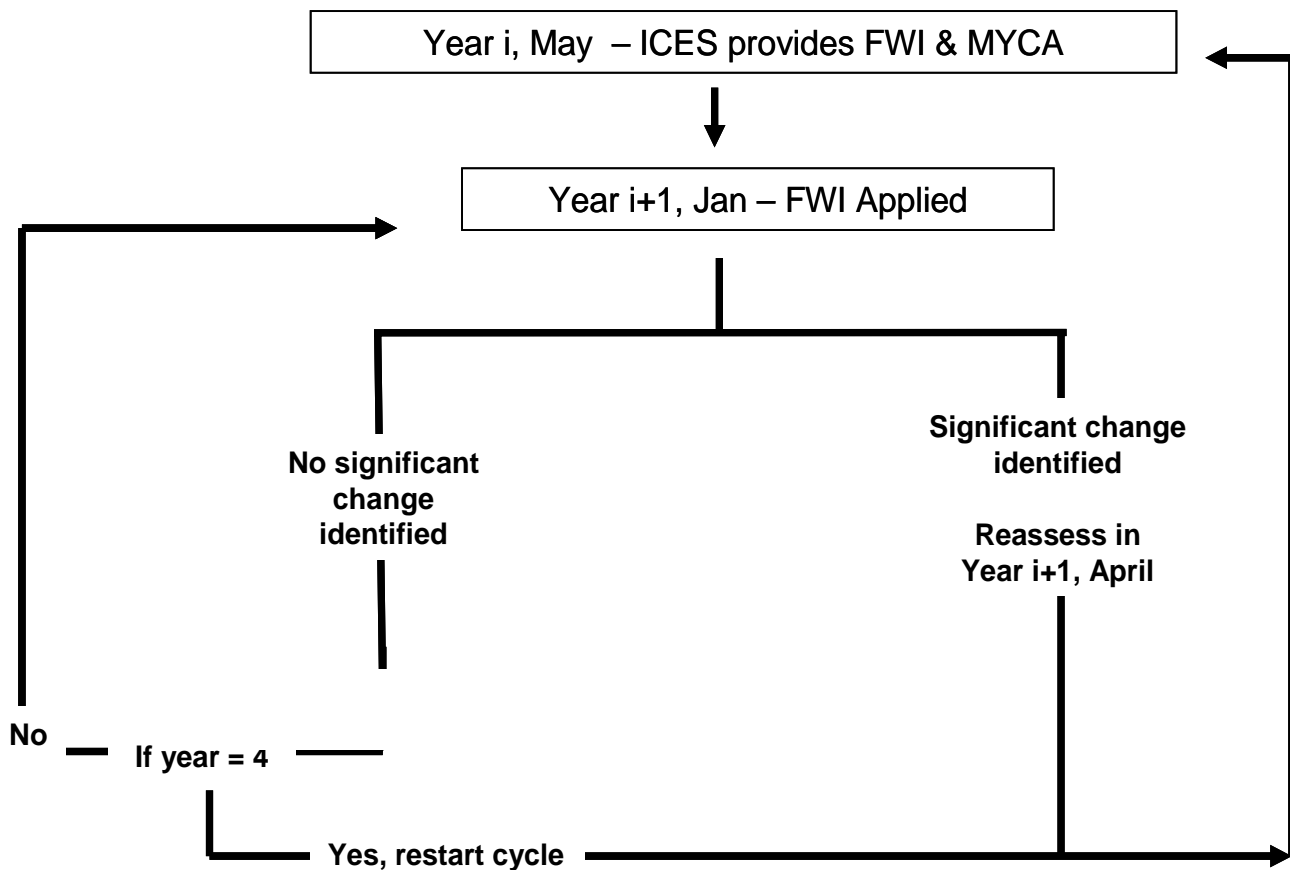


Figure 2.4.3.2. Suggested timeline for employment of the Framework of Indicators (FWI). In Year i , ICES provides multi-year catch advice (MYCA) and an updated FWI which re-evaluates the updated datasets and is summarized in an Excel worksheet. In January of Year $i+1$ the FWI is applied and two options are available depending on the results. If no significant change is detected, no re-assessment is necessary and the cycle continues to Year $i+2$. If no significant change is detected in Year $i+2$, the cycle continues to Year $i+3$. If a significant change is detected in any year, then reassessment is recommended. In that case, ICES would provide an updated FWI the following May. ICES would also provide an updated FWI if year equals 4.

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

Atlantic salmon in the North Atlantic Area

- 1) ICES recommends that the Diadromous Fish Committee consider adopting a resolution to organize a second workshop to complete the collation of historical tag data initiated by the Workshop on the Development and Use of Historical Salmon Tagging Information from Oceanic Areas (WKDUHSTI) and further examine the available datasets in relation to pertinent environmental and oceanographic information. The standardized, collated dataset from this workshop will provide opportunities to conduct more detailed analysis of historical marine growth, mortality, and oceanic distribution and migration patterns.
- 2) ICES recommends that NASCO considers facilitating research using new and evolving technologies (e.g. acoustic tags, DST, and popup tags) and techniques (e.g. use of kelts) and recommends further presentations from countries on the approaches taken to address questions on the marine ecology of Atlantic salmon. The coordination of efforts between countries would improve studies into the migration routes and early marine ecology of Atlantic salmon to further the presently limited understanding of the factors influencing marine survival.
- 3) ICES recommends that the Diadromous Fish Committee should consider adopting a resolution to organize a workshop to review and develop standardized circuli spacing techniques with particular consideration of recently available analytical technologies such as computer-assisted image analysis. These techniques provide opportunities to share and coordinate the examination of scale material available from different research agencies (or from different stocks and stock components) to identify spatial and temporal anomalies in the time-series of scale growth during the marine phase, which may indicate common causes or factors influencing mortality.
- 4) ICES recognizes the movement to river-specific management which requires more extensive monitoring on individual river basins and recommends continued and extended monitoring programmes by all Parties of NASCO.

North East Atlantic Commission

- 1) ICES recognizes that current limitations associated with forecasting pre-fishery abundances in the NEAC area pose difficulties in providing management advice for the Faroese fishery. ICES recommends that the Diadromous Fish Committee should consider adopting a resolution to form a special Study Group to develop and refine pre-fishery abundance forecast models.

North American Commission

No recommendations from the North American Commission.

Atlantic salmon in the West Greenland Commission Area

- 1) ICES recommends that NASCO continues to encourage the Home Rule Government of Greenland to provide information on the extent of fishing activity by all license holders. These inputs are essential to provide management advice on mixed stock fisheries at Greenland.
- 2) ICES recommends that NASCO continues to facilitate the formation of a broad geographic sampling program at West Greenland (multiple NAFO divisions) to more accurately estimate the continent of origin in the mixed stock fishery. These inputs are essential to provide management advice for this mixed stock fishery.

Council

CNL(07)8

Catch Statistics - Returns by the Parties

Note: After issuing this paper, the Secretariat was advised that the provisional catch of salmon in Iceland in 2006 was 113 tonnes, not 121 tonnes as stated. The lower figure was therefore used in calculating the budget contributions for 2008.

CNL(07)8

Catch Statistics - Returns by the Parties

1. Under Article 12 of the Convention, the Secretary shall compile and disseminate statistics and reports concerning the salmon stocks subject to the Convention.
2. The Official Catch Statistics, as submitted by the Parties, are tabulated overleaf in Table 1. (The figures for 2006 are provisional). Table 2 presents catch statistics for the period 1960-2006 by Party to the NASCO Convention.
3. The total provisional declared catch of 2,001 tonnes in 2006 by NASCO Parties is approximately 7% lower than the confirmed catch in 2005 (2,156 tonnes) and, if confirmed, will be the lowest catch in the forty-seven-year period of record since 1960. 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(07)10). Therefore, these catch data should not be used as a measure of abundance. A report on the status of the stocks in 2006 is contained in the ACFM report from ICES (document CNL(07)7).
4. For the 2006 catch data, while the total declared catch for the North Atlantic region reported to NASCO by its Parties and by ICES is the same (2,001 tonnes), the ICES statistics include a catch of 4 tonnes for St Pierre and Miquelon. Furthermore, the catches reported to NASCO for EU (Northern Ireland) and Denmark (in respect of Greenland) of 29 tonnes and 23 tonnes respectively, are 4 and 2 tonnes higher respectively than in the ICES statistics. However, the NASCO statistics for EU (Sweden) and Norway are each 1 tonne lower than the ICES figures.
5. These catch statistics, which have been rounded to the nearest tonne, will be used to calculate the contributions to NASCO for 2008 and the adjustment to the 2007 contributions (in the light of the confirmed 2005 catches) unless the Secretary is advised otherwise.
6. A further, more detailed, record of catch statistics during the period 1960-2006 is provided, in paper CNL(07)9.

Secretary
Edinburgh
11 May 2007

Table 1: Official Catch Statistics

	Provisional 2006 Catch (Tonnes)	Provisional 2006 Catch according to Sea Age						Confirmed 2005 Catch (Tonnes)
		1SW		MSW		Total		
		No	Wt	No	Wt	No	Wt	
Canada *	132	44,087	77.1	11,186	54.5	55,273	131.6	139
Denmark (in respect of Faroe Islands and Greenland)	23	-	-	-	-	-	-	14
Faroe Islands	0	-	-	-	-	-	-	0
Greenland	23	-	-	-	-	-	-	14
European Union**	703	-	-	-	-	-	-	884
Iceland	121	-	-	-	-	-	-	149
Norway	931	142,094	261.1	122,776	669.9	264,870	931	888
Russian Federation	91	22,412	54.5	6,600	36.7	29,012	91.2	82
United States of America	0	-	-	-	-	-	-	0

* 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

	Canada	Denmark (Faroe Islands and Greenland)	European Union	Finland	Iceland	Norway	Russian Federation	Sweden	USA
1960	1636	60	2641		100	1576	1100	40	1
1961	1583	127	2276		127	1456	790	27	1
1962	1719	244	3894		125	1838	710	45	1
1963	1861	466	3842		145	1697	480	23	1
1964	2069	1539	4242		135	2040	590	36	1
1965	2116	861	3693		133	1900	590	40	1
1966	2369	1338	3549		110	1823	570	36	1
1967	2863	1600	4492		146	2058	883	25	1
1968	2111	1167	3623		162	1752	827	150	1
1969	2202	2350	4407		133	2083	360	76	1
1970	2323	2354	4069		195	1861	448	52	1
1971	1992	2511	3745		204	1847	417	35	1
1972	1759	2146	4261	32	250	1986	462	38	1
1973	2434	2402	4604	50	156	2126	772	73	3
1974	2539	1945	4432	76	265	1973	709	57	1
1975	2485	2086	4500	76	166	1754	811	56	2
1976	2506	1479	2931	66	225	1530	542	45	1
1977	2545	1652	3025	59	130	1488	497	10	2
1978	1545	1159	3102	37	291	1050	476	10	4
1979	1287	1694	2572	26	225	1831	455	12	3
1980	2680	2052	2640	34	249	1830	664	17	6
1981	2437	2602	2557	44	163	1656	463	26	6
1982	1798	2350	2533	83	147	1348	364	25	6
1983	1424	1433	3532	79	198	1550	507	28	1
1984	1112	997	2308	75	159	1623	593	40	2
1985	1133	1430	3002	49	217	1561	659	45	2
1986	1559	1490	3524	38	330	1597	608	53	2
1987	1784	1539	2593	49	250	1385	559	47	1
1988	1311	1136	2833	34	412	1076	419	40	1
1989	1139	701	2450	52	277	905	359	29	2
1990	912	542	1645	59	426	930	316	33	2
1991	711	533	1139	69	505	877	215	38	1
1992	520	260	1506	77	636	867	166	49	1
1993	373	35	1483	70	656	923	140	56	1
1994	355	18	1919	48	448	996	141	44	0
1995	259	86	1852	-	439	839	130	-	0
1996	290	92	1474	-	358	787	131	-	0
1997	229	59	1179	-	154	630	111	-	0
1998	157	17	1183	-	164	740	130	-	0
1999	152	19	1016	-	147	811	102	-	0

	Canada	Denmark (Faroe Islands and Greenland)	European Union	Finland	Iceland	Norway	Russian Federation	Sweden	USA
2000	153	29	1336	-	85	1176	124	-	0
2001	148	42	1407	-	88	1267	114	-	0
2002	148	9	1245	-	97	1019	118	-	0
2003	141	9	1012	-	110	1071	107	-	0
2004	161	15	978	-	130	784	82	-	0
2005	139	14	884	-	149	888	82	-	0
2006	132	23	703	-	121	931	91	-	0

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, 2005 and 2006. Under the compensation arrangements from 2002 a subsistence fishery is permitted.

Council

CNL(07)35

***Information from EU on an Irish Post-Smolt Experimental Research Cruise -
May 2007***

***Information from EU on an Irish Post-Smolt Experimental Research Cruise -
May 2007***

Niall Ó Maoiléidigh, Ken Whelan, Paddy Gargan, Robb Bunn and Nigel Bond

Introduction

Scientists believe that a major proportion of the mortality at sea for Atlantic salmon occurs in the early post-smolt migration period. Therefore, knowing the migration routes and timing of migrations will greatly enhance our ability to understand the underlying factors along that route which may significantly affect survival. In order to do this we must be able to find salmon at sea. Great advances in our understanding of these migrations have been made in the last decade or so, particularly by Norwegian, Faroese and UK researchers, and this has also seen the development of new and innovative techniques to capture post-smolts (both for sampling and live capture) or to monitor the presence of post-smolts through camera-rigged open cod ends in experimental pelagic trawls. Slowly, a picture of the likely areas of migration for many stocks is emerging and obtaining more information, particularly which extends knowledge of the range or timing of these early migration routes, is extremely important.

In May 2007, the Marine Institute of Ireland, funded under Ireland's National Development Plan (NDP) and the Atlantic Salmon Trust, organised a short, directed exploratory research cruise using a pelagic trawl net designed by Norwegian scientists for post-smolt fishing and manufactured by Swan Net-Gundry in Donegal. The main objective of the cruise was to test this net prior to a more comprehensive survey which will hopefully take place in 2008 and 2009.

Gear Trials

The scientific party comprising of Dr. N Ó Maoiléidigh, Nigel Bond and Robert Bunn of the Marine Institute and Dr. Paddy Gargan of the Central Fisheries Board, left Killybegs, Co. Donegal, on 8 May 2007 on board the RV Celtic Voyager skippered by Captain Fergus O'Hare. In theory the net was to be fished right at the surface at all times and this was to be achieved by the addition of floats and buoys in specific locations on the net (Figure 1). Over the course of the cruise the optimal operation procedure evolved through a combination of technology (transducers on the nets) and discussions between the scientists and crew after each haul.

The first shooting of the net took place on 8 May at 2000hrs, into and out of Killala Bay, Co. Mayo on the west coast of Ireland, as a trial run, and towed for two and a half hours. Although no salmon smolts were captured, one sea trout smolt and one adult sea trout were taken, along with a small number of very small mackerel. The presence of the sea trout smolts was quite encouraging and it was decided to travel south to the Aran Islands to begin shooting the net in the morning. It had previously been decided not to fish at night as Norwegian experience (Jens C. Holst, *pers comm.*) had shown that it was less likely to capture post-smolts during darkness and the time was better spent steaming to desired locations. Following some modifications, the net was shot at 1430hrs on 9 May, starting north-east of the largest of the Aran Islands, Inishmore, working in towards Galway Bay.

The warps were set on this run to about 50 fathoms initially and the net was observed for some time before lengthening the warps to 75 fathoms. At this length, and towing at about 2.7 knots in short arcs to reduce the effects of ship's propulsion, the floats in the opening of the net were clearly visible breaking the surface of the water and the four large bluffs holding the warps up were also clearly visible. The tow was extended for a total of 5 hours and during this period the weather deteriorated somewhat with increasing swells and wind-speeds gusting to 35mph. When the net was hauled it revealed a mixed bag containing 5 salmon post-smolts, 1 sea trout post-smolt, 2 adult sea trout in amongst about half a basket of large herring, approximately 50 sprats, half a dozen mackerel, 2 lumpfish, 5 pipefish and 1 garfish. Due to the deteriorating weather conditions the Voyager made her way into Galway to overnight. Weather remained poor the following day but the crew managed to shoot the net successfully for three hours that afternoon along a track slightly closer to the Aran Islands. Again, the haul contained a mixed bag but, crucially, comprised 4 salmon post-smolts and 1 adult sea-trout, which were discovered mixed with about 50 sprat and 11 herrings. This track was continued out past the Aran Islands at about 1915hrs. Initially the warps were set to 100 fathoms and towed at 2.8 knots but the net appeared to sink as the floats disappeared and the warps were reduced to 80 fathoms until the floats appeared back on the surface. After 3 hours the net was hauled and although there were no salmon post-smolts, there were 2 adult sea trout mixed in with three-quarters of a basket of sprats, about 20 mackerel and herring and 3 to 4 pipefish. The Celtic Voyager then steamed north back to Killala to attempt another trawl in the bay.

Under the direction of Rob Bunn of the Marine Institute's Fisheries Science Services, transducers were attached to the net the following day in order to establish the optimum warp and towing speed to maintain the net on the surface, while achieving maximum width in the trawl. The net was shot at 1100hrs and various speeds and trawl warp lengths were examined. Optimum operation was estimated at a 2.8 knots and a 70 fathoms warp, giving a maximum net opening of approximately 26m while at the surface. This appeared to confirm the optimal operation for the net as, when hauled, there were 19 salmon post-smolts, 1 sea trout post-smolt and 1 adult sea trout mixed in with about 20 baskets of mackerel, a small number of herring, lumpfish, garfish, pipefish and sand eels, a very successful haul.

Experimental Fishing

With the net now successfully tested and fishing well, and with the prospect of fine weather which was forecast, it was felt that with the remaining days available, some experimental fishing could be embarked on outside the direct influence of large estuaries. The Celtic Voyager duly steamed directly north of Malin Head and west of the Island of Mull that night. Fishing began at 0850hrs and the net was towed for 3 hours. Again, within a mixed catch of about 1 basket of mackerel and some herrings, were 11 salmon post-smolts, with 2 sticklebacks and 3 pipefish. The second shooting and hauling along this track produced 4 salmon post-smolts in a mix of about three-quarters of a basket of mackerel, some herring, sticklebacks, pipefish and lumpfish. The final fishing of the evening was to provide a pleasant surprise as 25 salmon post-smolts were recovered, with only a small number of other species in the same tow, i.e. a quarter of a basket of mackerel and herring, some pipefish, lumpfish and sticklebacks.

As the net was picking up smolts consistently, it was decided to explore further north along the putative migration route indicated by previous experimental trawls which had been carried out by Norwegian and Scottish scientists. Therefore, Celtic Voyager steamed north that night reaching north west of the Isle of Lewis by morning. The net was shot four more

times between the 13 and 14 May, with a total catch of 4 salmon post-smolts amongst what was, by now, the usual small numbers of mackerel, herring, lumpfish and pipefish.

Summary

At the end of the experimental cruise the new net had been tested successfully and used for experimental fishing along the salmon post-smolt migration route. Seventy-two salmon post-smolts were captured from various locations for further analyses (Table 1, Figure 2), including stomach content analyses, lipid content for condition, sex ratios, growth and, crucially, for genetic studies to ascertain the region or even the river of origin of these fish. Information on associated species was also obtained (Table 2) and, simultaneously, data were recorded on position, towing speed, temperature, wave height, wind speed and salinity by the Celtic Voyager, which will help to describe the conditions encountered by post-smolts on their migrations. In this way, another small piece of the salmon migration will be put in place. Clearly, a larger-scale project covering a more extensive area, and including partners from other countries, would provide many more pieces of this still relatively obscure picture. This is now proven to be technically well within our capabilities, with trawls such as the one used in the MI/AST research cruise to capture post-smolts, and new genetic profiling methods to identify region or even river of origin. It is by merging these techniques with the ongoing assessment of the freshwater and marine ecology of salmon from individual river systems, that the distribution and migration picture will become clear and the possible barriers and threats to survival identified.

Acknowledgements

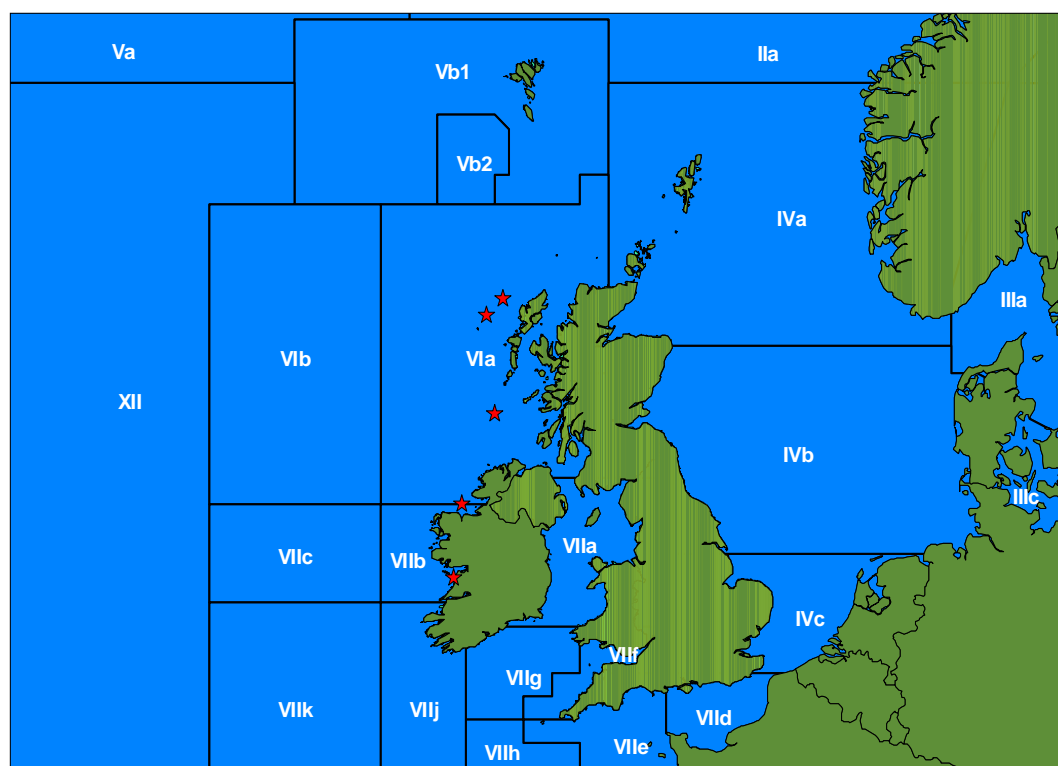
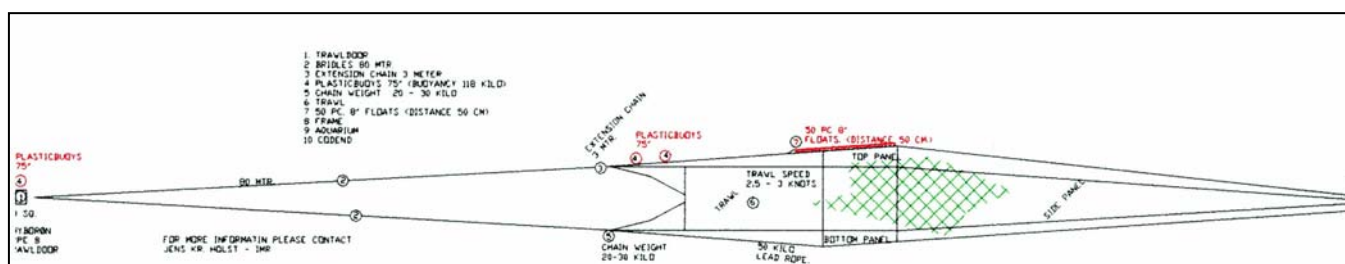
Very special thanks to the AST for purchasing the experimental trawl and to Dr. R. Shelton for invaluable advice on operating the net. Captain Fergus O'Hare and the entire crew of the RV Celtic Voyager, particularly John Barry (Gear Superintendent, P&O Maritime Services), are gratefully acknowledged for developing the operating procedures for the net and conducting the fishing trials. Aodhan Fitzgerald, John Breslin, Russell Poole and Joseph Cooney of the Marine Institute provided much-needed support and the project was supported under Ireland's National Development Plan.

Table 1 Details of salmon and sea trout captured by the RC Celtic Voyager, May 2007

Date	Start Time	Location Start trawl				Location End trawl				Trawl Time	Salmon Post smolt	Sea trout Post smolt	Sea trout Adult
08/05/2007	2010	North		West		North		West		2.5		1	1
09/05/2007	1420	53	12.69	9	45.71	53	10.24	9	26.7	5	5	1	2
10/05/2007	1530	53	8.59	9	27.03	53	11.27	9	42.56	3	4		1
10/05/2007	1915	53	11.27	9	42.56	53	11.75	10	0.83	3			2
11/05/2007	1100	54	20.88	9	19.18	54	20.2	9	14.2	3.5	19	1	2
12/05/2007	850	56	18.95	7	59.66	56	28.96	7	54.15	2.15	11		
12/05/2007	1330	56	28.96	7	54.15	56	38.68	7	52.06	3	4		
12/05/2007	1630	56	38.68	7	52.06	56	46.6	7	38.87	3	25		
13/05/2007	855	58	24.71	8	17.21	58	31.16	8	6.25	3			
13/05/2007	1548	58	32.78	7	59.29	58	37.03	7	59.29	3	3		
14/05/2007	830	58	30.33	7	41.85	58	21.67	7	57.34	4	1		
14/05/2007	1430									4			

Table 2 Details of other species captured by the RC Celtic Voyager, May 2007

Date	Start Time	Mackerel Basket	Herring Basket	Sprat	Pipefish	Lumpfish	Garfish	Sandeel	Anchovy	Stickleback	Turbot
08/05/2007	2010	3									
09/05/2007	1420	0.1	0.5	0.1	5	2	1				
10/05/2007	1530		0.1	0.1							
10/05/2007	1915	0.2	0.2	0.75	4				1		
11/05/2007	1100	20	0.2		7	1	1	7			
12/05/2007	850	1	0.3		3					2	
12/05/2007	1330	0.75	0.2		3	2				12	1
12/05/2007	1630	0.1	0.15		5	6				6	
13/05/2007	855		0.01		1	1					
13/05/2007	1548	1.5	0.5			3				1	
14/05/2007	830	0.05	0.05		3	1					
14/05/2007	1430				2	6					



CNL(07)12

***Report of the Sixth Meeting of the
International Atlantic Salmon Research Board***

4 June 2007, Harborside Hotel and Marina, Bar Harbor, Maine, USA

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 Bar Harbor. He thanked the US hosts for the excellent arrangements made for the meeting.

1.2 A list of participants is contained in Annex 1.

2. Election of Chairman

2.1 The Board elected Dr Ken Whelan as its Chairman.

3. Adoption of the agenda

3.1 The Board adopted its agenda, ICR(07)5 (Annex 2).

4. Inventory of Research

4.1 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 annually (see CNL(02)21, ICR(03)3, ICR(04)3, ICR(04)6, ICR(05)3, ICR(05)10, ICR(06)2, ICR(06)11 and again in 2007, ICR(07)2). Maintenance of this inventory is required under the Board's Rules of Procedure and it 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 collaborators the extent of existing commitments by the Parties and the nature of the ongoing research programmes. 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.

4.2 The Assistant Secretary made a brief presentation on the inventory. The updated inventory includes a total of 54 ongoing projects, an increase of 3 projects from 2006. 8 projects have been completed and 10 new projects included since last year. The total annual expenditure on the ongoing projects included in the inventory amounts to about £5million, a slight reduction compared to 2006. No costings were available for 3 of the projects. New studies of particular relevance to the SALSEA programme

include a number of genetic studies which will contribute to developing a genetic baseline of stocks to facilitate genetic stock identification of salmon caught in research cruises at sea and gear trials of a pelagic trawl off the Irish coast in May 2007. He advised the Board that the inventory had been thoroughly reviewed by the Scientific Advisory Group which had developed a number of recommendations to be presented by the Group's Chairman.

- 4.3 The Chairman welcomed the progress that had been made in compiling the inventory and after four years of development there was now a comprehensive record of ongoing research into mortality of salmon at sea. The inventory is a valuable tool in better promoting the research being undertaken, in avoiding duplication of effort and in facilitating better coordination.

5. Report of the Scientific Advisory Group

- 5.1 The report of the Board's Scientific Advisory Group (SAG) was presented by its Chairman, Dr Lars Petter Hansen (Norway), SAG(07)4 (Annex 3). The Group had reviewed the updated inventory of research and progress with implementing and promoting SALSEA. A report on an ICES Workshop on the Development and Use of Historical Salmon Tagging Information from Oceanic Areas had been presented to the SAG. The Board had funded the participation by a GIS expert in this workshop. The Workshop had made good progress in identifying data sets and had proposed a standard format for recording tag recovery data for future analysis. The SAG recommends that if ICES convenes a follow-up workshop that the Board allocate £2,500-£5,000 to fund participation by a GIS expert and oceanographer. Last year the Board had asked the SAG to further develop the plans for the marine survey component of the SALSEA programme. An informal meeting had been held and the report of the meeting had been presented to the SAG. This report had been very useful to the President and Secretary in promoting SALSEA. At its last meeting the Board had decided to invite the SALMAN coordinators to report on progress with the SALMAN initiative and provide proposals for genetic stock identification work that might be supported by the Board. The SAG had noted that the application for EU FP7 funding and the TOTAL Foundation included proposals in relation to genetic stock identification and recommends to the Board that the need to seek advice from the SALMAN coordinators be reviewed at its next meeting in the light of the outcome of the applications for funding. The SAG had also considered the need to commission a report on the information relevant to marine mortality of salmon that might be derived from scale analysis. The Board had allocated the sum of £10,000 for this project but the SAG recommends that there is no longer a need to seek further advice on this topic and that if funds permit the Board considers supporting additional analysis of samples from the West Greenland fishery.
- 5.2 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. The Board agreed with the SAG's proposals regarding better communicating the information in the inventory
- 5.3 On the recommendation of the SAG the Board agreed:

- to encourage the Parties to compile historical tagging information using the format developed by the ICES Workshop;
- to ask that NASCO request ICES to compile, on an annual basis, tag recovery information and report on the status of analysis of historical tag recovery data;
- in the event that ICES convenes a follow-up workshop, the Board will fund the participation of a GIS expert and oceanographer and that a sum of up to £5,000 be made available to support such participation;
- to make the spreadsheet format for compiling historical tag recovery information available on the Board's website.

5.4 The Board further agreed as follows:

- to review the need to seek advice from the SALMAN coordinators on genetic stock identification at its next meeting in the light of the application for funding to the Total Foundation and the SALSEA-MERGE EU FP7;
- not to seek further advice on the information that might be derived from scale analysis in support of SALSEA since this aspect had been addressed in the SALSEA-MERGE FP7 application;
- to allocate a sum of £8,000 to an extended sampling programme at West Greenland to allow tissue samples to be collected with a view to examining trophic feeding status and condition of salmon with continent of origin and age at maturity comparisons.

6. The SALSEA Programme

(a) Review of progress in implementing SALSEA

6.1 The President presented a comprehensive overview of progress in implementing and promoting the SALSEA programme. He stressed that the benefits of cooperating through SALSEA include sharing of facilities and pooling expertise, the ability to coordinate marine surveys in time and space, to make best use of existing information and the sum being greater than the component parts. With regard to progress in implementing SALSEA there had been considerable progress made on supporting technologies (Workpackage 1) for the marine surveys, including initiation of genetic baseline sampling programmes in Canada, Iceland, Ireland, Norway, Russia and the UK, and pelagic live-capture trawl gear had been trialled off the west coast of Scotland and Ireland in conjunction with the Atlantic Salmon Trust. There are a number of ongoing studies using samples from scales. With regard to early migration (Workpackage 2) there is much ongoing research largely funded by national agencies and their partners although there is a need to enhance coordination and stimulate additional financial support. For Workpackage 3 (Distribution and Migration at Sea), Norwegian surveys during 1982-2004 had resulted in the capture of approximately 7,000 post-smolts and work on migration modeling is underway. Marine surveys have also been undertaken by US, Canada and UK scientists and the Board had supported an ICES workshop on the Development and Use of Historical Tagging Information from Oceanic Areas. Russia had continued to carry out research into by-catch of salmon at sea in pelagic fisheries.

6.2 He then went on to describe an application for funding under the EU Seventh Framework Research Programme (SALSEA-MERGE) for Euro3.5million. The application includes partners in UK, Ireland, Norway, Faroes, France, Iceland,

Denmark, Finland and Spain and, if successful, it will fund 50% of ship-time and 75% scientific analyses. SALSEA-MERGE comprises seven workpackages, including

- development of genetic identification methodology;
- marine sample and data acquisition;
- genetic identification of samples;
- biological analysis of samples;
- merging of data sets and analysis.

6.3 With regard to promoting SALSEA, a Steering Committee had been established, a case for support had been prepared by this Committee in consultation with Brakeley Consultants, approaches had been made to organizations and foundations in Europe and North America, formal applications for funding had been made to the TOTAL Foundation in France (Euro350,000), the Ocean Foundation in the US (\$600,000) and the EU FP7. The Ocean Foundation had agreed to serve as a fiscal sponsor in North America and to assist in identifying eco-vessels. In conclusion, he indicated that since SALSEA was endorsed by the Board in 2005, important new research had commenced, there had been continuing commitment to inshore research projects, promotional documents had been developed, there had been commitments from some Parties of vessel time in 2008 and 2009, there had been positive signs of early buy-in from some private sector sources, and a major application for funds had been made to EU FP7. The major challenge was to ensure that a comprehensive programme of marine surveys was conducted in the north-east and north-west Atlantic in 2008 and 2009.

6.4 The Chairman thanked the President for his presentation, which is contained in Annex 4. He noted that there had been a giant step over the last two years in implementing and promoting SALSEA both by NASCO's Parties and its NGOs. He indicated that all the progress in improving habitat in rivers would be undermined if the factors influencing mortality at sea were not better understood. In this regard, it would be important for the Board to highlight the severity of the decline in stock abundance linked to increased mortality of salmon at sea.

6.5 Canada indicated that it had committed considerable resources to the SALSEA programme in the form of ongoing projects and the Minister of Fisheries and Oceans had committed to contribute CAN\$100,000 to the SALSEA programme. The EU indicated that it was looking into the possibility of contributing funds towards the 2010 Joint Symposium and asked if a draft budget could be developed for this symposium. The Chairman thanked Canada and the European Union for these offers of contributions to the Fund.

6.6 The Board recognizes the desirability of improving collaboration and coordination of research under the various SALSEA workpackages and asked that the SAG develop a prioritized list of workshops that might be held to stimulate cooperation and coordination of research relating to specific components of the overall SALSEA Programme being undertaken around the North Atlantic.

7. Finance and administrative issues

7.1 At its last meeting the Board had recognized that there are 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 income and expenditure statements will be circulated to the members of the Board and discussed at its Annual Meeting. The Secretary reported that in accordance with this decision, financial statements for the year to 31 December 2006, ICR(06)3, had been sent to all members of the Board.

- 7.2 The Secretary indicated that the balance of the fund is currently around £42,000 but it is expected that there will be miscellaneous income of around £2,000. However, the Board had previously agreed to reserve the sum of £28,000 in order to co-sponsor a joint symposium with NPAFC, PICES and ICES in 2010. Furthermore, it had decided to allocate up to £5,000 to allow a GIS specialist and oceanographer to participate in a second meeting of the ICES Workshop on the Development and Use of Historical Salmon Tagging Information from Oceanic Areas. A further £8,000 has been allocated to fund the extended analysis of samples from the West Greenland fishery. A total of £43,500 had, therefore, been allocated to project work. The Secretary indicated that Brakeley Consultants had offered to continue to work at a reduced level to maintain some momentum with promoting SALSEA after the funds allocated by the Board had all been utilized. They had indicated that they would undertake this work on the basis that they would be reimbursed when funds for promoting SALSEA become available. A sum of approximately £6,000 is due to Brakeley. The Board agreed that the account should be settled with Brakeleys but noted that this would only be possible if approximately £5,000 was withheld from the proposed expenditure on project work. Norway indicated that it would be willing to contribute £5,000 to the Board to enable the project work to be undertaken and for Brakeley to be reimbursed. The Chairman thanked Norway for this offer of a contribution to the Fund.
- 7.3 In summary, the existing available resources, together with the contribution from Norway and miscellaneous income, amount to £49,000. The anticipated expenditure, including the payment to Brakeley, is expected to be £49,000, so the Board's available funds are fully utilized.
- 7.4 The Board discussed the next steps in promoting the SALSEA programme. The Secretary indicated that the Board should be advised next week if the application to the TOTAL Foundation had been successful and in July it would know the outcome of the application for EU FP7 funding. The Board agreed that the immediate next steps should be to focus its efforts on exploring the availability of funding an eco-vessels through the Ocean Foundation with a view to conducting marine surveys in the north-west Atlantic. If further use of Brakeley Consultants' services is required, they should focus on such a project. The Secretary would advise Board members of any such intention. There may be other contacts, such as the Pew Foundation (which could only fund scientific research not vessel time), that might be approached again, together with approaches to wealthy individuals. In this regard the NGOs indicated that Fishmongers' Company had offered to provide facilities for meetings with potential funders. The Board welcomed this offer of assistance and would welcome continuing NGO cooperation in promoting SALSEA in the future.

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.

List of Participants

Chairman of the Board

Mr Jacque Robichaud

President of NASCO

Dr Ken Whelan

Canada

Mr Guy Beaupré

Mr Bud Bird

Mr Gerald Chaput

Mr Peter Cronin

Ms Chantal Lamadeleine

Denmark (in respect of the Faroe Islands and Greenland)

Dr Jan Arge Jacobsen

Mr Andras Kristiansen

European Union

Mr Alan Gray

Dr Trevor Hastings

Mr Julian MacLean

Mr Ted Potter

Iceland

Mr Arni Isaksson

Norway

Mr Raoul Bierach

Mr Arne Eggereide

Dr Lars Petter Hansen

Russian Federation

Dr Boris Prischepa

Ms Elena Samoylova

Mr Gennady Ustyuzkinsky

USA

Dr Alex Curtis
Mr Pat Scida
Mr Tim Sheehan

Non-Government Organizations

Mr Niall Greene
Mr Paul Knight
Major General Seymour Monro

Secretariat

Dr Malcolm Windsor
Dr Peter Hutchinson

International Atlantic Salmon Research Board

ICR(07)5

Sixth Meeting of the International Atlantic Salmon Research Board

Harborside Hotel & Marina, Bar Harbor, Maine, USA

Monday 4 June, 2007

Agenda

1. Opening of the meeting
2. Election of Chairman
3. Adoption of the agenda
4. Inventory of Research
5. Report of the Scientific Advisory Group
6. The SALSEA Programme
 - (a) Review of progress in implementing SALSEA
 - (b) Review of progress in promoting SALSEA
 - (c) Future actions
7. Finance and administrative issues
8. Other business
9. Report of the meeting
10. Date and place of next meeting

SAG(07)4

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

***Harborside Hotel and Marina, Bar Harbor, Maine, USA
Sunday 3 June 2007***

1. Opening of the Meeting

- 1.1 The Chairman, Dr Lars Petter Hansen (Norway), opened the meeting, welcomed participants to Bar Harbor and thanked the US hosts for the arrangements made for the meeting.
- 1.2 A list of participants is contained in Annex 1.

2. Adoption of the Agenda

- 2.1 The SAG adopted its agenda, SAG(07)2 (Annex 2).

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

- 3.1 The Assistant Secretary provided an overview of the updated inventory of research relating to salmon mortality in the sea, ICR(07)2, which is considered by the Board to be an essential tool in identifying research gaps and priorities, in improving coordination of existing research and in support of promotion of SALSEA. For 2007, 54 ongoing projects had been included in the inventory and the annual expenditure on these projects was approximately £5.0 million. No costings had been provided for 3 projects. Since the last update, 10 new projects had been included in the inventory and 8 projects had been completed, two of which were not previously included in the inventory. New projects of particular relevance to the SALSEA programme include a number of studies which will contribute to developing a genetic baseline of stocks to facilitate genetic stock identification of salmon caught in research cruises at sea and gear trials of a pelagic trawl off the Irish coast in May 2007.
- 3.2 At its last meeting the Board had noted that for some Parties and jurisdictions, long-term monitoring programmes of smolt survival in a number of rivers had been collated and presented as a single project while other Parties and jurisdictions had presented projects on individual rivers separately. The Board had asked that each Party or jurisdiction present such studies as a single project for inclusion in the inventory and this had been done in the 2007 update.
- 3.3 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 information had been provided to date.

- 3.4 Last year the SAG had noted that the North East Atlantic Commission's pilot project involving the release of externally tagged farmed salmon, to improve understanding of their migration and fate, had not been included in the inventory. Tagged farmed salmon were released in Norway and Scotland in 2006 and a progress report will be made to the Twenty-Fourth Annual Meeting of the North-East Atlantic Commission. Details of this project had not, however, been submitted for inclusion in the inventory. The Secretariat was asked to liaise with the SAG members in Norway and Scotland with a view to including a report on the project before the inventory is made available on the website.
- 3.5 At its last meeting the SAG had agreed that efforts should be made to better communicate the valuable information in the inventory to researchers and to NASCO's accredited NGOs. The SAG recommends that to facilitate such communication, the inventory should be made more prominent and easily accessible on the Board's website. Furthermore, the Secretariat should be asked to make the summary report and tables available in a separate document from the annexes. SAG members should seek to provide links to the inventory on their institutes' websites.
- 3.6 The SAG recognized the need to continue to find means to improve communications and collaboration between institutions working on related topic areas.
- 3.7 The SAG recognized that acoustic telemetry work can contribute valuable information on the migration and distribution of salmon at sea and that acoustic arrays are being located increasingly further offshore. These studies are relevant in planning the marine surveys in the SALSEA programme and the SAG believes that, in future, such projects should be allocated to SALSEA Workpackage 3.

4. The SALSEA Programme

(a) Progress with implementing SALSEA

- 4.1 The Assistant Secretary summarized the actions agreed by the Board at its last meeting to promote and implement the SALSEA programme. A Steering Committee had been established comprising 5 representatives from the NGOs and 5 representatives from the NASCO Parties. With professional support from Brakeley consultants, the Steering Committee had developed the case for support and a marketing package for SALSEA and the NASCO President and Secretary had sought early buy-in and contributions to the fund. The SAG had been requested to deliver a comprehensive package of cruises to be undertaken in 2008 and 2009 (see 4a(ii)) and the Parties had been requested to ensure access to vessel time is given higher priority in 2008/2009 in support of the SALSEA programme. The Board had also agreed to fund three projects. First, it would support participation by GIS experts and oceanographers in the ICES workshop on development and use of historical salmon tagging information (see 4a(i)). A sum of £5,000 was allocated to this project. Second, it would seek proposals for how genetic stock identification work might be supported by the Board but did not allocate funds for this work. Third, it would, as a lower priority, seek a report on the information in relation to marine mortality of salmon that might be obtained from scales. A sum of £10,000 had been allocated to this project. The Board had also allocated a sum of £28,000 to support a joint symposium with PICES, ICES and NPAFC in 2010 on salmon mortality at sea. He indicated that, allowing for this expenditure, the Board had no surplus funds. While

the cost of funding participation in the tagging workshop was expected to be around £2,500, there may be additional costs incurred in promoting SALSEA.

(i) Analysis of historical tagging data

4.2 The SAG Chairman reported on an ICES Workshop on the Development and Use of Historical Salmon Tagging Information from Oceanic Areas which had been held in St Johns, Newfoundland during 19-22 February 2007. The Board had agreed to support this workshop by funding the participation of a GIS expert and this had been extremely useful in facilitating the group's work. A sum of £5,000 had been allocated last year by the Board to fund this participation but the anticipated cost is likely to be around £2,500. The Workshop had:

- collated published information on oceanic tag recoveries;
- reviewed tagging and tag recovery data that was reported to it;
- agreed a format for recording tag recovery data and considered examples of frameworks for data analysis; and
- formulated a series of hypotheses that could be tested when GIS data was complete.

4.3 The Workshop had recommended that a further meeting be held in 2007 or 2008 to complete compilation of available data and commence analysis of the distribution of recoveries of tagged salmon at sea. In this regard it was noted that the integration of data from the north-west and north-east Atlantic provides a significant opportunity to advance understanding of the marine distribution and migration of salmon. The Workshop had also recommended that consideration be given to collecting data from areas at times when research vessels cannot operate (through, for example, use of new tagging techniques). The Workshop further recommended that the format for tag recovery information be used to prepare data for analysis at the next workshop, that agencies coordinate their efforts to ensure that datasets are not duplicated and that the follow-up workshop include oceanographers and GIS experts to assist in describing salmon distributions in relation to ocean environment.

4.4 The SAG recognised the desirability of establishing a single repository of tag recovery information that would be available to a wider scientific community, e.g. scientists working on climate change. While this is a longer-term objective, in the interim it would be desirable if all data were held nationally according to the agreed format and a listing of the agencies holding the data compiled. The format is available from ICES and the Workshop participants. The SAG recognized that analysis of historical tag recovery information could improve understanding of salmon distribution and migration at sea and therefore benefit the SALSEA programme. The SAG therefore recommends that:

- the Board should encourage the Parties to compile historical tagging information using the format developed by the Workshop;
- NASCO should request ICES to compile, on an annual basis, tag recovery information and report on the status of analysis of historical tag recovery data;
- in the event that ICES convenes a follow-up workshop, the Board should consider funding the participation of a GIS expert and oceanographer and that the sum of £2,500 (or if resources permit, £5,000) be made available to support such participation.

(ii) Development of Workpackage 3

4.5 The Chairman reported on an informal meeting organised by the Board to further develop the plans for the marine survey component of the SALSEA programme (Workpackage 3). The meeting had been held in London during 2 and 3 November 2006 and had addressed a number of questions, including:

- why study salmon in the sea?;
- what do we know about the marine ecology of salmon?;
- what key things don't we know about salmon in the sea?;
- why is a coordinated marine research programme required?;
- what survey techniques will be used?;
- what data will be collected from captured fish and how will they be used?;
- where and when should surveys be conducted?;
- what vessels would be used?
- what information should be collected from the fish sampled?

4.6 The report of the meeting is contained in document ICR(06) 4. This report had been very useful to the President and Secretary in promoting SALSEA.

(iii) Development of an application for funding under the EU Seventh Framework Programme

4.6 The President reported on the development of an application (SALSEA-MERGE) for funding marine research surveys in 2008 and 2009 that had been submitted to the EU under the Seventh Research Framework Programme (FP7). This application, if successful, would fund 50% of ship-time and 75% of the scientific analyses up to a total of Euro 3.5 million with partners in UK, Ireland, Norway, Faroes, France, Iceland, Denmark, Finland and Spain. The programme comprises a series of workpackages, including:

- development of genetic identification methodology;
- marine sample and data acquisition;
- genetic identification of samples;
- biological analysis of samples;
- merging of data sets and analysis.

4.7 While it was recognised that there would be strong competition for funding, even in the event of an unsuccessful application, it was recognised that there had been commitments from some Parties to vessel time in 2008 and 2009 that, together with possible funding from private sources, such as the Total Foundation, would enable some research surveys in the north-east Atlantic to be undertaken in 2008 and 2009, although additional funding would be needed for the genetic analysis of samples collected. Furthermore, it was hoped that funding would be raised in North America to allow complementary surveys to be undertaken in the north-west Atlantic. It was noted that access to research vessel time in the US and Canada was extremely difficult but the Ocean Foundation had indicated that eco-vessels might be available in support of SALSEA. He indicated that one advantage of the SALSEA and SALSEA-MERGE initiatives being structured into workpackages and tasks was that there was now a wide range of individual research projects that could be conducted according to

available resources. He concluded that the challenge was to ensure that funding was in place to allow a comprehensive programme of marine surveys to be undertaken in 2008 and 2009 in both the north-east and north-west Atlantic. In this regard it was noted that there is a need for scientists around the North Atlantic to promote the need for the marine survey element of the SALSEA programme as a priority for research funding.

(iv) *Other activities*

- 4.9 At its last meeting the Board had decided to invite the SALMAN coordinators to report on progress with the SALMAN initiative and provide proposals for genetic stock identification work that might be supported by the Board. The SAG noted that the applications for EU FP7 funding and the Total Foundation included proposals for further developing the genetic baseline sampling, for assessing the degree of commonality of markers in different databases and for identifying differences in sampling approaches underlying the databases. The SAG therefore recommends that the need for the Board to seek advice from the SALMAN coordinators be reviewed at its next meeting in the light of the outcome of the applications for funding.
- 4.10 At its last meeting the Board had agreed to invite Dr Kevin Friedland to report on information relevant to the marine mortality of salmon that might be derived from scale analysis. A sum of £10,000 had been allocated to this project but it was recognised that this was a lower priority than the analysis of historical tagging information, the proposals for genetic stock identification and the 2010 joint symposium. The SAG recognised that in developing the SALSEA-MERGE application for EU FP7 funding, consideration had been given to the information that that might be derived from archival and contemporary scale material and to the establishment of a digital scale library. The SAG therefore recommends that there is no longer a need to seek further advice on this topic and recommends that if funds permit, the Board considers supporting an enhanced sampling programme at West Greenland (see 4.13).
- 4.11 The SAG noted that progress in planning for the 2010 symposium would be reported during the Special Session on Salmon at Sea to be held during the Twenty-Fourth Annual Meeting of the Council.
- 4.12 The SAG noted that under the SALSEA programme it is recommended that the sampling programme at West Greenland should be extended. The SAG discussed a proposal for research on the trophic feeding state and condition of salmon – continent of origin and age at maturity comparisons. One-sea-winter salmon from both North America and the North-East Atlantic migrate to feeding grounds at West Greenland during their second year at sea. Understanding of the marine ecology of these fish could be advanced through studies of trophic state and condition (i.e. lipid content). The questions that might be addressed include:
 - 1) Are trophic states of 1SW non-maturing fish similar between NAC and NEAC origin salmon?
 - 2) Are trophic states of 1SW non-maturing fish different from those of 1SW maturing fish of the same cohort? Can this tell us anything about when these different maturity groups separate in the North Atlantic?

- 3) Has there been a trophic state change between West Greenland and when these fish finally return to home rivers as 2SW salmon?
 - 4) The same questions would be examined for lipid content to assess fish condition (survivals differ between fish from the two continents. Is this related to condition at that time of year as fish enter their second winter at sea?)
- 4.13 The present sampling program at West Greenland includes the purchase of whole fish specifically for disease sampling. Additional tissue sampling of these fish would be conducted including muscle, liver and caudal fin punches. All tissues would be analysed for lipid and stable isotope ratios. Caudal punches can be collected without lethal sampling and allow sampling of 1SW and 2SW salmon survivors back to home waters. Sampling costs at West Greenland are covered by existing or proposed international collaborative programmes (expenditure in 2006 was £66,200). However, funding is sought from national programs and from the Board for the analysis of the tissue samples. The additional analysis of samples collected in West Greenland will require funding of about £8,000. Details of the proposal and costings are given in Annex 3. The SAG recommends that the Board consider funding the costs of the analysis of tissue samples collected at West Greenland if its existing resources permit, or when new funds become available.
- (b) Progress with promoting SALSEA
- 4.14 The President reported on fund-raising initiatives that had been conducted in conjunction with the Secretariat. A more detailed report will be presented to the Board. In addition to applications for funding to the EU FP7 programme, the Total Foundation (Euro 350,000) and the Ocean Foundation (US\$ 600,000), approaches had been made to a number of organizations and foundations and this had raised awareness not only of SALSEA but of the work of NASCO.
- 5. Other business**
- 5.1 There was no other business.
- 6. Report of the meeting**
- 6.1 The SAG agreed a report of its meeting.
- 7. Date and place of next meeting**
- 7.1 The SAG decided to agree the date and place of its next meeting by correspondence.
- 7.2 The Chairman closed the meeting and thanked the members of the group for their contributions.

List of Participants

Canada

Mr Gerald Chaput
Mr Bud Bird
Ms Chantal Lamadeleine

Denmark (in respect of the Faroe Islands and Greenland)

Dr Jan Arge Jacobsen

European Union

Dr Niall O'Maoileidigh
Mr Ted Potter
Dr Trevor Hastings

Norway

Dr Lars Petter Hansen (Chairman)

USA

Mr Pat Scida
Mr Tim Sheehan

Chairman of the Board

Mr Jacque Robichaud

President of NASCO

Dr Ken Whelan

Secretariat

Dr Peter Hutchinson

SAG(07)2

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

Agenda

1. Opening of the meeting
2. Adoption of the agenda
3. Review of the updated inventory of research
4. The SALSEA Programme
 - (a) Progress with implementing SALSEA
 - (i) Analysis of historical tagging data
 - (ii) Development of Workpackage 3
 - (iii) Development of an application for funding under the EU Seventh Framework Programme
 - (iv) Other activities
 - (b) Progress with promoting SALSEA
 - (c) Recommendations to the Board
5. Other business
6. Report of the meeting
7. Date and place of next meeting

Marine ecology research proposal for 2007

Trophic feeding state and condition of salmon – continent of origin and age at maturity comparisons

One-sea-winter salmon from both North America and the northeast Atlantic migrate to feeding grounds at West Greenland during their second year at sea. Marine ecology of these fish could be advanced through studies of trophic state and condition (i.e. lipid content). The questions to be addressed include:

- 1) are trophic states of 1SW non-maturing fish similar between NAC- and NEAC-origin salmon?
- 2) Are trophic states of 1SW non-maturing fish different from that of 1SW maturing of the same cohort? Can this tell us anything about when these different maturity groups separate in the North Atlantic?
- 3) Has there been a trophic state change between West Greenland and when these fish finally return to home rivers as 2SW salmon?
- 4) The same questions would be examined for lipid content to assess fish condition (survivals differ between fish from the two continents. Is this related to condition at that time of year as fish enter their second winter at sea?)

The present sampling program at West Greenland includes the purchase of whole fish specifically for disease sampling. Additional tissue sampling of these fish would be conducted including muscle, liver and caudal fin punches. All tissues would be analysed for lipid and stable isotope ratios. Caudal punches can be collected without lethal sampling and would allow sampling of 1SW and 2SW salmon survivors back to home waters.

Activity	Cost	Existing funding	New funding	IASRB support
Project costs				
West Greenland	£74,200	£66,200	£8,000	£8,000
Homewater in NAC	£4,200		£4,200	£0
Homewater in NEAC	£4,200		£4,200	£0

Activity	Cost	Existing funding	New funding	IASRB support
West Greenland Research Program				
Sampling at West Greenland (international collaborative program)	£66,200 (Sampling costs, fish purchase, genetic analysis, disease analysis, stomach content analysis)	£66,200	0	0
Collection of additional tissues	£0 (muscle, liver, caudal fin)		0	0
Shipping of samples to North America	£300		£300	£300
Stable isotope analysis of tissues	£6,300 (150 fish X 3 tissues per fish X £14 per tissue)		£6,300	£6,300
Stable isotope analysis of salmon prey	£1,400 (20 species/genus X 5 replicates X £15 per tissue)		£1,400	£1,400
Homewater sampling of survivors to North America (sampling planned from Miramichi River)				
Collection of tissues	£0 (muscle, liver, caudal fin)			
Stable isotope analysis of tissues	£4,200 (100 fish X 3 tissues per fish X £14 per tissue)		£4,200	£0
Homewater sampling of survivors to NEAC (to be developed)				
Collection of tissues	£? (muscle, liver, caudal fin)			
Stable isotope analysis of tissues	£4,200 (100 fish X 3 tissues per fish X £14 per tissue)		£4,200	£0

International Atlantic Salmon Research Board

ICR(07)6

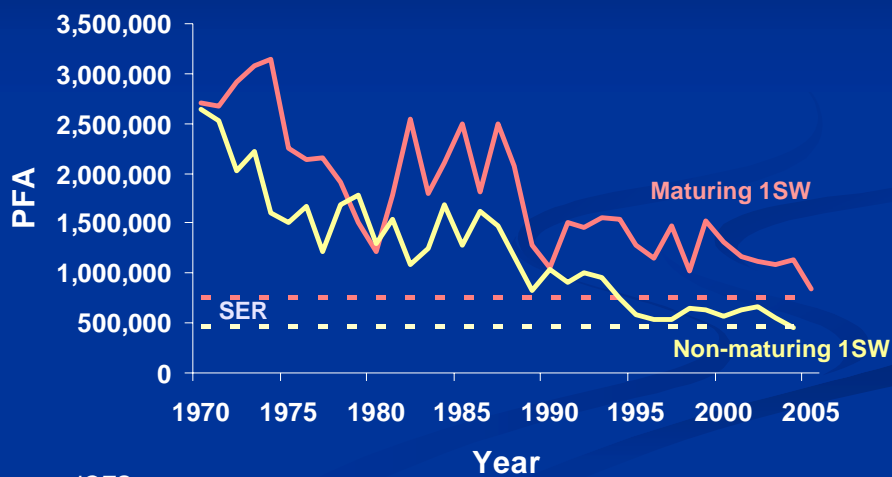
SALSEA Programme – Progress to Date

(SALSEA) Programme ~ Progress to date

Ken Whelan ~ President of NASCO

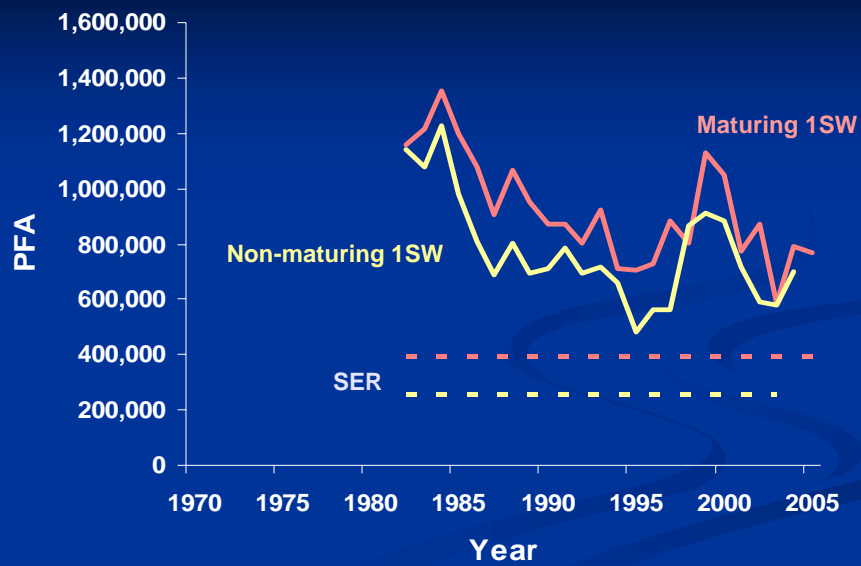
Photograph courtesy of Gilbert van Ryckevorsel

PFA - Southern European stocks



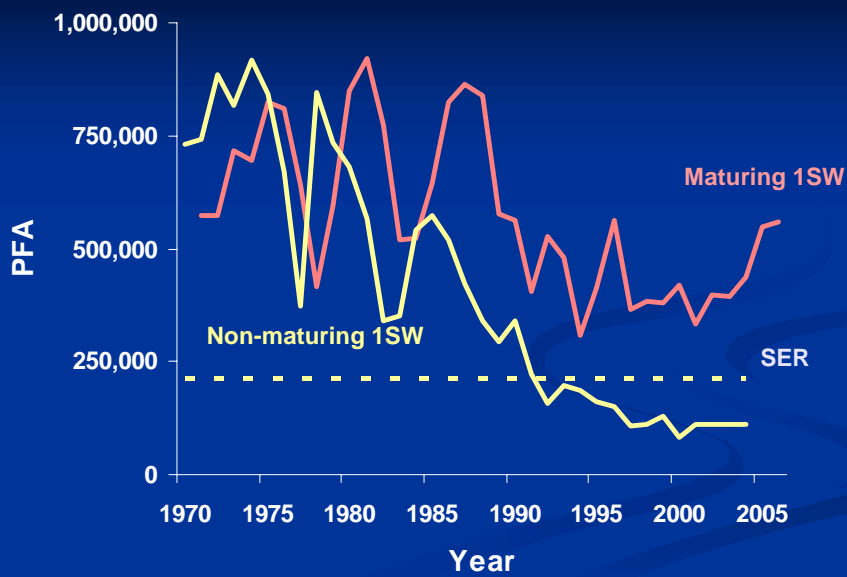
Source: ICES

PFA - Northern European stocks



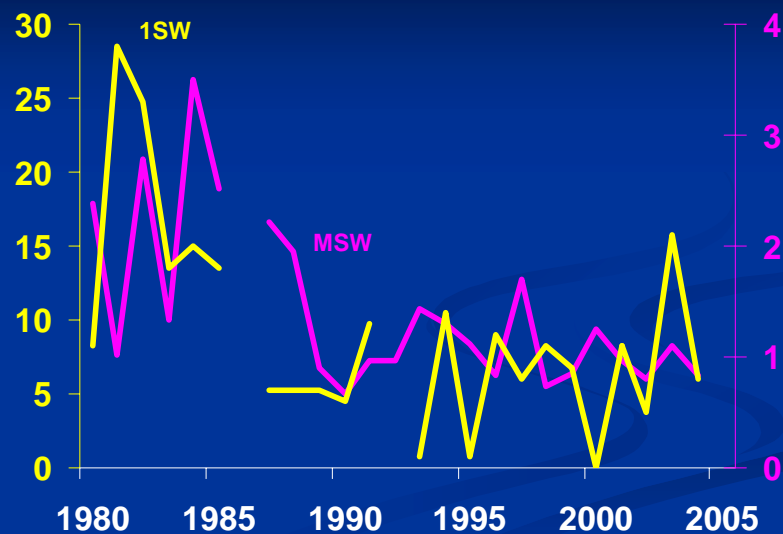
Source: ICES

PFA - North American stocks



Source: ICES

Marine survival – River Corrib



Source: ICES

The SALSEA Work Packages

WP1 - Supporting Technology

- Task 1 – Genetic stock identification
- Task 2 – Sampling equipment evolution
- Task 3 – Signals from scales

WP2 - Early Migration

- Task 1 – Biological characteristics of smolts
- Task 2 – Physical factors in fresh water
- Task 3 – Preparing to migrate
- Task 4 – Key predators
- Task 5 – Impacts of aquaculture

WP3 – Oceanic Distribution

- Task 1 – Theoretical models
- Task 2 – Plan marine survey
- Task 3 – Conduct survey
- Task 4 – Collate and analyse data

WP4 – Communications

- Task 1 – Promoting SALSEA
- Task 2 – SALSEA on-line
- Task 3 – IASRB/NPAFC symposium
- Task 4 – SALSEA report
- Task 5 – SALSEA administration

Why cooperate through SALSEA?

- more efficient sharing of facilities and pooling of expertise
- ability to co-ordinate surveys in time and space
- make best use of existing information
- sum is greater than parts
- the survey programme will concentrate upon areas where stocks from many rivers are thought to be present at the same time, but local studies will also be needed

Progress in promoting SALSEA

- SALSEA Steering Committee established with equal representation from NASCO Parties and NGOs
- case for support prepared in consultation with Brakeley consultants
- approaches made to Organizations and foundations in Europe and North America
- formal applications for funds made to TOTAL Foundation in France , the Ocean Foundation in US, EU FP7 (SALSEA MERGE)
- TOF serving as fiscal sponsor in North America and assisting in identifying eco-vessels

Progress in implementing SALSEA

WP1 : Supporting technology

- Genetic baseline sampling programmes initiated in Canada, Iceland, Ireland, Norway, Russia and UK

Pelagic live and sacrificed capture trawl gear developed by IMR Bergen trialled off the west coasts of Scotland (FRS in 2005) and Ireland (Marine Institute in 2007) in conjunction with Atlantic Salmon Trust

- Ongoing studies using signals from scales in Canada, UK and Iceland

Progress in implementing SALSEA

WP2 : Early migration

- **much ongoing research, largely funded by national agencies and their partners; a need to enhance coordination and stimulate additional financial support**
- **studies of biological characteristics of smolts in monitored rivers**
- **studies on the influence of freshwater contaminants on marine survival in Canada and UK**
- **research on the role of predation by cormorants (US) and seals (UK) and approaches to mitigation**

Progress in implementing SALSEA

WP2 : Early migration

- studies on impacts of sea lice from salmon farms in Ireland and Norway
- numerous studies involving acoustic tagging and detection arrays in Canada, Ireland, Denmark, UK and USA

Progress in implementing SALSEA

WP3 : Distribution and migration at sea

- Norwegian surveys (1982 – 2004) caught ~ 7,000 post-smolts, work on migration modelling underway – Ireland (2007)
- marine surveys for salmon undertaken by US (Gulf of Maine), Canada (Labrador Sea) and UK
- studies with data storage tags in Iceland
- IASRB supported ICES Workshop on the Development and Use of Historical Tagging Information from Oceanic Areas
- Russian studies of by-catch in fisheries for pelagic fish species

By-catch

- near surface mackerel trawl fishery in Norwegian Sea greatest potential for by-catch of salmon
- no new assessment in 2006, further development and data needed
- two sources of data: Russian research trawl catches and Russian observer programmes
- research vessel trawls slower so may be less effective at catching mackerel i.e. over-estimate by-catch
- observers may under-estimate by-catch because of difficulties in observing smolts in large catch of mackerel
- even highest estimate ~5% of combined European PFA
- by-catch in other fisheries (Icelandic survey ~ 5,000 salmon, <0.001% of catch)

Photograph courtesy of Gilbert van Ryckevorsel

Progress in implementing SALSEA

IASRB Workshop held to refine plans for the marine surveys. Specific questions :

- **does early marine growth differ between southern and northern stocks?**
- **does early marine growth differ between post-smolts and those surviving to home rivers?**
- **does condition of fish (lipid levels) differ among stocks?**
- **are fish from different stocks and different areas feeding on different prey?**
- **do disease and parasite characteristics differ between stocks?**
- **do salmon from southern areas differ in heavy metal and organic compound loads from fish originating in other areas?**

Progress in implementing SALSEA

Norwegian Sea and Northwest Atlantic Post-smolt surveys

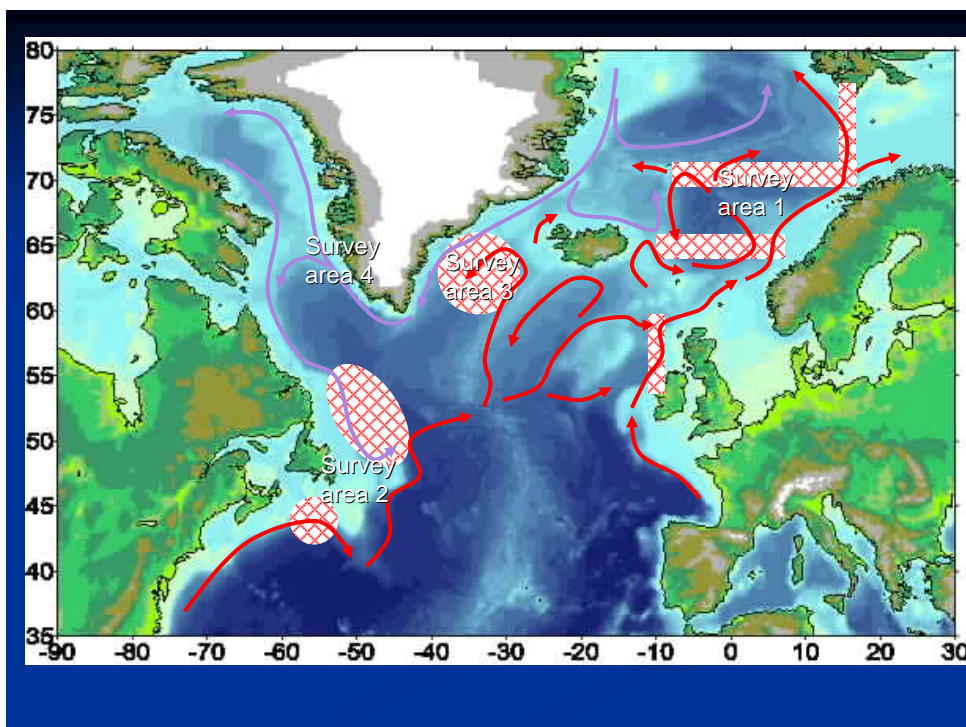
- test whether distribution of post-smolts matches migration model predictions
- repeat transects to provide description of movement of genetically identified stocks throughout the survey area

Distribution of salmon in the Irminger Sea

- describe composition of salmon stocks in the region
- provide data to support development of migration models
- identify stock-specific maturity status

Expanded West Greenland sampling programme

- more comprehensive sampling
- collect data on same cohorts of salmon as sampled in earlier programmes on post-smolts and subsequently on return to home waters
- sampling to be undertaken on smolts leaving and adults returning to fresh water



SALSEA Merge

- application under European Union's Seventh Framework Programme, 20 partners located in Norway Ireland, UK, Faroes, France, Iceland, Denmark, Finland and Spain
- if successful will fund 50% of ship-time and 75% of scientific analyses
- seven workpackages:
 - WP 1 Develop genetic identification methodology
 - WP 2 Marine sample and data acquisition
 - WP 3 Genetic identification of samples
 - WP 4 Biological analysis of samples
 - WP 5 Merge data sets and analysis
 - WP 6 Dissemination
 - WP 7 Project management

SALSEA Merge

WP 1 Develop genetic identification methodology

- integrate existing and new genetic data from across the European range into database of microsatellite and mitochondrial DNA
- investigate the use of new markers - SNPs
- agree on suite of markers to identify origin of salmon
- optimise and validate database and assignment methodology

WP 2 Marine sampling and data acquisition

- 3 cruises X2 years collect biological and oceanographic data
- catalogue and assemble archival tissue for genetic typing
- catalogue and assemble archival scale material for age and growth determinations
- collect biological information including stomach contents from post-smolts sampled
- conduct synchronous plankton surveys

SALSEA Merge

WP 3 Genetic identification of stock origin of samples

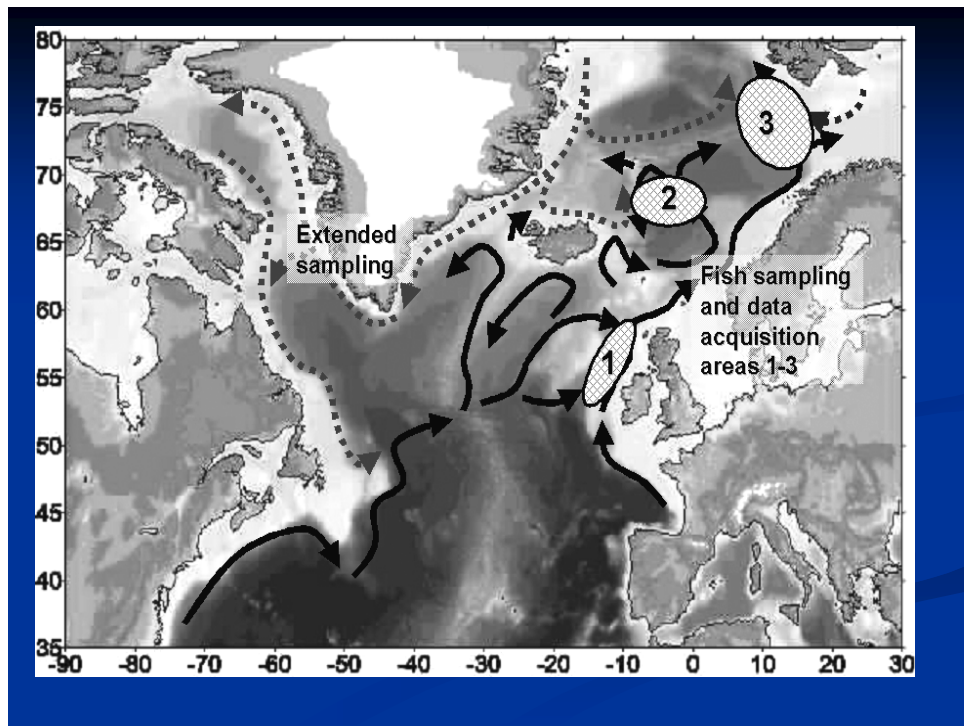
- determine region or river of origin of sampled post-smolts

WP4 Biological analysis of samples

- analyse and rank available food items
- analyse archival scale material
- analyse scale samples collected in WP2
- establish digital scale library
- determine fine-scale growth rates
- undertake dietary analysis and assessment of condition

SALSEA Merge

- WP5 Merge and analyse, genetic, biological and oceanographic data
 - develop models to integrate stock specific distribution and migration patterns
- WP6 Dissemination and Communications
 - SALSEA website www.salmonatsea.com
 - IASRB / NPAFC/ICES/PICES Salmon Summit 2010
- WP7 Project Management



Funding in play

SALSEA estimated cost

- €20.6m
- €7.2m - Parties
- €13.4m – to raise

■ SALSEA – Merge

- EU €3.5m
- Partners €1.6m
- TOTAL €200,000
- AST €210,000
- Full cost: €5.51m
- ASAP €1.6m
- Genetic baseline €1.5m
- MI / AST Cruise 07 €100,000
- IMR / FRS / AST Cruise 05 €150,000

Conclusions

- stimulated a keen interest in marine survival issues
- important new research projects initiated e.g. gear trials and genetic baseline studies
- continuing commitment to inshore work
- promotional documents developed to assist in search for new funds
- commitments from some Parties of vessel time in 2007, 2008 and 2009
- positive signs of early-buy-in from some private sector sources
- major application for funds submitted to EU FP7
- major challenge is to ensure comprehensive programme of marine surveys in north-east and north-west Atlantic in 2008 and 2009, the preparatory work has been done but funds needed to realise the programme

Photo courtesy of Dr R Brown

CNL(07)14

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 2007;
- 1.2 report on significant new or emerging threats to, or opportunities for, salmon conservation and management;
- 1.3 examine and report on associations between changes in biological characteristics of all life stages of Atlantic salmon, environmental changes and variations in marine survival with a view to identifying predictors of abundance ¹;
- 1.4 describe the natural range of variability in marine survival with particular emphasis on partitioning mortality to the narrowest geographic scale possible (estuarine, near-shore, offshore, etc.); ²
- 1.5 compile information on the marine migration and dispersal of escaped farmed salmon with particular emphasis on movements between countries; ³
- 1.6 provide a compilation of tag releases by country in 2007 and advise on progress with compiling historical tag recovery data from oceanic areas ⁴;
- 1.7 identify relevant data deficiencies, monitoring needs and research requirements; ⁵

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

- 2.1 describe the key events of the 2007 fisheries; ⁶
- 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 review and report on the development of age-specific stock conservation limits, where possible based upon individual river stocks;
- 2.4 describe the status of the stocks and provide annual catch options or alternative management advice for 2009-2011, 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; ⁷
- 2.5 further develop methods to forecast PFA for northern and southern stocks with measures of uncertainty.

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

- 3.1 describe the key events of the 2007 fisheries (including the fishery at St Pierre and Miquelon); ⁶
- 3.2 report on the biological characteristics (size, age, origin) of the catch in coastal fisheries and potential impacts on non-local salmon stocks.
- 3.3 provide any new information on the extent to which the objectives of any significant management measures introduced in recent years have been achieved;
- 3.4 update age-specific stock conservation limits based on new information as available;

In the event that NASCO informs ICES that the framework (FWI) indicates that re-assessment is required.*

- 3.5 describe the status of the stocks and provide annual catch options or alternative management advice for 2008-2011 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;⁷

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

- 4.1 describe the key events of the 2007 fisheries;⁶
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;

In the event that NASCO informs ICES that the framework (FWI) indicates that re-assessment is required.*

- 4.3 describe the status of stocks and provide annual catch options or alternative management advice for 2008-2010 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.^{7,8}

Notes:

1. *With regard to question 1.3, 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.) and with environmental changes. In the event that an annual measure is agreed for the West Greenland fishery, this question should be considered a lower priority than the other questions.*
2. *With regard to question 1.4, there is interest in determining the extent to which marine survival regimes are driven by factors in estuarine, nearshore, or offshore environments. To the extent possible, this assessment should focus on discrete stock complexes corresponding to NASCO management objectives. Characterizing these losses could provide regional and stock-specific context for ongoing research and upcoming research initiatives such as SALSEA.*
3. *A number of implementation plans presented by NASCO Parties raised concern about the occurrence in their marine fisheries and rivers of farmed salmon originating in other countries.*
4. *With regard to question 1.6 the data on tag recovery information should be compiled according to the format developed by the ICES Workshop on the Development and Use of Historical Salmon Tagging Information from Oceanic areas*
5. *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.*
6. *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.*
7. *In response to questions 2.4, 3.5 and 4.3 provide a detailed explanation and critical examination of any changes to the models used to provide catch advice.*

8. *In response to question 4.3, 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 2.4 and 3.5.*
- * **The aim should be for NASCO to inform ICES by 31 January of the outcome of utilising the FWI.**

CNL(07)15

Council

***Report of the Ad Hoc Review Group
on the Parties' Implementation Plans***

CNL(07)15

Report of the Ad Hoc Review Group on the Parties' Implementation Plans

1. The Strategic Approach for NASCO's 'Next Steps' requires that each Party or jurisdiction develop an Implementation Plan focused around NASCO's three main agreements (which address fishery management, habitat protection and restoration, and aquaculture and associated activities) and which also takes into account NASCO's various guidelines. Guidelines for the preparation of these Implementation Plans, NSTF(06)10, were agreed by the Council and last June the Parties and relevant jurisdictions presented draft plans. It was agreed that the final plans would be provided to the Secretariat by October 2006 and these would then be subject to review by an *Ad Hoc* Review Group. The Implementation Plans submitted by the Parties are contained in document CNL(07)22. The report of the *Ad Hoc* Review Group is attached.
2. The Review Group was asked to assess the uniformity of the plans with the Council's Guidelines for their preparation, NSTF(06)10, and assess how well the plans lend themselves to evaluation in relation to NASCO's Resolution and Agreements. The Review Group comprised Mary Colligan, Ted Potter, Andras Kristiansen and Arni Isaksson from NASCO's Parties and Chris Poupard and Gareth Porter from the NGOs. I served as Coordinator, which meant that I chaired the meeting. The Secretariat also facilitated the Group's work and provided the rapporteur but we did not review the plans. The task before the Group was somewhat daunting but the Group was an excellent team that worked in a very conscientious and fair way.
3. The focus of the assessment was the structure of the plan and its conformity to the guidelines. Consequently, to receive a favourable review a plan had to contain the key elements identified in the guidelines. So the reviews are not about the adequacy or otherwise of each jurisdiction's record of salmon management, they are simply about the structure and content of the plans.
4. The Group's assessments of the 15 plans available to it are contained in Annexes 3 and 4 of the attached report. A report on the Group's findings will be presented in a Special Session during the Twenty-Fourth Annual Meeting. There will then be an opportunity for a discussion under Special Session rules (i.e. all delegates and all NGOs may participate freely). The Parties may respond to these reviews if they so wish. Any revisions to the plans will then be subject to final review by the *Ad Hoc* group.
5. The Council is asked to consider the report of the *Ad Hoc* Review Group and decide on appropriate action. The Council will also be asked to decide on the focus area for the first reports by the Parties under their Implementation Plans, to be made in 2008, and agree the Terms of Reference and composition of a further *Ad Hoc* Group to review these reports.

Secretary
Edinburgh
11 April 2007

IP(07)4

Report of the Ad Hoc Review Group on Implementation Plans

***Palomar Hotel, Washington DC, USA
12 – 16 March 2006***

1. Opening of the Meeting by the Coordinator

- 1.1 The Coordinator, Dr Malcolm Windsor, opened the meeting and welcomed members of the *Ad Hoc* Review Group to Washington. He indicated that the Group had a unique task before it in that NASCO is probably the first inter-governmental fishery organization to undertake such an in-depth review of progress in implementing its agreements. Furthermore, the review is unique in that NASCO's NGOs are part of the process. He noted that the Group's task was complicated because it involves assessment of compliance with internationally agreed NASCO agreements and guidelines concerning management of habitat, aquaculture, introductions and transfers and fisheries and this task will involve judgments, a critical mind set and presentations of the findings in a diplomatic way. He indicated that it would be necessary to spend some time developing a sound basis for the reviews so that they are well constructed and fair and will, therefore, be accepted by the Parties, even where they are critical of them. He stressed that the Group's Terms of Reference state that "the 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". He noted that the members of the Group were participating as individuals representing the interests of the wild salmon as interpreted by NASCO's agreements and guidelines and not representing the interests of their Parties. He referred to his role as Coordinator of the Group in that he would not be a reviewer and the Secretariat's role was only to facilitate and support the Group's work. He concluded that there are many challenges for the Group in developing a strong foundation for its work, in developing reviews that reflect the interests of the salmon and in agreeing how to present the findings in a public forum. He indicated that he was looking forward to the next few days and to a valuable and thought-provoking report by the Group which will play a central role for the years to come in influencing the actions that NASCO's Parties take to conserve the wild stocks.
- 1.2 The representatives of the NGOs indicated that they very much welcome and appreciate the manner in which NASCO has undertaken the review of its activities and in particular the approach to assessing progress with implementation of its agreements. They indicated that NASCO deserves much credit for the transparent and inclusive way in which it has undertaken this work and they greatly appreciated being invited to participate in the process.
- 1.3 A list of participants is contained in Annex 1.

2. Adoption of the Agenda

- 2.1 The Group adopted its agenda, IP(07)3 (Annex 2), but changed item 5 to 'Adequacy of Implementation Plans'.

3. Review of Terms of Reference and Consideration of Working Methods

- 3.1 The Coordinator indicated that the Terms of Reference developed by the Council at its Twenty-Third Annual Meeting, CNL(06)39, had subsequently been revised through correspondence among NASCO's Heads of Delegations so as to improve the transparency of the review process. Under the revised Terms of Reference the functions of the Group are described as follows.
- (a) The *Ad Hoc* Review Group shall review and provide feedback to the Council 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", NSTF(06)10, and how well the plans lend themselves to evaluation in relation to the objectives of NASCO's Resolutions and Agreements.
 - (c) The *Ad Hoc* Review Group's report will be issued to the Parties and NGOs at the earliest opportunity and presented at a Special Session during the 2007 Annual Meeting. At this Special Session the Parties will have the opportunity to respond to the *Ad Hoc* Review Group's findings by reporting on any steps they have taken, or intend to take, to address the Group's suggestions. Any revisions to the Implementation Plans will be submitted by the Parties within a period of two months after the 2007 Annual Meeting for final review by the *Ad Hoc* Review Group. In the event that the *Ad Hoc* Review Group still has concerns about an Implementation Plan the President would be asked to liaise with the Party concerned.
 - (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.
- 3.2 The Group discussed its working methods. Prior to the meeting the Group had agreed, by correspondence, a format designed to ensure consistency in the reviews, to facilitate assessment of the plans with regard to their conformity with the guidelines, NSTF(06)10, and to allow evaluation of the adequacy of the Implementation Plans in relation to NASCO's Resolutions and Agreements. A lead reviewer was assigned to each plan from among the NASCO representatives and the NGOs also undertook initial reviews of all the plans. The NGO Chairman had sent the plans to the NGOs in each country and where a country had more than one NGO a lead organization had been appointed to coordinate the responses. These initial reviews from the NASCO representatives and the NGOs formed the basis for the Group's initial deliberations.
- 3.3 At the meeting the Group made a number of changes to the original review format. Although the original format contained a numerical scoring system the Group found that this was not particularly useful and decided not to use it in its assessments of the plans. The Group decided that it would conduct its assessment of the adequacy of the measures detailed in the Implementation Plans on the basis of the information provided on the status of stocks, the threats to these stocks, the existing management measures in place and the commitments made for future management measures. The initial review format had also contained a question about data deficiencies and

research needs. This was removed as it had not been clearly emphasized in the guidelines, NSTF(06)10. The Group decided to base its assessments on the key elements of the guidelines, NSTF(06)10, which detail the structure and format of, and outline the contents to be included in, the Implementation Plans. The Group also made some amendments to the format used for the initial reviews to ensure that it conformed precisely with the guidelines, NSTF(06)10. In the interests of providing succinct reviews the questions addressed by the Group are abbreviated in the reviews but are detailed in full below.

A. Structure and Format of the Plan

- A1 Does the plan apply to all stocks/fisheries managed within a jurisdiction?
- A2 Does the plan apply for a period of at least 5 years and will it generally require no annual modification unless circumstances change significantly?
- A3 Is the plan consistent with, and adopt approaches specified within, NASCO Resolutions and Agreements, and does it take account of NASCO Guidelines as appropriate to the management approach?
- A4 Is the plan written in a clear and concise form for easy accessibility and reference (e.g. use of numbered paragraphs)?
- A5 Does the plan describe a process and outputs that are open to critical evaluation?

B. Content of the Plan

- B1 Introduction: Does the plan provide a general picture of the resource and the management structure in place within the relevant jurisdiction?
- B2 Status of stocks: Does the plan describe the current status of stocks for future comparison?
- B3 Threats to stocks and current management measures: Does the plan 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?
- B4 Management approach to fisheries: Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations, both routine periodic reviews and the introduction of emergency measures, to include reference to/use of the NASCO Decision Structure for Management of Fisheries with measurable outputs against which subsequent reports can be assessed?
- B5 Management approach to habitat protection and restoration: Does the plan provide a clear 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, with measurable outputs against which subsequent reports can be assessed?
- B6 Management approach to aquaculture and introductions and transfers: Does the plan provide a clear summary of the approach that will be adopted to minimise any adverse impacts from aquaculture and to control introductions and transfers, in line with the Williamsburg Resolution, with measurable outputs against which subsequent reports can be assessed?
- B7 Addressing other influences: Does the plan provide a summary of the approach that will be adopted to address other influences affecting salmon abundance or diversity, including those that may be reducing marine survival of stocks (e.g. collaborative action through the SALSEA programme)?

- B8 Evaluation: Does the plan provide a summary of monitoring and evaluation activities that will be used to assess status of stocks and efficacy of management measures?
- B9 Socio-Economic Issues: Does the plan consider the social and economic implications of the actions proposed under B4 – B7?

3.4 The Group clarified its interpretation of some of these questions as follows:

- Question A1: the Group noted that while the Implementation Plans often referred to the number of salmon rivers in a country, it was not always clear if the plan applied to them all, but this was assumed to be the case;
- Question A3: the Group decided that in its assessment of this aspect of the guidelines, NSTF(06)10, it would assess only whether or not the Implementation Plans contained appropriate references to NASCO's Agreements, Resolutions and Guidelines. The Group felt that such references were important in making clear the linkage between national measures and the NASCO agreements. The extent to which these Agreements, Resolutions and Guidelines had been applied by the Parties in their existing and proposed management measures, as detailed in the Implementation Plans, was assessed in developing responses to questions B3-B7;
- Question A4: the Group felt that the assessment should focus on the need for outputs to be clearly identified and numerically referenced so as to facilitate future reporting and cross-referencing;
- Question A5: the Group interpreted the term 'process and outputs' to mean that there was a need for clearly expressed commitments in the form of specific management actions with timescales so that progress on their implementation could be followed in future;
- Question B2: the guidelines, NSTF(06)10, seek a description of the current status of stocks for future comparison. The Group agreed that it should assess this aspect of the plans on the basis of whether information had been presented on the status of stocks at a national or local level together with an indication of the process that would provide a basis for future comparison;
- Questions B4 – B6: the Group decided that it would interpret the term 'measurable outputs' to mean specific management actions with timescales for their implementation;
- Question B7: the Group had some difficulty in assessing this aspect because some Implementation Plans contained no information on other influences while some others did identify other influences but did not indicate how they would be addressed. The Group was unable to assess if plans should have identified and addressed other influences and so did not make an assessment for those plans that did not identify any other influences;
- Question B8: In assessing if the Implementation Plans provided a summary of monitoring and evaluation activities that will be used to assess status of stocks and efficacy of management measures, the Group did not attempt to assess if appropriate actions had been taken to allow the efficacy of management measures in all the focus areas in the plans to be evaluated. Instead, the Group primarily based its assessment on whether the plans made provision for an evaluation of stock status that would provide an indication of the success or otherwise of the overall Implementation Plan. However, some plans did indicate how the efficacy of specific management measures would be evaluated;
- Question B9: the Group did not assign an assessment to this question because it was not clearly emphasized in the guidelines, NSTF(06)10, and few Parties had provided details of the social and economic implications of the actions proposed. Nonetheless,

the Council has adopted 'Guidelines for Incorporating Social and Economic Factors in Decisions under the Precautionary Approach' and the Group believes that an exchange of information among the Parties on how social and economic factors are considered in reaching management decisions would be valuable when reports on progress in implementing plans are made. The Group felt that this element might be given further consideration by each jurisdiction in reviewing their plans.

- 3.5 For each of the questions above, each section of the plans was classed as satisfactory if it required no changes or only minor modifications; it was classed as not satisfactory if significant changes or additions were required. Where N/A is shown, the Group considers that the question concerned is not applicable.
- 3.6 The Group agreed on a number of 'ground rules' to guide its work in undertaking the reviews. These were as follows:
- (a) The lead reviewers were asked to lead the discussion within the Group and where unanimity emerged, to produce a final assessment to take into account any views from the Group;
 - (b) The lead reviewers would remain anonymous in the report and in the event that one or more members of the Group did not agree with a particular aspect or aspects of the review then the report would indicate that there were dissenting views but not disclose which members of the Group expressed the dissenting views unless they desired to do so;
 - (c) The Group would base its reviews only on the information presented in the Implementation Plan;
 - (d) Because not all jurisdictions were represented on the Group, it was agreed that a member of the Group from a country whose Implementation Plan was being reviewed would not be present during the review of that plan;
 - (e) While the Group recognized that the extent of the salmon stocks and the resources available to manage them varies markedly between jurisdictions, the Group took no account of these differences in undertaking its reviews;
 - (f) The Group recognized that in some jurisdictions the responsibility for management of salmon stocks rests with the riparian owners while in others the resource is managed by the public sector. The Group felt that, nonetheless, governments have or should have powers to conserve the resource and it should therefore be possible to summarise in the Implementation Plans the management actions that are expected to be taken by the appropriate bodies in the coming years.. This difference was not, therefore, taken into account in reviewing the Implementation Plans;
 - (g) In some cases Implementation Plans expressed aspirations for certain objectives but these were not considered as commitments to implement measures under the plans since they lacked specific actions and timescales;
 - (h) Following an initial review of all the plans and their revision in the light of the Group's suggestions, all the reviews were re-examined to ensure consistency.

4. Review of Implementation Plans

4.1 Implementation Plans were received from, and reviewed by, the Group for the following jurisdictions:

- Canada, IP(06)11
- Denmark, IP(06)10
- England and Wales, IP(06)3
- Faroe Islands, IP(06)15
- Finland, IP(06)5
- Greenland, IP(06)8
- Iceland, IP(06)7
- Ireland, IP(06)14
- Northern Ireland, IP(06)1
- Norway, IP(06)12
- Russian Federation, IP(06)9
- Scotland, IP(06)2
- Spain, IP(06)13
- Sweden, IP(06)6
- USA, IP(06)4

4.2 The Group noted that the Implementation Plan for Spain applied only to the Principality of Asturias and the other Autonomous Regions with salmon interests, such as Cantabria and Galicia, had not submitted information for inclusion in the plan for Spain. Nonetheless, the Group decided to proceed with a review of the information presented since it felt this might assist the other regions in presenting information for inclusion in the Implementation Plan.

4.3 In the case of the Faroese Implementation Plan there had evidently been a communication failure and information had only been provided in relation to the management of four small rivers supporting populations of Atlantic salmon but not for the marine salmon fishery. This had not operated for several years although it is subject to decisions agreed in NASCO's North-East Atlantic Commission. The Group reviewed the plan as submitted and pointed out this discrepancy.

4.4 Implementation Plans were not received from the following jurisdictions and could not, therefore, be reviewed:

- France
- Germany
- Portugal

4.5 The lack of these plans is a concern and the Group recommends that the Council strongly urges the EU Member States concerned to submit plans without further delay so that they can be reviewed by the Group.

4.6 All of the plans differed markedly in length, clarity and content. The Group noted that the Council's intention had been that the draft Implementation Plans presented at NASCO's Twenty-Third Annual Meeting would be further developed inter-sessionally and made available to the Group by the end of October 2006 so as to allow

adequate time for their review. However, several plans were received just prior to the Group's meeting, restricting the time available for the initial reviews. The Group noted that the guidelines, NSTF(06)10, state that Implementation Plans should apply for a period of at least five years and generally require no annual modification unless circumstances change significantly. However, some Implementation Plans were labelled as 'draft' or 'provisional'. The assessment of these plans was necessarily conducted on the basis of their current content.

- 4.7 The Group noted that the majority of Implementation Plans failed to make any reference to NASCO's Agreements, Resolutions and Guidelines or the extent to which they had been applied. This is a concern, given that the purpose of the plans is to detail how the approaches in these internationally agreed measures have been incorporated into domestic management regimes.
- 4.8 The Group noted that most plans failed to include clearly identifiable measurable outputs in the form of specific management actions with timescales for their implementation.
- 4.9 The Group noted that in accordance with the NASCO Plan of Action for the Protection and Restoration of Atlantic Salmon Habitat, the Parties should establish inventories of salmon rivers. The Council has established a web-based database to hold information on salmon rivers, the habitat they contain and salmon production data provided by the Parties and relevant jurisdictions. Few of the Implementation Plans contained reference to the establishment of inventories or commitments to contribute to the NASCO database.
- 4.10 While the Group may have inadvertently missed points of detail, it believes that its overall assessments of the strengths and weaknesses of the plans are broadly correct. While the Group's Terms of Reference allow for different views to be expressed in presenting its findings, there was unanimous agreement on the assessment of all of the Implementation Plans. The Group was aware that to agree its working methods and thoroughly review fifteen plans, amounting to approximately 300 pages, was a somewhat daunting task in a four-day meeting. It believes, however, that by developing its initial working methods and completing the initial reviews before the meeting it was able to work efficiently during its meeting and undertake checks to ensure consistency in the reviews.

5. Adequacy of Implementation Plans

- 5.1 The Group's assessments of the fifteen Implementation Plans are presented in alphabetical order by jurisdiction in document IP(07)5, Annex 3. The Group's assessments for each of the questions referred to in paragraph 3.3 above for all jurisdictions are presented in document IP(07)6, Annex 4.
- 5.2 It is clear from these reviews that the guidelines, NSTF(06)10, have been interpreted differently by the different jurisdictions. The plans that were assessed to be most satisfactory contained clear references to the NASCO Agreements and Resolutions and contained an action plan of measures to be implemented over the next five years, clearly referenced and with specific timescales for implementation of each measure. The Group believes that if there is to be progress with implementation of NASCO's Resolutions and Agreements, as proposed under the Next Steps for NASCO strategy,

it will be important that all the Implementation Plans provide a clear statement of the management actions, consistent with the NASCO Resolutions and Agreements, that are to be implemented over the next five years, with specific timescales for each action. This would then enable progress towards these goals to be assessed through the annual reports by the Parties.

6. Arrangements for Special Session during the Twenty-Fourth Annual Meeting

- 6.1 The Group discussed the presentation of its findings during the Special Session at NASCO's Twenty-Fourth Annual Meeting. It was recognised that the review of Implementation Plans was a central element of the "Next Steps for NASCO" Strategy and that it would be important to present the findings in a stimulating, diplomatic and informative manner. The Group discussed the content of its presentation, which might consist of an introduction by the Coordinator, setting the scene and describing the approach used by the Review Group in conducting its assessments. The results of the review would then be presented and it was suggested that this might be best achieved by grouping the Implementation Plans according to, for example, whether or not they contained references to NASCO agreements, to action plans or to action plans with timescales. The presentation might then select particular aspects of the plans and highlight examples of best practice in these plans, e.g. with regard to describing stock status, threats to the resource, existing management measures and future management approaches. Mary Colligan and Chris Poupard were asked to liaise in developing an outline of the presentation for consideration by the Group, which would then need to resolve who would deliver the presentation.
- 6.2 The Group noted that its Terms of Reference indicated that at the Special Session the Parties would have the opportunity to respond to the *Ad Hoc* Review Group's findings by reporting on any steps they have taken, or intend to take, to address the Group's suggestions.

7. Arrangements for the Future Work of the Group

- 7.1 The Group agreed that a further meeting would not be necessary at this stage but might be required in the autumn to review the revised plans and any additional plans received. It was noted that the Council had decided to appoint a further *Ad Hoc* Review Group in relation to assessing the reports by the Parties on the first focus area but that the topic of this focus area and the Terms of Reference for that group and its participants would be agreed at the Twenty-Fourth Annual Meeting.

8. Report of the Meeting

- 8.1 The Group agreed a report of its meeting.

9. Any Other Business

- 9.1 There was no other business.

10. Close of Meeting

- 10.1 The Coordinator thanked participants for their contributions and closed the meeting.

Ad Hoc Review Group on Implementation Plans

Palomar Hotel, Washington DC, USA

12 – 16 March 2006

List of Participants

Reviewers:

Ms Mary Colligan, National Marine Fisheries Service, USA

Mr Arni Isaksson, Agricultural Authority of Iceland, Iceland

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

Dr Gareth Porter, WWF (US), USA

Mr Ted Potter, CEFAS, UK

Mr Chris Poupard, Chairman of NASCO's NGOs, UK

Secretariat:

Dr Malcolm Windsor, NASCO, UK (Coordinator)

Dr Peter Hutchinson, NASCO, UK (Rapporteur)

IP(07)3

***Ad Hoc* Review Group on Implementation Plans
Palomar Hotel, Washington DC, USA
12 – 16 March 2006**

A G E N D A

1. Opening of the Meeting by the Coordinator
2. Adoption of the Agenda
3. Review of Terms of Reference and Consideration of Working Methods
4. Review of Implementation Plans

Jurisdiction	Paper No.
Canada	IP(06)11
Denmark	IP(06)10
England and Wales	IP(06)3
Faroe Islands	IP(06)15
Finland	IP(06)5
Greenland	IP(06)8
Iceland	IP(06)7
Ireland	IP(06)14
Northern Ireland	IP(06)1
Norway	IP(06)12
Russian Federation	IP(06)9
Scotland	IP(06)2
Spain	IP(06)13
Sweden	IP(06)6
USA	IP(06)4

5. Adequacy of Implementation Plans
6. Arrangements for Special Session during the Twenty-Fourth Annual Meeting
7. Arrangements for the Future Work of the Group
8. Report of the Meeting
9. Any Other Business
10. Close of Meeting

IP(07)5

Review of Implementation Plan CANADA

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO 'Implementation Plans' and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:			
A1 Does the plan apply to all stocks/fisheries managed within the jurisdiction? ○ <i>The plan describes approximately 900 salmon rivers and associated fisheries in four management areas</i>		X	
A2 Does the plan apply for a period of at least 5 years? ○ <i>The plan describes measures to be implemented for 2006-2010</i>		X	
A3 Does the plan make reference to NASCO's Guidelines, Resolutions and Agreements? ○ <i>Specific reference is made to the appropriate NASCO Resolutions, Agreements and Guidelines</i>		X	
A4 Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? ○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>			X
A5 Does the plan describe a process and outputs that are open to critical evaluation? ○ <i>The plan describes the science well but does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i>			X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.			
B1 Does the plan provide a general picture of the resource and the management structure in place? ○ <i>Includes a description of the salmon resource and the management structures</i>		X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B2	Does the plan describe the current status of stocks that will allow for future comparison? <ul style="list-style-type: none"> <i>The plan summarises the abundance of stocks at a provincial level. Assessments are based on 75 rivers and these are used as indicators for other rivers within a region</i> <i>The plan includes a description of stock diversity and other aspects of stock status</i> 	X	
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>Identifies a range of factors which may impact upon salmon stocks and outlines current management measures</i> <i>An explanation of how threats have been prioritized would be useful</i> 	X	
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>References to measurable outputs against which subsequent reports can be assessed are limited and do not go beyond 2008</i> <i>Outputs and timescales for managing recreational fisheries in the future are not described</i> <i>The process and timescale for evaluating the effectiveness of the measures introduced in 2006 to reduce the catch of 2SW fish in coastal areas of Labrador lack specificity</i> 		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan indicates a continuation of the current approach to habitat management, but with the exception of the acid rain program, references to measurable outputs by which subsequent reports can be assessed are missing</i> 		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>The plan describes fairly clearly the current management approach to aquaculture and introductions and transfers already in place, but specific future actions and timescales are lacking</i> 		X
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>Activities are identified in relation to SALSEA with schedules for reporting. Other influences are identified (contaminants and invasive species), but no actions are identified</i> 		X
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures</i> 	X	
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>Reference is made to the commitments of federal Canada to Aboriginals for food, social and ceremonial purposes as a first priority after conservation</i> 		

Review of Implementation Plan DENMARK

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO 'Implementation Plans' and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:		
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? ○ <i>The plan describes 9 rivers (which historically had salmon) and associated fisheries</i>	X	
A2	Does the plan apply for a period of at least 5 years? ○ <i>There is no indication of a clear timescale for the plan, although reference is made to a National Management Plan</i>		X
A3	Does the plan make reference to NASCO's Guidelines, Resolutions and Agreements? ○ <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i>		X
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? ○ <i>The plan has limited information and proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
A5	Does the plan describe a process and outputs that are open to critical evaluation? ○ <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i>		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.		
B1	Does the plan provide a general picture of the resource and the management structure in place? ○ <i>Includes a limited description of the salmon resource and management entities</i>	X	
B2	Does the plan describe the current status of stocks that will allow for future comparison? ○ <i>The plan does not describe a system in place to assess the status of stocks</i>		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? ○ <i>Limited information is provided on threats and current management measures are not described</i>		X
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? ○ <i>There is very limited information on fisheries management and no measurable outputs or timescales</i>		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? ○ <i>The plan identifies some actions, but lacks specific timescales</i>		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? ○ <i>The plan identifies some actions, but these are not very clear and lack specific timescales</i>		X
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? ○ <i>No other influences are identified</i>	N/A	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? ○ <i>The plan does not address this issue</i>		X
B9	How does the plan consider socio-economic issues? ○ <i>The plan does not mention consideration of socio-economic factors</i>		

Review of Implementation Plan ENGLAND AND WALES

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO 'Implementation Plans' and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:	Yes	No
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? ○ <i>The plan describes 78 salmon rivers and associated fisheries</i>	X	
A2	Does the plan apply for a period of at least 5 years? ○ <i>The plan states that each Salmon Action Plan (SAP) contains an agreed list of actions over a 5-year lifetime</i>	X	
A3	Does the plan make reference to NASCO's Guidelines, Resolutions and Agreements? ○ <i>Specific reference is made to the appropriate NASCO Resolutions, Agreements and Guidelines</i>	X	
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? ○ <i>The text is clearly written, with numbered actions</i> ○ <i>Identification of references or source data would be useful</i>	X	
A5	Does the plan describe a process and outputs that are open to critical evaluation? ○ <i>The Actions to be undertaken are very clearly specified in the plan; although the overall schedule is for 5 years the timescale associated with each individual action is not always clear</i>	X	

B. Content of the Plan		Is the Plan satisfactory?	
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.	Yes	No
B1	Does the plan provide a general picture of the resource and the management structure in place? ○ <i>Includes a description of the salmon resource and the management structures</i>	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B2	Does the plan describe the current status of stocks that will allow for future comparison? <ul style="list-style-type: none"> <i>The plan summarises the abundance of stocks at a national level based upon the ICES PFA model and the status of individual stocks assessed against conservation limits</i> <i>There are clear and measurable objectives for each river that the stock should be meeting or exceeding its CL in at least 4/5 years</i> 	X	
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>Identifies a range of factors which may impact upon salmon stocks and outlines current management measures</i> 	X	
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>In general the plan contains specific actions and associated timescales, but additional specificity would be helpful in the following areas</i> <i>Plan notes that 53% of rivers are not meeting CLs, but the plan does not appear to prioritize action on these rivers</i> <i>Plan states that there is a national policy to phase out mixed stock fisheries, but a specific timescale is not specified and the plan lacks urgency in dealing with this issue</i> <i>Plan indicates limited regulatory control over some fishing effort, which raises question of how goals will be achieved</i> 	X	
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan describes the process of reviewing and updating Salmon Action Plans as the approach for addressing habitat</i> <i>These plans cover a 5-year timescale and contain specific actions and progress against these actions is reviewed annually and will be provided to NASCO</i> 	X	
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>The plan does include specific actions and associated timescales</i> <i>The plan comprehensively addresses all of the relevant issues and has appropriate references to NASCO guidelines and resolutions</i> <i>It would be useful to identify what, in Action 13, is considered a “significant” increase in the incidence of salmon farm escapees in monitored rivers that would trigger “appropriate action” (Note: England and Wales does not have marine aquaculture)</i> <i>It would be useful to provide detail on the terms of current national policies for introductions and transfers and how they are consistent with NASCO principles and it is not clear how reporting on Action 12 will be completed</i> <i>Action 14 includes completion and reporting, but no commitment to take action in light of that report</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>Reporting on research into factors affecting marine survival is identified</i> 	X	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures</i> <i>The plan clearly sets out a process for evaluating river by river progress within Salmon Action Plans</i> 	X	

B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>One of the main objectives identified is to optimize the total economic value of surplus stocks and the plan identifies when socio-economic values are addressed in developing fishing controls for salmon fisheries</i> <i>Salmon Action Plans include identification of main factors limiting performance and drawing up and costing a list of options to address these</i> <i>Plan states that existing licensees who are dependent upon fishing for their livelihood retain the right to receive a licence as long as they wish</i>
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Review of Implementation Plan FAROE ISLANDS

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO 'Implementation Plans' and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:	Yes	No
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? <ul style="list-style-type: none"> <i>The plan states that the Faroe Islands has no rivers with historic/natural salmon stocks, but the plan describes four stocks that have been established (and may be maintained) by stocking programmes</i> <i>The plan makes no mention of the large mixed stock of salmon within the Faroese EEZ or the fishery that has operated in the area in the past but not in recent years</i> 		X
A2	Does the plan apply for a period of at least 5 years? <ul style="list-style-type: none"> <i>There is no indication of a clear timescale for the plan</i> 		X
A3	Does the plan make reference to NASCO's Guidelines, Resolutions and Agreements? <ul style="list-style-type: none"> <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i> 		X
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? <ul style="list-style-type: none"> <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i> 		X
A5	Does the plan describe a process and outputs that are open to critical evaluation? <ul style="list-style-type: none"> <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i> 		X

B. Content of the Plan		Is the Plan satisfactory?	
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.	Yes	No
B1	Does the plan provide a general picture of the resource and the management structure in place? <ul style="list-style-type: none"> <i>The description of the salmon resource is limited to a description of the four artificially established river stocks and limited information is provided on the authorities or legislation by which they are managed</i> <i>The plan makes no mention of the presence of stocks from many European countries in Faroese waters and the management structure that controls fishing activities</i> 		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B2	Does the plan describe the current status of stocks that will allow for future comparison? <ul style="list-style-type: none"> <i>Status of the river stocks is assessed by catches and stocking levels, which are both stable, but the extent of natural production in the rivers is unclear and no information is provided on the status of stocks in Faroese marine waters</i> 		X
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>Limited information is provided on threats and current management measures are not described</i> <i>The plan considers the fisheries affecting the river stocks but not the potential marine fishery</i> <i>There are said to be no external factors affecting freshwater and estuarine habitat, but it is unclear how this has been assessed</i> <i>The plan mentions potential effects of aquaculture, but the effects of continued stocking are not considered</i> 		X
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>The plan lacks specific actions and associated timescales</i> <i>The plan makes no mention of the management regime for controlling legal or illegal fishing for salmon in the sea</i> 		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan does not include specific actions and associated timescales</i> 		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>The plan does not include specific actions and associated timescales</i> 		X
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>No other influences are identified</i> 	N/A	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>The plan does include a reference to evaluation, but does not describe any specific activities</i> 		X
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>The plan does not mention consideration of socio-economic factors</i> 		

Review of Implementation Plan FINLAND

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO ‘Implementation Plans’ and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:		
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? <ul style="list-style-type: none"> <i>The plan describes three rivers and associated fisheries, one of which has an impassable barrier in its lower reaches in Russia. The most important river is the Teno</i> 	X	
A2	Does the plan apply for a period of at least 5 years? <ul style="list-style-type: none"> <i>There is no indication of a clear timescale for the plan</i> 		X
A3	Does the plan make reference to NASCO’s Guidelines, Resolutions and Agreements? <ul style="list-style-type: none"> <i>Limited reference is made to the Decision Structure</i> 		X
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? <ul style="list-style-type: none"> <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i> 		X
A5	Does the plan describe a process and outputs that are open to critical evaluation? <ul style="list-style-type: none"> <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i> 		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.		
B1	Does the plan provide a general picture of the resource and the management structure in place? <ul style="list-style-type: none"> <i>Includes a description of the salmon resource and the management structures</i> 	X	
B2	Does the plan describe the current status of stocks that will allow for future comparison? <ul style="list-style-type: none"> <i>The method for assessing the status of stocks is described, but there are conflicting statements on stock status, and the basis for future comparison is not clear</i> 		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>The plan identifies fisheries and aquaculture as current threats</i> <i>The plan is unclear with respect to the management of the recreational fishery and threats to habitat because it refers to enhancement work carried out</i> 		X
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>The plan lacks specific actions and associated timescales</i> <i>The plan does not refer to the NASCO Decision Structure and there is no reference to future management measures to address either the coastal fishery in Norway or the recreational fishery</i> 		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan lacks specific actions and associated timescales</i> 		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>All aquaculture activities and transfers of live fish and eggs from other catchment are strictly forbidden in the catchments area of the rivers Teno and Näätämöjoki, but it would be useful to describe the actions planned to enforce this prohibition</i> <i>The plan identifies issues with escaped farmed salmon that would appear to warrant cooperative action with Norway</i> 	X	
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>No other influences are identified</i> 	N/A	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>The plan does not address this issue</i> 		X
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>The plan highlights the socio-economic importance of salmon to the local communities</i> 		

Review of Implementation Plan GREENLAND

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO ‘Implementation Plans’ and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:	Yes	No
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? <ul style="list-style-type: none"> <i>The plan focuses on the mixed stock fishery off West Greenland and makes mention of one salmon river, the Kapisillit, in Godthab Fjord</i> 	X	
A2	Does the plan apply for a period of at least 5 years? <ul style="list-style-type: none"> <i>The quota for the mixed stock fishery is subject to negotiation within NASCO so the provision for a 5-year timescale does not apply</i> 	N/A	
A3	Does the plan make reference to NASCO’s Guidelines, Resolutions and Agreements? <ul style="list-style-type: none"> <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i> 		X
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? <ul style="list-style-type: none"> <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i> 		X
A5	Does the plan describe a process and outputs that are open to critical evaluation? <ul style="list-style-type: none"> <i>It is recognized that the scope of the plan is limited to the monitoring and management of the internal-use-only fishery in Greenland, but identifies several actions related to improving catch data</i> <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i> 		X

B. Content of the Plan		Is the Plan satisfactory?	
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.	Yes	No
B1	Does the plan provide a general picture of the resource and the management structure in place? <ul style="list-style-type: none"> <i>Includes a description of the salmon resource at sea and the management structures</i> <i>The plan identifies, but does not describe, the river Kapisillit in Godthab Fjord</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B2	Does the plan describe the current status of stocks that will allow for future comparison? <ul style="list-style-type: none"> <i>Status of stocks are well described, based on the ICES advice, and the importance of diversity is recognized</i> 	X	
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>Threats are not discussed in detail because these principally impact stocks in rivers of origin</i> 	N/A	
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>The plan identifies the importance of providing reliable data on the fishery and provides a measurable indicator as the number of licensees reporting compared with the number of licences issued, but does not identify specific future actions to address this issue and the associated timescales</i> <i>While not the responsibility of Greenlandic authorities, we note that the WGC does not utilize the NASCO Decision Structure</i> 		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan does not identify any threats to the marine habitat in West Greenland</i> <i>As noted previously, the plan is necessarily limited in scope to the management and reporting on the fishery in Greenland</i> 	N/A	
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>As noted previously, the plan is necessarily limited in scope to the management and reporting on the internal use fishery in Greenland</i> <i>There are no salmon aquaculture facilities in Greenland</i> 	N/A	
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>No other influences are identified</i> 	N/A	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>Identifies measurable indicator for efficacy of management measures designed to improve accuracy of estimates of the fishery</i> <i>No mention is made of the international sampling program</i> 	X	
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>The plan does not mention consideration of socio-economic factors and their role in fishery management decisions</i> 		

Review of Implementation Plan ICELAND

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO ‘Implementation Plans’ and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:		
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? ○ <i>The plan describes 250 rivers in Iceland and addresses management of salmon in ‘about 80 rivers’</i>	X	
A2	Does the plan apply for a period of at least 5 years? ○ <i>The plan refers to ‘A five year management plan’, and the proposed activities would appear to address such a period</i>	X	
A3	Does the plan make reference to NASCO’s Guidelines, Resolutions and Agreements? ○ <i>There is only one reference to NASCO Resolutions Agreements or Guidelines in the plan, which is specific to aquaculture</i>		X
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? ○ <i>The text is clearly written, and includes bullet points for proposed activities, but the use of numbers would facilitate reporting and cross-referencing to the plan</i>	X	
A5	Does the plan describe a process and outputs that are open to critical evaluation? ○ <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of timescales</i>		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.		
B1	Does the plan provide a general picture of the resource and the management structure in place? ○ <i>Includes a description of the salmon resource and the management structures</i>	X	
B2	Does the plan describe the current status of stocks that will allow for future comparison? ○ <i>The plan summarises the abundance of stocks at a national level based primarily upon catch statistics and the reliability of these data is considered to provide a basis for future comparison at a river level</i>	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>The plan provides a list and brief explanation of the 10 main factors affecting the salmon habitat and prioritises these across Icelandic rivers as a whole. It also indicates areas where specific problems are more prevalent</i> 	X	
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>The plan identifies specific actions, but does not provide associated timescales</i> <i>Seven management actions are listed; two refer to maintaining the status quo; and three simply refer to ‘encouraging’ specific activities. The remaining two refer to limiting mixed stock netting and by-catches, but do not indicate timescales, nor the actions that will be taken or the mechanisms that will be used</i> 		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan includes actions, but lacks specific timescales</i> <i>National authorities have limited powers to carry out remedial habitat work, but through licensing there are restrictions on owners so as to control damaging activities such as gravel removal</i> <i>Some of the actions are vague (e.g. “explore the possibility...”)</i> 		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>The plan does include objectives, but would benefit from specific actions and associated timescales</i> <i>Despite lack of timescales there is a robust management system in place for a limited salmon farming industry</i> <i>The plan highlights a challenge related to introductions, and it is not clear how this will be addressed</i> <i>The plan indicates that Iceland has been reviewing and updating its laws and regulations on aquaculture in line with the NASCO agreements</i> 	X	
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>No other influences are identified</i> 	N/A	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures</i> 	X	
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>The plan identifies the economic value of angling</i> <i>It is clear that decisions about the balance of exploitation between rod and net fisheries has been driven in large part by economic considerations</i> 		

Review of Implementation Plan IRELAND

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO ‘Implementation Plans’ and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:		
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? ○ <i>The plan describes 148 salmon rivers and associated fisheries</i>	X	
A2	Does the plan apply for a period of at least 5 years? ○ <i>The plan does mention 2007 and beyond, but there is no indication of a clear timescale for the plan</i>		X
A3	Does the plan make reference to NASCO’s Guidelines, Resolutions and Agreements? ○ <i>The plan has a special section on NASCO obligations, which mentions the Precautionary Approach</i>	X	
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? ○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
A5	Does the plan describe a process and outputs that are open to critical evaluation? ○ <i>The plan can be evaluated with respect to fisheries management, but management of habitat, aquaculture and introductions do not have measurable outputs</i>		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.		
B1	Does the plan provide a general picture of the resource and the management structure in place? ○ <i>Includes a description of the salmon resource and the management structures</i>	X	
B2	Does the plan describe the current status of stocks that will allow for future comparison? ○ <i>The plan summarises the abundance of stocks at a national level based upon the ICES PFA model and the status of individual stocks assessed against conservation limits, and recognizes the importance of diversity of stocks</i>	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>The plan describes threats from fisheries and aquaculture in detail, but provides very little information on other threats</i> <i>Figure 5 is informative, but the description of current management measures for habitat is very limited</i> 	X	
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>The plan includes specific actions and near-term associated timescales</i> <i>There is a detailed description of harvest guidelines before and after the closure of the drift net fishery</i> <i>While there are no detailed plans for future actions after 2007, this is understandable given the major changes currently taking place in fisheries management</i> 	X	
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan does not include specific actions and associated timescales</i> <i>There is reference to the development of a GIS database to link river habitat and water quality</i> 		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>The plan does not include specific actions and associated timescales</i> <i>There is a description of the influences that aquaculture may have on wild stocks but it contains no commitments</i> 		X
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>No other influences are identified</i> 	N/A	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures, but there is a lack of monitoring and evaluation specific to aquaculture</i> 		X
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>A hardship fund to compensate those that lost their livelihood through the closure of the drift net fishery</i> 		

Review of Implementation Plan NORTHERN IRELAND

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO ‘Implementation Plans’ and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders		
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? ○ <i>The plan describes 27 salmon rivers and associated fisheries</i>	X	
A2	Does the plan apply for a period of at least 5 years? ○ <i>There is no indication of a clear timescale for the plan</i>		X
A3	Does the plan make reference to NASCO’s Guidelines, Resolutions and Agreements? ○ <i>An introductory reference is made to the NASCO agreements</i>	X	
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? ○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
A5	Does the plan describe a process and outputs that are open to critical evaluation? ○ <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i>		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.		
B1	Does the plan provide a general picture of the resource and the management structure in place? ○ <i>Includes a description of the salmon resource and the management structures</i>	X	
B2	Does the plan describe the current status of stocks that will allow for future comparison? ○ <i>The plan summarises the abundance of stocks at a national level based upon the ICES PFA model and indicates the use of specific targets for most individual rivers</i>	X	
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? ○ <i>Identifies a range of factors which may impact upon salmon stocks and outlines current management measures</i>	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>The plan lacks specific actions and associated timescales</i> <i>Specific actions and timescales are needed for the following:</i> <ul style="list-style-type: none"> <i>“Work continues” to extend CL setting to all salmon-producing rivers in the FCB area of Northern Ireland, and to install fish counters to enable compliance to be assessed in key indicator rivers</i> <i>“Further work” to refine these CLs by using available river-specific habitat data is “in progress”</i> <i>The Loughs Agency has established CLs and “is planning” to extend the compliance monitoring</i> <i>Section 4.1.2 describes the review process generally, but lacks specificity as to what will happen over the next 5 years and what the output will be</i> 		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan lacks specific actions and associated timescales</i> <i>The plan states that a process is being developed for instream habitat restoration but no timescale or outputs are identified</i> <i>The plan does not identify the process and procedures in place to prevent impacts to habitat</i> 		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>The plan does not include specific actions and associated timescales</i> <i>States “work is underway” to develop a stocking policy for Northern Ireland, but no timescale is specified</i> 		X
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>The plan identifies other influences, including exploitation by mammals and birds, low marine survival, and cormorant predation, but does not include any specific actions to address these other influences</i> 		X
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures</i> 	X	
B9	How does the plan consider socio-economic issues?		
	<i>There is no specific mention of socio-economic issues in the plan</i>		

Review of Implementation Plan NORWAY

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO 'Implementation Plans' and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:		
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? <ul style="list-style-type: none"> <i>The plan describes 446 salmon rivers and associated fisheries, of which 45 stocks are thought to be extinct</i> 	X	
A2	Does the plan apply for a period of at least 5 years? <ul style="list-style-type: none"> <i>The plan describes management measures extending until 2012 and beyond</i> 	X	
A3	Does the plan make reference to NASCO's Guidelines, Resolutions and Agreements? <ul style="list-style-type: none"> <i>Specific reference is made to the appropriate NASCO Resolutions, Agreements and Guidelines</i> 	X	
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? <ul style="list-style-type: none"> <i>The text is clearly written and the format of the management goals and milestones is clear, but the use of numbering would be helpful</i> 	X	
A5	Does the plan describe a process and outputs that are open to critical evaluation? <ul style="list-style-type: none"> <i>The plan includes clear lists of milestones and indicates who is responsible and when they should be completed</i> <i>The milestones generally only relate to 2007-2008 and it is not clear how the list will be updated in future years to address actions planned in subsequent periods</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.		
B1	Does the plan provide a general picture of the resource and the management structure in place? <ul style="list-style-type: none"> <i>Includes a description of the salmon resource and the management structures</i> <i>A table usefully links challenges facing salmon to the responsible authorities and relevant legislation</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B2	Does the plan describe the current status of stocks that will allow for future comparison? <ul style="list-style-type: none"> <i>The plan summarises the abundance of stocks for three large regions based upon the ICES PFA model but provides no information on the assessment of stocks at a more detailed level and recognizes the importance of diversity</i> 	X	
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>The plan provides an outline of a comprehensive inventory of factors affecting salmon stocks and describes the number of rivers in each of 16 counties affected by each factor</i> <i>This has provided the basis for prioritising the factors which will be the focus of management action</i> <i>In each area the plan identifies the main issues, the management approach and the responsible authorities</i> 	X	
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>The plan includes specific actions and associated timescales</i> <i>The plan sets a clear management goal for fisheries, identifies five areas for specific attention and sets eight milestones to be completed in the period 2006 – 2009. This includes establishing CLs for all rivers and applying these through a Decision Structure</i> <i>The plan does not specifically refer to the application of the NASCO Decision Structure to the coastal fishery off the Teno (see Finland)</i> 	X	
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan includes specific actions and associated timescales</i> 	X	
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>The plan identifies actions to be taken to address the three main issues of escapes, sea lice and G. salaris. In each case a vision is identified, along with a list of milestones to be met in the coming years</i> <i>In relation to sea lice, it might be considered whether levels of infestation on wild sea trout should also be used as an indicator, since in other areas this has presented a greater problem</i> <i>Actions only extend to 2007 and it is not clear what happens after that date</i> <i>The Finnish and Swedish plans have identified problems with escaped Norwegian farmed salmon that would appear to warrant specific actions</i> 	X	
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>No other influences are identified</i> 	N/A	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures</i> 	X	

B9 How does the plan consider socio-economic issues?

- *The socio-economic value of the most important salmon rivers is included*
- *The fishery management goal refers to safeguarding the interests of different user groups*

Review of Implementation Plan RUSSIAN FEDERATION

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO ‘Implementation Plans’ and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:			
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? <ul style="list-style-type: none"> <i>The plan describes salmon stocks and associated fisheries in three areas: the Kola Peninsula (79 rivers); the Republic of Karelia (17 rivers); and an eastern area comprising the Archangelsk Region, Nenets National Okrug and Komi Republic (mainly based on four large rivers)</i> 	X	
A2	Does the plan apply for a period of at least 5 years? <ul style="list-style-type: none"> <i>There is no indication of a clear timescale for the plan</i> 		X
A3	Does the plan make reference to NASCO’s Guidelines, Resolutions and Agreements? <ul style="list-style-type: none"> <i>There are two references to “NASCO recommendations”</i> 		X
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? <ul style="list-style-type: none"> <i>The text is clearly written, and includes bullet points for proposed activities but the use of numbers would facilitate reporting and cross-referencing to the plan</i> <i>The detailed description of the fisheries and stocks might be assisted by providing a map and putting some of the data in tabular form</i> 	X	
A5	Does the plan describe a process and outputs that are open to critical evaluation? <ul style="list-style-type: none"> <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of timescales</i> 		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.			
B1	Does the plan provide a general picture of the resource and the management structure in place? <ul style="list-style-type: none"> <i>Includes a description of the salmon resource and the management structures</i> <i>It would be helpful to clarify how the various authorities involved in the management of salmon rivers/fisheries interact</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B2	<p>Does the plan describe the current status of stocks that will allow for future comparison?</p> <ul style="list-style-type: none"> ○ <i>The plan summarises the abundance of stocks at a national level based upon the ICES PFA model and indicates the availability of more detailed information on individual rivers in some areas</i> ○ <i>The importance of diversity is recognized</i> ○ <i>No stock assessments are available for the Republic of Karelia, although the stocks are thought to be in a depleted state based on catch data</i> 	X	
B3	<p>Does the plan provide a summary of the threats to stocks and outline current management measures?</p> <ul style="list-style-type: none"> ○ <i>Identifies a range of factors which may impact upon salmon stocks, but the mechanisms for managing these threats is not specified</i> ○ <i>The plan refers to the introduction and transfer of 'humpback' (presumably pink salmon) in 119 rivers across all three areas, but it is not clear whether releases are continuing and, if so, how this is managed</i> 		X
B4	<p>Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations?</p> <ul style="list-style-type: none"> ○ <i>The plan identifies specific actions but some are not clear and there are no associated timescales</i> ○ <i>Some of the actions are unclear (e.g. 'addressing socio-economic problems') or open to subjective interpretation</i> ○ <i>All fisheries are said to be licensed and quota-regulated, but it is not clear how TACs/quotas are set and whether they are consistent with the NASCO Decision Structure</i> ○ <i>There is an objective to phase out some mixed stock net fisheries operating in the coastal waters of the White Sea, but the process and timescale are not described</i> 		X
B5	<p>Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions?</p> <ul style="list-style-type: none"> ○ <i>The plan includes some actions, but lacks specific timescales</i> ○ <i>A number of habitat issues are identified, but no actions are proposed for protecting or restoring habitat in the eastern area, and few in other areas</i> ○ <i>The plan does not indicate how habitat quality will be assessed, problems will be identified and actions prioritized</i> 		X
B6	<p>Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers?</p> <ul style="list-style-type: none"> ○ <i>The plan includes limited specific actions, but lacks timescales</i> ○ <i>Salmon farming appears to be limited to a small production on the Kola peninsula, although it is not clear whether other enhancement/rearing activities take place elsewhere</i> ○ <i>It is proposed that regional regulations will be established for operating 'fishing sites' for aquaculture, in line with NASCO recommendations, but there are no measurable outputs or timescales</i> ○ <i>It is not clear what the objective is for the management of fisheries for pink salmon</i> ○ <i>Gyrodactylus salaris has been identified in one river already but no mitigation or treatment activities are described</i> 		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>The plan refers to measures to assess by-catches in pelagic fisheries in the Norwegian Sea and in herring and pink salmon fisheries in the White Sea, but no timescale is provided</i> 		X
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures</i> 	X	
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>The plan refers to plans to 'address socio-economic problems', but it is not clear what this is referring to, nor what the implications may be for the management of salmon fisheries</i> 		

Review of Implementation Plan SCOTLAND

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO ‘Implementation Plans’ and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders		
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? ○ <i>The plan describes 382 salmon rivers and associated fisheries</i>	X	
A2	Does the plan apply for a period of at least 5 years? ○ <i>There is no indication of a clear timescale for the plan</i>		X
A3	Does the plan make reference to NASCO’s Guidelines, Resolutions and Agreements? ○ <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i>		X
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? ○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
A5	Does the plan describe a process and outputs that are open to critical evaluation? ○ <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i>		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.		
B1	Does the plan provide a general picture of the resource and the management structure in place? ○ <i>Includes a description of the salmon resource and the management structures</i>	X	
B2	Does the plan describe the current status of stocks that will allow for future comparison? ○ <i>The plan does not describe the current status of stocks in a way that will allow for future comparisons</i> ○ <i>The plan acknowledges importance of diversity in run-timing and age structure</i>		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> ○ <i>Identifies a range of factors which may impact upon salmon stocks and outlines current management measures</i> ○ <i>It was noted that the plan does not address water abstraction, agricultural pollution, avian predation and invasive species</i> 	X	
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> ○ <i>The plan lacks specific actions and associated timescales</i> ○ <i>The plan concludes that fishery management action is required to protect early-running populations and ensure maximal spawning escapement, and this is enacted on a voluntary basis, but there are no outputs or milestones identified</i> ○ <i>The plan states that almost all of the Scottish rod fisheries can be classified as mixed stock and that it is not yet possible to assess the impact of mixed stock fisheries on all impacted stocks. Recognizing the role of local management, the plan does not state what is being done to make it possible and when that will be achieved</i> ○ <i>The plan should address how the Decision Structure is applied to the mixed stock coastal fisheries</i> ○ <i>The plan does not specify how the Scottish Minister will determine whether it is necessary or expedient for the conservation of salmon to implement Salmon Conservation Regulations</i> ○ <i>The plan does a good job of describing planned research, but timelines are lacking</i> 		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> ○ <i>The plan identifies ongoing actions but does not specify timescales</i> ○ <i>Identifies problems and describes actions that have been taken, but does not identify the approach to prevent future adverse impacts or to organize or direct remedial actions</i> 		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> ○ <i>The plan does not include specific actions and associated timescales</i> ○ <i>The plan states that it is likely that sea lice infestations and escapes of farmed fish have contributed to declines and slowed recovery, but measurable outputs to address this threat are not specified</i> ○ <i>The plan discusses work of the Tripartite Working Group to develop a system of Area Management Agreements to address sea lice monitoring, containment and disease risk, but the monitoring and evaluation of this system is missing</i> 		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>Predation by birds and mammals (particularly seals) has been identified as a cause for concern in a number of salmon fishery districts and some limited action is authorized but outputs are lacking</i> <i>Invasive non-native species may also impact fish and fisheries - mink, North American Signal Crayfish - but there are no specific actions</i> <i>The plan states that a working group has been created on the possible introduction of G. salaris to Scotland and was to report in autumn 2006, but no specific actions have been identified yet</i> 		X
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>The plan refers to monitoring and evaluation, but does not include a summary of the activities that will be used to assess status of stocks and the efficacy of management measures</i> 		X
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>The plan acknowledges the economic value of the fishery and aquaculture industry but does not describe how the implications are considered when identifying what action to take</i> <i>Educational activities are identified (Salmon in Schools)</i> 		

Review of Implementation Plan SPAIN

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO ‘Implementation Plans’ and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:	Yes	No
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? ○ <i>The plan describes 8 salmon rivers and associated fisheries in Asturias, but does not address salmon elsewhere in Spain</i>		X
A2	Does the plan apply for a period of at least 5 years? ○ <i>There is no indication of a clear timescale for the plan</i>		X
A3	Does the plan make reference to NASCO’s Guidelines, Resolutions and Agreements? ○ <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i>		X
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? ○ <i>The plan only contains very basic information and proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
A5	Does the plan describe a process and outputs that are open to critical evaluation? ○ <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i>		X

B. Content of the Plan		Is the Plan satisfactory?	
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.	Yes	No
B1	Does the plan provide a general picture of the resource and the management structure in place? ○ <i>The description of the salmon resource is limited to catch records in Asturias and information on management structures is lacking</i>		X
B2	Does the plan describe the current status of stocks that will allow for future comparison? ○ <i>There is some information on catch statistics in the 8 rivers but no reference to their completeness. No other detailed means of evaluating stocks status are mentioned</i>		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>Limited information is provided on threats and current management measures are not described</i> 		X
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>The plan does not adequately describe future fishery management measures and does not include timescales</i> 		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan identifies some actions, but lacks specific timescales</i> 		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>There is no reference to aquaculture but a limited reference to restocking, with objectives but no specific actions and timescales</i> 		X
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>No other influences are identified</i> 	N/A	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>The plan does not include any reference to monitoring or evaluation activities</i> 		X
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> <i>The plan does not mention consideration of socio-economic factors</i> 		

Review of Implementation Plan SWEDEN

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO ‘Implementation Plans’ and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:		
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? <ul style="list-style-type: none"> <i>The plan describes 23 west coast salmon rivers and associated fisheries in Sweden as the Baltic stocks are outside the NASCO Convention</i> 	X	
A2	Does the plan apply for a period of at least 5 years? <ul style="list-style-type: none"> <i>The only mention of a 5-year timescale is limited to a plan to increase the smolt output from the rivers</i> 		X
A3	Does the plan make reference to NASCO’s Guidelines, Resolutions and Agreements? <ul style="list-style-type: none"> <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i> 		X
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? <ul style="list-style-type: none"> <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i> 		X
A5	Does the plan describe a process and outputs that are open to critical evaluation? <ul style="list-style-type: none"> <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i> 		X

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.		
B1	Does the plan provide a general picture of the resource and the management structure in place? <ul style="list-style-type: none"> <i>Includes a description of the salmon resource, but not of the management structure</i> 		X
B2	Does the plan describe the current status of stocks that will allow for future comparison? <ul style="list-style-type: none"> <i>The plan describes the current status of stocks and provides a basis for future comparison based on smolt production levels</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> ○ <i>Identifies a limited range of factors which may impact upon salmon stocks, but with the exception of liming there is little description of management measures</i> 		X
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> ○ <i>The plan lacks specific actions and associated timescales</i> ○ <i>There is no description of proposed management measures to improve stock status</i> ○ <i>The plan does not explain the basis for the decision to continue the trap fisheries when river stocks are depleted</i> 		X
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> ○ <i>The plan lacks specific actions and associated timescales</i> ○ <i>The plan does note that liming is occurring on some rivers</i> 		X
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> ○ <i>The plan does not include specific actions and associated timescales</i> ○ <i>There is a sizeable rainbow trout aquaculture industry in this part of Sweden, but no Atlantic salmon aquaculture. A long-term objective of banning rainbow trout is stated, but no specific commitment is provided</i> ○ <i>There is no specific action identified to address Gyrodactylus salaris</i> ○ <i>The plan identifies escaped farmed salmon as a major threat, but specifies no action</i> 		X
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> ○ <i>No other influences are identified</i> 	N/A	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> ○ <i>The plan does not address this issue</i> 		X
B9	How does the plan consider socio-economic issues? <ul style="list-style-type: none"> ○ <i>There is no discussion of socio-economic factors</i> 		

Review of Implementation Plan USA

The following assessment of the Plan refers to the key requirements detailed in the Guidelines for the Preparation of NASCO 'Implementation Plans' and for Reporting on Progress (NSTF(06)10). Under each of these headings the Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders:		
A1	Does the plan apply to all stocks/fisheries managed within the jurisdiction? <ul style="list-style-type: none"> <i>The plan describes 12 rivers currently with salmon and associated fisheries and another 14 from which they have been lost</i> 	X	
A2	Does the plan apply for a period of at least 5 years? <ul style="list-style-type: none"> <i>The plan sets a number of actions to be taken over a 5-year period</i> 	X	
A3	Does the plan make reference to NASCO's Guidelines, Resolutions and Agreements? <ul style="list-style-type: none"> <i>Specific reference is made to the appropriate NASCO Resolutions, Agreements and Guidelines</i> 	X	
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]? <ul style="list-style-type: none"> <i>The text is clearly written, with numbered actions</i> 	X	
A5	Does the plan describe a process and outputs that are open to critical evaluation? <ul style="list-style-type: none"> <i>Proposed outputs are clearly specified</i> <i>It would be helpful to translate the years 1-5 into calendar years</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.		
B1	Does the plan provide a general picture of the resource and the management structure in place? <ul style="list-style-type: none"> <i>Includes a description of the salmon resource and the management structures</i> 	X	
B2	Does the plan describe the current status of stocks that will allow for future comparison? <ul style="list-style-type: none"> <i>The plan summarises the abundance of stocks at a national level and indicates that, because of the poor status of all stocks, assessment at an individual stock level is based upon replacement rates</i> 	X	
B3	Does the plan provide a summary of the threats to stocks and outline current management measures? <ul style="list-style-type: none"> <i>Identifies a range of factors which may impact upon salmon stocks and outlines current management measures</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B4	Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations? <ul style="list-style-type: none"> <i>In general the plan contains specific actions and associated timescales, but providing specific calendar year dates would be helpful</i> 	X	
B5	Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions? <ul style="list-style-type: none"> <i>The plan identifies specific actions and associated timescales</i> <i>It would be helpful to define specific actions by calendar years</i> <i>Predation was identified as a threat but no actions have been listed</i> 	X	
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers? <ul style="list-style-type: none"> <i>The plan does include specific actions and associated timescales</i> <i>The plan includes a commitment to an annual audit of containment management systems</i> 	X	
B7	Does the plan provide a summary of the approach that will be adopted to address other influences? <ul style="list-style-type: none"> <i>The plan lists a set of actions in order to get a better understanding of the linkages between the Atlantic salmon and the environment it lives in</i> 	X	
B8	Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures? <ul style="list-style-type: none"> <i>Criteria have been identified for evaluation of the efficacy of management measures and identifies monitoring and evaluation activities</i> 	X	

B9	How does the plan consider socio-economic issues?
	<ul style="list-style-type: none"> <i>An “experimental catch and release fishery” is stated to be consistent with the socio-economic approach to fisheries management by NASCO</i> <i>Mentions the importance of education and outreach activities</i>

IP(07)6

Review of Implementation Plans by Question for all Jurisdictions

The following assessment of the Plans refers to the key requirements detailed in the Guidelines for the Preparation of NASCO 'Implementation Plans' and for Reporting on Progress (NSTF(06)10). Under each of these headings a Plan has been classed as satisfactory if it requires no changes or only minor modifications; it has been classed as not satisfactory if significant changes or additions are required. Where N/A is shown the Group considers that the question concerned is not applicable.

A. Structure and Format of the Plan		Is the Plan satisfactory?	
	The Guidelines indicate a number of general criteria for the Plan and indicate that they should be clearly understandable by both managers and stakeholders	Yes	No
A1 Does the plan apply to all stocks/fisheries managed within the jurisdiction?			
Canada	○ The plan describes approximately 900 salmon rivers and associated fisheries in four management areas	X	
Denmark	○ The plan describes 9 rivers (which historically had salmon) and associated fisheries	X	
England and Wales	○ The plan describes 78 salmon rivers and associated fisheries	X	
Faroe Islands	○ The plan states that the Faroe Islands has no rivers with historic/natural salmon stocks, but the plan describes four stocks that have been established (and may be maintained) by stocking programmes ○ The plan makes no mention of the large mixed stock of salmon within the Faroese EEZ or the fishery that has operated in the area in the past but not in recent years		X
Finland	○ The plan describes three rivers and associated fisheries, one of which has an impassable barrier in its lower reaches in Russia. The most important river is the Teno	X	
France	○ No plan submitted		
Germany	○ No plan submitted		
Greenland	○ The plan focuses on the mixed stock fishery off West Greenland and makes mention of one salmon river, the Kapisillit, in Godthab Fjord	X	
Iceland	○ The plan describes 250 rivers in Iceland and addresses management of salmon in 'about 80 rivers'	X	
Ireland	○ The plan describes 148 salmon rivers and associated fisheries	X	
Northern Ireland	○ The plan describes 27 salmon rivers and associated fisheries	X	
Norway	○ The plan describes 446 salmon rivers and associated fisheries, of which 45 stocks are thought to be extinct	X	
Portugal	○ No plan submitted		

	A. Structure and Format of the Plan	Is the Plan satisfactory?	
		Yes	No
A1 Does the plan apply to all stocks/fisheries managed within the jurisdiction?			
Russian Federation	<ul style="list-style-type: none"> ○ <i>The plan describes stocks and associated fisheries in three areas: the Kola Peninsula (79 rivers); the Republic of Karelia (17 rivers); and an eastern area comprising the Archangelsk Region, Nenets National Okrug and Komi Republic (mainly based on four large rivers)</i> 	X	
Scotland	<ul style="list-style-type: none"> ○ <i>The plan describes 382 salmon rivers and associated fisheries</i> 	X	
Spain	<ul style="list-style-type: none"> ○ <i>The plan describes 8 salmon rivers and associated fisheries in Asturias, but does not address salmon elsewhere in Spain</i> 		X
Sweden	<ul style="list-style-type: none"> ○ <i>The plan describes 23 west coast salmon rivers and associated fisheries in Sweden as the Baltic stocks are outside the NASCO Convention</i> 	X	
USA	<ul style="list-style-type: none"> ○ <i>The plan describes 12 rivers currently with salmon and associated fisheries and another 14 from which they have been lost</i> 	X	

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
A2 Does the plan apply for a period of at least 5 years?			
Canada	○ <i>The plan describes measures to be implemented for 2006-2010</i>	X	
Denmark	○ <i>There is no indication of a clear timescale for the plan, although reference is made to a National Management Plan</i>		X
England and Wales	○ <i>The plan states that each Salmon Action Plan (SAP) contains an agreed list of actions over a 5-year lifetime</i>	X	
Faroe Islands	○ <i>There is no indication of a clear timescale for the plan</i>		X
Finland	○ <i>There is no indication of a clear timescale for the plan</i>		X
France	○ <i>No plan submitted</i>		
Germany	○ <i>No plan submitted</i>		
Greenland	○ <i>The quota for the mixed stock fishery is subject to negotiation within NASCO so the provision for a 5-year timescale does not apply</i>	N/A	
Iceland	○ <i>The plan refers to 'A five year management plan', and the proposed activities would appear to address such a period</i>	X	
Ireland	○ <i>The plan does mention 2007 and beyond, but there is no indication of a clear timescale for the plan</i>		X
Northern Ireland	○ <i>There is no indication of a clear timescale for the plan</i>		X
Norway	○ <i>The plan describes management measures extending until 2012 and beyond</i>	X	
Portugal	○ <i>No plan submitted</i>		
Russian Federation	○ <i>There is no indication of a clear timescale for the plan</i>		X
Scotland	○ <i>There is no indication of a clear timescale for the plan</i>		X
Spain	○ <i>There is no indication of a clear timescale for the plan</i>		X
Sweden	○ <i>The only mention of a 5-year timescale is limited to a plan to increase the smolt output from the rivers</i>		X
USA	○ <i>The plan sets a number of actions to be taken over a 5-year period</i>	X	

	A. Structure and Format of the Plan	Is the Plan satisfactory?	
		Yes	No
A3 Does the Plan make reference to NASCO Guidelines, Resolutions and Agreements?			
Canada	○ <i>Specific reference is made to the appropriate NASCO Resolutions, Agreements and Guidelines</i>	X	
Denmark	○ <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i>		X
England and Wales	○ <i>Specific reference is made to the appropriate NASCO Resolutions, Agreements and Guidelines</i>	X	
Faroe Islands	○ <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i>		X
Finland	○ <i>Limited reference is made to the Decision Structure</i>		X
France	○ <i>No plan submitted</i>		
Germany	○ <i>No plan submitted</i>		
Greenland	○ <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i>		X
Iceland	○ <i>There is only one reference to NASCO Resolutions, Agreements and Guidelines in the plan, which is specific to aquaculture</i>		X
Ireland	○ <i>The plan has a special section on NASCO obligations, which mentions the Precautionary Approach</i>	X	
Northern Ireland	○ <i>An introductory reference is made to the NASCO agreements</i>	X	
Norway	○ <i>Specific reference is made to the appropriate NASCO Resolutions, Agreements and Guidelines</i>	X	
Portugal	○ <i>No plan submitted</i>		
Russian Federation	○ <i>There are two references to “NASCO recommendations”</i>		X
Scotland	○ <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i>		X
Spain	○ <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i>		X
Sweden	○ <i>There is no specific reference to the NASCO Resolutions, Agreements and Guidelines</i>		X
USA	○ <i>Specific reference is made to the appropriate NASCO Resolutions, Agreements and Guidelines</i>	X	

	A. Structure and Format of the Plan	Is the Plan satisfactory?	
		Yes	No
A4 Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]?			
Canada	○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
Denmark	○ <i>The plan has limited information and proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
England and Wales	○ <i>The text is clearly written, with numbered actions</i> ○ <i>Identification of references or source data would be useful</i>	X	
Faroe Islands	○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
Finland	○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
France	○ <i>No plan submitted</i>		
Germany	○ <i>No plan submitted</i>		
Greenland	○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
Iceland	○ <i>The text is clearly written, and includes bullet points for proposed activities but the use of numbers would facilitate reporting and cross-referencing to the plan</i>	X	
Ireland	○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
Northern Ireland	○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
Norway	○ <i>The text is clearly written and the format of the management goals and milestones is clear, but the use of numbering would be helpful</i>	X	
Portugal	○ <i>No plan submitted</i>		
Russian Federation	○ <i>The text is clearly written, and includes bullet points for proposed activities but the use of numbers would facilitate reporting and cross-referencing to the plan</i> ○ <i>The detailed description of the fisheries and stocks might be assisted by providing a map and putting some of the data in tabular form</i>	X	
Scotland	○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
Spain	○ <i>The plan only contains very basic information and proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X

	A. Structure and Format of the Plan	Is the Plan satisfactory?	
		Yes	No
A4	Is the plan written in a clear and concise form for easy accessibility and reference [e.g. to facilitate future reporting and cross-referencing to the plan]?		
Sweden	○ <i>The text is clearly written, but proposed activities are not presented in a way that will facilitate reporting and cross-referencing to the plan</i>		X
USA	○ <i>The text is clearly written, with numbered actions</i>	X	

A. Structure and Format of the Plan		Is the Plan satisfactory?	
		Yes	No
A5 Does the plan describe a process and outputs that are open to critical evaluation?			
Canada	<ul style="list-style-type: none"> The plan describes the science well but does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales 		X
Denmark	<ul style="list-style-type: none"> The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales 		X
England and Wales	<ul style="list-style-type: none"> The Actions to be undertaken are very clearly specified in the plan; although the overall schedule is for 5 years the timescale associated with each individual action is not always clear 	X	
Faroe Islands	<ul style="list-style-type: none"> The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales 		X
Finland	<ul style="list-style-type: none"> The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales 		X
France	<ul style="list-style-type: none"> No plan submitted 		
Germany	<ul style="list-style-type: none"> No plan submitted 		
Greenland	<ul style="list-style-type: none"> It is recognized that the scope of the plan is limited to the monitoring and management of the internal-use-only fishery in Greenland, but identifies several actions related to improving catch data The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales 		X
Iceland	<ul style="list-style-type: none"> The plan does not describe outputs that will allow critical evaluation, due to the lack of timescales 		X
Ireland	<ul style="list-style-type: none"> The plan can be evaluated with respect to fisheries management, but management of habitat, aquaculture and introductions do not have measurable outputs 		X
Northern Ireland	<ul style="list-style-type: none"> The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales 		X
Norway	<ul style="list-style-type: none"> The plan includes clear lists of milestones and indicates who is responsible and when they should be completed The milestones generally only relate to 2007-2008 and it is not clear how the list will be updated in future years to address actions planned in subsequent periods 	X	
Portugal	<ul style="list-style-type: none"> No plan submitted 		
Russian Federation	<ul style="list-style-type: none"> The plan does not describe outputs that will allow critical evaluation, due to the lack of timescales 		X
Scotland	<ul style="list-style-type: none"> The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales 		X

Spain	<ul style="list-style-type: none"> ○ <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i> 		X
Sweden	<ul style="list-style-type: none"> ○ <i>The plan does not describe outputs that will allow critical evaluation, due to the lack of clear commitments and timescales</i> 		X
USA	<ul style="list-style-type: none"> ○ <i>Proposed outputs are clearly specified</i> ○ <i>It would be helpful to translate the years 1-5 into calendar years</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
	The Guidelines propose that the plans should contain the elements below, and should describe measurable outputs and include reference to appropriate NASCO agreements.	Yes	No
B1 Does the plan provide a general picture of the resource and the management structure in place?			
Canada	○ Includes a description of the salmon resource and the management structures	X	
Denmark	○ Includes a limited description of the salmon resource and management entities	X	
England and Wales	○ Includes a description of the salmon resource and the management structures	X	
Faroe Islands	○ The description of the salmon resource is limited to a description of the four artificially established river stocks and limited information is provided on the authorities or legislation by which they are managed ○ The plan makes no mention of the presence of stocks from many European countries in Faroese waters and the management structure that controls fishing activities		X
Finland	○ Includes a description of the salmon resource and the management structures	X	
France	○ No plan submitted		
Germany	○ No plan submitted		
Greenland	○ Includes a description of the salmon resource at sea and the management structures ○ The plan identifies, but does not describe, the river Kapisillit in Godthab Fjord	X	
Iceland	○ Includes a description of the salmon resource and the management structures	X	
Ireland	○ Includes a description of the salmon resource and the management structures	X	
Northern Ireland	○ Includes a description of the salmon resource and the management structures	X	
Norway	○ Includes a description of the salmon resource and the management structures ○ A table usefully links challenges facing salmon to the responsible authorities and relevant legislation	X	
Portugal	○ No plan submitted		
Russian Federation	○ Includes a description of the salmon resource and the management structures ○ It would be helpful to clarify how the various authorities involved in the management of salmon rivers/fisheries interact	X	
Scotland	○ Includes a description of the salmon resource and the management structures	X	
Spain	○ The description of the salmon resource is limited to catch records in Asturias and information on management structures is lacking		X
Sweden	○ Includes a description of the salmon resource, but not of the management structure		X
USA	○ Includes a description of the salmon resource and the management structures	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B2 Does the plan describe the current status of stocks that will allow for future comparison?			
Canada	<ul style="list-style-type: none"> The plan summarises the abundance of stocks at a provincial level. Assessments are based on 75 rivers and these are used as indicators for other rivers within a region The plan includes a description of stock diversity and other aspects of stock status 	X	
Denmark	<ul style="list-style-type: none"> The plan does not describe a system in place to assess the status of stocks 		X
England and Wales	<ul style="list-style-type: none"> The plan summarises the abundance of stocks at a national level based upon the ICES PFA model and the status of individual stocks assessed against conservation limits There are clear and measurable objectives for each river that the stock should be meeting or exceeding its CL in at least 4/5 years 	X	
Faroe Islands	<ul style="list-style-type: none"> Status of the river stocks is assessed by catches and stocking levels, which are both stable, but the extent of natural production in the rivers is unclear and no information is provided on the status of stocks in Faroese marine waters 		X
Finland	<ul style="list-style-type: none"> The method for assessing the status of stocks is described, but there are conflicting statements on stock status, and the basis for future comparison is not clear 		X
France	<ul style="list-style-type: none"> No plan submitted 		
Germany	<ul style="list-style-type: none"> No plan submitted 		
Greenland	<ul style="list-style-type: none"> Status of stocks are well described based on the ICES advice and the importance of diversity is recognized 	X	
Iceland	<ul style="list-style-type: none"> The plan summarises the abundance of stocks at a national level based primarily upon catch statistics and the reliability of these data is considered to provide a basis for future comparison at a river level 	X	
Ireland	<ul style="list-style-type: none"> The plan summarises the abundance of stocks at a national level based upon the ICES PFA model and the status of individual stocks assessed against conservation limits and recognizes the importance of diversity of stocks 	X	
Northern Ireland	<ul style="list-style-type: none"> The plan summarises the abundance of stocks at a national level based upon the ICES PFA model and indicates the use of specific targets for most individual rivers 	X	
Norway	<ul style="list-style-type: none"> The plan summarises the abundance of stocks for three large regions based upon the ICES PFA model but provides no information on the assessment of stocks at a more detailed level and recognizes the importance of diversity 	X	
Portugal	<ul style="list-style-type: none"> No plan submitted 		

	B. Content of the Plan	Is the Plan satisfactory ?	
		Yes	No
B2 Does the plan describe the current status of stocks that will allow for future comparison?			
Russian Federation	<ul style="list-style-type: none"> ○ <i>The plan summarises the abundance of stocks at a national level based upon the ICES PFA model and indicates the availability of more detailed information on individual rivers in some areas</i> ○ <i>The importance of diversity is recognized</i> ○ <i>No stock assessments are available for the Republic of Karelia, although the stocks are thought to be in a depleted state based on catch data</i> 	X	
Scotland	<ul style="list-style-type: none"> ○ <i>The plan does not describe the current status of stocks in a way that will allow for future comparisons</i> ○ <i>The plan acknowledges importance of diversity in run-timing and age structure</i> 		X
Spain	<ul style="list-style-type: none"> ○ <i>There is some information on catch statistics in the 8 rivers but no reference to their completeness. No other detailed means of evaluating stock status are mentioned</i> 		X
Sweden	<ul style="list-style-type: none"> ○ <i>The plan describes the current status of stocks and provides a basis for future comparison based on smolt production levels</i> 	X	
USA	<ul style="list-style-type: none"> ○ <i>The plan summarises the abundance of stocks at a national level and indicates that, because of the poor status of all stocks, assessment at an individual stock level is based upon replacement rates</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B3 Does the plan provide a summary of the threats to stocks and outline current management measures?			
Canada	<ul style="list-style-type: none"> Identifies a range of factors which may impact upon salmon stocks and outlines current management measures An explanation of how threats have been prioritized would be useful 	X	
Denmark	<ul style="list-style-type: none"> Limited information is provided on threats and current management measures are not described 		X
England and Wales	<ul style="list-style-type: none"> Identifies a range of factors which may impact upon salmon stocks and outlines current management measures 	X	
Faroe Islands	<ul style="list-style-type: none"> Limited information is provided on threats and current management measures are not described The plan considers the fisheries affecting the river stocks but not the potential marine fishery There are said to be no external factors affecting freshwater and estuarine habitat, but it is unclear how this has been assessed The plan mentions potential effects of aquaculture, but the effects of continued stocking are not considered 		X
Finland	<ul style="list-style-type: none"> The plan identifies fisheries and aquaculture as current threats The plan is unclear with respect to the management of the recreational fishery and threats to habitat because it refers to enhancement work carried out 		X
France	<ul style="list-style-type: none"> No plan submitted 		
Germany	<ul style="list-style-type: none"> No plan submitted 		
Greenland	<ul style="list-style-type: none"> Threats are not discussed in detail because these principally impact stocks in rivers of origin 	N/A	
Iceland	<ul style="list-style-type: none"> The plan provides a list and brief explanation of the 10 main factors affecting the salmon habitat and prioritises these across Icelandic rivers as a whole. It also indicates areas where specific problems are more prevalent 	X	
Ireland	<ul style="list-style-type: none"> The plan describes threats from fisheries and aquaculture in detail, but provides very little information on other threats Figure 5 is informative, but the description of current management measures for habitat is very limited 	X	
Northern Ireland	<ul style="list-style-type: none"> Identifies a range of factors which may impact upon salmon stocks and outlines current management measures 	X	
Norway	<ul style="list-style-type: none"> The plan provides an outline of a comprehensive inventory of factors affecting salmon stocks and describes the number of rivers in each of 16 counties affected by each factor This has provided the basis for prioritising the factors which will be the focus of management action In each area the plan identifies the main issues, the management approach and the responsible authorities 	X	
Portugal	<ul style="list-style-type: none"> No plan submitted 		

	B. Content of the Plan	Is the Plan satisfactory?	
		Yes	No
B3 Does the plan provide a summary of the threats to stocks and outline current management measures?			
Russian Federation	<ul style="list-style-type: none"> ○ <i>Identifies a range of factors which may impact upon salmon stocks, but the mechanisms for managing these threats is not specified</i> ○ <i>The plan refers to the introduction and transfer of 'humpback' (presumably pink salmon) in 119 rivers across all three areas, but it is not clear whether releases are continuing and if so how this is managed</i> 		X
Scotland	<ul style="list-style-type: none"> ○ <i>Identifies a range of factors which may impact upon salmon stocks and outlines current management measures</i> ○ <i>It was noted that the plan does not address water abstraction, agricultural pollution, avian predation and invasive species</i> 	X	
Spain	<ul style="list-style-type: none"> ○ <i>Limited information is provided on threats and current management measures are not described</i> 		X
Sweden	<ul style="list-style-type: none"> ○ <i>Identifies a limited range of factors which may impact upon salmon stocks, but with the exception of liming there is little description of management measures</i> 		X
USA	<ul style="list-style-type: none"> ○ <i>Identifies a range of factors which may impact upon salmon stocks and outlines current management measures</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B4 Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations?			
Canada	<ul style="list-style-type: none"> ○ <i>References to measurable outputs against which subsequent reports can be assessed are limited and do not go beyond 2008</i> ○ <i>Outputs and timescales for managing recreational fisheries in the future are not described</i> ○ <i>The process and timescale for evaluating the effectiveness of the measures introduced in 2006 to reduce the catch of 2SW fish in coastal areas of Labrador lack specificity</i> 		X
Denmark	<ul style="list-style-type: none"> ○ <i>There is very limited information on fisheries management and no measurable outputs or timescales</i> 		X
England and Wales	<ul style="list-style-type: none"> ○ <i>In general the plan contains specific actions and associated timescales, but additional specificity would be helpful in the following areas</i> ○ <i>The plan notes that 53% of rivers are not meeting CLs, but the plan does not appear to prioritize action on these rivers</i> ○ <i>The plan states that there is a national policy to phase out mixed stock fisheries, but a specific timescale is not specified and the plan lacks urgency in dealing with this issue</i> ○ <i>The plan indicates limited regulatory control over some fishing effort, which raises question of how goals will be achieved</i> 	X	
Faroe Islands	<ul style="list-style-type: none"> ○ <i>The plan lacks specific actions and associated timescales</i> ○ <i>The plan makes no mention of the management regime for controlling legal or illegal fishing for salmon in the sea</i> 		X
Finland	<ul style="list-style-type: none"> ○ <i>The plan lacks specific actions and associated timescales</i> ○ <i>The plan does not refer to the NASCO Decision Structure and there is no reference to future management measures to address either the coastal fishery in Norway or the recreational fishery</i> 		X
France	<ul style="list-style-type: none"> ○ <i>No plan submitted</i> 		
Germany	<ul style="list-style-type: none"> ○ <i>No plan submitted</i> 		
Greenland	<ul style="list-style-type: none"> ○ <i>The plan identifies the importance of providing reliable data on the fishery and provides a measurable indicator as the number of licensees reporting compared with the number of licenses issued, but does not identify specific future actions to address this issue and the associated timescales</i> ○ <i>While not the responsibility of Greenlandic authorities, we note that the WGC does not utilize the NASCO Decision Structure</i> 		X
Iceland	<ul style="list-style-type: none"> ○ <i>The plan identifies specific actions, but does not provide associated timescales</i> ○ <i>Seven management actions are listed; two refer to maintaining the status quo; and three simply refer to ‘encouraging’ specific activities. The remaining two refer to limiting mixed stock netting and by-catches, but do not indicate timescales, nor the actions that will be taken or the mechanisms that will be used</i> 		X

	B. Content of the Plan	Is the Plan satisfactory?	
		Yes	No
B4 Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations?			
Ireland	<ul style="list-style-type: none"> ○ <i>The plan includes specific actions and near-term associated timescales</i> ○ <i>There is a detailed description of harvest guidelines before and after the closure of the drift net fishery</i> ○ <i>While there are no detailed plans for future actions after 2007, this is understandable given the major changes currently taking place in fisheries management</i> 	X	
Northern Ireland	<ul style="list-style-type: none"> ○ <i>The plan lacks specific actions and associated timescales</i> ○ <i>Specific actions and timescales are needed for the following:</i> <ul style="list-style-type: none"> ○ <i>“Work continues” to extend CL setting to all salmon-producing rivers in the FCB area of Northern Ireland, and to install fish counters to enable compliance to be assessed in key indicator rivers</i> ○ <i>“Further work” to refine these CLs by using available river-specific habitat data is “in progress”</i> ○ <i>The Loughs Agency has established CLs and “is planning” to extend the compliance monitoring</i> ○ <i>Section 4.1.2 describes the review process generally, but lacks specificity as to what will happen over the next 5 years and what the output will be</i> 		X
Norway	<ul style="list-style-type: none"> ○ <i>The plan includes specific actions and associated timescales</i> ○ <i>The plan sets a clear management goal for fisheries, identifies five areas for specific attention and sets eight milestones to be completed in the period 2006 – 2009. This includes establishing CLs for all rivers and applying these through a Decision Structure</i> ○ <i>The plan does not specifically refer to the application of the NASCO Decision Structure to the coastal fishery off the Teno (see Finland)</i> 	X	
Portugal	<ul style="list-style-type: none"> ○ <i>No plan submitted</i> 		
Russian Federation	<ul style="list-style-type: none"> ○ <i>The plan identifies specific actions but some are not clear and there are no associated timescales</i> ○ <i>Some of the actions are unclear (e.g. ‘addressing socio-economic problems’) or open to subjective interpretation</i> ○ <i>All fisheries are said to be licensed and quota-regulated, but it is not clear how TACs/quotas are set and whether they are consistent with the NASCO Decision Structure</i> ○ <i>There is an objective to phase out some mixed stock net fisheries operating in the coastal waters of the White Sea, but the process and timescale are not described</i> 		X

	B. Content of the Plan	Is the Plan satisfactory?	
		Yes	No
B4 Does the plan provide a summary of the approach that will be adopted to review and modify fishery regulations?			
Scotland	<ul style="list-style-type: none"> ○ <i>The plan lacks specific actions and associated timescales</i> ○ <i>The plan concludes that fishery management action is required to protect early-running populations and ensure maximal spawning escapement and this is enacted on a voluntary basis but there are no outputs or milestones identified</i> ○ <i>The plan states that almost all of the Scottish rod fisheries can be classified as mixed stock and that it is not yet possible to assess the impact of mixed stock fisheries on all impacted stocks. Recognizing the role of local management, the plan does not state what is being done to make it possible and when that will be achieved</i> ○ <i>The plan should address how the Decision Structure is applied to the mixed stock coastal fisheries</i> ○ <i>The plan does not specify how the Scottish Minister will determine whether it is necessary or expedient for the conservation of salmon to implement Salmon Conservation Regulations</i> ○ <i>The plan does a good job of describing planned research, but timelines are lacking</i> 		X
Spain	<ul style="list-style-type: none"> ○ <i>The plan does not adequately describe future fishery management measures and does not include timescales</i> 		X
Sweden	<ul style="list-style-type: none"> ○ <i>The plan lacks specific actions and associated timescales</i> ○ <i>There is no description of proposed management measures to improve stock status</i> ○ <i>The plan does not explain the basis for the decision to continue the trap fisheries when river stocks are depleted</i> 		X
USA	<ul style="list-style-type: none"> ○ <i>In general the plan contains specific actions and associated timescales, but providing specific calendar year dates would be helpful</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B5 Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions?			
Canada	<ul style="list-style-type: none"> The plan indicates a continuation of the current approach to habitat management, but with the exception of the acid rain program, references to measurable outputs by which subsequent reports can be assessed are missing 		X
Denmark	<ul style="list-style-type: none"> The plan identifies some actions, but lacks specific timescales 		X
England and Wales	<ul style="list-style-type: none"> The plan describes the process of reviewing and updating Salmon Action Plans as the approach for addressing habitat These plans cover a 5-year timescale and contain specific actions and progress against these actions is reviewed annually and will be provided to NASCO 	X	
Faroe Islands	<ul style="list-style-type: none"> The plan does not include specific actions and associated timescales 		X
Finland	<ul style="list-style-type: none"> The plan lacks specific actions and associated timescales 		X
France	<ul style="list-style-type: none"> No plan submitted 		
Germany	<ul style="list-style-type: none"> No plan submitted 		
Greenland	<ul style="list-style-type: none"> The plan does not identify any threats to the marine habitat in West Greenland As noted previously, the plan is necessarily limited in scope to the management and reporting on the fishery in Greenland 	N/A	
Iceland	<ul style="list-style-type: none"> The plan includes actions, but lacks specific timescales National authorities have limited powers to carry out remedial habitat work, but through licensing there are restrictions on owners so as to control damaging activities such as gravel removal Some of the actions are vague (e.g. “explore the possibility...”) 		X
Ireland	<ul style="list-style-type: none"> The plan does not include specific actions and associated timescales There is reference to the development of a GIS database to link river habitat and water quality 		X
Northern Ireland	<ul style="list-style-type: none"> The plan lacks specific actions and associated timescales The plan states that a process is being developed for instream habitat restoration but no timescale or outputs are identified The plan does not identify the process and procedures in place to prevent impacts to habitat 		X
Norway	<ul style="list-style-type: none"> The plan includes specific actions and associated timescales 	X	
Portugal	<ul style="list-style-type: none"> No plan submitted 		
Russian Federation	<ul style="list-style-type: none"> The plan includes some actions, but lacks specific timescales A number of habitat issues are identified, but no actions are proposed for protecting or restoring habitat in the eastern area, and few in other areas The plan does not indicate how habitat quality will be assessed, problems will be identified and actions prioritized 		X

	B. Content of the Plan	Is the Plan satisfactory?	
		Yes	No
B5 Does the plan provide a summary of the approach that will be adopted to assess habitat quality, identify problems and prioritise actions?			
Scotland	<ul style="list-style-type: none"> ○ <i>The plan identifies ongoing actions but does not specify timescales</i> ○ <i>Identifies problems and describes actions that have been taken, but does not identify the approach to prevent future adverse impacts or to organize or direct remedial actions</i> 		X
Spain	<ul style="list-style-type: none"> ○ <i>The plan identifies some actions, but lacks specific timescales</i> 		X
Sweden	<ul style="list-style-type: none"> ○ <i>The plan lacks specific actions and associated timescales</i> ○ <i>The plan does note that liming is occurring on some rivers</i> 		X
USA	<ul style="list-style-type: none"> ○ <i>The plan identifies specific actions and associated timescales</i> ○ <i>It would be helpful to define specific actions by calendar years</i> ○ <i>Predation was identified as a threat but no actions have been listed</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B6 Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers?			
Canada	<ul style="list-style-type: none"> <i>The plan describes fairly clearly the current management approach to aquaculture and introductions and transfers already in place, but specific future actions and timescales are lacking</i> 		X
Denmark	<ul style="list-style-type: none"> <i>The plan identifies some actions, but these are not very clear and lack specific timescales</i> 		X
England and Wales	<ul style="list-style-type: none"> <i>The plan does include specific actions and associated timescales</i> <i>The plan comprehensively addresses all of the relevant issues and has appropriate references to NASCO guidelines and resolutions</i> <i>It would be useful to identify what, in Action 13, is considered a “significant” increase in the incidence of salmon farm escapees in monitored rivers that would trigger “appropriate action” (Note: England and Wales does not have marine aquaculture)</i> <i>It would be useful to provide detail on the terms of current national policies for introductions and transfers and how they are consistent with NASCO principles, and it is not clear how reporting on Action 12 will be completed</i> <i>Action 14 includes completion and reporting, but no commitment to take action in light of that report</i> 	X	
Faroe Islands	<ul style="list-style-type: none"> <i>The plan does not include specific actions and associated timescales</i> 		X
Finland	<ul style="list-style-type: none"> <i>All aquaculture activities and transfers of live fish and eggs from other catchments are strictly forbidden in the catchment area of the rivers Teno and Näätämöjoki, but it would be useful to describe the actions planned to enforce this prohibition</i> <i>The plan identifies issues with escaped farmed salmon that would appear to warrant cooperative action with Norway</i> 	X	
France	<ul style="list-style-type: none"> <i>No plan submitted</i> 		
Germany	<ul style="list-style-type: none"> <i>No plan submitted</i> 		
Greenland	<ul style="list-style-type: none"> <i>As noted previously, the plan is necessarily limited in scope to the management and reporting on the internal-use fishery in Greenland</i> <i>There are no salmon aquaculture facilities in Greenland</i> 	N/A	
Iceland	<ul style="list-style-type: none"> <i>The plan does include objectives, but would benefit from specific actions and associated timescales</i> <i>Despite lack of timescales there is a robust management system in place for a limited salmon farming industry</i> <i>The plan highlights a challenge related to introductions, and it is not clear how this will be addressed</i> <i>The plan indicates that Iceland has been reviewing and updating its laws and regulations on aquaculture in line with the NASCO agreements</i> 	X	

	B. Content of the Plan	Is the Plan satisfactory?	
		Yes	No
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers?		
Ireland	<ul style="list-style-type: none"> ○ <i>The plan does not include specific actions and associated timescales</i> ○ <i>There is a description of the influences that aquaculture may have on wild stocks but it contains no commitments</i> 		X
Northern Ireland	<ul style="list-style-type: none"> ○ <i>The plan does not include specific actions and associated timescales</i> ○ <i>States “work is underway” to develop a stocking policy for Northern Ireland, but no timescale is specified</i> 		X
Norway	<ul style="list-style-type: none"> ○ <i>The plan identifies actions to be taken to address the three main issues of escapes, sea lice and G. salaris. In each case a vision is identified, along with a list of milestones to be met in the coming years</i> ○ <i>In relation to sea lice, it might be considered whether levels of infestation on wild sea trout should also be used as an indicator, since in other areas this has presented a greater problem</i> ○ <i>Actions only extend to 2007 and it is not clear what happens after that date</i> ○ <i>The Finnish and Swedish plans have identified problems with escaped Norwegian farmed salmon that would appear to warrant specific actions</i> 	X	
Portugal	<ul style="list-style-type: none"> ○ <i>No plan submitted</i> 		
Russian Federation	<ul style="list-style-type: none"> ○ <i>The plan includes limited specific actions, but lacks timescales</i> ○ <i>Salmon farming appears to be limited to a small production on the Kola peninsula, although it is not clear whether other enhancement/rearing activities take place elsewhere</i> ○ <i>It is proposed that regional regulations will be established for operating ‘fishing sites’ for aquaculture, in line with NASCO recommendations, but there are no measurable outputs or timescales</i> ○ <i>It is not clear what the objective is for the management of fisheries for pink salmon</i> ○ <i>Gyrodactylus salaris has been identified in one river already but no mitigation or treatment activities are described</i> 		X
Scotland	<ul style="list-style-type: none"> ○ <i>The plan does not include specific actions and associated timescales</i> ○ <i>The plan states that it is likely that sea lice infestations and escapes of farmed fish have contributed to declines and slowed recovery, but measurable outputs to address this threat are not specified</i> ○ <i>The plan discusses work of the Tripartite Working Group to develop a system of Area Management Agreements to address sea lice monitoring, containment and disease risk, but the monitoring and evaluation of this system is missing</i> 		X

	B. Content of the Plan	Is the Plan satisfactory?	
		Yes	No
B6	Does the plan include a summary of the approaches that will be adopted to minimise adverse effects of aquaculture and control introductions and transfers?		
Spain	<ul style="list-style-type: none"> ○ <i>There is no reference to aquaculture but a limited reference to restocking with objectives but no specific actions and timescales</i> 		X
Sweden	<ul style="list-style-type: none"> ○ <i>The plan does not include specific actions and associated timescales</i> ○ <i>There is a sizeable rainbow trout aquaculture industry in this part of Sweden, but no Atlantic salmon aquaculture. A long-term objective of banning rainbow trout is stated, but no specific commitment is provided</i> ○ <i>There is no specific action identified to address Gyrodactylus salaris</i> ○ <i>The plan identifies escaped farmed salmon as a major threat, but specifies no action</i> 		X
USA	<ul style="list-style-type: none"> ○ <i>The plan does include specific actions and associated timescales</i> ○ <i>The plan includes a commitment to an annual audit of containment management systems</i> 	X	

B. Content of the Plan		Is the Plan satisfactory?	
		Yes	No
B7 Does the plan provide a summary of the approach that will be adopted to address other influences?			
Canada	<ul style="list-style-type: none"> Activities are identified in relation to SALSEA with schedules for reporting. Other influences are identified (contaminants and invasive species), but no actions are identified 		X
Denmark	<ul style="list-style-type: none"> No other influences are identified 	N/A	
England and Wales	<ul style="list-style-type: none"> Reporting on research into factors affecting marine survival is identified 	X	
Faroe Islands	<ul style="list-style-type: none"> No other influences are identified 	N/A	
Finland	<ul style="list-style-type: none"> No other influences are identified 	N/A	
France	<ul style="list-style-type: none"> No plan submitted 		
Germany	<ul style="list-style-type: none"> No plan submitted 		
Greenland	<ul style="list-style-type: none"> No other influences are identified 	N/A	
Iceland	<ul style="list-style-type: none"> No other influences are identified 	N/A	
Ireland	<ul style="list-style-type: none"> No other influences are identified 	N/A	
Northern Ireland	<ul style="list-style-type: none"> The plan identifies other influences including exploitation by mammals and birds, low marine survival, and cormorant predation, but does not include any specific actions to address these other influences 		X
Norway	<ul style="list-style-type: none"> No other influences are identified 	N/A	
Portugal	<ul style="list-style-type: none"> No plan submitted 		
Russian Federation	<ul style="list-style-type: none"> The plan refers to measures to assess by-catches in pelagic fisheries in the Norwegian Sea and in herring and pink salmon fisheries in the White Sea, but no timescale is provided 		X
Scotland	<ul style="list-style-type: none"> Predation by birds and mammals (particularly seals) has been identified as a cause for concern in a number of salmon fishery districts and some limited action is authorized but outputs are lacking Invasive non-native species may also impact fish and fisheries - mink, North American Signal Crayfish - but there are no specific actions The plan states that a working group has been created on the possible introduction of <i>G. salaris</i> to Scotland and was to report in autumn 2006, but no specific actions have been identified yet 		X
Spain	<ul style="list-style-type: none"> No other influences are identified 	N/A	
Sweden	<ul style="list-style-type: none"> No other influences are identified 	N/A	
USA	<ul style="list-style-type: none"> The plan lists a set of actions in order to get a better understanding of the linkages between the Atlantic salmon and the environment it lives in 	X	

	B. Content of the Plan	Is the Plan satisfactory?	
		Yes	No
B8 Does the plan provide a summary of monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures?			
Canada	<ul style="list-style-type: none"> Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures 	X	
Denmark	<ul style="list-style-type: none"> The plan does not address this issue 		X
England and Wales	<ul style="list-style-type: none"> Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures The plan clearly sets out a process for evaluating river-by-river progress within Salmon Action Plans 	X	
Faroe Islands	<ul style="list-style-type: none"> The plan does include a reference to evaluation, but does not describe any specific activities 		X
Finland	<ul style="list-style-type: none"> The plan does not address this issue 		X
France	<ul style="list-style-type: none"> No plan submitted 		
Germany	<ul style="list-style-type: none"> No plan submitted 		
Greenland	<ul style="list-style-type: none"> Identifies measurable indicator for efficacy of management measures designed to improve accuracy of estimates of the fishery No mention is made of the international sampling program 	X	
Iceland	<ul style="list-style-type: none"> Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures 	X	
Ireland	<ul style="list-style-type: none"> Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures, but there is a lack of monitoring and evaluation specific to aquaculture 		X
Northern Ireland	<ul style="list-style-type: none"> Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures 	X	
Norway	<ul style="list-style-type: none"> Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures 	X	
Portugal	<ul style="list-style-type: none"> No plan submitted 		
Russian Federation	<ul style="list-style-type: none"> Identifies monitoring and evaluation activities that will be used to assess stock status and the efficacy of management measures 	X	
Scotland	<ul style="list-style-type: none"> The plan refers to monitoring and evaluation, but does not include a summary of the activities that will be used to assess status of stocks and the efficacy of management measures 		X
Spain	<ul style="list-style-type: none"> The plan does not include any reference to monitoring or evaluation activities 		X
Sweden	<ul style="list-style-type: none"> The plan does not address this issue 		X
USA	<ul style="list-style-type: none"> Criteria have been identified for evaluation of the efficacy of management measures and identifies monitoring and evaluation activities 	X	

B9 How does the plan consider socio-economic issues?	
Canada	<ul style="list-style-type: none"> ○ <i>Reference is made to the commitments of federal Canada to Aboriginals for food, social and ceremonial purposes as a first priority after conservation</i>
Denmark	<ul style="list-style-type: none"> ○ <i>The plan does not mention consideration of socio-economic factors</i>
England and Wales	<ul style="list-style-type: none"> ○ <i>One of the main objectives identified is to optimize the total economic value of surplus stocks and the plan identifies when socio-economic values are addressed in developing fishing controls for salmon fisheries</i> ○ <i>Salmon Action Plans include identification of main factors limiting performance and drawing up and costing a list of options to address these</i> ○ <i>The plan states that existing licensees who are dependent upon fishing for their livelihood retain the right to receive a license as long as they wish</i>
Faroe Islands	<ul style="list-style-type: none"> ○ <i>The plan does not mention consideration of socio-economic factors</i>
Finland	<ul style="list-style-type: none"> ○ <i>The plan highlights the socio-economic importance of salmon to the local communities</i>
France	<ul style="list-style-type: none"> ○ <i>No plan submitted</i>
Germany	<ul style="list-style-type: none"> ○ <i>No plan submitted</i>
Greenland	<ul style="list-style-type: none"> ○ <i>The plan does not mention consideration of socio-economic factors and their role in fishery management decisions</i>
Iceland	<ul style="list-style-type: none"> ○ <i>The plan identifies the economic value of angling</i> ○ <i>It is clear that decisions about the balance of exploitation between rod and net fisheries has been driven, in large part, by economic considerations</i>
Ireland	<ul style="list-style-type: none"> ○ <i>A hardship fund to compensate those that lost their livelihood through the closure of the drift net fishery</i>
Northern Ireland	<ul style="list-style-type: none"> ○ <i>There is no specific mention of socio-economic issues in the plan</i>
Norway	<ul style="list-style-type: none"> ○ <i>The socio-economic value of the most important salmon rivers is included</i> ○ <i>The fishery management goal refers to safeguarding the interests of different user groups</i>
Portugal	<ul style="list-style-type: none"> ○ <i>No plan submitted</i>
Russian Federation	<ul style="list-style-type: none"> ○ <i>The plan refers to plans to ‘address socio-economic problems’, but it is not clear what this is referring to, nor what the implications may be for the management of salmon fisheries</i>
Scotland	<ul style="list-style-type: none"> ○ <i>The plan acknowledges the economic value of the fishery and aquaculture industry but does not describe how the implications are considered when identifying what action to take</i> ○ <i>Educational activities are identified (Salmon in Schools)</i>
Spain	<ul style="list-style-type: none"> ○ <i>The plan does not mention consideration of socio-economic factors</i>
Sweden	<ul style="list-style-type: none"> ○ <i>There is no discussion of socio-economic factors</i>
USA	<ul style="list-style-type: none"> ○ <i>An “experimental catch and release fishery” is stated to be consistent with the socio-economic approach to fisheries management by NASCO</i> ○ <i>Mentions the importance of education and outreach activities</i>

Council

CNL(07)16

Report of the Public Relations Group

Report of the Public Relations Group

1. One of the central themes of the Strategic Approach for NASCO's 'Next Steps', CNL(05)49, was the need for the Organization to better promote its work and achievements. The Council, therefore, established a Public Relations Group to develop a clear public relations strategy aimed at enhancing NASCO's profile and ensuring the most effective publicity for its work and achievements. This group met in London in December 2006 and its report is attached.
2. The Group recognised that the term "stakeholders" is very broad and includes anyone with an interest in, or depending on, the Atlantic salmon. There are both internal (e.g. other government departments, NGO membership) and external (e.g. the public, politicians) stakeholders. A public relations strategy targeting the former would focus on communications while, for the latter, use of the media and communications would be appropriate.
3. The Group reviewed the results of a pilot study to raise NASCO's profile conducted in 2005/2006, welcomed this initiative and recognised the need to build on the progress made. The Group developed recommendations for a strategy to enhance NASCO's profile and increase publicity for its work. The main tasks in developing a public relations strategy are:
 - to identify key messages that are succinct, grab the attention and provide leads for more detailed questions and discussions. Some examples are presented in the report. The Group believed NASCO should further develop its fact-sheet that was prepared during the pilot study. The key messages should be agreed with NASCO's NGOs;
 - to identify target audiences, since there is a wide range of stakeholders involved with salmon, there are different reasons for communicating with them, and they have different levels of understanding of NASCO's work. These target audiences are identified in the report;
 - to identify products and methods for delivering the message. The Group believes that NASCO should develop an annual "state of salmon populations" report and undertake a major enhancement of the Organization's website;
 - to identify educational programmes with a view to initially establishing a database of such programmes on the basis of information provided by the Parties;
 - to establish a network of media contacts within the Parties and the NGOs and to contract, on a part-time, flexible basis, an information officer with good public relations skills.
4. The Council is asked to consider the recommendations of the PR Group and decide on appropriate action with regard to developing and implementing a PR strategy for NASCO. There will be financial implications from some of the Group's recommendations and these will be considered by the Finance and Administration Committee at its meeting on 4 June.

Secretary
Edinburgh
11 April 2007

Report of the Public Relations Group Meeting

***12-13 December, 2006
NEAFC Headquarters, London***

1. Opening of the Meeting

- 1.1 The Chairman, Dr Malcolm Windsor, opened the meeting and welcomed participants to London. He thanked Mr Kjartan Hoydal, Secretary of NEAFC, for hosting the meeting.
- 1.2 A list of participants is contained in Annex 1.

2. Adoption of the Agenda

- 2.1 The Group adopted its agenda, PR(06)8 (Annex 2).

3. Consideration of the Terms of Reference

- 3.1 The Group reviewed its Terms of Reference, PR(06)2. The Council of NASCO had asked that the Group 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. The Council of NASCO had asked that the public relations strategy 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.
- 3.2 The Group noted that while it would develop recommendations to the Council on a strategy to enhance NASCO's profile and to ensure effective publicity for its work, the implementation of that strategy would be a longer-term consideration. However, the Group would develop recommendations on appropriate methods for implementing the strategy. The Chairman proposed that the budgetary implications of the Group's recommendations on a PR strategy would need to be considered and an item had, therefore, been included on the agenda for the meeting (item 6(g)).

4. Background on the Strategic Approach for NASCO's 'Next Steps'

- 4.1 The Chairman introduced document PR(06)3, which provided a background to the Strategic Approach for NASCO's 'Next Steps'. To mark NASCO'S Twentieth Anniversary the Council had established a Working Group *inter alia* to identify the challenges facing NASCO in the management and conservation of wild Atlantic

salmon, to identify ways to address these challenges and to consider the relationship between NASCO and its stakeholders. As part of its review the Working Group had held stakeholder consultation meetings and three main themes had emerged. First, while NASCO had developed good agreements, there is a need for more progress with regard to their implementation and reporting on the measures taken. Second, NASCO's work is not well enough known to stakeholders and resources should, therefore, be allocated to public relations. In this regard it had been noted that NASCO is seen as an "honest broker" in that the information it disseminates is seen as credible. It is important to protect this reputation. Third, there is a need to increase stakeholder involvement in NASCO's work so as to draw on their expertise and improve transparency.

- 4.2 In the light of the Working Group's recommendations, the Council of NASCO had adopted a Strategic Approach for NASCO's 'Next Steps', CNL(06)49. NASCO had moved quickly to implement the decisions in this document concerning implementation of agreements and reporting on progress in a challenging environment and to increase transparency through enhanced stakeholder involvement in its work. The remaining action required under this Strategic Approach is to formulate a Public Relations Strategy to ensure NASCO's work is effectively publicised with a view to increasing public and political support for salmon conservation, bearing in mind that NASCO is an inter-governmental body.
- 4.3 The Group discussed the definition of 'stakeholders' and recognised that it is a very broad term that includes anyone with an interest in, or depending on, the Atlantic salmon. It was recognised that it would be useful to identify the various stakeholder groups concerned with salmon since different approaches might be required to increase awareness of NASCO's work within these different groups. The Group recognised that there are both internal (e.g. other departments within government or the EU Commission whose activities are relevant to salmon conservation; the membership of accredited NGOs) and external (e.g. the public, politicians) stakeholders. A public relations strategy targeting the former would focus on enhanced communications while, for the latter, use of the media and communications would be appropriate.

5. Reports on the Pilot Public Relations Project

(a) Report by the Secretary

- 5.1 The Group reviewed document PR(06)4, which outlined the results of a pilot study to raise NASCO's profile that had been conducted in late 2005 and early 2006. The pilot study had been co-ordinated by Porter Novelli, a public relations firm, with the objectives of stimulating media interest in NASCO and its work using a range of publications, and advising on a longer-term strategy to raise NASCO's profile.
- 5.2 During late 2005 and early 2006, a number of meetings/interviews were set up with media correspondents by Porter Novelli and through contacts with NASCO's NGOs. The contacts were all with newspapers and trade journals rather than TV or radio. In the case of trade journals it is possible to submit articles which appear unaltered or subject only to minor editorial changes. In the case of newspaper articles there is little control over how the article will appear after providing the journalists with information. The experience from newspaper articles was that while they

undoubtedly increased public awareness of NASCO's work, some were inaccurate (despite a large amount of factual information being made available to the journalists concerned) and could damage NASCO's reputation as an 'honest broker'. Furthermore, the journalists tended to focus on particular aspects where there might be conflict such as impacts of aquaculture and not the bigger picture of the wide range of threats to the resource that NASCO is addressing. At the same time as the pilot project was being undertaken, the publication "Twenty-Year Milestones and Next Steps – A Vision for the Future" had been printed in English, French and Russian and widely circulated. This document provides much information on NASCO's work and the challenges it faces.

- 5.3 The Group welcomed the results of the pilot project and recognised that the challenge would be to build on this work and extend its scope throughout the North Atlantic area. In this regard, it was noted that media relations is a constant and cumulative process. The Group also noted that while the pilot project had concentrated on articles in publications, other media (such as television, radio and the internet) have much larger audiences. The Group recognised that it would be important to ensure that messages such as press releases and other information provided to the media are supported by material on the Organization's website so as to protect NASCO's status as an 'honest broker' in the event that media articles are inaccurate or misleading.

(b) Report from Porter Novelli

- 5.4 A report from Porter Novelli, PR(06)5, was tabled, which contained recommendations for a future PR strategy. This report had summarised the outcomes of the pilot project and had noted that, in future, speed of response is crucial, as is developing outcomes from NASCO's meetings, symposia and other activities. Porter Novelli had concluded that there is undoubtedly scope to build on the groundwork conducted during the pilot project in the UK by extending it internationally. However Porter Novelli had recommended that, to achieve this, NASCO should establish a PR Group to develop a public relations strategy and employ a dedicated resource to implement this strategy, either through employment of a PR expert or appointment of an external public relations agency. The Group welcomed the report by Porter Novelli.

6. Development of a Public Relations Strategy for NASCO

- 6.1 The Group reviewed document PR(06)6 which outlined some possible elements for inclusion in a public relations strategy for NASCO. The Group developed the following recommendations for a strategy to enhance NASCO's profile and increase publicity for its work.

(a) Identification of NASCO's messages

- 6.2 Key messages are vital for communicating with the media. They must immediately grab the attention, they must be succinct and they should provide leads for more detailed questions and discussion. They are the basis for all communications activity but may need to be adapted depending on the nature of the communications activity. In inter-governmental organizations such as NASCO the language used is often cautious and hedged with conditions in order to ensure balance and accuracy. Such language structure will not work for the media. The Group identified a number of key messages and topics for NASCO in developing its public relations strategy. The

following are good examples of key messages but the wording may need to be adapted.

Key Messages

- Of the around 24,000 species of fish in the world the wild Atlantic salmon is one of the few global travellers - it is born in fresh water and travels up to 2,500 miles through the North Atlantic before returning to its birth place to spawn.
- The wild salmon has been important to people for thousands of years – first depicted 25,000 years ago in cave art, the salmon still remains important to people today for its economic benefits and its cultural impact through recreation, food value, tourism and its iconic status as the King of Fish. Abundant salmon stocks would constitute a valuable resource for rural economies.
- Because wild salmon live in a wide range of environments across the North Atlantic they are also an important indicator species - healthy salmon stocks signify healthy aquatic environments. Disappearing salmon can indicate over-fishing, poaching, the impacts of climate change, adverse impacts from aquaculture, other industries and agriculture, and habitat degradation.
- The estimated abundance of salmon in the North Atlantic prior to exploitation in salmon fisheries has halved in the last thirty years although severe controls on exploitation have helped to conserve spawning populations. Some southern populations are critically endangered.
- As an international animal, the wild salmon needs international effort and an international body to promote its conservation and rational management. The North Atlantic Salmon Conservation Organization (NASCO) fulfils this role. The challenge is to promote the abundance and diversity of salmon throughout the North Atlantic.
- While enormous effort has gone into protecting this King of Fish by restricting harvests, protecting and restoring freshwater habitat, promoting live release, and developing educational measures, salmon populations have not recovered. These initiatives have involved enormous sacrifices and cost many tens of millions of dollars. Mortality of salmon at sea is undermining these conservation initiatives and while exploitation in marine fisheries has been greatly reduced or eliminated, other at-sea mortality remains a mystery.
- NASCO, as the only international body responsible for protecting wild salmon, is promoting a major new research initiative to unlock the mystery of where salmon go at sea and how to protect them.
- Salmon conservation is everyone's business and NASCO is working with its partners to implement measures to protect and restore the resource.

- 6.3 The Group also recommends that it would be valuable for NASCO to develop a media factsheet to support its PR activities, building on that developed by the Secretariat in conjunction with Porter Novelli. The factsheet should include key facts about the resource, describe what NASCO is and identify priority topics. The Group started this process in the paragraphs below but did not complete the details, which it recommends be further developed by the Secretariat.

Key facts

- How many salmon – trends.
- How many salmon rivers, how many lost, how many restored?
- Life-cycle (e.g. how long they live, how big they grow, what they eat, migration routes and distances, predators).
- Socio-economic benefit, e.g. conservation and restoration of wild salmon benefits communities, often remote communities, which depend on the salmon for their survival as well (decline in rural population or economic activity).
- Any other hard facts on threats to the resource and management challenges – anything that would tell a media story.

What is NASCO?

The North Atlantic Salmon Conservation Organization (NASCO) is an inter-governmental organization established in 1984 under the Convention for the Conservation of Salmon in the North Atlantic Ocean. Its Headquarters are in Edinburgh, Scotland.

The objective of the Organization is to conserve, restore, enhance and rationally manage salmon stocks through international cooperation, taking into account the best available scientific information. The Convention applies to salmon stocks throughout their North Atlantic migratory range.

NASCO's Member Parties are: Canada; Denmark (in respect of the Faroe Islands and Greenland); European Union; Iceland; Norway; Russian Federation and the USA. Twenty-seven Non-Government Organizations are accredited to NASCO and contribute to its work.

Over the past 20 years, NASCO has made significant progress in the following areas:

- Through the Convention, creating a large protected zone, a sanctuary free of fisheries for Atlantic salmon;
- Successfully addressing and monitoring the problem of 'pirate' fishing for salmon in international waters by vessels registered to non-NASCO countries;
- Reducing the interception by a country of salmon originating in the rivers of other countries from around 30% prior to 1984 to less than 1% in 2005 to

conserve stocks. This process has also stimulated strict management measures by States of Origin;

- Basing management decisions on the best available scientific information and stimulating scientific research and improvements in the advice;
- Introducing the concepts of the Precautionary Approach to its work and developing Precautionary Approach Agreements in relation to: management of salmon fisheries; habitat protection and restoration; salmon aquaculture, introductions and transfers and transgenics; stock rebuilding programmes;
- Introducing a transparent and independent review process for assessing compliance with these agreements;
- Identifying the wide range of social and economic values of wild Atlantic salmon and developing guidelines for incorporating them into management decisions. The Atlantic salmon is an extremely valuable economic and cultural resource;
- Developing recommendations designed to prevent the further spread of the parasite *Gyrodactylus salaris*;
- Developing a comprehensive and innovative programme of research on salmon at sea (SALSEA) and seeking private partnerships to implement it.

Priority topics

These topics may vary from time to time and below are those currently of interest. The specific message in each case would need to be tailored in terms of length and content to the target audience. In each case, the content should cover why this is important, why the audience should care, what NASCO will do, how it will do it and what other organizations and countries are involved. In each case there should be facts, figures and case studies. The current topics might be:

- Mortality at Sea (SALSEA);
- Initiatives for Endangered Populations;
- Habitat Protection and Restoration;
- Managing Salmon Fisheries;
- Interactions between wild and farmed salmon (e.g. disease, genetic transfers, parasites);
- Social and economic values.

(b) Identification of target audiences

- 6.4 The Group discussed potential target audiences for a public relations strategy. It was recognised that there is a very wide range of stakeholders involved with Atlantic salmon, that there are different reasons for communicating with them and that they have different levels of understanding of NASCO's work. Furthermore, for some organizations it would be appropriate to communicate information directly while for others the use of the media would be appropriate. The responsibility for such communication will remain with the Secretary and his staff and the President. However, the Group believes that additional expertise to support the Secretary and President will be required in developing a media programme.

Target audience	Why?	Current understanding of NASCO	Media or Comms
Inter-governmental organizations e.g. UN, FAO, NEAFC, NAFO, OSPAR	Essential co-operation	Medium	Comms
Other Government Departments within Parties	Essential communication and support	Low	Comms
Government department representing NASCO Parties	Managing the resource and threats	High	Comms
NASCO NGOs	Partnership with Parties' "critical friends"	High	Comms
Other conservation NGOs	Need their support for NASCO work	Low	Media & Comms
Other angling NGOs	Socio-economic base, need their support, minimizing impacts on spawning escapement	Low/Medium	Media & Comms
Commercial/subsistence salmon fisheries	Socio-economics, subsistence and native fisheries, minimizing impacts on spawning escapement	Low/Medium	Media & Comms
Industry - fish farming	Minimizing impacts on wild fish, e.g. those caused by escapes, sea lice	Medium	Media & Comms
Industry- commercial fishing for other marine species	Minimizing impacts on wild fish, e.g. by-catch	Low	Media & Comms
Industry (e.g. hydropower, water abstraction, etc.), agriculture and forestry	Minimizing impacts on salmon and its habitats	Low	Media & Comms
General Public	Public support	Low	Media
Politicians	Influence decision makers	Low	Media & Comms
Media general	Raising the profile and general influence	Low	Media & Comms
Media specialized, i.e. angling, conservation	Raising the profile and specific influence	Low	Media & Comms
Potential sponsors	Fund-raising for SALSEA and other projects	Low	Comms

(c) Identification of products and methods for delivering the message

- 6.5 The Group believes that there are two main products that would be used for enhancing NASCO's profile and awareness of its work. These are the development of an annual 'state of salmon populations' report and a major enhancement of the Organization's website. The idea of a status report had been discussed during the 'Next Steps' process. Such a report might replace the present biennial report of the Organization (but not the annual report to the Parties required under the Convention). The report should summarise in a clear and succinct manner the scientific advice concerning status of stocks provided in the ICES advice to NASCO, provide details of any existing, new or emerging threats to the resource, highlight the measures being taken by NASCO, its Parties and their relevant jurisdictions and accredited NGOs to conserve salmon, and provide details of any new research initiatives. The report might be developed in consultation with the Parties by the Secretariat supported by the information officer (see below). This annual report should be well presented (including information presented in a pictorial and graphical form) and should be made available on the website for downloading. The launch of this report should be newsworthy and attract considerable media interest. Indeed, it should be the centrepiece of the PR strategy. The Group believes that it would be cost-effective to make this annual report available on the website although it recognises that some hard copies will be needed for media packs which would include the factsheet referred to above.
- 6.6 The Group believes that the focus should move away from printed publications towards increased use of the website to promote NASCO's activities. This will require a major re-design and enhancement of the NASCO website to make it more attractive to users, more informative and useful to stakeholders, with improved links to other organizations and education programmes relevant to salmon conservation, and increase its visibility by registering it with search engines. It is recognised that this work has commenced by inclusion of the rivers database on the site.
- 6.7 The Group recognised that there had been very positive feedback from the stakeholder consultation meetings held in 2005 and recommends that the Council consider further consultation meetings at four- or five-year intervals. The Group also believes that NASCO's policy of meeting in communities close to salmon rivers is beneficial in promoting salmon conservation and raising NASCO's profile with stakeholders. The media effort associated with the Tag Return Incentive Scheme should be reviewed. The Group further recommends that media approaches should be developed when newsworthy events occur other than at the time of the NASCO Annual Meeting.

(d) Identification of educational programmes

- 6.8 Whilst educational programmes have an important role in communicating with the public, NASCO does not have the resources to develop and deliver educational programmes around the North Atlantic. Nevertheless, the Group is aware that there are some excellent educational programmes for Atlantic salmon around the North Atlantic and that there might be benefits from enhanced cooperation and information exchange among these programmes. NASCO might also wish to consider providing information, for example in relation to the SALSEA programme, that could be incorporated into such programmes. The Group recommends that, as a first step, the Parties, their relevant jurisdictions and the accredited NGOs be requested to provide

information to the Secretariat on these educational programmes so that a database of information can be developed and made available on the NASCO website and links to these programmes established. NASCO might also be able to benefit from media opportunities associated with such programmes, e.g. if there was twinning of programmes in different countries.

(e) The need for professional advice

6.9 Since its inception NASCO has not paid particular attention to public relations nor has it had a budget for such work until the pilot PR study in 2005/2006. In order to promote the most effective publicity and support for salmon conservation and the work of NASCO and its Parties, the 'Next Steps' process clearly identified the need to develop a PR strategy. In order to achieve this NASCO will need access to the necessary skills and expertise and this will require budgetary provision.

6.10 The Group considers that the most effective way to achieve this is not primarily through the use of an external agency because such agencies are expensive and the salmon issues will be only a small part of their work. It is clearly not possible or desirable for NASCO to develop its own media contacts in every North Atlantic country. It is preferable to set up a network using contacts within the Parties and NGOs who already have such relationships. Therefore, the Group believes that NASCO should contract, on a part-time and flexible basis, an information officer with good public relations skills whose mission would be to use this network to promote the messages to the target audiences identified in this report using the products proposed. There is a need to clearly define the role of this position since many of the communications with the target audiences would continue to be handled by the Secretary and President. An example of the objectives for such a post, provided by one participant at the meeting, is contained in Annex 3. It is recommended that this person, reporting to the Secretary, would build up the network of PR contacts within each NASCO Party and relevant jurisdiction and among the accredited NGOs and others. Then at Annual Meetings, and as events unfold within the NASCO forum, the information would be relayed through that network to ensure wide and consistent coverage around the North Atlantic. Equally, where an issue of international relevance arose in a NASCO Party or relevant jurisdiction or for an NGO, NASCO could be contacted to seek relevant information and support. To illustrate how this might work, when a major meeting such as the Bergen symposium was planned and particularly when concluded, the information officer could develop a press release for issuing to all those on the network who could use it with their media contacts as they felt appropriate. Equally, if an issue, about habitat for example, arose in the media in a particular country and the contact on the network required support and information about the NASCO agreement and the approaches adopted by other NASCO Parties, as reported in the implementation plans, this could be succinctly transmitted in a media-friendly manner with input from the information officer.

(f) Co-operation with stakeholders on PR

6.11 NASCO has completely changed its relationship with its accredited NGOs so as to become much more inclusive and transparent. One of the benefits of this should be that since all the Parties to the Convention and all the accredited NGOs share a common goal, i.e. conservation of wild salmon, it should be possible to develop agreed messages based on the key messages identified above. The first step might be

to ensure that this is the case and the NASCO vision as described in the Next Steps strategy should be the starting point. On that basis it should be readily possible to work cooperatively with stakeholders on the basic media messages, including the vision, the status of the stocks and the challenges and the threats. For example, we would imagine that all the Parties and the NGOs would be supportive of the SALSEA programme. Beyond that, however, it is likely that the NGO community, for example, may be critical of specific actions taken by the Parties and of the pace of implementation. On the other hand, some Parties might not accept as reasonable what the NGOs propose. Such conflict is healthy and without it there will be little action. Therefore, it will not be possible to have unanimity on all aspects of PR but that is to be expected. It is, however, important that there is an improved exchange of information between NASCO Parties and the NGOs about use of the media and the new more transparent and inclusive working arrangements in NASCO should facilitate that. There will be a need to examine the opportunities for joint media initiatives on a case-by-case basis.

(g) Financial considerations

- 6.12 In order to allow for the employment by NASCO of an information officer with expertise in media relations, the Group believes that the sum of £25,000 budgeted in 2006 and 2007 should be reviewed by the Finance and Administration Committee with a view to an increased provision, perhaps to around £60,000 in 2008 and subsequent budgets. Consideration should also be given to including an element for media training of Secretariat staff. In addition, there will be additional costs involved in re-designing and maintaining the NASCO website, producing the annual status report and arranging stakeholder consultation meetings, although there will be cost savings on printing and postage in making the reports available on the website rather than producing them as hard copies. The cost of the media relations work would be expected to decline somewhat after the first year.

7. Any other business

- 7.1 There was no other business.

8. Report of the meeting

- 8.1 The Group agreed a report of its meeting.

9. Close of meeting

- 9.1 The Chairman thanked the participants for their contributions and closed the meeting.

Meeting of the NASCO Public Relations Group

12-13 December, 2006

List of Participants

Mr Arne Eggereide	Directorate for Nature Management, Trondheim, Norway
Ms Jo Fox	Head of Media, Environment Agency, London, UK
Dr Peter Hutchinson	NASCO Assistant Secretary
Mr Sigmundur Isfeld	Representation of the Faroes, London, UK
Mr Chris Poupard	Chairman of NASCO's NGOs
Ms Sue Scott	Atlantic Salmon Federation, St Andrews, Canada
Dr Malcolm Windsor	NASCO Secretary

Note: Mr Kjartan Hoydal, Secretary of NEAFC, attended part of the meeting as an observer. NEAFC is also considering its policy on Public Relations.

PR(06)8

Meeting of the NASCO Public Relations Group

Agenda

	Paper No.
1. Opening of the meeting	
2. Adoption of the Agenda	
3. Consideration of the Terms of Reference	PR(06)2
4. Background on the Strategic Approach for NASCO's 'Next Steps'	PR(06)3
5. Reports on the Pilot Public Relations Project	
(a) Report by the Secretary	PR(06)4
(b) Report from Porter Novelli	PR(06)5
6. Development of a Public Relations Strategy for NASCO	PR(06)6
(a) Identification of NASCO's messages	
(b) Identification of target audiences	
(c) Identification of products and methods for delivering the message	
(d) Identification of educational programmes	
(e) The need for professional advice	
(f) Co-operation with stakeholders on PR	
(g) Financial considerations	
7. Any other business	
8. Report of the meeting	
9. Close of the meeting	

***Example of objectives for an Information Officer
(based on an example provided by the Environment Agency)***

OVERALL OBJECTIVES

- **Be visible** – establish and liaise closely with the network of media contacts in NASCO's Parties and NGOs. Become involved in projects at an early stage to provide guidance on media issues as early as possible. Advise on what makes a story and the tools that are needed to make one.
- **Quality control** – consult as necessary to ensure that high-quality information is made available to the network of media contacts. Poor and unclear information reflects badly on NASCO, but also generally creates more work in the long run.
- **Target specialist press** – they are an important tool to get at a range of important audiences. This means making sure releases are targeted effectively, offering stories, features, interviews and answering enquiries quickly.
- **Be creative** – think about new ways of getting coverage. When putting media plans together for areas or projects, think about what else might be done other than/as well as a press release.

SENIOR INFORMATION OFFICER 12 month objectives

- Ensure close and productive relationships are instituted with key contacts in the network of media contacts.
- Establish good working relationships with key Secretariat staff members and office bearers to facilitate both timely reactive press enquiries and to elicit information for proactive stories.
- Ensure effective implementation of the media strategy, e.g. more stories placed in broadcast and tabloid press, more innovative stories, more responsive, etc.
- Increase positive coverage of NASCO in the trade press.
- Refine a media plan for NASCO and wild salmon for the next 12 months.

Council

CNL(07)47

Fisheries Management Focus Area

Fisheries Management Focus Area

The first phase of the Next Steps process focused on the development of Implementation Plans by the Parties. The *Ad Hoc* Review Committee that met in March 2006 reviewed these plans for uniformity with the Council's Guidelines for their preparation NSTF(06)10, and assessed how well the plans would lend themselves to evaluation in relation to NASCO's Resolution and Agreements.

Under the Next Steps process, Special Sessions addressing particular Focus Areas (as described in NSTF(06)10) are intended to provide a more in-depth assessment of measures to implement NASCO Agreements, Resolutions, and Guidelines. Reports prepared for the Special Session are intended to provide the basis for review of the current management approach and proposed actions and to assess their efficacy in addressing the overall objectives of NASCO and in particular, to conserve and restore salmon stocks.

The Next Steps process identified three focus areas: Fishery Management, Protection and Restoration of Habitat, and Aquaculture and Associated Activities. The Council has agreed that the first focus area to be examined under the Next Steps Process is Fishery Management. As stated in the Action Plan for Application of the Precautionary Approach, (CNL(99)48) and in the Decision Structure for Management of North Atlantic Salmon Fisheries (CNL31.332), the goals for the management of salmon fisheries for NASCO and its Parties are to promote the diversity and abundance of salmon stocks and maintain all stocks above their conservation limits. The NASCO Agreement on the Adoption of the Precautionary Approach states that conservation limits and management targets should be set for each river and combined, as appropriate, for the management of different stock groupings defined by managers.

The Decision Structure specifies that the management procedure for all salmon fisheries should:

- (a) specify the reference points (conservation limit and/or management target) or alternative measures used to define adequate abundance of the stock;
- (b) describe the status of the stock(s) relative to the abundance specified in (a);
- (c) utilize only the surplus according to (a) and (b) above; and
- (d) consider socio-economic factors.

Fisheries Management Focus Area Reports

In preparation for the Special Session, each Party or Jurisdiction will prepare a Fisheries Management Focus Area Report to provide a more in-depth assessment of:

- the measures already in place that address the NASCO Agreements relating to fisheries management;
- further actions proposed within their Implementation Plans to meet those Agreements;
- progress with implementing these actions.

These reports are intended to provide the basis for evaluating the extent to which the fisheries management approach is meeting, or expected to meet, NASCO's goal to promote the

diversity and abundance of salmon stocks and maintain all stocks above their conservation limits. To the extent that gaps are identified, the planned future actions included in the plan will be evaluated for their ability to reach NASCO's goal within a reasonable timescale.

The Fisheries Management Focus Area Report could contain, *inter alia*:

- (1) A brief description of the fisheries, including an overview of the stocks exploited, gear types, fishery location, magnitude of the fishery, current management restrictions and others planned;
- (2) Identification of exploited stocks and the reference points (conservation limit and/or management target) or alternative measures used to define adequate abundance of the stock;
- (3) The status of the stock relative to the abundance criteria specified;
- (4) The extent to which the stock is meeting other diversity criteria (e.g. age groups, size groups, populations), if such information is available;
- (5) For mixed stock fisheries, the information in numbers 3 and 4 above should be presented for each contributing stock;
- (6) The management actions that will be employed to control harvest, including measures that will be used to address any failure or trend in abundance or diversity;
- (7) The extent to which the following issues are taken into account.
 - a. uncertainty in the assessments;
 - b. abundance of the stock/diversity of the stock;
 - c. selectivity of the fisheries;
 - d. any non-fishery factors affecting the stock;
 - e. other fisheries exploiting the stock.
- (8) The expected extent and timescale of effects.
- (9) An explanation of how socio-economic factors are applied in the development of fisheries management actions and how this affects the attainment of NASCO's goals.
- (10) Programs that will be used to monitor the effect of the management measures and identify information deficiencies and timeframe for resolution.

The Fisheries Management Focus Area Reports are to be provided to the NASCO Secretariat as soon as possible after 1 January, 2008, and no later than 31 March, 2008.

The *Ad Hoc* Review Group for the Fisheries Focus Area

1. Functions

- a. The *Ad Hoc* Review Group shall review and analyze the Fisheries Management Focus Area Reports prepared by the Parties or Jurisdictions.
- b. In carrying out this task, the *Ad Hoc* Review Group should seek to assess the extent to which the information provided in the Fisheries Management Focus Area Reports indicates that NASCO's goals are being, or will be, achieved.
- c. The *Ad Hoc* Review Group will meet in May 2008 to review the Fisheries Management Focus Area Reports submitted for the Special Session, and collaborate to highlight issues to be raised during the 2008 Special Session and to provide any questions to the Parties or Jurisdictions by 15 May, 2008.

- d. Following discussions in the Special Session on Fisheries Management, the *Ad Hoc* Review Group should prepare a short report to be submitted to the President in the course of the 2008 Annual Meeting, suggesting additional actions to ensure the consistency of fisheries management efforts with NASCO Agreements.

2. Composition of the *Ad Hoc* Review Committee

- a. Denmark (in respect of the Faroe Islands or Greenland (but not both);
- b. The remaining Parties to NASCO – 2 persons (to the extent possible, reflecting balance among the membership and appropriate expertise);
- c. The Standing Scientific Committee;
- d. Accredited NGO representatives – 2 persons (ideally one NGO from Europe and one from North America).

For 2007/2008, it was agreed that the persons representing NASCO would be [X]. The NGO representatives will be [Y].

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

January - March 2008:	Parties submit Fisheries Management Focus Area Reports no later than 31 March, 2008
April 2008:	<i>Ad Hoc</i> Review Group reviews Reports submitted
Early May 2008:	<i>Ad Hoc</i> Review Group meets to review Reports
May 15, 2008:	<i>Ad Hoc</i> Review Group provides questions to Parties or Jurisdictions
June 2008:	Special Session conducted during the Annual Meeting and brief report provided to the President

Note: The Guidelines for the Preparation of NASCO “Implementation Plans” and for Reporting on Progress identify the need for written annual reports. These reports are intended to provide a summary of actions taken under the Implementation Plan. The annual progress report to be submitted to the 2008 Annual Meeting of NASCO would not need to address fishery management since that is the subject of the Focus Area review.

Council

CNL(07)43

***EU Proposal for a Performance Review -
Resolution by NASCO to Undertake a Performance Review of the
Organization***

***EU Proposal for a Performance Review -
Resolution by NASCO to Undertake a Performance Review of the
Organization***

NOTING the current priorities in NASCO in relation to the development of the “Next Steps” process, and in particular, the Implementation Plans;

FURTHER NOTING the progress achieved to date in the development of the “Next Steps” process and the need to ensure that this process be given the necessary time to become embedded;

TAKING INTO ACCOUNT the need for NASCO to respond positively to the 2006 UN Resolution 61/105 calling for Regional Fisheries Management Organisations (RFMOs), such as NASCO, to undertake urgently a Performance Review;

1. NASCO decides that a Performance Review be concluded for submission to the 2010 Annual Meeting.
2. The Review shall be carried out on the basis of the attached provisional list of criteria. However, this list of criteria may be supplemented or amended at the 2008 Annual Meeting.
3. A Review Panel composed of a representative from 3 Parties to NASCO, a representative from a NASCO NGO observer, and 3 external experts with notably scientific, fisheries management and legal experience, respectively, shall be constituted.

The external experts shall be internationally recognised, but not be involved with, or having experience of, NASCO.

The Review Panel Chairperson shall be a Panel member selected by the Panel.

4. The NASCO Secretariat shall provide logistical support to the Review Panel and shall not form part of this Panel.
5. Travel and accommodation costs for the participation in the Review Panel meetings for external experts and the NASCO NGO representative shall be borne by the NASCO budget. NASCO Parties shall bear the costs of their own representatives participating in the Review Panel’s proceedings.
6. The Report of the Performance Review shall be communicated by the Panel Chairperson in advance of the 2010 Annual Meeting to the President and Executive Secretary. It shall be distributed to Parties and observers, and shall be placed on the website of the Organization.

Suggested Criteria for Reviewing the Performance of Regional Fisheries Management Organizations (RFMOs)

	AREA	General Criteria	Detailed Criteria
1	<i>Conservation and management</i>	Status of living marine resources	<ul style="list-style-type: none"> • Status of major fish stocks under the purview of the RFMO in relation to maximum sustainable yield or other relevant biological standards. • Trends in the status of those stocks. • Status of species that belong to the same ecosystems as, or are associated with or dependent upon, the major target stocks (hereinafter “non-target species”). • Trends in the status of those species.
		Data collection and sharing	<ul style="list-style-type: none"> • Extent to which the RFMO has agreed formats, specifications and timeframes for data submission, taking into account UNFSA Annex I. • Extent to which RFMO members and cooperating non-members, individually or through the RFMO, collect and share complete and accurate fisheries data concerning target stocks and non-target species and other relevant data in a timely manner. • Extent to which fishing data and fishing vessel data are gathered by the RFMO and shared among members and other RFMOs. • Extent to which the RFMO is addressing any gaps in the collection and sharing of data as required.
		Quality and provision of scientific advice	<ul style="list-style-type: none"> • Extent to which the RFMO receives and/or produces the best scientific advice relevant to the fish stocks and other living marine resources under its purview, as well as to the effects of fishing on the marine environment.
		Adoption of conservation and management measures	<ul style="list-style-type: none"> • Extent to which the RFMO has adopted conservation and management measures for both target stocks and non-target species that ensures the long-term sustainability of such stocks and species and are based on the best scientific evidence available. • Extent to which the RFMO has applied the precautionary approach as set forth in UNFSA Article 6 and the Code of Conduct for Responsible Fisheries Article 7.5, including the application of precautionary reference points. • Extent to which the RFMO has adopted and is implementing effective rebuilding plans for depleted or overfished stocks. • Extent to which the RFMO has moved toward the adoption of conservation and management measures for previously unregulated fisheries, including new and exploratory fisheries. • Extent to which the RFMO has taken due account of the need to conserve marine biological diversity and minimize harmful impacts of fisheries on living marine resources and marine ecosystems. • Extent to which the RFMO has adopted measures to minimize pollution, waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species, and impacts on associated or dependent species, in particular endangered species, through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques.
		Capacity management	<ul style="list-style-type: none"> • Extent to which the RFMO has identified fishing capacity levels commensurate with long-term sustainability and optimum utilization of relevant fisheries. • Extent to which the RFMO has taken actions to prevent or eliminate excess fishing capacity and effort.
		Compatibility of management measures	<ul style="list-style-type: none"> • Extent to which measures have been adopted as reflected in UNFSA Article 7.
		Fishing allocations and opportunities	<ul style="list-style-type: none"> • Extent to which the RFMO agrees on the allocation of allowable catch or levels of fishing effort, including taking into account requests for participation from new members or participants as reflected in UNFSA Article 11.
2	<i>Compliance and enforcement</i>	Flag State duties	<ul style="list-style-type: none"> • Extent to which RFMO members are fulfilling their duties as flag States under the treaty establishing the RFMO, pursuant to measures adopted by the RFMO, and under other international instruments, including, inter alia, the 1982 Law of the Sea Convention, the UNFSA and the 1993 FAO Compliance Agreement, as applicable.
		Port State measures	<ul style="list-style-type: none"> • Extent to which the RFMO has adopted measures relating to the exercise of the rights and duties of its members as port States, as reflected in UNFSA Article 23 and the Code of Conduct for Responsible Fisheries Article 8.3. • Extent to which these measures are effectively implemented.

		Monitoring, control and surveillance (MCS)	<ul style="list-style-type: none"> • Extent to which the RFMO has adopted integrated MCS measures (e.g., required use of VMS, observers, catch documentation and trade tracking schemes, restrictions on transshipment, boarding and inspection schemes). • Extent to which these measures are effectively implemented.
		Follow-up on infringements	<ul style="list-style-type: none"> • Extent to which the RFMO, its members and cooperating non-members follow up on infringements to management measures.
		Cooperative mechanisms to detect and deter non-compliance	<ul style="list-style-type: none"> • Extent to which the RFMO has established adequate cooperative mechanisms to both monitor compliance and detect and deter non-compliance (e.g., compliance committees, vessel lists, sharing of information about non-compliance). • Extent to which these mechanisms are being effectively utilized.
		Market-related measures	<ul style="list-style-type: none"> • Extent to which the RFMO has adopted measures relating to the exercise of the rights and duties of its members as market States. • Extent to which these market-related measures are effectively implemented.
3	<i>Decision-making and dispute settlement</i>	Decision-making	<ul style="list-style-type: none"> • Extent to which RFMO has transparent and consistent decision-making procedures that facilitate the adoption of conservation and management measures in a timely and effective manner.
		Dispute settlement	<ul style="list-style-type: none"> • Extent to which the RFMO has established adequate mechanisms for resolving disputes.
4	<i>International cooperation</i>	Transparency	<ul style="list-style-type: none"> • Extent to which the RFMO is operating in a transparent manner, as reflected in UNFSA Article 12 and the Code of Conduct for Responsible Fisheries Article 7.1.9. • Extent to which RFMO decisions, meeting reports, scientific advice upon which decisions are made, and other relevant materials are made publicly available in a timely fashion.
		Relationship to cooperating non-members	<ul style="list-style-type: none"> • Extent to which the RFMO facilitates cooperation between members and non-members, including through the adoption and implementation of procedures for granting cooperating status.
		Relationship to non-cooperating non-members	<ul style="list-style-type: none"> • Extent of fishing activity by vessels of non-members that are not cooperating with the RFMO, as well as measures to deter such activities.
		Cooperation with other RFMOs	<ul style="list-style-type: none"> • Extent to which the RFMO cooperates with other RFMOs, including through the network of Regional Fishery Body Secretariats.
		Special requirements of developing States	<ul style="list-style-type: none"> • Extent to which the RFMO recognizes the special needs of developing States and pursues forms of cooperation with developing States, including with respect to fishing allocations or opportunities, taking into account UNFSA Articles 24 and 25, and the Code of Conduct of Responsible Fisheries Article 5. • Extent to which RFMO members, individually or through the RFMO, provide relevant assistance to developing States, as reflected in UNFSA Article 26.
5	<i>Financial and administrative issues</i>	Availability of resources for RFMO activities	<ul style="list-style-type: none"> • Extent to which financial and other resources are made available to achieve the aims of the RFMO and to implement the RFMO's decisions.
		Efficiency and cost-effectiveness	<ul style="list-style-type: none"> • Extent to which the RFMO is efficiently and effectively managing its human and financial resources, including those of the Secretariat.

Council

CNL(07)48

Resolution by NASCO Regarding a Performance Review of the Organization

Proposal by the United States

Resolution by NASCO Regarding a Performance Review of the Organization

Proposal by the United States

TAKING INTO ACCOUNT the fact that NASCO initiated an extensive and public performance review of the Organization in 2004, prior to the 2006 UN Resolution 61/105 which urges States through their participation in Regional Fisheries Management Organizations (RFMOs) to undertake, on an urgent basis, performance reviews of those RFMOs; and

NOTING the full engagement of NASCO and its Contracting Parties in implementing changes consistent with the recommendations of the “Next Steps” performance review process, and the need to proceed with full development of the Implementation Plans and Focus Area Reviews;

It is agreed that:

1. The Secretariat will provide the following information for consideration by the Council at the 2008 Annual Meeting:
 - a. a summary document that describes the Next Steps process, including identification of all components of the performance review, including the Task Force and use of public stakeholder meetings; and
 - b. available information on the process and results of performance reviews conducted by other RFMOs.
2. Prior to the 2009 Annual Meeting, the Secretariat will provide a comparison of the Next Steps performance review process and outcomes, with the attached provisional list of criteria developed more generally for reviews by RFMOs, including identification of gaps and areas where the NASCO review exceeds the attached criteria. In addition, any updates or new information on the process and results of performance reviews conducted by other RFMOs.
3. At the 2009 Annual Meeting, the Council will review the information provided in items 1 and 2 above and determine any areas that need additional attention, which could include the development of additional performance review criteria. The results of this analysis will inform the development of draft Terms of Reference for the next performance review.
4. At the 2010 Annual Meeting, NASCO will finalize the Terms of Reference for the next performance review. These Terms of Reference will take account of the comparison conducted in 2009 and the experience gained by having completed the three Focus Area reviews in 2010. The Terms of Reference will also assess the adequacy of human and financial resources allocated to the Secretariat to accomplish the work resulting from the decisions of the Council and the Commissions, and duties arising from the Convention.

5. At the 2010 Annual Meeting of NASCO, a Review Panel will be created composed of a representative from 3 Parties to NASCO, a representative from a NASCO NGO observer, and 3 external experts with scientific, fisheries management and legal experience. The external experts shall be internationally recognized, but not be involved with, or have experience of working with, NASCO.
 - a. The Review Panel will select a Chairperson.
 - b. The NASCO Secretariat will provide logistical support to the Review Panel and shall not be a member of the Panel.
 - c. Travel and accommodation costs for the participation in the Review Panel meetings and for external experts and the NASCO NGO representative shall be borne by NASCO. NASCO Parties shall bear the costs of their own representatives participating in the Review Panel proceedings.
 - d. The Report of the Review and assessment of the Review Panel shall be communicated by the Panel Chairperson in advance of the 2011 Annual Meeting to the President and Executive Secretary of NASCO. It shall be distributed to Parties and observers and shall be placed on the NASCO website.

Council

CNL(07)17

Returns under Articles 14 and 15 of the Convention

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, two EU Member States with Atlantic salmon stocks (France and Portugal) had not sent returns.
2. Under Article 14 of the Convention, Canada has reported on measures in the Labrador food fisheries to minimise mixed-stock harvests, and on its meetings with France with regard to the St Pierre and Miquelon fishery. EU (Ireland) has reported that a Sea Fisheries and Maritime Jurisdiction Act, which will strengthen sea fisheries law and increase penalties, was enacted in 2006. EU (Spain) has indicated that all coastal fisheries are prohibited. Norway has reported on its surveillance activities which (together with the surveillance activities of the Icelandic coastguard) are very valuable in identifying any fishing for salmon by non-NASCO 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:

Canada

The Fisheries Act that governs management of fisheries and the protection of habitat in Canada is being overhauled. The changes being considered include requiring consideration of the Precautionary Approach to conserve aquatic resources, putting in place a science-based ecosystem approach to fisheries management and enhancing the approach to dealing with and enforcing fish habitat provisions. The proposed overhaul of the Act was presented in the Canadian Parliament in late 2006.

European Union:

In Germany, a sanctuary has been created in the River Elbe in Saxony. In Lower Saxony, under a Coastal Fisheries Law of 3 March 2006, salmon are protected in coastal waters from 1 October – 15 March. In Bavaria, while the stocking programme conducted between 1994 and 2004 in the upper and lower Main (a tributary of the Rhine) and its tributaries was not continued in 2005, 2006 and 2007, enhancement is expected due to construction of fish ladders, scheduled for 2007, in the barrage at Randersacker.

In Ireland, a number of regulations and byelaws were introduced or updated. These included regulations to continue the carcass tagging and logbook scheme in 2006, to provide for a system of on-the-spot fines for offences, restricting the angler bag limit to 10 fish in 2006, to introduce compulsory catch-and-release provisions from 1 September 2006 until the end of the season, to set the opening and closing dates and weekly close times for commercial salmon and trout fishing, and to prohibit monofilament or multi-strand monofilament material in specified nets. For 2006 the

commercial fishery quota was set at 91,000 salmon, a reduction of 58% from the initial commercial TAC of 219,000. In 2006, for the first time, an angling quota of 15,000 salmon was also set.

A suite of conservation measures for 2007 has also been detailed. In 2005 the Irish Government decided to end the at-sea mixed stock fisheries (predominantly drift nets) in 2007 and to operate fisheries only on single river stocks which are shown to be meeting conservation limits. In 2006 a number of regulations, byelaws and orders were introduced for the conservation and management of salmon in 2007, including those that regulate the quotas for each of the rivers that are open for fishing in 2007, that further protect the spring salmon specifically, and that introduce a salmon conservation levy equivalent to 50% of the salmon licence fees. The levy will be used to fund restoration work

In Spain, regulations were adopted in 2006 which set quotas in the autonomous regions. Some rivers remain closed to angling. In Asturias and Navarra, measures have been taken to improve fish passage, including dam removal and installation of fishways. In Asturias, restocking programmes with native fish (more than 1.2 million parr and smolt in 2006) have led to increased returns, with stocked fish making up 15% of catches.

In the United Kingdom, in England and Wales, a package of measures was agreed to reduce fishing effort on the rivers Teign and Dart with compensation paid to netsmen and release of the majority of rod-caught salmon. Compensation payments were also agreed with four netsmen on the River Dee (North Wales) to speed up the phase-out of seine and trammel net fisheries. Compensation arrangements continue in other fisheries and the phase-out of mixed stock fisheries is continuing. In Scotland, a number of new regulations were introduced, and catch and release fishing and stock and habitat enhancement programmes continue. The voluntary deferment of the start of the net fishery by 6 weeks to conserve early-running stocks has continued. In Northern Ireland, the Loughs Agency is reviewing fisheries under its remit in the light of the proposed cessation of interceptory fisheries for salmon on mixed stocks below conservation limits in Ireland. In the Fisheries Conservancy Board area, following cessation of 90% of commercial in-shore fishing for salmon in 2004, a further review of any remaining interceptory fishing is under consideration. Habitat work has been undertaken and two new fish counters installed.

In Iceland, new laws on freshwater fishing and related activities took effect. There are new Acts on freshwater fisheries, rearing of freshwater fish, enhancement of freshwater fish and protection against fish diseases.

In Norway, 21 Atlantic salmon rivers were limed at a cost of NOK50 million (approximately £4 million) in 2006. The total catch of salmon in limed rivers was 46 tonnes in 2006. 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 2006 a programme of treatment of rivers to eradicate the parasite *G. salaris* continued. Out of 46 infected rivers, 35 have been treated and in 15 rivers the parasite has been eliminated and ten rivers are still being monitored. In ten other rivers the parasite has been recorded again after treatment. A bill before Parliament proposes an additional 15 rivers and 8 fjords under the National Salmon

Rivers and Salmon Fjords Scheme. The bill focuses on the spread of *G. salaris* and introgression of escaped farmed salmon as the two most severe threats to the future existence of wild salmon in Norway.

In the Russian Federation, the Federal “Water Code of the Russian Federation” was adopted which defines the width of protection zones on salmon rivers, with the aim of preventing pollution, abstractions and siltation, thereby protecting the habitat of aquatic biological resources and other flora and fauna.

In the US, a Recovery Plan for the Gulf of Maine (GOM) Distinct Population Segment (DPS) has been finalised and a Recovery Team has developed a list of 30 priority actions for recovery from the 120 actions identified in the Plan. In the fall of 2006 a Status Review to determine if any other populations should be included in the GOM DPS was made publicly available and the National Marine Fisheries Service (NMFS) is presently considering the information in the review, the comments from peer reviewers and the response of the Atlantic Salmon Biological Review Team to the peer reviewers to determine if action is warranted under the Endangered Species Act. NMFS could determine that a change is required to the boundaries or conservation status of the existing GOM DPS, that a separate listing of salmon in other rivers is warranted, or that no action is warranted. The Endangered Species Act requires that critical habitat for species listed as endangered or threatened is designated. This process is now underway and is expected to be completed in 2008. The final report on an independent program review to determine if current hatchery operations, protocols and practices are scientifically sound, and whether they have the potential to further stock recovery and are integrated with population assessment and evaluation programs, is expected during the summer of 2007.

Secretary
Edinburgh
11 May, 2007

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

Sea-Fisheries and Maritime Jurisdiction Act 2006 enacted which strengthens sea fisheries law to secure compliance with EU Law and *inter alia* increase penalties.

Spain

Principality of Asturias:

Only fishing by anglers is allowed. All coastal fisheries are banned: Law 6/2002 of the Principado de Asturias, Protección de los ecosistemas y de la pesca.

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*)

Canada

During bilateral meetings with France, Canada raised concerns about the salmon fishery at St. Pierre et Miquelon that captures salmon originating in Canadian and US rivers.

Other Parties

No actions reported by the other Parties.

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

Annual negotiations are undertaken with Aboriginal groups in Labrador to establish the parameters of their food fisheries for Atlantic salmon. As a result, measures are in place to ensure harvests of mixed stocks are avoided, by moving the fishing activities further into the rivers and inside the headlands. Where needed, improvements to these measures are negotiated.

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

Germany

In the River Elbe in Saxony, a sanctuary for Atlantic salmon has been created by edict. In Lower Saxony, under the Coastal Fisheries Law of 3 March 2006 (Nds. GVBl. No. 8/2006), salmon are protected in the coastal waters of Lower Saxony from 1 October – 15 March.

Ireland

Foyle Carlingford Fisheries Act 2007: extends the functions of the Loughs Agency of the Foyle, Carlingford and Irish Lights Commission, one of the six North South Implementation Bodies, in relation to inland fisheries and updates and amends the existing Foyle Fisheries Acts 1952 to 1983 in relation to, *inter alia*, the management, conservation, protection and improvement of fisheries in the Foyle and Carlingford areas. Parallel legislation has been introduced in Northern Ireland.

A considerable volume of secondary legislation was introduced in 2006 to provide for significant changes to the salmon fishery management regime and associated Conservation Measures for 2006 and 2007 Seasons:

Wild Salmon and Sea Trout Tagging Regulations 2006, S.I. No. 208 of 2006: Statutory Instrument (SI No. 256 of 2000) was updated for the 2006 fishing season for the continuation of the Carcass Tagging and Logbook Scheme. 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. The statutory instrument provides for quotas for the taking of wild salmon and sea trout by commercial fishing engines in each of the 17 fishery districts. In addition three technical amendments were incorporated into the 2006 regulations. The amendments provided 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.

National Salmon Commission and Standing Scientific Committee (Terms of Reference and Procedure) Order 2006, SI No. 483 of 2006: These Regulations provide for revised Terms of Reference and Procedure for the National Salmon Commission and new terms of reference and procedures for the Standing Scientific Committee of the Commission.

Inland Fisheries Fixed Payment Regulations 2006, S.I. No. 330 of 2006: These regulations provide for a system of on-the-spot fines to be administered by the

regional fisheries boards. The form of notice of an on-the-spot fine is set out in the Schedule to the Regulations.

Conservation of Salmon and Sea Trout Bye law No. 802 2006: This Bye law provides for the restriction on the annual angling bag limit of 10 fish per angler for 2006. While the NSC had recommended a limit of 15 fish per angler, the lower level was believed to be necessary to contain the total harvest by anglers to 15,000 fish, given that there is 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.

Conservation of Salmon and Sea Trout Bye law No 803 2006: This Bye law provides for the introduction of compulsory catch and release provisions from 1st September 2006 until the end of the season in 8 districts which are not meeting conservation limits.

Conservation of Salmon and Trout Byelaw No 804 2006: This Bye-law prescribes the opening and closing dates and the weekly close times, etc., for commercial salmon and trout fishing. The Bye law also prohibits the use of monofilament or multistrand monofilament material in (a) drift nets in the tidal waters, (b) drift nets in the Dublin District outside the Liffey tidal waters on or after 30 June, 2006, (c) draft nets (with the exception of draft nets in Cork Harbour where the use of monofilament or multistrand monofilament material is permitted) (d), snap nets or other engines. Approval was given to draft net fishing with monofilament nets, within the quotas set down for the Cork district in the Wild Salmon and Sea Trout Tagging Scheme Regulations in the 2006 season, in the light of the results of a pilot study which investigated aspects of draft net fishing in Cork Harbour, conducted over the previous three years.

Conservation of Salmon and Sea Trout Amendment Byelaw No. 808 2006: This Bye-law provides for an amendment to the Conservation of Salmon and Sea Trout Bye-law No. 803, 2006 and prohibits in respect of all sea trout (irrespective of size) the use of any fish hooks other than single barbless hooks and imposes a ban on the use of worms as bait.

South Western Fisheries Region Prohibition of the use of Prawns Shrimp and other Crustacea Byelaw No 810 2006: This Bye-law prohibits the use of any prawn, shrimp or any other crustacean as bait to angle or take fish with rod and line during the month of September each year in the South Western Fisheries Region with the exception of that part of the River Lee downstream of the weir in the city to the point where the two channels of the Lee converge.

South Western Fisheries Region River Lee Byelaw No 811 2006: This Bye-law prohibits the use of any fish hooks, other than single barbless hooks, in angling for fish with rod and line each year in that part of the River Lee downstream of the weir in the city to the point where the two channels of the Lee converge during the period from 30 April to 30 September, in angling for salmon and sea trout, and 12 October, in angling for trout.

Western Fisheries Region Dawros Kylemore River Byelaw No 812 2006: This Bye-law prohibits angling with any lure other than artificial fly in that part of the Dawros River from where it flows out of Lough Maladrolaun (also known as the Rock Pool)

in the townlands of Pollacappul and Mweelin to the bridge on the Letterfrack-Tullycross road in the townlands of Tooreena and Dawros More in the county of Galway.

North Western Fisheries Region Ballina District Prohibition on Angling Bye law No C S 283 2006: This Bye-law provides that the annual close season for angling with rod and line in parts of Lough Conn, Lough Cullin and River Deel shall be extended from 1 February to 31 May (both dates inclusive) in each of the years 2006, 2007 and 2008.

Shannon Fisheries Region Draft Netting of Trout on Lough Ree Bye law No 284 2006: This Bye-law introduces a number of conservation measures on Lough Ree.

Conservation Measures for the 2007 Season

The Wild Salmon and Sea Trout Tagging Scheme Regulations (No. 2) 2006 (S.I. No 672 of 2006): sets out the quotas on a river-by-river basis, the mechanism for allocating overall quotas between commercial fishermen and anglers and individual commercial fishermen's quotas. The regulations specify the quotas for each of the rivers that are open for fishing in 2007. In addition, in order to protect the spring salmon (multi sea winter fish) only one tag may be issued per angler up to 12 May 2007.

The Conservation of Salmon and Sea Trout Bye-law No. 814, 2006: specifies the annual and seasonal angling bag limits in specified rivers. The Bye- Law provides for an annual bag limit of 10 fish for 2007, a season bag limit of 1 fish in the period 1 January to 12 May, a daily bag limit of 3 fish from 13 May to 31 August and a daily bag limit of 1 fish from 1 September to the end of the season. The Bye-law also provides for the use of single hooks and prohibits the use of worms as bait once the specified number of fish have been caught in the specified periods.

The Conservation of Salmon and Sea Trout Bye-laws No. 815, 2006: identifies those rivers and the circumstances where catch and release is permissible.

The Conservation of Salmon and Sea Trout Bye-law No. C.S. 287, 2006: prohibits angling for salmon and sea trout in specified rivers that are not meeting their conservation limits.

The Conservation of Salmon and Sea Trout Bye-law No. C.S. 288, 2006: prohibits angling for salmon and all sea trout in the river Liffey and river Slaney.

The Control of Fishing for Salmon (Amendment) Order 2006 (S.I. No 653 of 2006): This Order extends the date by which applications for commercial fishing licences must be received by the Regional Fisheries Boards from 31 January to 18 March 2007.

The Salmon Rod Ordinary Licences (Alteration of Licence Duties) Order 2006 (S.I. No 670 of 2006): prescribes the licence fees payable in respect of salmon rod ordinary licences, including a salmon conservation levy equivalent to 50% of the licence fee.

Special Tidal Waters (Special Local Licences Alteration of Duties) Order 2006 (S.I. No 671 of 2006): prescribes the licence fees to be payable from 1 January 2007 in respect of special local salmon fishing licences, including a salmon conservation levy equivalent to 50% of the licence fee.

Fisheries (Miscellaneous Commercial Licences) (Alteration of Duties) Order 2006 (S.I. No 628 of 2006): prescribe, *inter alia*, the licence fees payable in respect of commercial salmon fishing licences, including a salmon conservation levy equivalent to 50% of the licence fee.

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 regulation of the 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 and details of management measures are provided in Annex 1. The following information explains how these Spanish Autonomous Communities have regulated salmon fishing in 2006.

Galicia:

TAC regulations remains the same as in 2005 in the five rivers where salmon angling is allowed in Galicia (R. Eo – managed with Asturian Government – no regulation of number of salmon caught): 40 salmon in the R. Masma, 5 in the R. Mandeo, 40 in the R. Ulla, 15 in the R. Lérez and 5 in the Miño (in the exclusively Spanish area).

Principality of Asturias:

For 2007, the quota of salmon that can be caught in each zone in the rivers Esva, Sella, Narcea and Deva-Cares is limited to 3 salmon/coto (beat)/day. In all Asturias rivers since 2006 catches are limited to a maximum of 8 salmon/person/year.

Navarra:

TAC regulations have been reviewed and the new limit of catches for angling is 50 salmon/year. Concerning the protection of the MSW population, the catches have been limited to 8 salmon until 15 June.

Cantabria:

There are no new changes with regard to fishing standards.

Basque Country:

Atlantic salmon fishing and catches are not allowed under economic penalty.

United Kingdom

In England and Wales:

A package of measures was agreed to reduce fishing effort on the Rivers Teign and Dart in South West England. The net limitation orders were reduced from 6 to 3 on the Teign and from 13 to 3 on the Dart, with netsmen being compensated for giving up their licences. A combination of Association rules and voluntary release also enabled the majority of the rod-caught fish to be released on these rivers. In addition, compensation payments were agreed with four fishermen on the River Dee (North Wales) to speed up the phase-out of the seine and trammel net fisheries on this river.

Season extensions continued to apply for rod fisheries on a number of rivers in Wales and South West England, and a new season extension was introduced on the River Seiont (North Wales) in 2006. In all cases, catch and release is mandatory during the extension period; other method restrictions also apply at this time on some rivers.

In Scotland:

The Northern Salmon Fishery District Designation Order 2006 - made on 31 August 2006, came into force 1 September 2006. Created new Northern Salmon Fishery District. Previous salmon fishery districts in the area were abolished and replaced.

The Conservation of Salmon (Collection of Statistics) (Scotland) Regulations 2006. Made on 27 November 2006, laid before Scottish Parliament on 30 November 2006, came into force on 1 January 2007.

The Scotland Act 1998 (River Tweed) Order 2006. Made by Her Majesty The Queen in Council on 14 November 2006, came into force on 15 November 2006.

Iceland

On 1 July 2006 new laws on freshwater fishing and related activities took effect. The previous Act on Freshwater Fisheries was broken down and replaced by the following Acts:

1. Act No. 61/2006 on Freshwater Fisheries
2. Act No. 57/2006 on Rearing of Freshwater Fish
3. Act No. 58/2006 on Enhancement of Freshwater Fish (including ranching)
4. Act No. 60/2006 on Protection against Fish Diseases

At the present time these are only available in Icelandic.

Russian Federation

The Federal Law - "Water Code of the Russian Federation", was adopted on 3 June 2006. One of its Articles defines the width of protection zones on salmon rivers. The width of this zone can vary from 50m to 200m, depending on the river length. According to the Water Code a special regime shall be established in the protection zone for economic or any other activity with the aim of preventing pollution, obstruction, siltation in the above water bodies and their depletion as well as for the

protection of habitat of aquatic biological resources and of other species of flora and fauna.

Other Parties

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)*)

Canada

The *Fisheries Act* is the federal law that governs the management of fisheries and the protection of fish habitat in Canada. An overhaul of the Act is being considered by the Canadian government. The changes being considered will:

- Require for the first time the consideration of a precautionary approach to conserve aquatic resources;
- Put in place a science-based ecosystem approach to fisheries management;
- Introduce provisions concerning Aquatic Invasive Species;
- Enhance the approach in dealing with and enforcing fish habitat provisions.

The proposed overhaul of the Act was presented in the Canadian Parliament in late 2006. There are a number of stages that the proposed changes must go through before coming into force. After this process there will be an implementation stage when some components of the revised Act would go into effect immediately and others involving new regulations, would be phased in.

European Union

Ireland

In 2005, an Irish Government decision was taken to end the at-sea mixed stock fisheries (predominantly drift nets) in 2007 and to operate fisheries only on single river stocks which were shown to be meeting conservation limits. These measures were to fully align with the advice of the Standing Scientific Committee of the National Salmon Commission in 2007, adhere to best international practice, comply with scientific advice from ICES, meet NASCO objectives and to afford greater protection to stocks designated under the EU Habitats Directive (Council Directive 92/43/EC).

In 2006, the Minister of State at the Department of Communications, Marine and Natural Resources made a number of regulations, bye-laws and orders for the conservation and management of salmon in 2007. This legislation reflects the scientific advice and compliance with international and EU obligations. The relevant instruments regulate the quotas for each of the rivers that are open for fishing in 2007 and further protect the spring salmon (multi-sea-winter fish) specifically and introduce a salmon conservation levy equivalent to 50% of salmon licence fees.

The Minister has issued a direction to the fisheries boards under the Fisheries Act 1980 directing that the Central Fisheries Board co-ordinate the preparation and implementation of a programme for rehabilitation of salmon stocks, giving priority to rivers below their conservation limits; in special areas of conservation; and which have the greatest prospect of recovery, which is to be funded by the proceeds of the salmon conservation levy.

Recognising the implications of aligning management of the fishery with the scientific advice for the commercial salmon fishing sector in 2007 and beyond, the Government decided to put in place a fund to address any financial hardship that may be experienced by the sector. It is proposed to provide a measure of relief to each individual in line with the level of hardship likely to be experienced based on the recent catch history of the individual licence holder.

An additional fund will be available, the focus of which should primarily be those communities where drift-net fishing has been a well-established activity and where its withdrawal demonstrably impacts on their economic and social fabric.

Spain

Principality of Asturias:

In 2005, a dam in a secondary river was demolished.

In November 2006 an important dam (8 metre) in Gueña, a secondary river in Sella Basin, has been demolished, with a significant increase in accessible length of the tributary.

Navarra:

During the last year, two dams in secondary rivers have been equipped with fish-passes. Another one has been demolished and removed. In 2006, a Stream Gauge Station has been modified to facilitate fish passage. The accessible salmon habitat in the Bidasoa basin has been increased by 10%.

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, Dart, Teign, Lyn, Dee and the Hampshire Avon and Stour. The phase-out of a number of mixed-stock fisheries is continuing.

In Northern Ireland

Loughs Agency area: in light of proposed cessation of interceptory fishing for salmon on mixed stocks below conservation limits in Ireland the Loughs Agency is currently reviewing the fisheries under its remit.

Fisheries Conservancy Board area: following the cessation of 90% of commercial inshore fishing for salmon in 2004 a further review of any remaining interceptory fishing is under consideration.

In Scotland:

Catch and release in the salmon rod fishery in 2006 reached 56% of all salmon and grilse caught. Salmon netsmen repeated their voluntary deferment of the start of the netting season by 6 weeks to conserve early-running stocks.

District Salmon Fishery Boards and Fisheries Trusts throughout Scotland have maintained programmes of stock and habitat enhancement.

Norway

Liming

In 2006, 21 Atlantic salmon rivers were limed in Norway at a cost of NOK 50 million (approximately £4 million). Liming of the River Vosso ceased at the end of 2005 due to improvement in the water quality in the river. In 2006 additional funding from the Ministry of Environment made it possible to continue the liming programme in the other limed salmon rivers. A programme for restocking of the acidified River Nidelva, which has been limed since the end of 2005, was initiated in 2006.

In 2006 the total catch of Atlantic salmon in the 21 limed rivers was around 45 tonnes. Most liming projects in Norway commenced during the period 1991 to 1997. It will take some years before salmon stocks are re-established in treated rivers. 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 catches have been between 1 and 1.5 tonnes in the last two years with the density of young fish still increasing. 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 2006, a final treatment was carried out in the River Lærdalselva situated in the western part of Norway. In addition a new eradication project began in the Steinkjer Region (River Steinkjerelva and River Figga). These rivers 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. The main rivers and their largest tributaries were treated with aluminium sulphate (ALS). Rotenone was used in small quantities in more or less stagnant water, smaller tributaries and other complex areas connected to the river. A further treatment of these rivers will be undertaken in 2007.

A rotenone treatment project was completed in 4 smaller rivers situated in the Vefsna Region in the northern part of Norway. Immediate treatment of these rivers was necessary to prevent the parasite entering a big lake situated in the River Leirelva.

Out of 46 infected rivers in Norway, chemical treatment has so far been carried out in a total of 35 rivers. In 15 of the treated rivers the parasite has been eradicated. Ten rivers are still being monitored. Five years of monitoring after treatment is necessary to confirm that the treatment has been successful. In ten 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.

Conservation of salmon stocks

There was no activity concerning cryopreservation of salmon milt in 2006. By the end of 2006, milt from a total of 6,500 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.

Proposition for the conservation of wild salmon

In December 2006 the Norwegian Government presented a Proposition for the conservation of wild salmon and the finalization of the National Salmon Rivers and Salmon Fjords scheme. The bill is expected to pass through Parliament during its 2007 spring session. Besides proposing an additional 15 rivers and 8 fjords and a more concrete and strict management regime, especially for aquaculture in National Salmon Fjords, the bill includes proposals for new measures for the conservation of the wild salmon resource in Norway. The bill focuses on the further spread of *G. salaris* and introgression of escaped farmed salmon as the two most severe threats to the further existence of wild Atlantic salmon stocks in Norway. Among the measures suggested are the continuation of liming of salmon rivers, increased efforts to eradicate *G. salaris* from Norwegian rivers, new measures to reduce escapes from salmon farms and the introduction of a programme aimed at developing sterile salmon for farming purposes. More effective control of sea lice production in fish farms, the

development of a national salmon habitat protection and restoration plan and the need to improve conditions for wild salmon in connection with renewal or revision of hydro-power licences are identified. Furthermore, the bill points to the need for more restrictive regulations in salmon fisheries to reduce mixed stock fisheries.

USA

The U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration National Marine Fisheries Service (NMFS), collectively referred to as the Services, have joint responsibility for recovery of the endangered Gulf of Maine (GOM) Distinct Population Segment (DPS) of Atlantic salmon (*Salmo salar*). In December 2005, the Services finalized the Recovery Plan for the GOM DPS of Atlantic Salmon (National Marine Fisheries Service and U.S. Fish and Wildlife Service, 2005). A copy of the Final Recovery Plan is available at the following link:<http://www.nmfs.noaa.gov/pr/recovery/>. In September 2005, the Northeast Regional Director for the USFWS and the Assistant Administrator for Fisheries for NOAA Fisheries appointed a Recovery Team to identify priority recovery actions and provide input and recommendations on specific recovery issues. The Services convened a Recovery Team representing a diversity of expertise in order to facilitate implementation of the Recovery Plan. The Recovery Team was 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. From a list of over 120 actions in the Final Recovery Plan, the Recovery Team developed a list of 30 priority actions for recovery that they recommended to the Services for implementation. 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 GOM DPS. The populations in the Penobscot and a few other rivers were not included in the GOM DPS at the time it was listed under the ESA in November of 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 underwent peer review. The Center for Independent Experts (CIE) completed the review and the BRT made revisions to the document based upon this critique. The Status Review was made available to the public during the fall of 2006. NMFS is currently considering the information presented in the 2006 Status Review, the comments from the peer reviewers, and the response of the BRT to the peer reviewers to determine if action under the ESA is warranted. NMFS could determine that a change to the boundaries or conservation status of the existing GOM DPS is warranted, that a separate listing action is warranted, or that no action is warranted. If NMFS determined that a modification to the existing listing or a new listing was warranted, then a proposed rule will be published along with the rationale for that proposal.

The ESA also requires that the Services designate Critical Habitat for all species listed as endangered or threatened. The Services listed Atlantic salmon in the GOM DPS as endangered under the ESA in 2000; however, critical habitat has yet to be designated. Critical habitat is defined as habitat that includes physical and biological features essential to the conservation of the listed species. Critical habitat can be designated in all areas currently occupied by the species, and may be designated in those areas not occupied by the species if those areas are deemed essential to the conservation and recovery of the species. Federal agencies must consult with the Services on any action they permit, fund or carry out that may adversely affect critical habitat. Currently NMFS is working on developing the source documents that describe the habitat features essential to the conservation of the species as well as those activities that likely affect the identified habitat features. The information in the source document will be used to conduct an economic analysis designed to assess the economic impact that a critical habitat designation may have and weigh the cost of designating critical habitat with the benefits to recovery. Areas can be excluded from a critical habitat designation if the costs are deemed to be too great as long as the decision not to designate does not jeopardize the continued existence of the species. It is expected that the NMFS will complete the designation by 2008.

The Maine Atlantic Salmon Commission (MASC), USFWS, and NMFS contracted Sustainable Ecosystems Institute (<http://www.sei.org/>) to conduct an independent program review to determine if current hatchery operations, protocols, and practices are scientifically sound, have potential to further recovery, and are integrated with population assessment and evaluation programs. The focus question was: Is there integrated adaptive management of Atlantic salmon in Maine? A team of six scientists was convened to review the Maine program. The panel conducted a three-day visit to Maine in February 2007. The visit included a tour of Craig Brook National Fish Hatchery (CBNFH) and two days of presentations by, and discussions with, agency staff and interested scientists (i.e. researchers, managers from other programs, and retirees). The review team is expected to submit their final report to the Services and MASC by summer 2007.

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

Germany

In Bavaria, in the framework of the “Lachs 2000 Programme (Rhine Salmon Programme) the ArGeMain (Working Group on the Rhine tributary, the Main) stocked about 400,000 fry between 1994 and 2004 in the Upper and Lower Main and its tributaries. The genetic origin of these strains was Ireland, France and Sweden. There was no stocking in 2005, 2006 or 2007. Enhancement is expected due to fish

ladders at the barrage in Randersacker (under construction in 2007). The current conservation measures offer year-round protection to salmon in Bavaria.

Ireland

The commercial fishery quota in 2006 was set at 91,000 fish and for the first time an angling quota of 15,000 fish was also set. This is a reduction of 58% from the initial commercial TAC of 219,000, which has been brought about by staged reductions annually since 2002.

The statutory instruments introduced in late 2006 set out the quotas on a river-by-river basis and specify the quotas for each of the rivers that are open for fishing in 2007. Additional protection is afforded to the spring salmon (multi-sea-winter fish).

Spain

Principality of Asturias:

Restocking programmes with native fish have produced an increase in the rate of returning estimated at 15% of the total caught. Smolt and parr production in hatchery and release was over 1,200,000 in 2006.

United Kingdom

In Northern Ireland:

Proposed cessation of Irish interceptory fisheries. In the Fisheries Conservancy Board area habitat improvement works were completed on one river system and 2 fish counters have been installed on minor catchments. In the Loughs Agency area habitat improvement works were completed on 2 river systems.

Norway

In two rivers salmon parr have died from Proliferative Kidney Disease. Little is known about the occurrence of the disease in Norwegian salmon rivers. The disease was previously known in a few hatcheries and only one river. NINA (Norwegian Institute of Nature Research) therefore undertook a pilot screening of 18 rivers in the autumn of 2006. Preliminary results show that the parasite causing the disease, *Tetracapsuloides bryosalmonae*, is probably common in Norwegian salmon rivers. Outbreaks of the disease seem to be triggered by high water temperatures. The study will be reported by NINA in the first half of 2007.

Other Parties

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

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

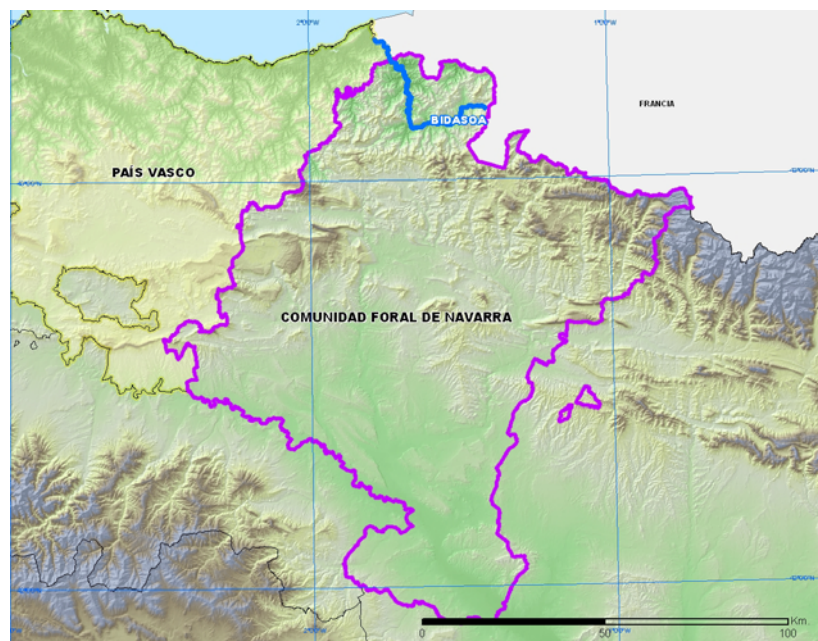
Galicia



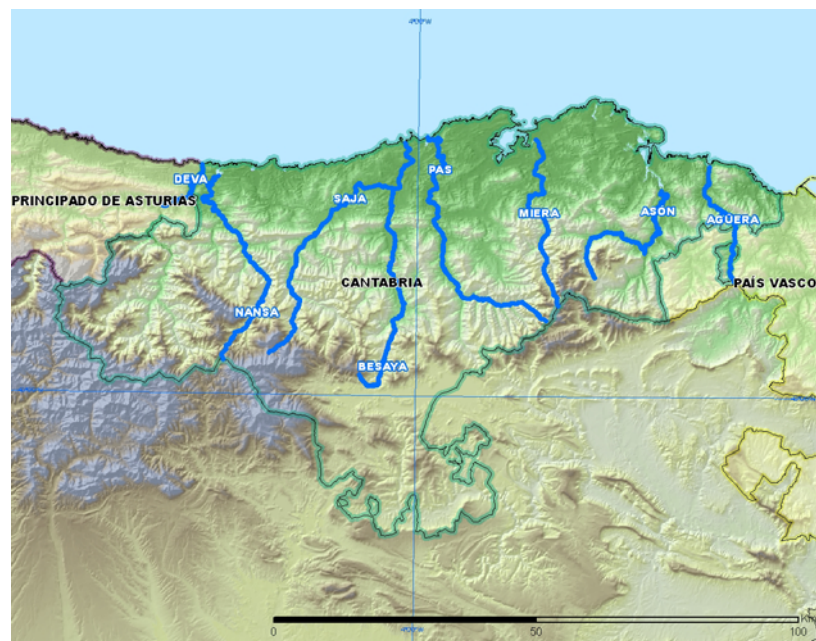
Principality of Asturias



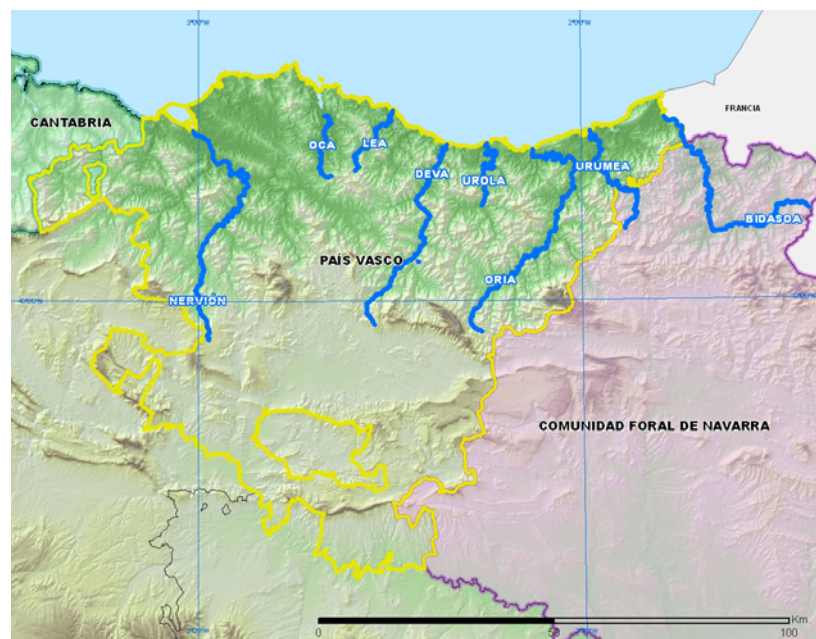
Navarra



Cantabria



Basque Country



Council

CNL(07)29

***Supplementary Return – EU (France) and
EU (Germany – Baden-Wuerttemberg)***

We have received the following returns for EU (France) and EU (Germany – Baden-Wuerttemberg) in relation to Catch Statistics and their Analysis (Agenda item 4.5), Unreported Catches (Agenda item 4.6) and Returns under Articles 14 and 15 of the Convention (Agenda item 6.1).

Secretary
Edinburgh
29 May, 2007

Returns under Article 15 of the Convention

3. **Have there been any other new factors which may significantly affect the abundance of salmon stocks subject to the Convention? (Article 15, paragraph 5(c))**

Germany (Baden-Wuerttemberg)

Agreement between fisheries authorities (responsible for the protection of salmon stocks) and water management authorities about the development of the Murg, a formerly important salmon river.

Fry, pre-smolts or smolts are stocked in high numbers and the actions are monitored, as in previous years. The restoration of rivers and stream reaches is continuing. In a pilot project a circulating rake at a hydroelectric power station was installed to prevent injuries to migrating salmon.

There have been no new laws, regulations and programmes or other new commitments in Baden-Wuerttemberg but salmon is protected by law and suitable rivers (or parts of them) are classified as salmon rivers and receive special protection.

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 2006 in tonnes round fresh weight or round fresh weight equivalent*

France

11.2 tonnes

- 3. Confirmed catch of Atlantic salmon in tonnes round fresh weight or round fresh weight equivalent for previous calendar year (i.e. 2005)*

France

11.2 tonnes

Unreported Catches

2. ***An estimate of unreported catch by country, broken down by category and indicating whether the unreported catch is the result of legal or illegal activities.***

France

Law enforcement staff from the Office National de l'Eau et des Milieux Aquatiques (ONEMA), formerly Conseil Supérieur de la Pêche, conducts surveys of catches on the rivers by rod and line fishermen and the results are compared to the declared catches (declaration of catches is compulsory).

The unreported catches can only be estimated for the anglers :

(provisional figures)

Total	No of ISW	No of MSW
626	432	194

These are mainly legal catches, i.e. by anglers carrying the required licence, during the open season, but they are undeclared, which is contrary to the regulation: declaration is compulsory.

Unreported catches by the anglers is “voluntary inaccuracy in making returns”, an explanation not proposed by the NASCO questionnaire.

3. ***An explanation of how the figure for unreported catch is arrived at, according to the following breakdown:***

France

Apart from the undeclared catches by rod and line, there is locally some professional fishing in the estuary (e.g. maritime zone of the Adour), but only declared catches are available. No estimation of unreported catch.

Professional fishing in fresh water (freshwater zone of the Adour): no estimation of unreported catch. Only declared catches are available.

Rod and line fishing (fresh water): see above.

4. ***The extent of catch and release fishing***

France

Not assessed but very limited (< 5% of estimated catch).

Council

CNL(07)27

***Main Features of the Norwegian Policy for the
Preservation of Wild Salmon***

Main Features of the Norwegian Policy for the Preservation of Wild Salmon

1. Introduction and background

In February 2003 the Storting (parliament) designated 37 national salmon watercourses and 21 national salmon fjords, while establishing ground rules for this management scheme and guidelines for follow-up, on the basis that additional river systems and fjord areas would be included in due course.

In its proposal St.prp. nr. 32 (2006-2007), the Ministry of Environment has set out the Government's policy for the preservation and strengthening of Norway's salmon stocks and recommendations for the establishment of 15 new national salmon watercourses (river systems) and 8 new salmon fjords. The proposal is based on established criteria for selecting salmon stocks for the management scheme, a comprehensive technical report, comments on the report following consultations, recommendations from the Directorate for Nature Management, and a balanced assessment of other relevant sectors.

The Storting endorsed this proposal on 15 May, and the scheme now comprises 52 national salmon river systems and 29 national salmon fjords.

2. Summary of St.prp. nr. 32 (2006-2007)

2.1 Preservation and strengthening of the wild salmon stocks

The Government aims to protect and regenerate salmon stocks to a level and composition that will maintain diversity within the species while exploiting its productive potential. As the responsibility for achieving this objective is divided between several sectors, cooperation in salmon management will be improved.

National salmon rivers and salmon fjords comprises an essential measure aimed at protecting wild salmon. However, action is equally necessary in other areas involving, for example, fish farming, salmon river management, combating *Gyrodactylus salaris*, liming, operation of gene banks, research and development, monitoring, and salmon fishery management.

Measures involving aquaculture

Escapees from salmon aquaculture (farmed salmon which have escaped or been released into the natural environment) are one of the most serious threats to wild salmon. Efforts to limit escapes will be intensified on the basis of the fisheries authorities' action plan "Visjon nullflukt" ("Vision No Escapees"). Work on potentially useful new technologies and production methods, the use of sterile fish and the development of systems for tracing fish will also be intensified.

Infestations with salmon lice is also a serious threat to wild salmon. Efforts to reduce the infection pressure on outgoing smolts will therefore be intensified through a national

action plan to combat this parasite. Regulations will be strengthened, as will efforts to develop vaccines and schemes for coordinated delousing.

Gyrodactylus salaris

Next to aquaculture escapees, the greatest threat to wild salmon is the parasite *Gyrodactylus salaris*. Combating this parasite will be a high priority, with the aim to eradicate the parasite where possible and minimize the risk of transmission to new areas. Measures will be based on the best available technology and systematic follow-up.

Watercourses

Protection of salmon habitats in the rivers will be strengthened. Habitats in good condition will be safeguarded, and those which are not optimal for production of wild salmon will be restored. The interests of the wild salmon itself, other stakeholders in the watercourses and cost-efficiency combined, calls for scrupulous and systematic implementation. Restoration work will, therefore, be based on a comprehensive national plan for the preservation and renewal of salmon habitats.

New encroachments in connection with the production of hydroelectric power shall not cause significant damage to salmon production. In new hydropower projects affecting salmon river systems, emphasis will be put on avoiding harmful effects to wild salmon through adaptation and/or compensation measures.

In relation to hydroelectric power, the situation for wild salmon can be improved mainly through revision and renewal processes for hydropower licences. These instruments will therefore be used to improve conditions for wild salmon in affected river systems.

Regulations in salmon fisheries

Substantial restrictions in salmon fisheries will be necessary in the up-coming regulations for the period 2008-2012. The regulations will be based on international scientific advice and criteria which presuppose mainly that mixed stocks fisheries must be curtailed. In practice, this can only be achieved by reducing fishing pressure in the sea water fisheries and probably also phasing out this type of fishing in certain areas. In addition, regulations will be introduced with the aim of meeting spawning stock targets and reducing the relative abundance of escapees from aquaculture.

The new regulations in salmon fisheries will be developed with contributions from the various interest groups, in particular the owners of fishing rights in rivers and fjords, the Sami (Laplanders), recreational fishers, and local enterprises that may be indirectly affected. The aim is a new regulatory regime well adjusted to the situation of the wild salmon, where the overall consequences for the interested parties are acceptable.

Liming, releasing fish and gene banks

Liming is currently carried out in 22 salmon rivers; these liming projects will continue. Over time, liming projects may be extended to additional salmon rivers.

Release of salmon is currently carried out as a compensatory measure in hydroelectric power projects. In many cases such releases are not particularly effective, and quality control and assessment will therefore be strengthened.

Material from 169 salmon stocks are maintained in frozen gene banks, and 22 stocks are preserved in living gene banks. To date, the salmon stocks included in the gene banks are at risk from either *Gyrodactylus salaris* or acid rain. As a result of the additional need to protect stocks that are threatened by escaped salmon from aquaculture, an expansion of the gene bank programme is in preparation.

Research and monitoring

Salmon management requires a good basis in scientific information, *inter alia* on stock development and biological and environmental conditions for salmon production. Research and monitoring will therefore be priorities in the future.

2.2 National salmon river systems and salmon fjords

The aim of national salmon river systems and salmon fjords is to offer special protection to 52 of the most important salmon stocks in Norway. These salmon stocks will be protected from encroachment and activities in the watercourses and in the nearby fjords and coastal areas.

In the national salmon rivers no permission will be given to new enterprises or activities that might harm the wild salmon. In the salmon fjords no additional salmon aquaculture plants will be established. Existing installations will be subject to more stringent standards for preventing escapes and controlling sea lice and other diseases. The stocks included will also be prioritized for other measures aimed at strengthening the wild salmon.

The national salmon rivers and salmon fjords will encompass about three-quarters of the Norwegian wild salmon resource. The scheme will include large and abundant stocks with high productivity or with a potential for high productivity as well as stocks of “storlaks” (“big salmon”, weighing 7 kg or more) and stocks with special genetic characteristics. The selection of stocks will have a good geographic distribution.

The management system involving national salmon rivers and salmon fjords has been designated by the Storting in plenary session. This system will later be legally based in the Act relating to salmonids and freshwater fish and in regulations under other relevant legislation. Necessary legislative changes are to be proposed to the Storting once the scheme has been adopted.

The regulations concerning national salmon rivers and salmon fjords are administered according to the prevailing division of responsibility in central government. Local authorities and owners of fishing rights will also be involved in the administration of this scheme.

The national salmon rivers and salmon fjords will be a permanent scheme. However, new information, new technologies and new general framework conditions might require regulatory changes in the management of watercourses and fjord areas over time. The scheme will therefore be evaluated ten years after implementation at the latest.

The stocks involved in the scheme will have priority in general activities aimed at strengthening wild salmon stocks. This will involve *inter alia* measures to combat *Gyrodactylus salaris*, habitat restoration, revision of licences and compensatory measures in regulated watercourses, liming, and monitoring of stocks. In addition, other measures for protection of wild salmon will include reduction of escapees from aquaculture, minimizing sea lice and improved regulations in salmon fisheries.

Changes in the protection regime for salmon fjords

As a consequence of changes in aquaculture regulations since the salmon fjords were established, the Storting endorsed an updating of the existing protection regime for national salmon fjords. In addition, all salmon aquaculture will be terminated in the established salmon fjord Tanafjorden outside the Tana river, which is one of the World's most productive Atlantic salmon rivers. Apart from that, the new scheme does not include any relocation of aquaculture plants. However, voluntary agreements to move aquaculture installations out of national salmon fjords is a relevant option.

The protection regime sets out guidelines for aquaculture operations in the salmon fjords and also allows for flexibility in the event of future developments.

CNL(07)18

Council

***Report of the Meeting of the Liaison Group
with the North Atlantic Salmon Farming Industry***

1. The Liaison Group met in Boston, USA, on 9 and 10 March under the Chairmanship of Ms Mary Colligan (USA). The report of the meeting is attached. A welcome development was that for the first time NASCO's accredited NGOs participated in the meeting.
2. The Group agreed that it should:
 - share information on area management initiatives (local cooperation between wild and farmed salmon interests to address impacts of aquaculture on wild stocks, e.g. from sea lice) and promote area management to NASCO's Parties;
 - continue to explore opportunities for cooperation between wild and farmed salmon interests and that reports of such initiatives should be made available to the Group;
 - hold a one-day session at its next meeting focusing solely on the level and causes of escapes and opportunities to minimise them;
 - encourage research into alternative treatments for sea lice and make representations to the authorities urging that they make effective sea lice treatments available as quickly as possible where these are environmentally acceptable.
3. The industry representatives agreed to explore how they might support the SALSEA programme and to develop a discussion document on how NASCO could further support the salmon farming industry.
4. The Council is asked to consider the Liaison Group's report and decide on appropriate action.

Secretary
Edinburgh
11 April 2007

SLG(07)14

Report of the Meeting of the North Atlantic Salmon Farming Industry and NASCO Liaison Group

***Hyatt Regency Boston Hotel,
Boston, USA
9 and 10 March, 2007***

Prior to the opening of the meeting, the Liaison Group agreed conditions for attendance by observers representing NASCO's accredited NGOs at its meetings, SLG(07)12 (Annex 1). Under condition 1 it is stated that the NGOs will advise the NASCO Secretariat of their representative(s) at least one month before the Liaison Group meeting and in the event of any change in the NGO representation this would provide for an exchange among the Parties well in advance of the meeting.

1. Opening of the Meeting

- 1.1 The Chair, Ms Mary Colligan (USA), opened the meeting and welcomed participants to Boston. She indicated that while the full Liaison Group had not met for two years, its 2005 meeting had been productive with a useful exchange of information and there was a need to build on that progress. She referred to the Liaison Group's Trondheim Workshop and the ICES/NASCO Bergen Symposium that had been held in 2005. The findings from the ICES/NASCO Symposium, in particular, had placed increased urgency on the work of the Liaison Group since the information presented had indicated that there is a legitimate reason to be concerned about the impacts of aquaculture, although progress in managing these interactions is being made. Furthermore, the industry now accepts that its activities can have impacts on the wild stocks, a prerequisite to moving forward cooperatively to address the remaining challenges related to the impacts of escapees and sea lice. She hoped that during the meeting it would be possible to make further progress in finding solutions to these issues and in charting a course for future Liaison Group meetings.
- 1.2 Ms Nell Halse indicated that it was a pleasure for the industry representatives to participate in the meeting. She referred to the Liaison Group's Guiding Principles that recognise the importance of conserving and enhancing wild salmon stocks and of supporting a sustainable salmon farming industry. She noted that over the years considerable trust had been developed between wild and farmed salmon interests through the Liaison Group and that amongst other things this had resulted in the development of the Guidelines on Containment of Farm Salmon. The differences of opinion that had arisen following development of the Williamsburg Resolution had been resolved and the Trondheim Workshop had been a very successful initiative. She indicated that the Liaison Group can provide a valuable forum for exchange of information on best practice and she suggested that in future, consistent with its Guiding Principles, the Group should focus more on how NASCO can support the industry and how the industry can assist NASCO with its work in conserving the wild salmon.

- 1.3 Dr Malcolm Windsor, Secretary of NASCO, added his welcome and stressed that neither NASCO nor its Parties oppose salmon farming but they seek solutions in which a sustainable salmon farming industry can prosper while safeguarding the wild salmon stocks. He stressed that there are many threats to the wild stocks and NASCO is taking action on a broad front to address these but the abundance of the wild stocks is presently low and the ICES/NASCO Symposium in 2005 had highlighted the need for further progress in addressing the challenges posed by sea lice and escapees. He indicated that the Liaison Group could provide a valuable forum for identifying best practice to help address these challenges. He thanked the industry for agreeing to the participation by a representative of NASCO's NGOs, which he thought would bring benefits to the Group and improve the transparency of its deliberations. He added that the Norwegian government representatives had sent apologies that they were not able to be represented at the meeting.
- 1.4 The Chair welcomed Mr Poupard, the Chairman of NASCO's accredited NGOs, who indicated that it was a pleasure to participate in the work of the Liaison Group and stressed that all of NASCO's NGOs recognise the value and contribution the industry makes in terms of food production and employment in rural communities. These NGOs range from large conservation organizations, such as WWF, to angling, netting and riparian owner groups and even a small educational trust. Details of these organizations are available on NASCO's website (www.nasco.int). He indicated that they all share a desire to conserve Atlantic salmon. He noted that it is NASCO's role to set the international framework of best practice, a level playing-field, for minimising the impacts of aquaculture on the wild stocks, for NASCO's Parties to regulate the industry in line with NASCO's agreements and enforce those regulations, and for the NGOs to offer constructive comments on progress with implementation. In response to a question and a concern raised by the industry representatives, Mr Poupard indicated that he would be communicating the outcome of the meeting to the NGOs together with the official report of the meeting but he stressed that he had no control over whether these organizations would circulate the reports to their members, although he would encourage them to do so.
- 1.5 Under the Liaison Group's Constitution, the posts of Chairman and of Rapporteur are held alternatively by representatives of NASCO and the salmon farming industry. Mr Sebastian Belle was appointed Rapporteur for the meeting.
- 1.6 A list of participants is contained in Annex 2.

2. Adoption of the Agenda

- 2.1 The Liaison Group adopted its agenda, SLG(07)13 (Annex 3) but agreed to delete item 8, 'NGO Participation in the Liaison Group', which had been dealt with prior to the opening of the meeting.

3. Reports on the Trondheim Workshop and Bergen Symposium

- 3.1 A report on the Trondheim Workshop 'Wild and Farmed Salmon – Working Together' was presented by the Assistant Secretary of NASCO, Dr Peter Hutchinson. This Workshop was held in August 2005, and had been organised by the Liaison Group in conjunction with the European Aquaculture Society. It had allowed for a

thorough discussion on three themes involving cooperation between wild and farmed salmon interests identified in the SALCOOP report:

- area management initiatives (local cooperation between wild and farmed salmon interests);
- use of sterile salmon in farming and the opportunities for comparative trials;
- restoration programmes (cooperative ventures in restoring wild Atlantic salmon).

3.2 He reported that the Workshop had been attended by 84 participants from 13 countries, and a number of important areas where cooperation exists between wild and farmed salmon interests had been identified, including successful area management initiatives. A report of the Workshop had been produced and the aim would be to ensure that this was circulated widely to both wild and farmed salmon interests. The valuable exchange of information at the Workshop would provide a basis for further discussions by the Liaison Group under agenda item 4. The Liaison Group thanked the Steering Group (Mr Kjell Maroni, Mr James Ryan, Dr Peter Hutchinson and Dr Ken Whelan) for their efforts in organising this successful event.

3.3 A report was presented on the ICES/NASCO Symposium entitled 'Interactions between Aquaculture and Wild Stocks of Atlantic Salmon and Other Diadromous Fish Species: Science and Management, Challenges and Solutions'. The symposium had been attended by 110 participants from 15 countries. While recognising that progress had been made in managing interactions between wild and farmed salmon, the continued growth of the industry meant that significant challenges remain in terms of reducing the level of escapes and in managing sea lice so as to safeguard the wild stocks. The scientific papers from the symposium had been published in the ICES Journal of Marine Science (Edited by Dr Peter Hutchinson) and a separate report by the Co-Conveners (Dr Lars Petter Hansen and Dr Malcolm Windsor) addressed the management implications. The Conveners had concluded that, in their opinion, if no action is taken, and if the views of the many scientists and experts at the symposium are correct, there is a risk that the diversity of local adaptations in the wild stocks of salmon will be lost. However, he indicated that a major change at the Bergen Symposium had been the acceptance by the industry that its activities could be damaging to the wild stocks. He concluded that the goodwill and frankness that characterised the Trondheim Workshop and the Bergen Symposium should encourage enhanced cooperation in addressing the remaining challenges.

3.4 During the discussions it was noted that there had been benefits to the wild stocks from salmon farming through economic forces that had resulted in a reduction in exploitation but there were still concerns about the potentially damaging impacts of escapees and sea lice. It was noted that while scientific understanding of the interactions between cultured and wild salmon had increased considerably since the first NASCO symposium on this topic in 1990, the science was still developing. However, modelling studies suggested that at high levels of intrusions of farmed fish (>20%) there could be substantial changes in wild populations within ten generations. Such models would need to be validated. Potentially irreversible genetic changes in wild salmon populations had been noted in some rivers, according to one study in Norway. The need for further progress on containment either through physical means or biological means (use of sterile salmon) had been stressed at the symposium. The industry representatives indicated that they had serious concerns about the use of

sterile salmon. There was further discussion on the use of sterile salmon under agenda item 4(c).

4. Follow-up Actions emerging from the Trondheim Workshop and Bergen Symposium

(a) Area management initiatives

- 4.1 Dr Stuart Baxter, project manager for the Scottish Tripartite Working Group (TWG), made a presentation on the work of this group. The TWG had been established by the Scottish Executive in 1999 to consider how farmed and wild salmon interests could share common waters in a way which ensures maintenance of healthy wild fish stocks and a sustainable aquaculture industry and to build trust and consensus. The TWG comprises representatives of the salmon farming industry, wild fish interests and the authorities and is funded by the Scottish Executive. Successes to date include the development of working partnerships between the group members and the delivery of Area Management Agreements (AMAs). Where problems arise the existence of Area Management Groups provides a forum for addressing them. The programme has made good progress in coverage of a significant proportion of the west, north-west and Western Isles of Scotland. This has been made possible largely by the work of Regional Development Officers to drive and deliver AMAs at a local level. Difficulties had been encountered, including achieving synchronised treatments in some areas, particularly where farms have all their sites within the same Management Area, and there had been some issues on both sides relating to transparency and publication of information. However, these are being addressed. In response to a question concerning assessment of the effectiveness of AMAs in terms of recovery of wild salmonid stocks, it was stated that, at present, data is insufficient to draw conclusions although there are positive signs. The TWG is now entering the next phase of the programme which is beginning to establish project work, at the regional level, on restoration, genetic diversity and alternative treatments for lice control. It was noted that in Newfoundland it is a new requirement that farms within a production area apply for three sites so as to allow for rotation and fallowing. The New Brunswick industry is being restructured into a three-bay system.
- 4.2 The Liaison Group discussed whether it might develop guiding principles on area management initiatives. It was recognised that these initiatives are taking very different forms in different countries and that the role of the Liaison Group should be to share information on these initiatives and promote area management to NASCO's Parties.

(b) Salmon restoration programmes

- 4.3 The Liaison Group reviewed document SLG(07)4 which considered the opportunities for cooperation between wild and farmed salmon interests on wild salmon stock rebuilding programmes. This paper proposed that the principal area for cooperation between wild and farmed salmon interests in rebuilding wild salmon stocks is in addressing the challenges identified at the Bergen Symposium, through the development of effective strategies to minimise impacts of sea lice on wild stocks and to reduce escapes to as close as practicable to zero. The Williamsburg Resolution provides guidance on measures to minimise these impacts. Area management initiatives are an important tool in reducing impacts on wild stocks and, as was

reported at the Trondheim Workshop, there have been significant benefits in some areas although challenges remain. It also noted that the industry has enormous expertise in producing large volumes of hatchery-reared salmon in a cost-efficient manner. This expertise could assist wild fish rebuilding programmes and there are already examples of cooperative projects of this nature. However, the use of hatchery programmes is a contentious issue with somewhat polarised views, and in many situations habitat protection and restoration, rather than stocking, may be the most appropriate approach. It is known that while stocking can be successful, it can also have negative impacts on the wild stocks being conserved. NASCO has developed Guidelines for Stocking Atlantic Salmon (contained in the Williamsburg Resolution).

- 4.4 The Liaison Group agreed that opportunities for collaboration between wild and farmed salmon interests should be explored in each jurisdiction and that reports of these initiatives should continue to be made to the Liaison Group. There is a role for the Liaison Group in promoting cooperation between wild and farmed salmon interests. The industry representatives indicated that it would be interested in having a more detailed report on the various issues being addressed by NASCO in its work to conserve and restore wild salmon. Reference was made to a recent NASCO report that summarised the Organization's activities over the last twenty years, copies of which would be sent to the industry representatives. Furthermore, NASCO's Parties are developing Implementation Plans in relation to NASCO's agreements on management of fisheries, habitat protection and restoration and aquaculture, introductions and transfers and transgenics. Once finalised, these reports would be publicly available and would detail the measures already taken and those planned for the next five years. Through its International Atlantic Salmon Research Board (IASRB), in response to concerns about the marine mortality of salmon, NASCO has developed an innovative programme of research on salmon at sea, the SALSEA programme, a report on which is given under agenda item 8. An update on the estimates of by-catch in pelagic fisheries would be presented under agenda item 6.

(c) Minimising genetic impacts of farmed fish on wild stocks and research on sterile salmon

- 4.5 The Chair referred to document SLG(07)5 which contained information extracted from the Norwegian Implementation Plan to NASCO. This paper had been submitted to the Liaison Group for information by the Directorate for Nature Management. Document SLG(07)9 indicated that, in Norway, a process will be initiated to examine the possibility of sterilizing aquaculture fish. It was noted that as escapes could not be eliminated altogether, despite the best efforts of the industry, sterile salmon might be a solution to eliminating genetic impacts on wild stocks but there might be significant costs to the industry and technical challenges remain. Furthermore, it would take approximately ten years before sterile salmon would be available on a commercial scale, and longer if selective breeding programmes were required. The industry representatives indicated that while it may be possible to address consumer concerns about sterile salmon, they simply are not economical and their production would require special broodstock facilities. Furthermore, identifying stocks that might perform well as triploids would be a major research undertaking that would require substantial funding. The industry representatives suggested that a more appropriate approach to minimising genetic impacts would be to focus on improving physical containment. The reports presented in section 5 below indicated that the main sources of escapes are storms, predators and human error and progress is being made in

addressing all of these, not least through improved staff training and deployment of improved technology. In this regard it was noted that the consolidation of the industry had been beneficial, particularly in terms of investment in equipment and infrastructure and consistent management practices. It was suggested that the cost of keeping in the last few percent of fish may be high and may not be cost-effective, whereas that small percentage was very significant to the wild stocks. This continuing level of escapes could threaten the diversity of stocks and lead to declines in fitness. The industry responded that it was committed to 100% containment due to the costs of escapes and the public impression of its activities. The Group recognised that containment is a major issue and that the topic of developments in improving containment might form a topic for a future Workshop or Liaison Group meeting.

- 4.6 In the Bay of Fundy, Canada, genetic screening of wild and farmed salmon is being undertaken with a view to identifying strains for use in farming that would minimise impacts on the wild stocks in the event of escapes.

(d) Sea lice control

- 4.7 The Chair referred to the limited number of available therapeutants for controlling sea lice and the concern that resistance to these treatments could develop. Reference was made to the use of wrasse in salmon farms in Norway. Approximately 2.5 –4 million wrasse are used to control sea lice in Norwegian salmon farms located within the wrasse's distribution range and progress is being made in developing breeding programmes for wrasse that should be supplying farms in 3-4 years' time. The Liaison Group noted that it should encourage research into alternative treatments for sea lice and make representations to the authorities urging that they make effective sea lice treatments available as quickly as possible where these are environmentally acceptable.

(e) Follow-up workshop in 2009

- 4.8 The Liaison Group agreed to consider this issue under agenda item 9.

5. Reports on Progress in Developing and Implementing Action Plans on Containment

- 5.1 At its 2001 meeting, the Liaison Group had adopted Guidelines on Containment of Farm Salmon that were incorporated, unchanged, into the Williamsburg Resolution. To assist the Liaison Group to monitor the development and implementation of the Action Plans envisaged under the guidelines, a format had been agreed for reporting on progress. This format seeks the following information:

- progress on developing Action Plans on Containment;
- the level and causes of escapes;
- progress with implementation of, and compliance with, the Action Plan;
- the effectiveness of the Action Plan in minimising escapes;
- identification of areas for research and development in support of the Action Plan.

Information was provided, according to the format by Iceland, SLG(07)7 (Annex 4), Scotland, SLG(07)8 (Annex 5), Norway, SLG(07)9 (Annex 6), the Russian

Federation, SLG(07)10 (Annex 7) and the USA, SLG(07)11 (Annex 8). Canada reported that in Newfoundland and British Columbia, Codes of Containment have been developed that are incorporated in regulations that require mandatory reporting of escapes. In New Brunswick there is a Code of Containment with voluntary reporting, but by April 2007 the Code will be incorporated in regulations that will require mandatory reporting of escapes. Research and development programmes are being undertaken to develop methods for transferring smolts and removing harvest-size fish from cages without handling, to design more stable mooring systems and to develop technology for more exposed sites.

- 5.2 The Group recognised that under most climate change forecasts the frequency of storm events is predicted to increase and this would pose challenges for containment. If sterile salmon are not an option for the industry then there would need to be greater focus on containment if the frequency and intensity of storms increases. The industry representatives indicated that climate change is being factored into their planning. Reference was made to extreme storms in Scotland in 2005 during which almost 900,000 salmon had escaped. However, these escapes were from a small number of sites and most farms had not had escapes during these storms. The industry reaffirmed that there are economic costs associated with escapes and it is investing in new technology and training in order to minimise escapes. Predation is also a cause of escapes and the industry would welcome support from NASCO on this issue.
- 5.3 The Liaison Group discussed the need for regulation by government compared to self-regulation by the industry with regard to containment. It was suggested that enforcement effort was unlikely to achieve 100% compliance and that there are benefits from a cooperative approach aimed at changing attitudes. Nonetheless there was a need to underpin voluntary initiatives with regulatory provisions and in this regard the industry's containment codes in Canada, US, Norway and Scotland are backed by regulation.

6. The Williamsburg Resolution

- 6.1 In 2003, the Council of NASCO 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". In adopting this Resolution the Council of NASCO 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 impacts and developments to minimise them. A number of revisions had been made to the Resolution, including changes proposed by ISFA. In 2006, following agreement of the changes with ISFA, the Council requested that the Williamsburg Resolution be produced in brochure format and widely distributed. Copies of this brochure were made available to the Liaison Group.

7. Report on the Status of Wild Salmon Stocks

- 7.1 A brief report on the status of wild salmon stocks was presented based on the advice provided to NASCO by ICES in 2006. The advice indicates that abundance remains low as a result of increased mortality at sea. Major reductions in fishing effort all around the North Atlantic have, however, reduced the impact of this low abundance on spawning stocks. There is particular concern about the abundance of multi-sea-

winter stocks in the southern part of the species' range in both Europe and North America. In the US and Southern Canada some salmon populations have been listed under the Endangered Species Act and Species at Risk Act, respectively. A brief outline of the restrictive management measures for commercial and recreational fisheries that have been introduced by NASCO and its Parties was presented. In 2006 there had been no re-assessment of the level of by-catch in pelagic trawls. Two estimates had previously been provided based on Russian research surveys and screening of commercial catches. The higher of these two estimates, derived from the research surveys, suggested maximum by-catch of around 5% of the combined European pre-fishery abundance.

8. Progress Report on the SALSEA Programme

- 8.1 In response to concerns about the increased mortality of salmon at sea, NASCO had established an International Atlantic Salmon Research Board (IASRB). Information from monitored rivers indicates that mortality of salmon at sea has doubled over the last thirty years. The objective of the IASRB is to promote collaboration and cooperation on research into the causes of marine mortality of Atlantic salmon and the opportunities to counteract this mortality. The Board had established an inventory of research into the marine mortality of salmon so as to identify gaps in the ongoing research programme and facilitate the development of research priorities. Ongoing expenditure by NASCO's Parties and their partners on research relevant to mortality of salmon at sea is in the region of £5- £6 million annually but despite this significant level of expenditure there is a lack of understanding of the distribution and migration of salmon at sea and the factors influencing them. The Board had, therefore, developed a comprehensive innovative programme of research, the SALSEA programme, involving studies in fresh water, estuaries, coastal areas and in the open ocean. The funding required for the programme of marine surveys of about £9 million is being sought through a public-private partnership. At the meeting between representatives of the ISFA and NASCO Secretariats in 2006, the industry representatives had indicated that they may be able to assist by identifying potential supporters of the programme in the salmon farming industry and some meetings are being arranged with salmon farming countries to discuss possible industry support for the project.
- 8.2 The industry representatives indicated that in addition to assisting the SALSEA programme by identifying funding sources, they would also be able to assist by lobbying governments to contribute to the programme.

9. Date and Place of Next Meeting

- 9.1 The Liaison Group decided not to set a date and venue for its next meeting but the NASCO and ISFA Secretariats would make the necessary arrangements for a meeting in 2008. This meeting would be a one-and-a-half-day meeting with half a day allocated to the Liaison Group's business and a full-day session would be held on containment. This session would focus on the level and causes of escapes and approaches to minimising them, including staff training initiatives. It was agreed that the details for this session would be developed inter-sessionally and that representatives of equipment manufacturers and insurance companies might be invited to participate.

9.2 The representative of the SSPO indicated that he would be willing to develop a discussion document with his ISFA colleagues on how NASCO could further support the salmon farming industry, with a view to making this available for consideration at NASCO's Council meeting in June.

9.3 The NGO representative suggested that there may be merit in cooperating with the industry to develop a 'package' to support consumption of farmed salmon rather than wild fish as an additional conservation measure.

10. Any Other Business

10.1 The Secretary of NASCO indicated that he had been very frustrated at the lack of responses from ISFA to correspondence concerning arrangements for the meeting. The representatives of ISFA agreed to raise this at their meeting on 11 March and committed to resolving the issue. There was no other business.

11. Report of the Meeting

11.1 The Liaison Group agreed a report of its meeting.

12. Close of the Meeting

12.1 The Chair closed the meeting and thanked participants for their contributions.

SLG(07)12

***Conditions for Attendance by Observers from
NASCO's Accredited Non-Government Organizations
at Meetings of the NASCO/North Atlantic salmon farming industry
Liaison Group***

1. The Chairman of NASCO's accredited NGOs and/or his/her designee shall be invited to participate in the meetings of the Liaison Group. The NGOs will advise the Group, through the NASCO Secretariat, of their representative(s) at least one month prior to the meeting of the Liaison Group.
2. The Chairman of the Liaison Group may recognise requests for the floor by the Chairman of NASCO's accredited NGOs and/or his/her designee on any agenda item under discussion before and after debate by the parties to the Liaison Group on that item.
3. The NGOs may not issue press releases or other information to the media on the deliberations at the meeting, but may be invited to participate in the development of any Press Release developed by the Liaison Group.
4. The NGOs shall comply with these and any other conditions developed by the Liaison Group. Non-adherence to these conditions may lead to suspension of observer status to the Liaison Group.
5. Initially, the observer status will apply for a trial period of two years.

***Meeting of North Atlantic Salmon Farming Industry and NASCO
Liaison Group***

***Boston, USA
9 and 10 March, 2007***

List of Participants

Dr Stuart Baxter	TWG, Crown Estate, Edinburgh, UK e-mail: stuart.baxter@scotland.gsi.gov.uk
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SLG(07)13

***Meeting of North Atlantic Salmon Farming Industry and NASCO
Liaison Group***

***Hyatt Regency Boston Hotel,
Boston, USA
9 and 10 March, 2007***

Agenda

1. Opening of the Meeting
2. Adoption of the Agenda
3. Reports on the Trondheim Workshop and Bergen Symposium
4. Follow-up Actions emerging from the Trondheim Workshop and Bergen Symposium
 - (a) Area management initiatives
 - (b) Salmon restoration programmes
 - (c) Minimising genetic impacts of farmed fish on wild stocks and research on sterile salmon
 - (d) Sea lice control
 - (e) Follow-up workshop in 2009
5. Reports on Progress in Developing and Implementing Action Plans on Containment
6. The Williamsburg Resolution
7. Report on the Status of Wild Salmon Stocks
8. Progress Report on the SALSEA Programme
9. Date and Place of Next Meeting
10. Any Other Business
11. Report of the Meeting
12. Close of the Meeting

SLG(07)7

***Returns under the Reporting Format for
Guidelines on Containment of Farm Salmon***

Iceland

Guidelines on Containment of Farm Salmon – Reporting Format

Guidelines on Containment of Farm Salmon						
2.1	Is there currently an Action Plan for containment of farm salmon so as to achieve a level of escapes that is as close to zero as practicable?	YES	X	NO		If 'yes', please attach a copy. If no, what is the anticipated timetable for development of an Action Plan?
		Although the Icelandic salmon farming industry is small (2 sites) there is an elaborate regulation in place regarding design and strength of cages. A contingency plan is in place and the farms are inspected twice a year. The regulation is in Icelandic but an English abstract is attached.				
2.2	Is information available on the level and causes of escapes?	YES	X	NO		If 'yes', please provide details.
		No escapes of farmed salmon have been reported and no escapees observed in Icelandic rivers during 2006. Marine farms are located in eastern Iceland far from the major salmon rivers.				
2.3	Is information available on implementation of, and compliance with, the Action Plan?	YES	X	NO		If 'yes', please provide details.
		Government inspectors have been helpful in designing contingency plans at marine farms and have subsequently followed up on the issue during inspections.				
2.4	Is information available on the effectiveness of the Action Plan in minimising escapes?	YES	X	NO		If 'yes', please provide details.
		Direct information on escapes is limited but judging from numbers of escapees in rivers the escapes are minimal.				
2.5	Have areas for research and development in support of the Action Plan been identified?	YES		NO	X	If 'yes', please provide details.

Note : “Action Plan” means a national Action Plan or regional Plans. Action Plans are the process through which internationally agreed guidelines on containment are implemented at national or regional level through existing or new voluntary codes of practice, regulations, or a combination of both.

Regulatory measure regarding equipment and internal inspection on Icelandic Fish Farms (nr. 1011/ 2003)

Abstract

Árni Ísaksson
Agricultural Authority of Iceland

Provisions

- The regulatory measure is composed of 9 chapters and 8 annexes.
- Chapter 1 (articles 1-2) defines the scope of the measure and technical words.
- Chapter 2 (article 3) contains provisions regarding a production log and its accessibility by inspectors.
- Chapter 3 (article 4) contains provisions regarding accidental releases from fish farms and how these should be dealt with through emergency measures.
- Chapter 4 (articles 5-9) defines the integrity of equipment used on fish farms as well as maintenance.
- Chapter 5 (articles 10-12) defines the inner inspection and risk analysis, which shall be performed on fish farms and approved by the Directorate of Freshwater Fisheries.
- Chapter 6 (article 13) contains provisions for the runoff from landbased farms, which shall be fish-proof.
- Chapter 7 (articles 14-15) specifies methods used for the transport of live salmonids between fish farms, especially if well boats are used. Towing of cages outside the jurisdiction of the fish farms is prohibited, as well as the containment of salmonids in cages, which are not part of a licensed unit.
- Chapter 8 (article 16) contains provisions regarding official inspection of the fish farms by the Directorate of Freshwater Fisheries.
- Chapter 9 (articles 17-18) specifies penalties and validation of the regulatory measure.

Annexes

- Annex 1 specifies the contents and the processing of the log book kept on the fish farm, which shall be available for inspection at any time.
- Annex 2 specifies procedures regarding accidental releases both with respect to reporting and emergency procedures.
- Annex 3 specifies how a fish farm shall be designed and constructed. It defines environmental variables that shall be withstood by different classes of sea-cages. Necessary anchors for each class are also specified.
- Annex 4 contains provisions regarding the inspection of netting used on sea-cages both above and below the sea-surface.
- Annex 5 specifies monitoring of the vicinity of the fish farm through netting series.
- Annex 6 outlines procedures to be devised by the fish farm management in order to minimize accidental releases from sea-cages.
- Annex 7 specifies necessary training of personnel working in fish farms.
- Annex 8 contains provisions on official verification of the effectiveness of the internal inspection performed by the fish farm management at least once a year.

SLG(07)8

***Returns under the Reporting Format for
Guidelines on Containment of Farm Salmon***

European Union (Scotland)

Guidelines on Containment of Farm Salmon – Reporting Format

Guidelines on Containment of Farm Salmon						
2.1	Is there currently an Action Plan for containment of farm salmon so as to achieve a level of escapes that is as close to zero as practicable?	YES ✓		NO		If 'yes', please attach a copy. If no, what is the anticipated timetable for development of an Action Plan?
		<p>NB – The Plan is currently an amalgamation of: Strategic Framework for Scottish Aquaculture: http://www.scotland.gov.uk/Publications/2003/03/16842/20502</p> <p>Environmental Impact Assessment (Fish Farming in Marine Waters) Regulations 1999 (it is envisaged that the provisions here will be superseded from April 2007 by new planning legislation and the Aquaculture and Fisheries (Scotland) Bill currently before the Scottish Parliament).</p> <p>The work of Tripartite Working Group (comprising Scottish Executive, salmon farming industry and wild salmon interests).</p> <p>The Registration of Fish Farming and Shellfish Farming Business Order 1985 (as amended by SSI No 2002/220), which requires that Scottish Ministers be notified in writing where there is cause to suspect that there is significant risk that an escape has occurred).</p> <p>Salmon farming industry's Industry Code of Good Practice: http://www.scottishsalmon.co.uk/aboutus/codes.asp</p> <p>Fish farming industry has also developed an independent UKAS-accredited audit system which includes reporting in a transparent manner.</p> <p>The Aquaculture and Fisheries (Scotland) Bill: Passed by the Scottish Parliament on 1 March 2007, awaiting Royal Assent and commencement: http://www.scotland.gov.uk/Topics/Fisheries/afBill/parlafbill</p> <p>For further details on these measures, see attached paper Annex I.</p>				

2.2	Is information available on the level and causes of escapes?	YES ✓		NO		If 'yes', please provide details.
		See attached tables and figures in Annex II.				
2.3	Is information available on implementation of, and compliance with, the Action Plan?	YES ✓		NO		If 'yes', please provide details.
		See attached paper Annex I.				
2.4	Is information available on the effectiveness of the Action Plan in minimising escapes?	YES ✓		NO		If 'yes', please provide details.
		See attached paper at Annex I.				
2.5	Have areas for research and development in support of the Action Plan been identified?	YES ✓		NO		If 'yes', please provide details.
		Scottish Aquaculture Research Forum (SARF): http://www.sarf.org.uk/				

Note : “Action Plan” means a national Action Plan or regional Plans. Action Plans are the process through which internationally agreed guidelines on containment are implemented at national or regional level through existing or new voluntary codes of practice, regulations, or a combination of both.

Update on Escapes and Containment for Tripartite Working Group - February 2007

Background

Fish farming in Scotland now produces around 135,000 tonnes annually and is worth about £280M. It is vitally important in terms of number of jobs generated and the locations in which it operates. It is an industry that plays an important part in our rural development plans, especially in the western and northern isles of Scotland where many communities are literally sustained by the employment provided by fish farming.

As the industry has expanded, some public concerns have arisen over fish farm escapes and the possible impact that they could have on wild fisheries. Escaped fish have the potential to spread disease, compromise genetic integrity and increase competition in the freshwater environment. Wild Atlantic salmon is a species of European importance, by virtue of being listed in Annex II of the *EC Habitats Directive*.

The Scottish Executive recognises the concerns and risk that escaped farmed fish could interbreed with wild stocks and that any risk of interbreeding should be reduced to an absolute minimum.

Initiatives in place

The principal tool for tackling these issues of public concern and delivering a sustainable industry is the Strategic Framework for Scottish Aquaculture (SFSA) which was launched in 2003. The SFSA was developed by the Scottish Executive (SE) with the full participation of the industry, the wild fish sector and other key stakeholders. The SFSA contains an 'action plan' currently with [36] priorities for action. Progress is monitored by the Ministerial Working Group on Aquaculture (MWGA) and reports are published every 18 months. Since the launch of the framework very good progress has been achieved.

Another important tool is the Tripartite Working Group (TWG) which involves the Executive, wild fish sector, the fish farming industry and key regulators such as Scottish Natural Heritage (SNH) and SEPA. The aim of the TWG is to facilitate a dialogue between the fish farming industry and wild fish interests and to encourage best practice through the development of Area Management Agreements (AMAs). The TWG participants believe that the process is working well.

A number of mechanisms to deal specifically with containment and escapes have also been introduced. It is now standard practice for the Scottish Ministers, in their role as statutory consultees – under the *Environmental Impact Assessment (Fish Farming in Marine Waters) Regulations 1999* – to request that operators produce containment measures and contingency plans as part of any new or modified application for a finfish farm.

In 2002, Scottish Ministers introduced mandatory notification procedures and guidance that apply to all finfish farms in Scotland. *The Registration of Fish Farming and Shellfish Farming Business Order 1985* (as amended by Scottish Statutory Instrument number 2002/193, itself amended by SSI No. 2002/220) requires that the Scottish Ministers be notified in writing immediately where there is cause to suspect that there is significant risk an

escape has occurred. The ‘escapes notifications forms’ (Annex 1 & 2 of the Order) and accompanying guidance - “*What to do in the event of an escape of an escape of fish from a fish farm*” - have been further updated. The amended Order will be laid before Scottish Parliament by Spring 2007 and expected to come into force by June 2007.

Containment of fish to prevent escapes is a key priority of the Strategic Framework for Scottish Aquaculture (SFSA). Since the SFSA was published in 2003, a Containment Working Group (CWG) comprised of key stakeholders, including industry and wild fish interests, has produced a new Containment Guidance for regulators and industry on behalf of the Highlands and Islands Aquaculture Forum (HIAF) that was included in the Industry Code of Good Practice. A code of Good Practice for Scottish Finfish Aquaculture has been operational since January 2006. A link to the code on the Scottish Salmon website is attached: www.scottishsalmon.co.uk/aboutus/codes.asp.

Industry has developed an independent UKAS-accredited audit system which includes reporting compliance in a transparent manner. The code will be monitored by an independent group – the code of good practice management group - and will be kept under constant review, taking account of best available advice and practice. This group will report to the Ministerial Working Group on Aquaculture on progress and compliance.

The Aquaculture and Fisheries (Scotland) Bill was introduced to Parliament in June 2006 and proposes powers which will eradicate bad practice by underpinning industry’s own code of practice. It introduces a duty on fish farmers to collect, retain and make available for inspection information relating to containment of fish. It also introduces powers to allow inspectors access to ascertain whether fish have escaped from a farm and to investigate the risk of potential escapes and allows enforcement action to be taken where farms do not have satisfactory measures in place to contain fish. A link to the Aquaculture and Fisheries (Scotland) Bill is attached:

<http://www.scotland.gov.uk/Topics/Fisheries/afBill/Intro>.

Since statutory reporting was introduced in 2002, fish farm escapes have reduced. Whilst this demonstrates progress, very adverse storms such as the one experienced in the Western Isles in January 2005 will lead to anomalies but we want to ensure that an overall downward trend continues.

The Executive has been notified of the following farmed Atlantic salmon escapes:

2002	1309,996	
2003	151,853	
2004	90,594	
2005	877,883	(the majority due to the January 2005 storms) + 125,000 on-site mortalities (dead in damaged nets)
2006	157,753	

Excluding the Western Isles storms, the three most common causes of escape for the period May 2002 – December 2006 were: predation; equipment failure; and human error. FFA has agreed to undertake a review of causes of escapes and report back to Containment Working Group. This will help to inform future review of containment guidance. A summary of escapes incidents and causes in 2002-2006 is attached at Annex A.

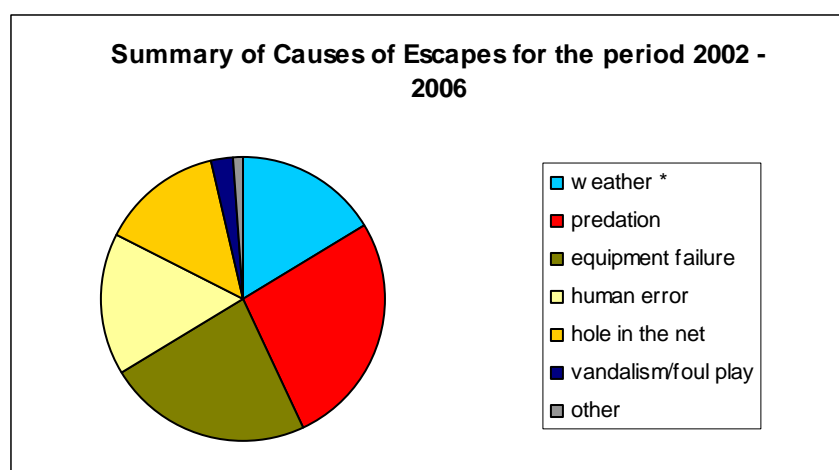
SEERAD, 19 February 2007

ANNEX A of SLG(07)8

CAUSES OF ESCAPES MAY 2002 - DECEMBER 2006

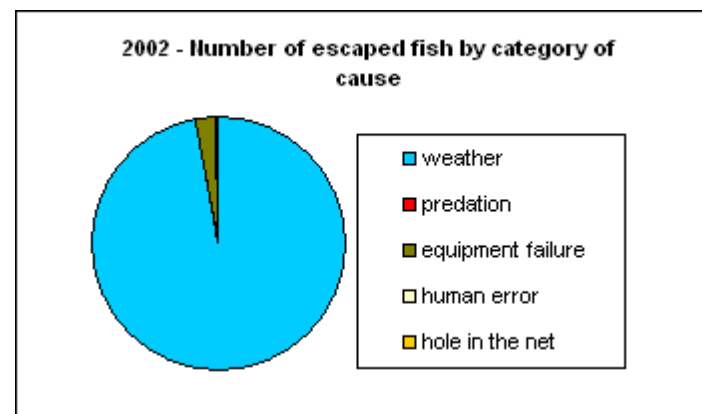
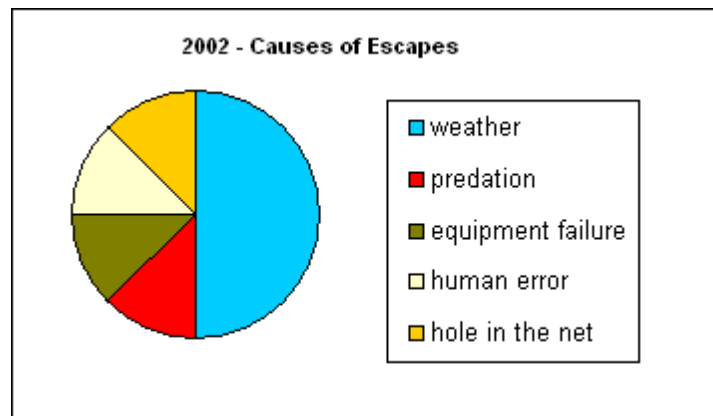
Cause	no. incidents	%
weather *	14	16.28
predation	23	26.74
equipment failure	20	23.26
human error	14	16.28
hole in the net	12	13.95
vandalism/foul play	2	2.33
other	1	1.16
Total	86	100

* not including 14 incidents during the 2005 January storms



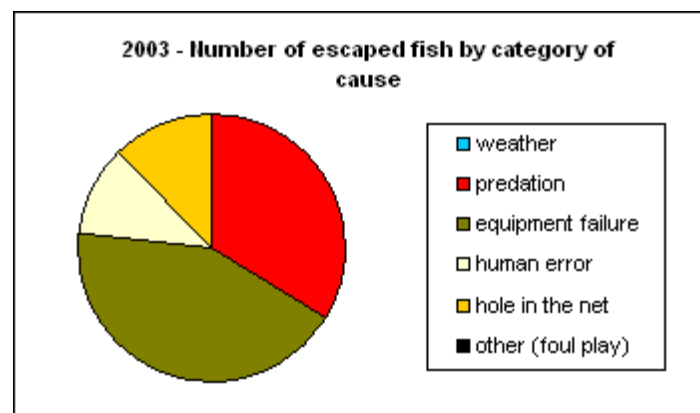
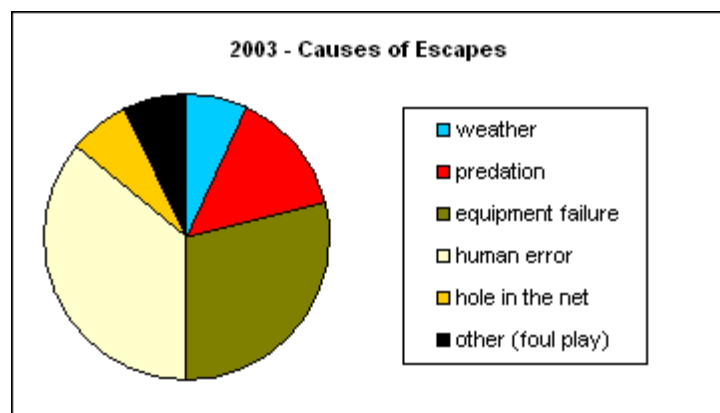
causes of farmed salmon escapes**2002 - 8 escape incidents**

Cause	no incidents	%	no. fish escaped	% of total
weather	4	50	301,255	97.180286
predation	1	12.5	58	0.0187099
equipment failure	1	12.5	8,147	2.6280984
human error	1	12.5	500	0.1612924
hole in the net	1	12.5	36	0.0116131
Total	8	100	309,996	100



2003 - 14 escape incidents

Cause	no incidents	%	no. fish escaped	% of total
weather	1	7.143	200	0.1317063
predation	2	14.29	51,033	33.606843
equipment failure	4	28.57	65,226	42.953383
human error	5	35.71	16,978	11.18055
hole in the net	1	7.143	18,416	12.127518
other (foul play)	1	7.143	0	0
Total	14	100	151,853	100

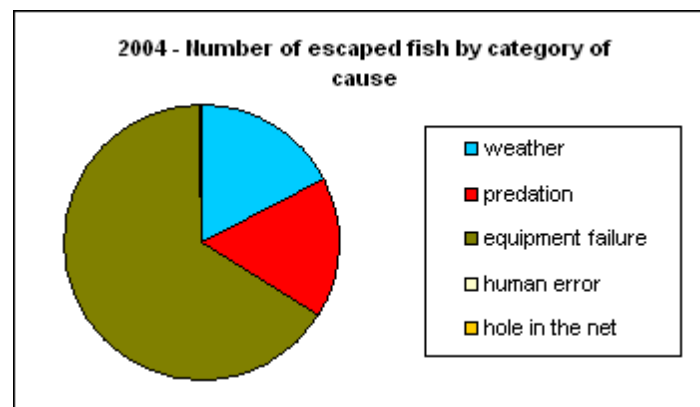
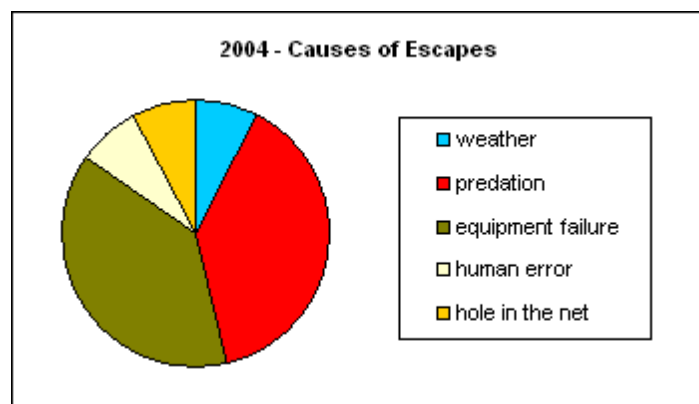


2004 - 13 escape incidents

Cause	no incidents	%	no. fish escaped	% of total
weather	1	7.692	15,946	17.601607
predation **	5	38.46	14,701	16.227344
equipment failure	5	38.46	59,747	65.950284
human error	1	7.692	200	0.2207652
hole in the net *	1	7.692	0	0
Total	13	100	90,594	100

* one suspected, but not confirmed, escape has not been included

** the number of escaped salmon remained unknown for one of the escapes caused by predation

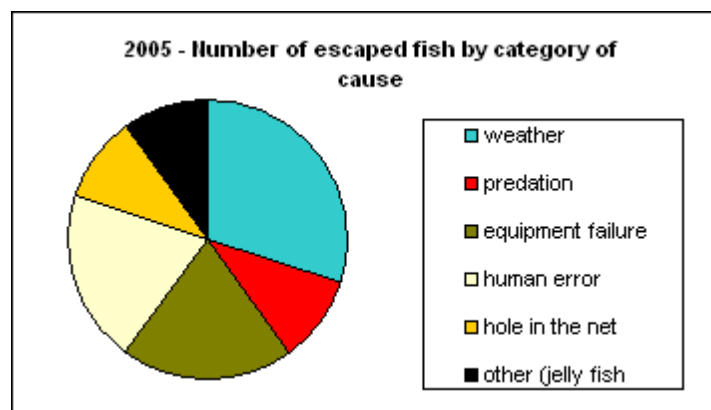
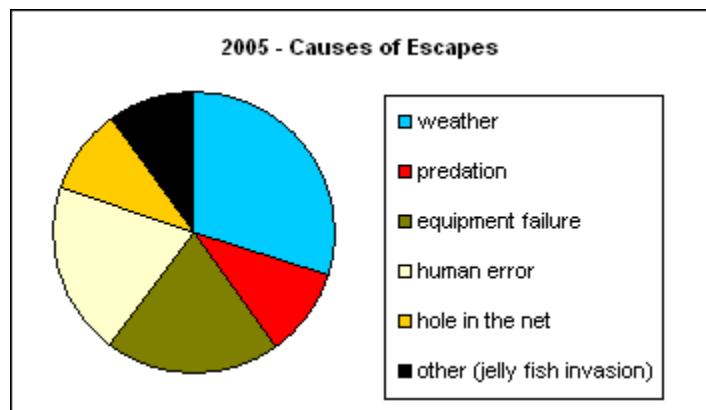


2005 - 10 escape incidents

Cause	no. incidents	%	no. fish escaped	% of total
weather * **	3	60.7	72,000	65.685639
predation	1	10.7	8,500	7.7545547
equipment failure	2	7.1	22,500	20.526762
human error	2	7.1	3,608	3.2915804
hole in the net	1	10.7	3,000	2.7369016
other (jelly fish invasion)	1	3.7	5	0.0045615
Total	10	100	109,613	100

* not including 14 incidents during the Western Isles storm in January resulting in 893,270 escaped salmon - including 60,000 on-site mortalities that were recovered

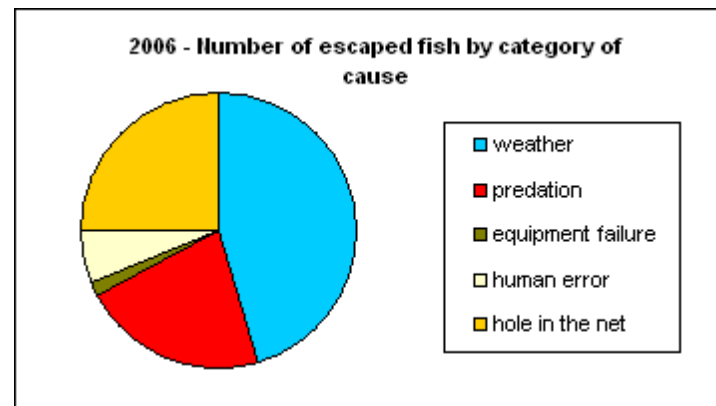
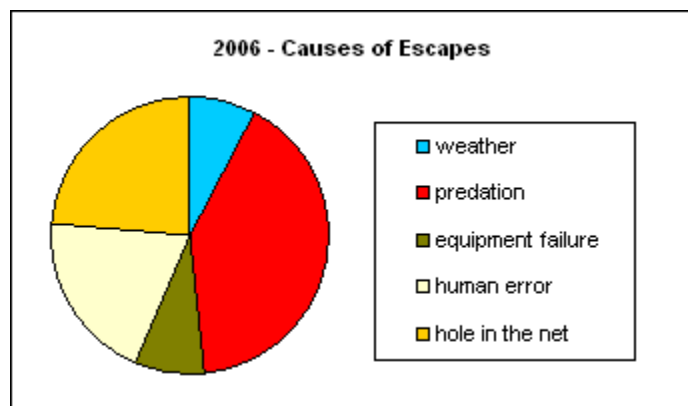
** including 65,000 dead salmon that were recovered



2006 - 25 escape incidents

Cause	no. incidents	%	no. fish escaped	% of total
weather *	2	8	130,000	45.177635
predation	10	40	62,998	21.893082
equipment failure	2	8	4,683	1.6274374
human error	5	20	18,122	6.2977623
hole in the net	6	24	71,950	25.004083
Total	25	100	287,753	100

* all fish died during a storm and were recovered



SLG(07)9

***Returns under the Reporting Format for
Guidelines on Containment of Farm Salmon***

Norway

Guidelines on Containment of Farm Salmon – Reporting Format

Norway – Feb. 2007
Report to liaison Group Boston March 9th – 10th .

Guidelines on Containment of Farm Salmon						
2.1	Is there currently an Action Plan for containment of farm salmon so as to achieve a level of escapes that is as close to zero as practicable?	YES x		NO		If 'yes', please attach a copy. If no, what is the anticipated timetable for development of an Action Plan?
		A copy of the Action Plan called "Vision No Escapees" is attached.				
2.2	Is information available on the level and causes of escapes?	YES x		NO		If 'yes', please provide details.
		Relevant information is available at www.fiskeridir.no				
2.3	Is information available on implementation of, and compliance with, the Action Plan?	YES x		NO		If 'yes', please provide details.
		The Action Plan will be implemented during 2006 and 2007, and the status of the process will be available in Norwegian at www.fiskeridir.no				
2.4	Is information available on the effectiveness of the Action Plan in minimising escapes?	YES		NO x		If 'yes', please provide details.
		It is too early to measure the effectiveness of the Action Plan as it will be implemented during 2006 and 2007.				
2.5	Have areas for research and development in support of the Action Plan been identified?	YES x		NO		If 'yes', please provide details.
		The Action Plan describes certain areas for research – B1, B5, B6, B8, C3.				

Note : "Action Plan" means a national Action Plan or regional Plans. Action Plans are the process through which internationally agreed guidelines on containment are implemented at national or regional level through existing or new voluntary codes of practice, regulations, or a combination of both.

Vision NO ESCAPEES (2006-2007)

The Directorate of Fisheries' Action Plan to achieve a level of escapees from fish farms, which is as close to zero as practicable.

Original version, ultimo March 2006

REF. NO.	Action
A	<u>Better regulations</u>
A1	<p>Three quick suggestions for amendment of rules (1) double safeguarding of outlets, (2) mesh size in compliance with fish size, (3) the visibility of aquaculture installations on ship radars.</p> <p>The Directorate of Fisheries will propose amendments of the rules for three risk prevention actions, which elaborate the requirements for good husbandry procedures.</p>
A2	<p>Examine the possibility of developing improved regulations.</p> <p>The Directorate of Fisheries will appoint a working group to go through the regulations' suitability in preventing and minimizing escapees. Relevant governmental departments and organisations will be invited to join. The work will, amongst other, embrace the actions A3-A7. The actions will in varying degree demand amendments of the regulations.</p>
A3	<p>Develop special husbandry procedures requirements for cod cultures.</p> <p>There are two specific problems with Atlantic cod farming: they escape easily and they spawn in the fish cages. The distance between cod aquaculture installations and wild cod natural spawning grounds might not necessarily be large. This generates special challenges when the regulations are to ensure that breeding cod takes place in good husbandry fashion.</p>
A4	<p>Requirements for re-catching escaped fish, after an escape episode.</p> <p>It is important the process of catching the escapees is executed efficiently and without delay. Experience has shown that discussions regarding the price to fishermen, after the escape has happened, can delay the process needlessly. There is also the question, as to what extent the involved fish farmer should be responsible for taking the costs with re-catching escapees from the breeding grounds. This must be examined in more detail.</p>
A5	<p>Examine requirements for aquaculture in large units, perhaps an upper limit for quantity of fish permitted in any unit.</p> <p>The development in the aquaculture industry has moved in the direction of more fish per aquaculture unit. The consequence where one or more of these units break down is relatively high. Escapees from one of the largest units can, in magnitude, be compared to the total number of Atlantic salmon, native to all Norwegian salmon rivers, in the sea. Thus, the Directorate of Fisheries believes a set of husbandry requirements must be developed for these particularly large units, or perhaps a maximum limit for the quantity of salmon, which can be held in a single unit.</p>
A6	<p>Consider a mandatory scale sampling from remaining fish groups, when the Directorate of Fisheries inspects the installation after an episode of escapees.</p> <p>The fish scales give information concerning age, and growth patterns, but can also give genetic information. The cost of collecting such fish scale samples is low, but very demanding on the resources needed to carry out the genetic analysis. The advantage is that one can carry out the analysis when needed. The results of the genetic analysis can be used to link escapees to a source. This can become an essential administrative function in the future.</p>
A7	<p>Review and consider more stringent demands for sites.</p> <p>The Directorate of Fisheries wish to review regulations and practice, especially in light of B1.</p>

B	<u>Better administrative tools</u>
B1	<p>Risk assessment aquaculture</p> <p>The Directorate of Fisheries wish, in several ways, to enforce risk assessment in the question of escapees. Environmental risk must, <i>inter alia</i>, be assessed in comparison to wild fish populations. However, escapees can be given some type of score in accordance with assumed consequence, which can again make the administration capable of adjusting the use of resources and prioritise the different types of escapee episodes.</p>
B2	<p>Evaluate the escapee statistics and establish a better database for escapees.</p> <p>Today's escape statistics are the fish farmer's own submitted records of the escapes. This has a considerable potential for improvement, both when it comes to precision, and also with reference to how individual escape episodes are characterised (see B1).</p>
B3	<p>Develop and establish effect indicators/vulnerability indicators used in assessing the effect of escapees.</p> <p>Developmental tasks should be accomplished in cooperation with several governmental departments and organisations. This shall form the basis for the Directorate of Fisheries' monitoring of the effects caused by of escapees (see action C3).</p>
B4	<p>Develop and implement a risk based control system for aquaculture – AKVARISK.</p> <p>In 2005 the Directorate of Fisheries began to develop a risk-based control system for aquaculture. The system will be implemented in 2007 (see action C1).</p>
B5	<p>Monitoring program National Salmon Fjords/National Salmon Rivers</p> <p>The Directorate of Fisheries shall, within its area of expertise (escaped aquaculture fish), contribute in such a way that the monitoring program can verify the arrangement concerning the National Salmon Fjords and Rivers. The monitoring program will demand financial participation from the governmental departments involved. This will, in turn, create budgetary consequences for the Directorate of Fisheries.</p>
B6	<p>Examine the possibility of sterilizing aquaculture fish.</p> <p>By sterilizing all bred fish, the possibility of escapees interbreeding with wild populations is avoided. Use of such techniques must be examined with respect to animal welfare, aspect of market reactions, progress in breeding, etc. The Directorate of Fisheries will emphasize a broad specialized investigation into this approach, together with an examination of the legal aspects.</p>
B7	<p>Minimum requirements for good husbandry, contents of contingency plans and monitoring escapes.</p> <p>The regulations demand that aquaculture operations must comply with good husbandry procedures. A definite understanding of good husbandry procedures in conjunction with the security for preventing escapes, varies with technology and expertise. The Directorate of Fisheries wish to identify this fact, using, <i>inter alia</i>, the experience gained from auditing aquaculture operations. We find reason to draw up internal synopses, which should eventually be made public on the Internet.</p>
B8	<p>Develop new research-based implements.</p> <p>In cooperation with the Directorate of Nature Management, the Directorate of Fisheries took the initiative for the research program, TRACES, which began in 2006, after a pre-project in 2005. The initial requirements for good effect indicators/vulnerability indicators for wild fish populations made it necessary to implement research efforts for their development. There will be new requirements defined constantly within this action, where each project will demand its own financing.</p>

C	<u>Increased and better efforts</u>
C1	<p>Full production – aquaculture control.</p> <p>In 2006 one third of all Atlantic salmon and rainbow trout sites will be controlled by the Directorate of Fisheries, either through (1) audits in cooperation with the Norwegian Food Safety Authority, in accordance with the regulation Internal Control – aquaculture, (2) technical control or (3) a special control campaign (see action C2). Fish farmers most exposed to defined risks will be controlled first (see action B4). In addition to on-growing installations, smolt installations, brood-stock facilities and research and training facilities will also be controlled. Installations for on-growing of cod will be included as well. All controls in 2006 will have escape impediment as their main focus area. From the beginning of 2007 the aquaculture control will demand a fortified budgetary foundation.</p>
C2	<p>Control campaign.</p> <p>After many escape episodes the Directorate of Fisheries has decided to execute, in 2006, a special control campaign against escapees (constitutes a part of action C1). This special control campaign implies inspection of 60 on-growing installations for Atlantic salmon and rainbow trout and 15 installations for on-growing of cod.</p>
C3	<p>Initialisation of a separate monitoring program for environmental effects due to aquaculture.</p> <p>The environmental action plan, prepared by the Ministry of Fisheries and Coastal Affairs, foresees a monitoring program for environmental effects of aquaculture. The Directorate of Fisheries suggests that the environmental effects of escapees are included in the initialisation process. The action will demand special allocations.</p>
C4	<p>Positioning of aquaculture installations (STAK).</p> <p>The Directorate of Fisheries is, in 2006, carrying out an extensive collection of data, in order to obtain exact positioning of all floating aquaculture installations. This will have great significance in the attempt to avoid collisions and subsequent escapes.</p>
C5	<p>Evaluate routines and actions in conjunction with fish escapes.</p> <p>After the escape episodes in the first few weeks of 2006, the Directorate of Fisheries will examine their own routines and actions in conjunction with large escapes. We will do this in search of the possibility for improvement, and we count on putting forward a proposal for both better routines and new measures of training.</p>
C6	<p>Contingency response exercises jointly with the administrative authorities and fish farmers (against fish escapes).</p> <p>We wish to evaluate the possibility of contingency response exercises as an effective instrument, when preparing for action in conjunction with large escapes. Consideration must be given to how such exercises should be organised, and if amendments to regulations are needed. There must, however, be a constructive budgetary foundation established for such an action.</p>
D	Better communication and interaction with other governmental departments
D1	<p>Better interaction with the police and prosecuting authorities.</p> <p>The Directorate of Fisheries wish to improve their own procedures in relation to the interaction with the police and prosecuting authorities. The Directorate sees the distinct benefit in contributing, in a better way than at present, to ensure that charges put forward are enlightened in the best possible manner.</p>
D2	<p>Examine the possibility for an operational cooperation with the Norwegian Coastguard and the Norwegian Nature Inspectorate.</p> <p>Both the Coastguard and the Norwegian Nature Inspectorate have a long-standing presence along the coast, which makes them especially valuable as joint venture partners in the effort against escapees. The Directorate of Fisheries wish to generate a good collaboration with them both in the effort against escapees.</p>

E	Better communication and interaction with the industry.
E1	<p>A permanent escape commission including a system for public sharing of experience.</p> <p>The Directorate of Fisheries has, in 2006, put forward a proposal for an escape commission. A publicly appointed commission will need its own budget. The commission must ensure that legal qualification and transparency are considered. (The commission was appointed in the summer of 2006.)</p>
E2	<p>Contribute in the development of voluntary standards beyond the administration's minimum requirements.</p> <p>The Directorate of Fisheries will at some stage challenge the aquaculture industry to establish and follow standards beyond those already imposed by regulation.</p>
E3	<p>Better interaction with the insurance industry.</p> <p>The Directorate of Fisheries will work towards (1) securing conformity between the escapee numbers reported to the Directorate and the escapee numbers that justifies the compensation paid from the insurance companies (2) exchanging experience and (3) examining the possibility for a type of natural hazard arrangement for catching escapees or other clean-up operations (see also action A4) .</p>
E4	<p>Contribute to the audit of NS9415.</p> <p>The Directorate of Fisheries will contribute to the audit of the industry's technical standard, with collection of findings and competence.</p>
E5	<p>Make known enterprises engaging in escapee-free operations and run responsible husbandry procedures.</p> <p>The Directorate of Fisheries will try to identify such enterprises and learn what characterises them/their husbandry procedures. We will proceed to establish a separate prize for good husbandry procedures that carries the Director General of Fisheries' acknowledgments.</p>
E6	<p>Dialogue and information efforts.</p> <p>The Directorate of Fisheries aims to develop the dialogue with various partners and public governmental departments in the effort against escapees. The Directorate has already gained experience concerning this action and knows it is an important part of the task at hand.</p>

Report to liaison group March 2007

Supplement to the report from the Directory of Fisheries

Knut A. Hjelt FHL aquaculture
knuta.hjelt@fhl.no

Escapees and episodes 2006

	1. Qu	2.Qu	3. Qu	4.Qu	Total	1. Qu	2.Qu	3. Qu	4.Qu	Total
Predators	0	5 000	500	1 000	6 500	0	1	2	1	4
Handling	0	14	2 000	10 146	12 160	0	1	2	3	6
Running over by boat	100	0	0	0	100	1	0	0	0	1
Towing	0	0	0	0	0	0	0	0	0	0
Technical failure	423 663	7 918	3 400	68 315	503 296	11	1	2	6	20
Propellers - net	0	300	0	8 074	8 374	0	1	0	2	3
Floating objects	47 000	0	43 500	101 100	191 600	1	0	1	3	5
Other	0	2 000	6 623	37 202	45 825	0	1	1	5	7
Technical failure - smolt	0	0	14 000	4 000	18 000	0	1	6	1	8
Total	470 763	15 232	70 023	229 837	785 855	13	6	14	21	54

Industry activities

- **FHL taskforce on escapees primo 2006**
 - Directory of Fisheries, insurance, farmers, FHL (- Directory of Nature and WWF)
 - Advisory to the board of FHL, possible actions to reduce risk and prevent escapees, propose possible changes or additional regulations/laws to prevent escapees, areas of research needed, improved practice/technology for recapture
 - Pushed for establishing an official commission on escapes from aquaculture

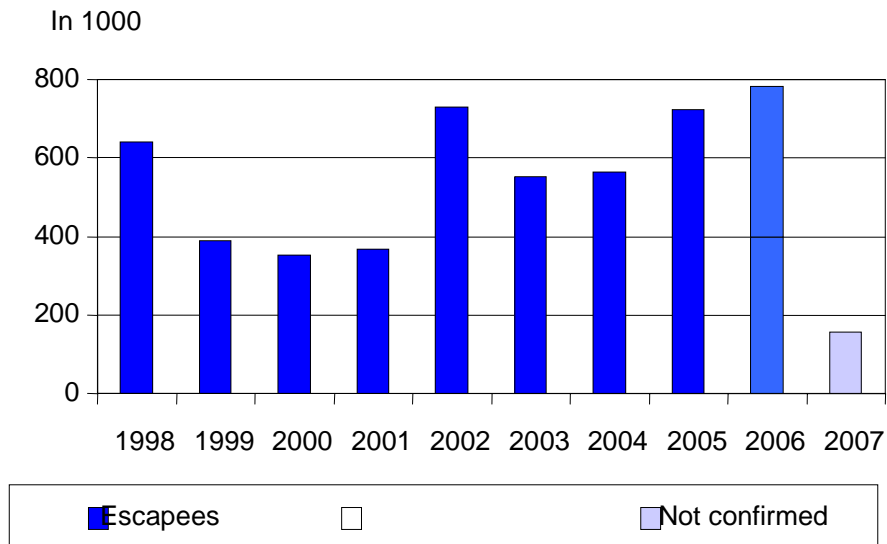
The commission on escapes from aquaculture

- **Department of Fisheries appointed a “commission on escapes from aquaculture” July 2006**
 - Persons from: Norwegian research council, WWF, Sintef, The Standardization Organizations in Norway, The Norwegian accreditation body, Ethikon, “equipment producers for aquaculture”, Fish farmer, FHL
 - Get information and initiate investigations to find causes of accidents, systematically work to prevent escapees, reduce risks, propose changes in regulations, standards etc.
 - Findings and information public available
 - Reports to the Directory of Fisheries

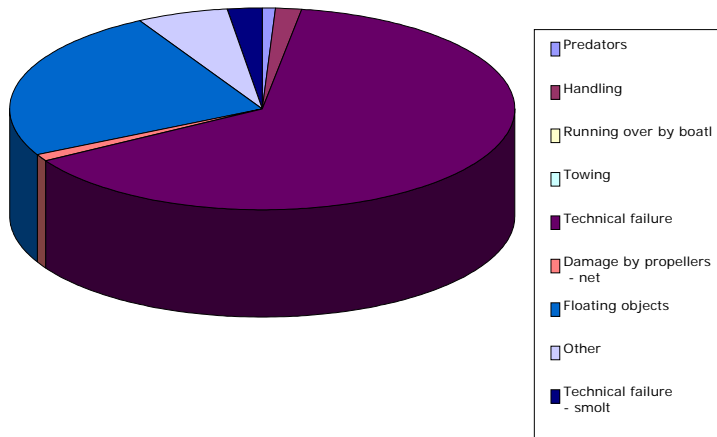
Summing up

- **Technical demands for equipment, accreditation**
- **Accumulation of new knowledge – influence on administration of industry, regulations, standards etc**
- **Industry and regulators working together**
- **Regional courses education – experiences from accidents, new knowledge etc**
- **”Almost accidents” also focused**
- **Focus on recapture – practical actions**

Escapees 1998 - 2006

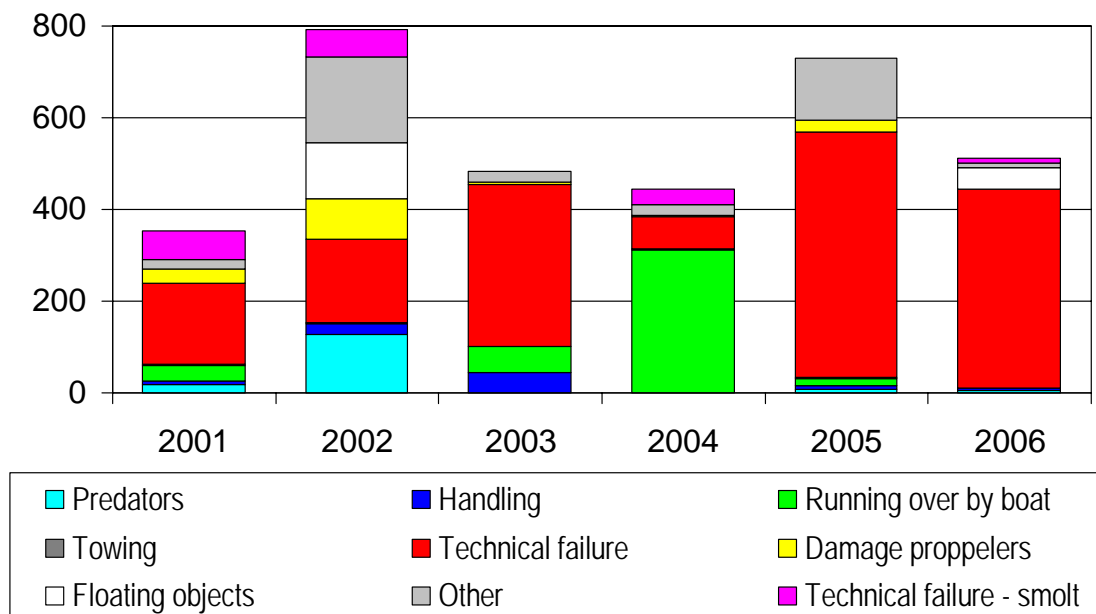


Causes of escapees 2006



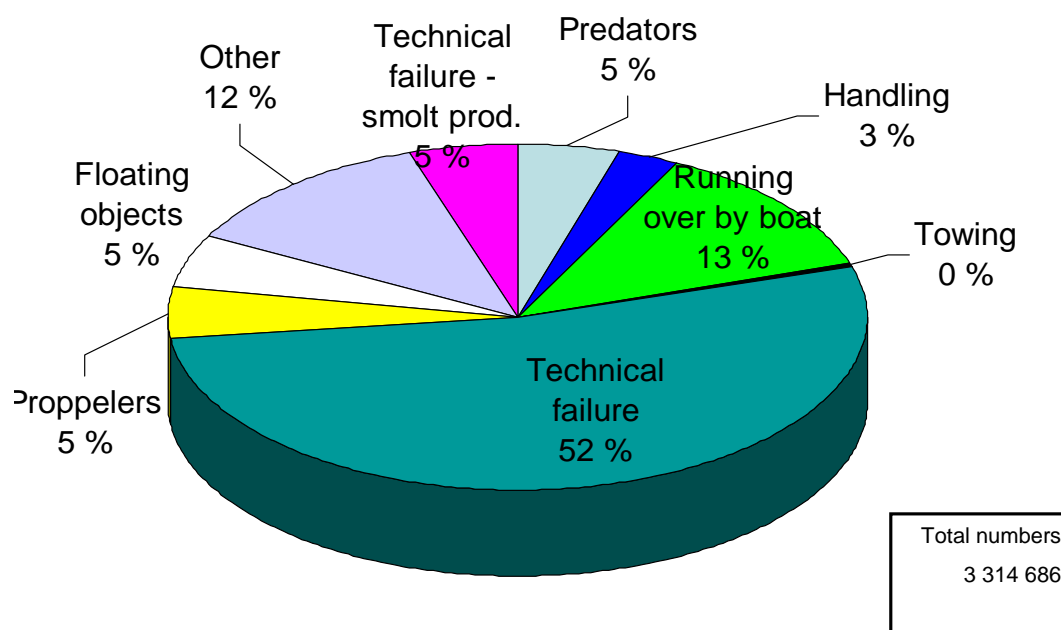
Escapees Salmon and RB-Trout 2001 – September 2006

Directory of Fisheries, Axel R. Anfinssen



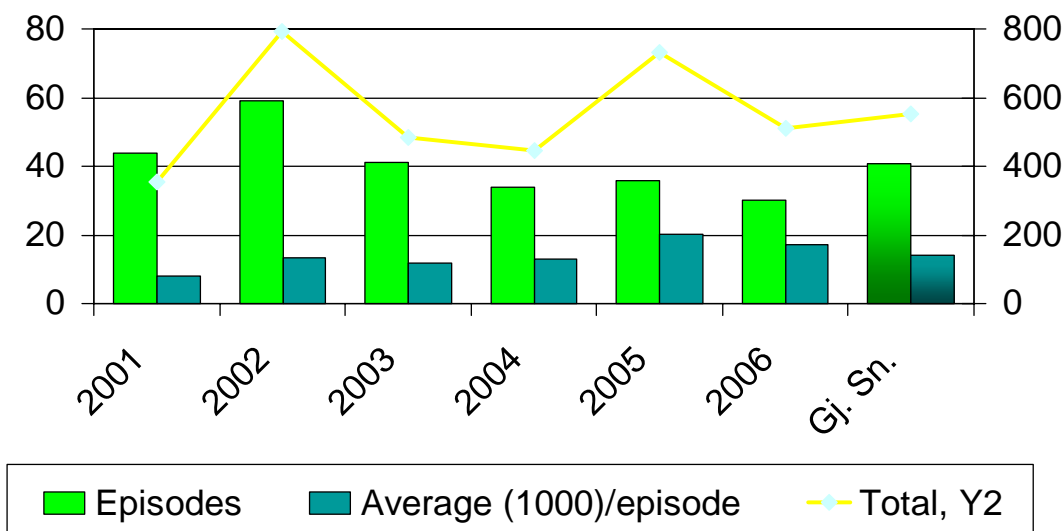
Escapees, salmon and RB-trout 2001 - September 2006

Directory of Fisheries, Axel R. Anfinssen



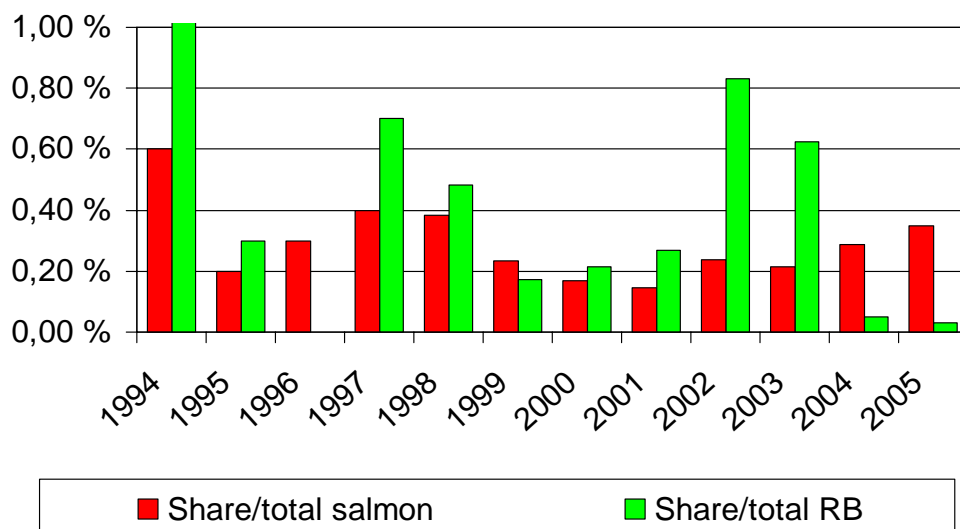
Escapees Salmon and RB-trout 2001 – September 2006

Directory of Fisheries, Axel R. Anfinssen

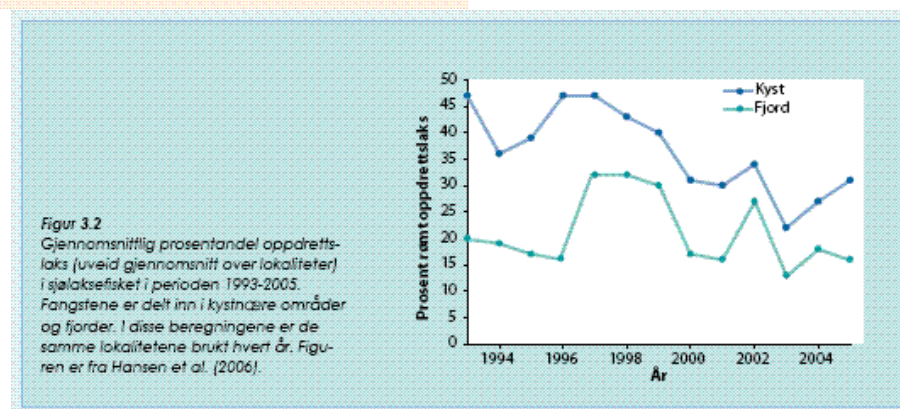
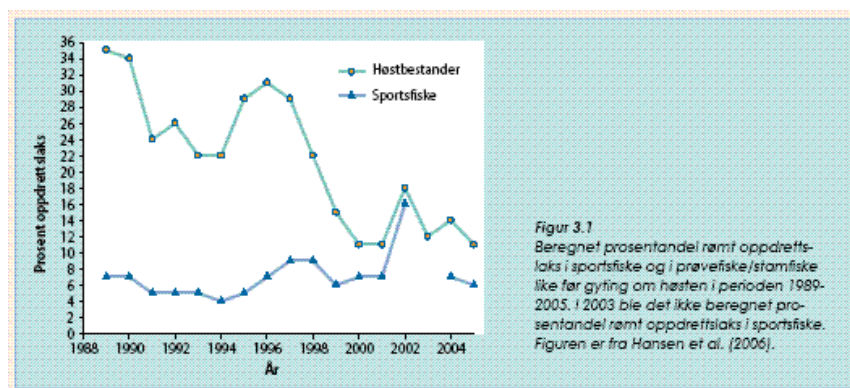


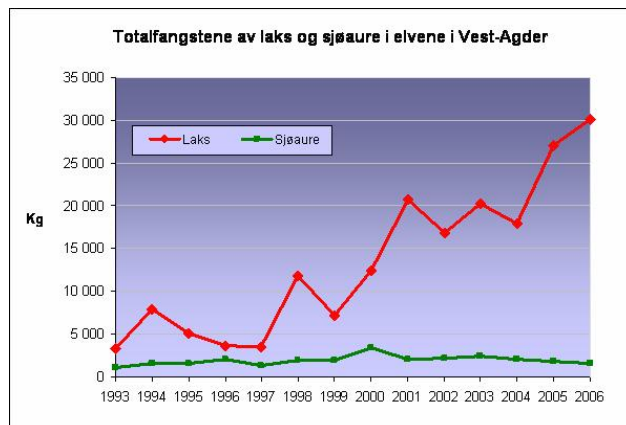
Salmon and RB-trout Escapees/share of total

Directory of Fisheries, Axel R. Anfinssen



Estimated percentage of escapees - late Autumn/angling (rivers) and sea catch. 1989 - 2005



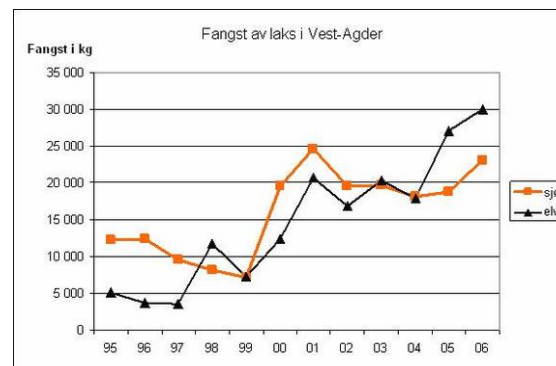


Total capture of salmon and sea trout in the rivers and sea of county Vest-Agder 1993 – 2006.

All rivers lost their salmon population due to acid rain so this is capture of salmon that have repopulated the rivers during the last 20-30 years.

Liming has been done in some rivers due to acidic water quality. 1/3 of the -06 catch has been taken in river Otra. The repopulation of Otra has happened in spite of no liming and no enhancement activities.

Source: county governor of Vest-Agder



SLG(07)10

***Returns under the Reporting Format for
Guidelines on Containment of Farm Salmon***

Russian Federation

Guidelines on Containment of Farm Salmon – Reporting Format

Guidelines on Containment of Farm Salmon						
2.1	Is there currently an Action Plan for containment of farm salmon so as to achieve a level of escapes that is as close to zero as practicable?	YES	X	NO		If 'yes', please attach a copy. If no, what is the anticipated timetable for development of an Action Plan?
		There still remains only one Atlantic salmon farm in Russia – “Gigante-Pechenga” (Kola Peninsula). The Plan of Action for this farm was developed in 2001 (attached). No new actions were included or taken in 2005-2006.				
2.2	Is information available on the level and causes of escapes?	YES	X	NO		If 'yes', please provide details.
		The requirement is still in force to provide all relevant information to regional control and enforcement authorities. No reports of escapes in 2005-2006.				
2.3	Is information available on implementation of, and compliance with, the Action Plan?	YES	X	NO		If 'yes', please provide details.
		Federal Service for Veterinary and Phytosanitary Control and Murmansk Region Committee for Veterinary Medicine and Protection of Wildlife undertake regular inspections of the farm for compliance.				
2.4	Is information available on the effectiveness of the Action Plan in minimising escapes?	YES	X	NO		If 'yes', please provide details.
		Catches from commercial fishery, recreational fishery and scientific research fishing are screened to identify the presence of farmed salmon. No reports of occurrence of farm salmon in 2005-2006.				
2.5	Have areas for research and development in support of the Action Plan been identified?	YES	X	NO		If 'yes', please provide details.
		In 2005-2006 scientific studies were undertaken on the subject: “Genetic monitoring of the status of wild Atlantic salmon populations in zones of intensive aquaculture”. Smolts of Atlantic salmon from the farm and wild salmon smolts from neighbouring rivers (rivers Pechenga and Titovka) were examined (micro-satellite and allozyme analysis). The studies provided data that allow identification of populations within one water system with a high degree of confidence. Micro-satellite loci can in some cases be used in salmon aquaculture to identify fast- and slow-developing groups within one generation. It has been demonstrated that at this stage a complex of microsatellite and allozyme analyses of polymorphism in DNA and protein is the most informative way of identification of different stocks.				

Note : “Action Plan” means a national Action Plan or regional Plans. Action Plans are the process through which internationally agreed guidelines on containment are implemented at national or regional level through existing or new voluntary codes of practice, regulations, or a combination of both.

Action Plan for Containment of Farm Salmon (*Gigante-Pechenga salmon rearing facility*)

A. Actions in connection with preventing escape of fish from cages

1. Installation and strengthening of cages should be done by employees in accordance with technical documentation and relief of the area.
2. Only nets with a mesh size according to the fish size should be used. Nets should be regularly inspected and replaced when necessary by nets with adequate mesh size. To prevent sea algae growth, nets should be cleaned regularly using special equipment.
3. A diver should be available to proceed with inspection of the technical condition of the farming complex, twice a month in the summer season and as required in winter. Results from inspections are to be recorded in a logbook.
4. A net to prevent birds from entering should be stretched over the cages.
5. There should be a 100-meter zone around the cages where fishing and boat traffic should be illegal.
6. All information relating to operation of the farm should be recorded and sent to relevant government authorities responsible for aquaculture management when requested.
7. The Plan of Action should be available at the farming facility.

B. Actions in case of escape of fish from cages

1. In the case of fish escaping, immediate measures should be implemented within two hours after the escape is discovered. A gill net with the correct net mesh size should be set in an effort to recapture escaped fish. Representatives from the District Inspection office should be invited and be present. Gill nets should be kept at the farming facility of Gigante-Pechenga.
2. In the case of fish escapes, details of all operations and actions taken from the escape discovery till when the contingency situation is over should be recorded in a logbook.
3. All actions taken by fish farmers should be in accordance with the Instructions for fish farmers. The Plan of Action and the Instructions should be available at the fish farm.
4. The Production Manager is responsible for the implementation of the Plan of Action.
5. In the case of fish escaping, the following should be informed immediately within two hours of the discovery:
 - Murmanrybvod (Directorate for Fisheries Control and Enforcement and Fish Protection)
 - the district inspection office of Murmanrybvod;
 - the regional and district veterinary services;
 - “Gigante Pechenga” office.

The information that is sent to these organizations should include the following:

- The time of the escape;
- The estimated number of escaped fish;
- The average weight;
- The age.

STATUS OF ATLANTIC SALMON STOCKS IN RUSSIA IN 2006

In the Russian Federation the Atlantic salmon is present in rivers of the White and Barents Sea basins; there are also records of its occurrence in the Kara river, the Kara Sea basin.

The abundance of Atlantic salmon of the White and Barents Sea stock complex was assessed on the basis of smolt counts and parr density estimates for index rivers, adult counts and catch statistics and estimates of conservation limits (CL). Abundance of salmon and spawner stock for the Russian stock complex were estimated by PFA model (Pre-Fishery Abundance model) on the basis of declared and unreported catches and estimates of exploitation rate (Potter *et al.*, 1998; 2004). The results indicate that the dynamics of salmon abundance in Russian rivers do not show any long-term trend and the spawner stock has been above its conservation limit only since the 1990s after a long period of low abundance. Adult returns peaked in 2001 and have been declining since then, and have now approached the lowest point of the cycle. The spawner stock is rather close to the conservation limit. The analysis has shown that the Russian stock complex is made up mainly of salmon stocks from rivers on the Kola Peninsula (79 rivers). Salmon stocks in most of those rivers are healthy and their status does not cause any concern. However, it should be noted that the status of stocks in this region varies considerably between rivers, therefore management of fisheries needs to be very cautious, particularly when it concerns the coastal fisheries. In rivers of the Karelian Republic (17 rivers), salmon stocks are in poor condition. In rivers of the Archangel Region, Komi Republic and Nenets National Okrug (23 rivers), most of the stocks are also in poor shape. On the whole, the situation with the state of stocks practically has not changed since 2004, therefore overall exploitation rate on the Russian stock complex should not increase, and management of fisheries should be based on the assessment of status of individual populations.

SLG(07)11

***Returns under the Reporting Format for
Guidelines on Containment of Farm Salmon***

USA

Guidelines on Containment of Farm Salmon – Reporting Format
US – March 2007

<i>Guidelines on Containment of Farm Salmon</i>						
2.1	Is there currently an Action Plan for containment of farm salmon so as to achieve a level of escapes that is as close to zero as practicable?	YES	X	NO		If 'yes', please attach a copy. If no, what is the anticipated timetable for development of an Action Plan?
		<p>State and Federal permits in place for aquaculture activities require the development of a site-specific containment plan for all active freshwater hatcheries and marine sites culturing Atlantic salmon. For more details about implementation timetables in the State of Maine Department of Environmental Protection general aquaculture permit; Section I Protection of salmon: (http://www.maine.gov/dep/blwq/docstand/aquaculture/MEG130000).</p>				
2.2	Is information available on the level and causes of escapes?	YES	X	NO		If 'yes', please provide details.
		<p>Escape reporting is required for all active freshwater and marine sites culturing Atlantic salmon. Marine site inventories are reported monthly to State of Maine Department Marine Resources (DMR). Additional information on the causes of escapes is maintained in the Department Marine Resources database (see attached Definition and Classification of Escape Event Causes).</p> <p>Four marine salmon aquaculture sites in New Brunswick, Canada, were vandalized from early May through November 2005, resulting in approximately 136,000 escaped farmed salmon. Most escapees were unmarked one-sea-winter salmon of similar size (5-10 lbs). Eight escaped aquaculture fish were documented in the Dennys river in 2005. Four escaped aquaculture fish were documented in the Dennys river in 2006. All escapes identified are presumed to be from the escape event in 2005.</p>				

2.3 Is information available on implementation of, and compliance with, the Action Plan?	YES	X	NO		If 'yes', please provide details.
	Compliance with State and Federal permit conditions is monitored annually by conducting audits of active freshwater hatcheries and marine sites. These audits are conducted by an independent third party and include inspection of records as well as physical inspection of equipment and operations. Containment Management System audit scores for all facilities reviewed in 2007 (11 marine sites and 3 hatcheries) received a level 1 rating, indicating no remedial corrective actions were required.				
2.4 Is information available on the effectiveness of the Action Plan in minimising escapes?	YES	X	NO		If 'yes', please provide details.
	Annual assessments conducted on some Atlantic salmon rivers in Maine indicate possible aquaculture-origin fish captured or observed. Levels of escaped aquaculture-origin fish entering Maine rivers appear to be decreasing (Table 1).				
2.5 Have areas for research and development in support of the Action Plan been identified?	YES	X	NO		If 'yes', please provide details.
	Identifying aquaculture fish continues to be an area of future research and development. State and Federal agencies continue to work with the Maine Atlantic salmon aquaculture industry to develop an effective genetic marking program for all fish reared in the U.S. More research is needed to identify suitable methods for recapturing escaped farmed fish.				

Note : “Action Plan” means a national Action Plan or regional Plans. Action Plans are the process through which internationally agreed guidelines on containment are implemented at national or regional level through existing or new voluntary codes of practice, regulations, or a combination of both.

Definition and Classification of Escape Event Causes
National Fish and Wildlife Foundation Grant,
Maine Aquaculture Association (MAA)

Ad-hoc Committee: Mike Pietrak - MAA, Jennifer Robinson - Cooke Aquaculture, Dave Bean - NOAA and Matt Young - MEDEP

Steering Committee Charge: Provide a standard definition and classification of the causes of escape events that can be used in the DMR database.

The following classification system is based on a four-digit number. The first number refers to the overall major cause of the escape event. The second refers to a subcategory of events (or predator) that is defined under each major cause. The third number refers to the equipment system that failed as a result of the major cause described in the first two numbers. The final number deals with whether or not the equipment that failed was installed and maintained according to the site-specific CMS plan.

The system is laid out in outline fashion with each digit as a new level in the outline. For example 2,1,1,1 is a severe weather event in which the waves from the storm caused damage to gear and as a result a tear in the primary containment net; all gear was installed properly. Where needed, definitions of what should be classified in a specific category are provided.

Major Cause of Event:

- 1) Predation; *An escape event resulting from a failure or breach of the net system or other equipment that was directly due to the attempts of a predator to get inside a cage.*

Predator

- 1) Seal
- 2) Bird
- 3) Terrestrial Mammal
- 4) Other

Failure

- 1) Fish escaped through failure of the primary containment net.
- 2) Fish escaped through the bird net or because of bird predation and a bird net was not present.
- 3) Fish escaped through the jumpsuit, for example: *an otter got into the cage through the jumpsuit and carried out a fish which escaped from it.*
- 4) Predator net.

Properly installed and operated

- 1) Procedures in site-specific predation plan were being followed and equipment that failed was installed according to CMS plan and met COC standards.
- 2) Procedures in site-specific predation plan were not being followed or equipment that failed was not installed according to CMS plan or did not meet COC standards.

- 2) Severe Weather; *An escape event resulting from a failure or breach of the net system or other equipment that was directly due to a variety of severe weather or storms.*

Event

- 1) Storm event: Damage from wind, waves or other phenomena caused by a storm.
- 2) Ice event: Damage from icing of gear.

Failure

- 1) Net system.
- 2) Mooring system.
- 3) Cage system: i.e., handrails, collar, walkways, etc.
- 4) Other equipment failed and this failure directly allowed the escape to occur.

Properly installed and operated

- 1) Procedures in the site-specific severe weather plan were being followed and equipment that failed was installed according to CMS plan and met COC standards.
- 2) Procedures in the site-specific severe weather plan were not being followed or equipment that failed was not installed according to CMS plan or did not meet COC standards.

- 3) Foreign Object Interaction; *An escape event resulting from a failure or breach of the net system or other equipment that was directly due to a collision, including a boat or other object such as driftwood, into equipment on the site.*

Event

- 1) Boat Collision: Actual collision of a boat (including harvest boats, work barges, moored feed barges and non-farming-related boats) into a cage or pulling away from a cage without untying from the cage. The damage from the collision is the primary cause of failure to containment systems, thereby allowing fish to escape. Propeller damage may or may not be a secondary cause of escape.
- 2) Propeller: The propeller of a boat causes the primary damage to containment systems, leading to the escape of fish. This can occur without the boat necessarily colliding with the cage.
- 3) Object other than boat: This category includes all other potential objects such as drift logs. Permanently moored feed barges that slip their moorings should be called a 'boat collision'.
- 4) Other

Failure

- 1) Net system.
- 2) Mooring system.
- 3) Cage system: i.e., handrails, collar, walkway, etc.
- 4) Other equipment failed and this failure directly allowed the escape to occur.

Properly installed and operated

- 1) Equipment that failed was installed according to CMS plan and met COC standards.
- 2) Equipment that failed was not installed according to CMS plan or did not meet COC standards.

- 4) Husbandry Practices; *An escape event resulting from a failure or breach of the net system or other equipment that was directly due to any normal or abnormal activity on the farm by company employees conducting fish culture activities.*

Event

- 1) Stocking procedures: Any activities related to, or during, stocking a cage.
- 2) Harvesting procedures: Any activities related to, or during, harvesting a cage.
- 3) Handling procedures: Any normal husbandry activities including: grading, vaccination, splitting a cage, sampling or entering and exiting cage (diver or boat).
- 4) Other.

Failure

- 1) Net system.
- 2) Mooring system.
- 3) Cage system: i.e., handrails, collar, walkways, etc.
- 4) Human error: This category should be selected if the primary cause was the failure of site workers to follow SOP for the activity or some other human error.
- 5) Other equipment failed and this failure directly allowed the escape to occur.

Properly installed and operated

- 1) Equipment that failed was installed according to CMS plan and met COC standards and existing SOPs were followed.
- 2) Equipment that failed was not installed according to CMS plan or did not meet COC standards or existing SOPs were not followed.

- 5) Unauthorized Human Interactions; *An escape event resulting from a failure or breach of the net system or other equipment that was directly due to unauthorized human interactions.*

Event:

- 1) Vandalism.
- 2) Poaching: Any activity related to illegal fishing inside of the cages.
- 3) Fishing gear: Any activity related to legal or illegal fishing outside of the cage. For example, dragging for urchins damages mooring system and results in an escape. If the escape is caused by the boat doing the dragging actually colliding with the cage then it should go under boat collisions (category 31).
- 4) Other.

Failure:

- 1) Net system.
- 2) Mooring system.

- 3) Cage system: i.e., handrails failed due to wind.
- 4) Other equipment failed and this failure directly allowed the escape to occur.

Properly installed and operated

- 1) Equipment that failed was installed according to CMS plan and met COC standards and existing SOPs were followed.
- 2) Equipment that failed was not installed according to CMS plan or did not meet COC standards or existing SOPs were not followed.

- 6) Equipment Failure; *An escape event resulting from a failure or breach of the net system or other equipment that was directly due to equipment failure under normal conditions.*

This category should only be used when the reason for the equipment failure does not fall into one of the other major categories.

Reason:

- 1) Equipment used on site was not suitable for the site conditions.
- 2) Equipment was not properly maintained.
- 3) Equipment was not properly installed.
- 4) Equipment was defective.
- 5) Other.

Failure:

- 1) Net system.
- 2) Mooring system.
- 3) Cage system: i.e., handrails failed due to wind.
- 4) Other equipment failed and this failure directly allowed the escape to occur.

Properly installed and operated

- 1) Equipment that failed was installed according to CMS plan and met COC standards.
- 2) Equipment that failed was not installed according to CMS plan or did not meet COC standards.

Table 1. Aquaculture Atlantic Salmon Caught in Weirs in Maine Rivers, in Numbers of Fish, 1994-2006 (U.S. Atlantic Salmon Assessment Committee Reports, 1995-2006).

YEAR	St. Croix	Union	Narraguagus (DPS river)	Dennys (DPS river)	Pleasant (DPS river)	Narraguagus, Dennys, and Pleasant Total (DPS rivers)
1994	97	n/a	1	48	n/a	49
1995	14	n/a	0	4	n/a	4
1996	20	n/a	8	21	n/a	29
1997	27	n/a	0	2	n/a	2
1998	24	n/a	0	1	n/a	1
1999	23	63	3	n/a	n/a	3
2000	30	6	0	29	0	29
2001	58	2	0	65	0	65
2002	5	6	0	4	0	4
2003	9	0	0	2	0	2
2004	4	0	0	0	0	0
2005	35	4	0	8	n/a	8
2006	7	0	1	4	n/a	5

n/a- No trapping facility in place and/or operational

Council

CNL(07)30

***Incentivising the Industry -
A Discussion Document from the International Salmon Farmers' Association***

At the Liaison Group meeting between NASCO and the North Atlantic salmon farming industry in March 2007 (see CNL(07)18), the industry indicated that they would develop a discussion document on how NASCO could further support the salmon farming industry. I have now received the attached document from the industry and have been asked to issue this as a Council paper together with the guiding principles for cooperation between NASCO and the industry that were developed by the Liaison Group in 2001 (Annex 1).

Secretary
Edinburgh
29 May, 2007

***Incentivising the Industry -
A Discussion Document from the International Salmon Farmers' Association***

A paper for the June 2007 Council meeting of NASCO

Following the meeting of the North Atlantic Salmon Farming Industry and NASCO Liaison Group held in Boston USA on 9th/10th March 2007, the industry representatives were invited to submit a paper to the next meeting of NASCO to consider ways in which NASCO and its accredited NGOs might be more supportive of a sustainable salmon farming industry, as was agreed in the Liaison Group's "Guiding Principles for Cooperation."

1. Statement of principle and objective

The North Atlantic Salmon Farming Industry (NASFI) and the North Atlantic Salmon Conservation Organisation (NASCO), recognizing the importance of conserving and enhancing wild salmon stocks and of supporting a sustainable salmon farming industry, have agreed to the establishment of guiding principles for co-operation. The objective is to establish mutually beneficial working arrangements in order to make recommendations on wild salmon conservation and sustainable salmon farming practices, and to maximize the potential benefits and minimize the potential risks to both.

The industry has supported wild salmon conservation efforts around the world, both by collaborating on local conservation projects and by continuously improving management practices to address concerns.

It was felt by the industry contingent that much of the Liaison Group's time has been focused on the industry's shortcomings, without the appropriate recognition of its many successes. It was also felt that many of the claims around the potential negative effects of the industry were based on unsound or incomplete data. It is acknowledged that this aligns with the precautionary principles adopted by NASCO, which state that: "*the absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.*"

The following approach is offered by ISFA in an effort to ensure that (i) a balanced approach is taken by NASCO in its consideration of, and comment on, the salmon farming industry and (ii) certain practical measures might be adopted by NASCO in order to support a sustainable and successful industry.

1. Recognition

- (a) Of the economic and social contribution of the worldwide salmon farming industry: its importance to remote rural and coastal communities and its contribution to schools, families and jobs as well as the spin-off to other industries in the supply network. Recognition of the importance of the substitution of fish from the more traditional catch fisheries with sustainably farmed salmon.
- (b) Of the nutritional value of eating salmon, such as the benefits of Omega 3 fatty acids, and the important role that farmed salmon has played in both the health of the individual and in taking the pressure off wild salmon consumption and exploitation.
- (c) Of the achievements of the industry in compliance with a comprehensive suite of regulations, the management of fish health and welfare, the development of, and adherence to, sea lice strategies, codes of containment, codes of good practice and the level of professional leadership provided by the industry in the technical and scientific disciplines. Further recognition is appropriate for the investment the industry has made in infrastructure improvements, in research and development, and in joint initiatives with wild fish interests and conservation groups.
- (d) Of the numerous ‘levers for control’ of the industry in relation to legislation and regulation (for example: Scotland has 10 different statutory bodies, 60 different pieces of legislation, 43 European directives, 3 European Regulations and 12 European Commission Decisions.) Similar regimes exist in all North Atlantic salmon farming countries.

2. Review

- (a) Of the precautionary principles which underlie much of the thinking of NASCO and its accredited NGOs. It must now be clear to NASCO that we are able to demonstrate a responsible and well established, high quality/low impact industry that is acutely aware of its environmental responsibilities. This is evidenced by industry’s acceptance and delivery of 1(c) and 1(d) above.
- (b) Of the Liaison Group’s agenda and activities to provide a more balanced approach to the matters discussed and the action plans. We suggest a move away from the perceived view that the industry is invited to these meetings to account for its shortcomings and to follow an agenda which is almost entirely devoted to sea lice, containment and genetic issues, without recognising the significant achievements of the industry in these and other areas.
- (c) Of the way in which NASCO interfaces with the industry on an international level, so as to provide for a cohesive and well understood approach to the issues which concern them. It is equally important that NASCO’s interactions reflect the fact that their constituent government agencies are already proactively engaged in promoting the sustainable development of their aquaculture industries.

3. Support

- (a) For the promotion of farmed salmon as the preferred and healthy choice for consumers and an affirmation of the advantages of having a salmon farming industry.
- (b) For representations to Government and competent authorities for the fair and equitable access to medicines for the safe and effective control of sea lice and other approved medicines.
- (c) For the development of an international strategy for the sustainable and incremental growth of the salmon farming industry over a defined period.
- (d) For the promotion of the achievements of the industry and the wide range of positive initiatives the industry has adopted to ensure a safe and secure future.
- (e) For existing and new research projects that are designed to generate objective scientific information to fill gaps in knowledge about the industry's impacts on the environment, on habitat and its interaction with other species.
- (f) For the establishment of a NASCO salmon farming award or scholarship for high achievement or for a special initiative in the area of best practice or conservation.
- (g) For the preparation of, and distribution of, a regular (at least annual) joint press/media statement on an agreed positive area of industry activity.
- (h) For the joint condemnation of speculative and unsubstantiated commentary from anti-industry activists.
- (i) For the dissemination of information on best practice and collaborative problem-solving activities.

SLG(01)11

Guiding Principles for Cooperation between NASCO and its Contracting Parties and the North Atlantic Salmon Farming Industry (hereinafter referred to as “the Parties”)

1. Statement of principle and objective

The North Atlantic Salmon Farming Industry and the North Atlantic Salmon Conservation Organization (NASCO), recognising the importance of conserving and enhancing wild salmon stocks and of supporting a sustainable salmon farming industry, have agreed to the establishment of guiding principles for cooperation. The objective is to establish mutually beneficial working arrangements in order to make recommendations on wild salmon conservation and sustainable salmon farming practices, to maximise potential benefits and to minimise potential risks to both.

2. Principles for cooperation between NASCO and its Contracting Parties and the North Atlantic Salmon Farming Industry

- 2.1 The Parties are committed to responsible management of wild salmon stocks and responsible salmon farming and to working in cooperation and to establishing a better mutual understanding;
- 2.2 The Parties recognise the importance of sustainability and environmental stewardship;
- 2.3 Salmon farming and wild stock management both require a risk management approach;
- 2.4 Decisions respecting salmon management and salmon farming should be based on the best available science and the Parties recognise the need to improve information for decision-making in relation to wild salmon stocks and salmon aquaculture;
- 2.5 The Parties agree to work cooperatively when consideration is given to the application of the Precautionary Approach to salmon aquaculture;
- 2.6 Social, economic and environmental costs and benefits should be integral to decision-making whenever possible;
- 2.7 The Parties are committed to the sustainability of wild salmon stocks, recognising that a wide and complex range of factors and activities has adverse effects on wild salmon abundance.

Council

CNL(07)59

Incorporating Social and Economic Factors into NASCO's Work

Terms of Reference

Incorporating Social and Economic Factors into NASCO's Work

Terms of Reference

Recalling the work that has been done to date by NASCO to identify the values associated with wild Atlantic salmon and to provide guidance on how these values might be estimated;

Further recalling the adoption of Guidelines for Incorporating Social and Economic Factors in Decisions under the Precautionary Approach, which involve the use of socio-economic assessments to support and inform decision making;

Understanding that making social and economic information comparable across jurisdictions can enhance its meaning and improve its use in decision making while recognizing that stock conservation and management objectives can differ among jurisdictions;

It is, therefore, proposed that a Working Group on Socio-Economics be established with the following Terms of Reference:

1. Taking account of relevant conservation and management objectives and, to the extent possible, using worked examples, determine how best to estimate and, where possible, estimate the social and economic value of the following:
 - a. Commercial salmon fisheries
 - b. Recreational salmon fisheries
 - c. Existence of salmon
 - d. Social, ceremonial and cultural aspects
 - e. Environmental aspects, with particular reference to biodiversity value
 - f. Other
2. In carrying out this work, consider the previous work of NASCO and the methods used to collect relevant data and identify data deficiencies and approaches that could be used to address these.
3. As appropriate, make recommendations to NASCO and its Parties on how to develop and improve the integration of social and economic factors into management decisions, including the proposed future development of a bio-economic model.
4. In carrying out these actions, the working group will be supported by the NASCO Secretariat. Further, the Parties should provide relevant information to the Working Group, if possible in advance of its first meeting. Further, the Parties are encouraged to provide experts in various fields to support the Working Group, including fishery managers, biologists, sociologists, and economists.
5. The Working Group should meet inter-sessionally at least once before the 2008 NASCO Annual Meeting, and it is envisioned that additional meetings may be necessary.

Council

CNL(07)20

St Pierre and Miquelon Salmon Fishery

CNL(07)20

St Pierre and Miquelon Salmon Fishery

1. The Council has requested from France (in respect of St Pierre and Miquelon) a description of the regulatory framework and scientific and other information concerning the mixed stock fishery for salmon at St Pierre and Miquelon. For the last three 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 annually since 2003 (see documents CNL(04)26, CNL(05)28 and CNL(06)23).
2. I have recently received from the Ministry of Fishing and Agriculture 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, which have been updated to cover 2006. The number of licences issued in 2006 (62) was lower than in 2005 (66) but higher than in the years 1998 to 2004. Despite the reduction in the number of licences issued, the catch in 2006, while low (3,555kg), was the highest in the period 1998-2006 and about 8% higher than in 2005. The proposed research programme at St Pierre and Miquelon comprises three elements: biometric sampling, genetic analysis and testing for diseases and parasites. The report outlines the nature of the sampling programme conducted in 2006 by IFREMER scientists, and includes the results of the biometric sampling programme in 2006. No results have been provided to NASCO for the genetic study initiated in 2004 and no results of the biological sampling programme were presented to ICES in 2006 (see CNL(07)7). The genetic programme will continue with analysis of the samples collected during 2006. The pathological study has not yet been initiated. In summarising, the French authorities indicate that they have pursued their commitment to gathering scientific knowledge about the salmon stocks at St Pierre and Miquelon and have implemented a procedure aimed at reducing the number of permits issued and so progressively reduce the catches of this vulnerable stock. Furthermore, an amendment to the regulatory framework's technical requirements for the fishery is planned.
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-Fourth Annual Meeting.
4. In the light of the information provided, 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
11 May, 2007

TRANSLATION

MINISTRY OF FISHING AND AGRICULTURE

**Maritime Fisheries and
Aquaculture Directorate**

Maritime Fisheries Division

**Resource, Regulation and
International Affairs Bureau**

3, place Fontenoy
75700 Paris 07 SP

**The *Director* for Fishing and Agriculture
to
The Secretary of NASCO**

cc. :

**Maritime Affairs Dept.;
Saint Pierre et Miquelon;
MOM-DAPAF – Mr. BRENNER;
MEDD – Water Service – Mr. GUERY.**

Dossier under the responsibility of : Christophe

LENORMAND

email : Christophe.lenormand@agriculture.gouv.fr

Tel. : 01 49 55 82 38

Fax. : 01 49 55 82 00

Ref. :

Paris,

Re-:/ 2007 Report to the North Atlantic Salmon Conservation Organisation (NASCO).

Enc.: 2

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 catch numbers, future perspectives on the regulatory framework and scientific monitoring.

The latest information concerning the current scientific programme is attached. Therefore this version of the document is the final one.

Yours faithfully,

copies:
Références informatiques

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MULTILATERAUX DE PECHE\OCSAN\Saint Pierre et Miquelon\2007\2007 04 12 rapport annuel OCSAN .doc

<p>Data relating to the salmon fishing activity at Saint-Pierre et Miquelon addressed to NASCO's Parties, for their information (June 2007 Annual Meeting)</p>

Given its geographical location, next to Newfoundland banks, Saint-Pierre and Miquelon has always been strongly dependent on maritime fishing activities.

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 no fish has ever been intended for export.

The continuation of this traditional form of fishing is therefore a cultural rather than a commercial activity.

Besides, this activity has been subjected to a strict regulatory framework. This framework is intended to evolve in time with the view to progressively reduce the fishing effort on this particular stock.

Finally, the programme of scientific study, initiated two years ago, has been extended so as to gain a better understanding of this stock, in agreement with NASCO's recommendations on this point.

I – Fishery regulatory framework

1-1/ Current regulatory framework

The regulatory framework, within which this type of fishing activity is undertaken, has over the last year remained unchanged. Fishing is indeed undertaken in accordance with the management and conservation measures set by the 20th March 1987 Ministerial Decree.

By virtue of this decree, 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 sets the duration of the fishing seasons. Hence, in 2007, the fishing season in the archipelago of Saint-Pierre et Miquelon's waters extended from 1 May to 31 July.

In addition, this same document predetermines the technical conditions for this type of fishery, as follows:

- ✓ A ban on the setting of fishing gear at the opening of water courses;
- ✓ A limitation on the length of the nets;
- ✓ A minimum mesh size set to 125 mm;
- ✓ A minimum size for any captured salmon of 48 cm;
- ✓ An obligation to declare catches.

Regarding the last point, it should be stressed that significant efforts have been made by the services responsible for the gathering of this data.

1-2/ Future developments

In order to fulfil NASCO's recommendations in terms of stocks conservation, a mid-term reform has been planned.

To this day, the definitive version of this document has not yet been formulated. However, with regard to this particular subject, it is envisaged that the emphasis would be placed on the following:

- ✓ A stricter limitation on the number of sites set for the practice of this activity,
- ✓ A tighter framework concerning the setting of nets,
- ✓ A restriction of the authorized fishing season.

II/ Statistical data concerning salmon fishing at Saint-Pierre et Miquelon

2-1/ Catch statistics

CATCHES (in kilogramme per live weight)			
Years	Professional fishing	Leisure fishing	Total
1998	1,039	1,268	2,307
1999	1,182	1,140	2,322
2000	1,134	1,133	2,267
2001	1,544	611	2,155
2002	1,223	729	1,952
2003	1,620	1,272	2,892
2004	1,499	1,285	2,784
2005	2,243	1,044	3,287
2006	1,730	1,825	3,555

2-2/ Permits issued

PERMITS ISSUED			
Years	Professional fishing	Leisure fishing	Total
1998	9	42	51
1999	7	40	47
2000	8	35	43
2001	10	42	52
2002	12	42	54
2003	12	42	54
2004	13	42	55
2005	14	52	66
2006	14	48	62

In accordance with the pledge made to NASCO on this point, the number of fishing permits granted for leisure fishing has been reduced.

It is equally important to remember at this stage that the expression “professional fishing” is in fact referring to a traditional subsistence fishery by a local community highly dependent on fishing and not to a truly commercial activity.

Given NASCO’s recommendations on this point, the mid-term objective is to pursue the trend in the reduction of catches made from this resource.

The local Authorities therefore intend to maintain this objective on a year-on-year basis, by continuing, more particularly, to reduce the number of fishing permits granted for this activity.

III – The scientific programme

As part of this cooperation with NASCO, the French authorities have implemented, in 2003, a programme of scientific monitoring under the leadership of the *Institut Français de Recherche pour l’Exploitation de la Mer* (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 purpose of this project is to better define the characteristics of the salmon population. This biometric study, launched in 2003, was continued over the past year in accordance with the commitments made.

Consequently samplings took place in 2006 during which gutted salmon were measured to caudal fork and weighed.

Details of the results of this study are attached to this document.

2-2-2/ The genetic study

This constituent of the study was initiated in 2004. Results of analyses undertaken in cooperation with the Canadian Authorities have been sent to the Organisation's Secretariat.

In accordance with NASCO's recommendations in this regard, the intention is to continue with the study by proceeding to the analysis of samples collected during the 2006 campaign.

2-2-3/ Pathological study

To date, this aspect of the study has not yet been initiated, but it is still planned.

In summary, France has pursued her commitment, with regard to improving the knowledge of this fishery and has implemented measures aiming to reduce the exploitation of this resource.

More particularly, in terms of the scientific programme, the work on the biometric constituent of this programme, aiming to improve the knowledge of this fishery, has been continued.

With regard to the management measures, the French Authorities have implemented a procedure aiming to reduce the number of permits granted in order to reduce progressively the catches made from this vulnerable stock.

With the same objective in mind, an amendment to the regulatory framework's technical requirements for this fishery has been planned.

**IFREMER local office
Saint-Pierre et Miquelon**

**Report on the biometric study undertaken in 2006 on the Atlantic salmon (*Salmo salar*)
in Saint-Pierre et Miquelon**

*Daniel Briand, IFREMER
(January 2007)*

In 2006, 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.

As previously, sampling from the landings and a monitoring of the temperatures has been carried out.

1 – Fishing sites

The sites, where nets were laid, are as follows:

Cap Noir, Ile aux Chasseurs, Les Flacous, Cap à Gordon, Les Canailles, Cap Bleu, Ile Pelée, Anse à la Vierge, Anse de l'Ouest, Rochers de l'Est, Caillou aux Chats, Basse Gélén, Basse des Grappains, Ile aux Vainqueurs, Pointe Blanche, Enfant Perdu, Cap Percé, Pointe Anse à Pierre, Cap aux Morts, Ilot Noir, Mirande, Trou aux Renards, Cap à Dinan, Basse Tournioure. Figure 5 indicates the sectors where salmon fishing took place.

2 – Fishing gear

The fishing gear used by fishermen at Saint-Pierre et Miquelon is a “tésure” 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 2006 landings

In all, 19 samplings were carried out, of which 17 took place in June and 2 in July. In total, 391 gutted salmon were weighed and measured to caudal fork. The total weight of the sampled gutted salmon amounts to 926 kg. The smallest size recorded was 33 centimetres for a gutted weight of 1.0 kg and the largest 91 centimetres for a gutted weight of 9.1 kg. An average size of 59 centimetres and average weight of 2.4 kg were noted.

	2003	2004	2005	2006
Number of samplings	12	11	8	19
Date of the 1 st sampling	4 June	5 June	6 June	6 June
Date of the last sampling	6 July	29 June	23 June	4 July
Total weight sampled (in kg)	872	837	718	926
Number sampled	340	355	310	391
Number weighed	340	355	310	391

Table 1: Summary of the sampling exercise carried out on the salmon in 2006 at Saint-Pierre et Miquelon

4 – Variations in size and weight during the 2006 fishing season

During the 23rd week (from 5 to 11 June), the average size of the 130 salmon studied was 71cm and the average gutted weight 3.8 kg..

During the 24th week (from 12 to 18 June), these averages were 55 cm and 1.7 kg respectively for the 75 salmon studied.

During the 25th week (from 19 to 25 June), the average size was 54 cm and the average weight was 1.7 kg for the 140 salmon examined.

During the 26th week (from 26 June to 2 July), these averages were 50 cm and 1.5 kg respectively for 25 salmon; and during the 27th week (from 3 to 9 July), they were 51 cm and 1.5 kg for 21 salmon.

Once more, and as previously noted, the passage of the larger salmon occurred at the beginning of June.

Plans for 2007

The biometric samplings from landings, which will include several scales samplings, will continue in 2007. The St John's Fisheries and Oceans Station in Newfoundland has been contacted with regard to their examination and interpretation of these samplings.

Furthermore, a study on the potential presence of young salmon in the watercourse named "La Belle Rivière", located at Langlade, will be undertaken by the Department of Agriculture and Forests.

5 – Results from the water temperature checks

Six water temperature checks, at 5 metres depth, were made near the fishing zone during the period extending from the end of May through to the beginning of July. The lowest temperature registered was on the 20th May (5.0°C) and the highest on the 4th July (10.0°C).

Day	Month	Depth in metres	Temp. °C in 2003	Temp. °C in 2004	Temp. °C in 2005	Temp. °C in 2006
20	5	5	1.8			5.0
23	5	5			3.6	
24	5	5		3.8		
1	6	5		4.3		5.1
4	6	5	3.12			
9	6	5		4.5		
10	6	5	3.9			6.9
14	6	5		4.6		
15	6	5			6.1	6.9
20	6	5			6.4	
21	6	5		5.4		
23	6	5	6.1			
27	6	5			6.5	7.5
28	6	5		7.5		
30	6	5	7.9			
4	7	5			8.9	10.0

List of figures

Fig. 1 – Atlantic salmon landings size breakdown for 2006 at Saint-Pierre et Miquelon (n = 391)

Percentages

Sizes in cm

Fig. 2 – Atlantic salmon landings weight breakdown for 2006 at Saint-Pierre et Miquelon (n = 391)

Percentages

Weight in kg

Fig. 3 – Average size weekly variation noted from Atlantic salmon landings made at Saint-Pierre et Miquelon in 2006

Average sizes

Week no.

Fig. 4 – Average weight weekly variation noted from Atlantic salmon landings made at Saint-Pierre et Miquelon in 2006

Weight in kg

Week no.

Fig. 5 – Atlantic salmon fishing net sites at Saint-Pierre et Miquelon in 2006

Fig. 1 – Composition en tailles des débarquements de saumons atlantiques en 2006 à Saint-Pierre et Miquelon
(n = 391)

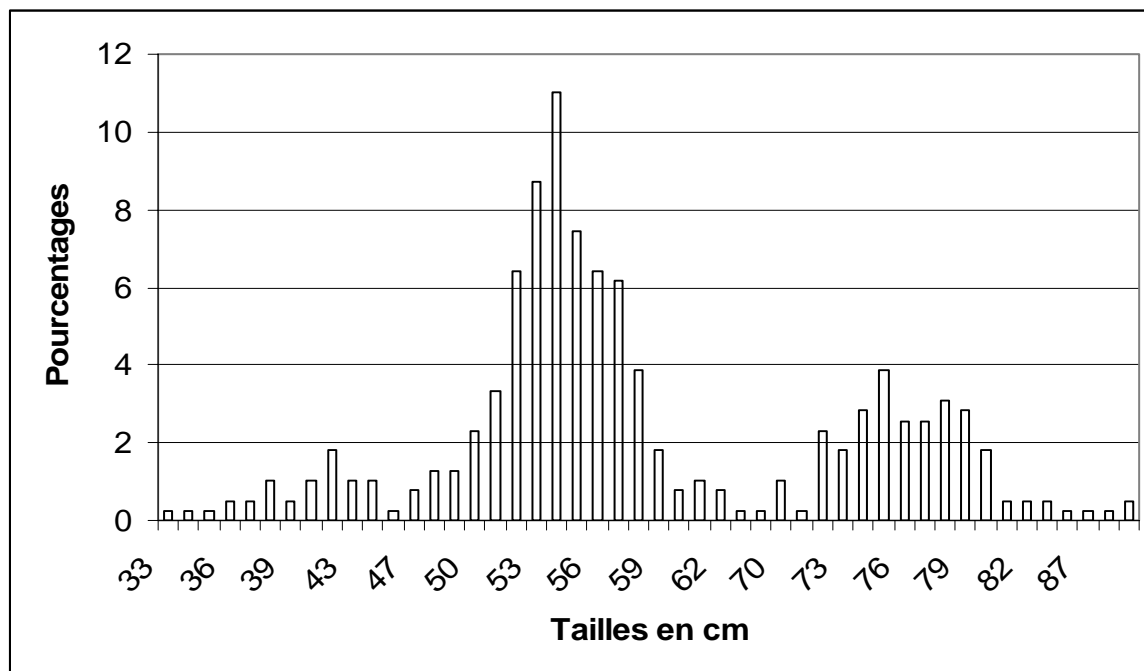


Fig 2 – Composition en poids des débarquements de saumons atlantiques à Saint-Pierre et Miquelon en 2006
(n = 391)

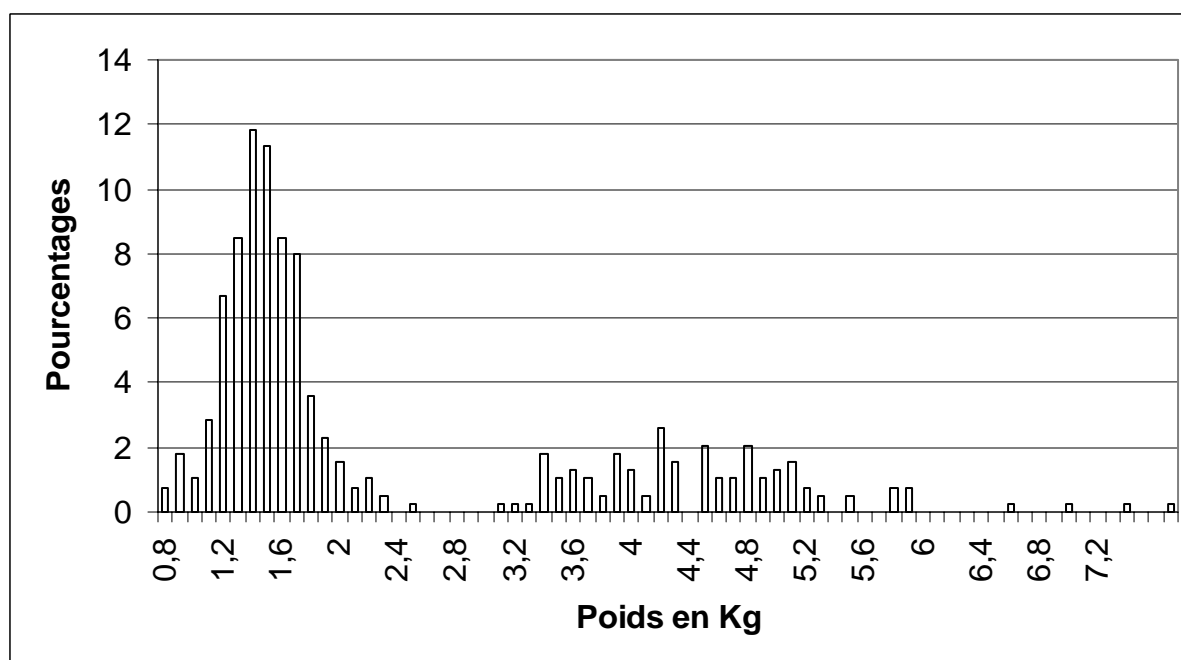


Fig. 3 – Evolution hebdomadaire des tailles moyennes observées sur les débarquements de saumons atlantiques à Saint-Pierre et Miquelon en 2006

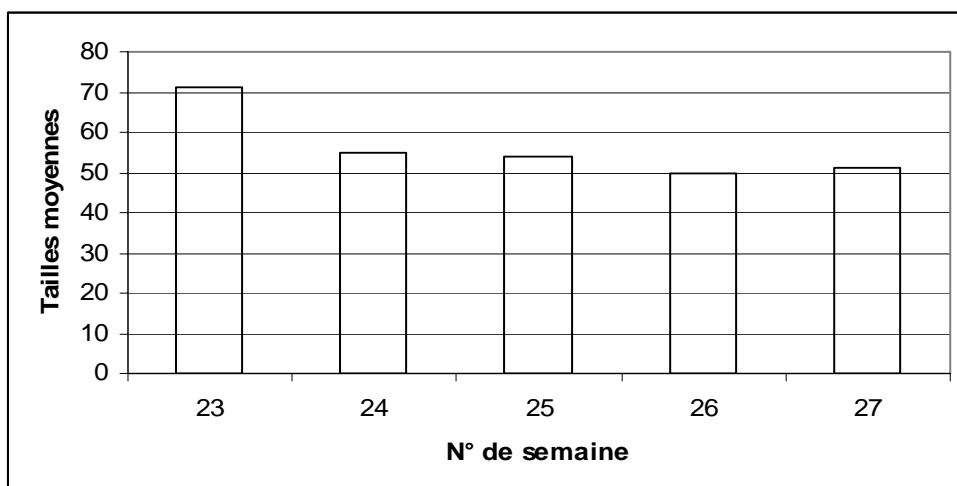


Fig. 4 - Evolution hebdomadaires des poids moyens observés sur les débarquements de saumons atlantiques à Saint-Pierre et Miquelon en 2006

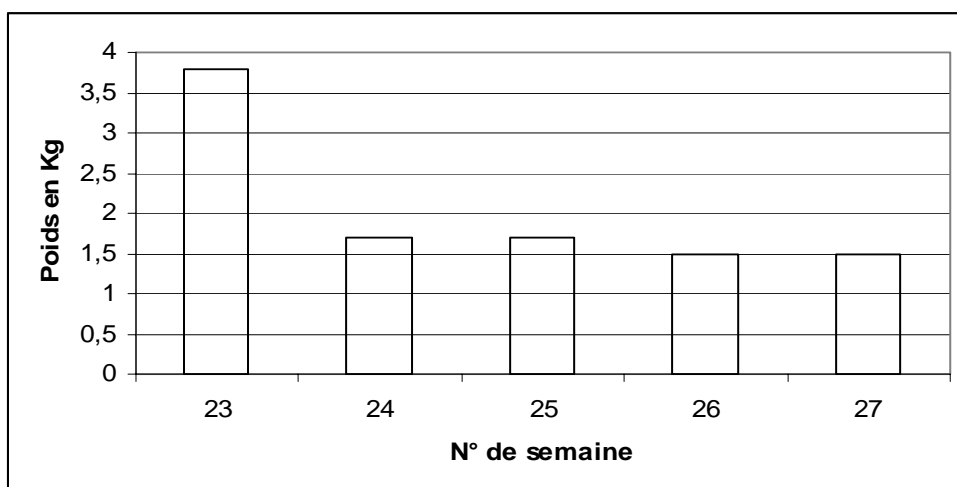
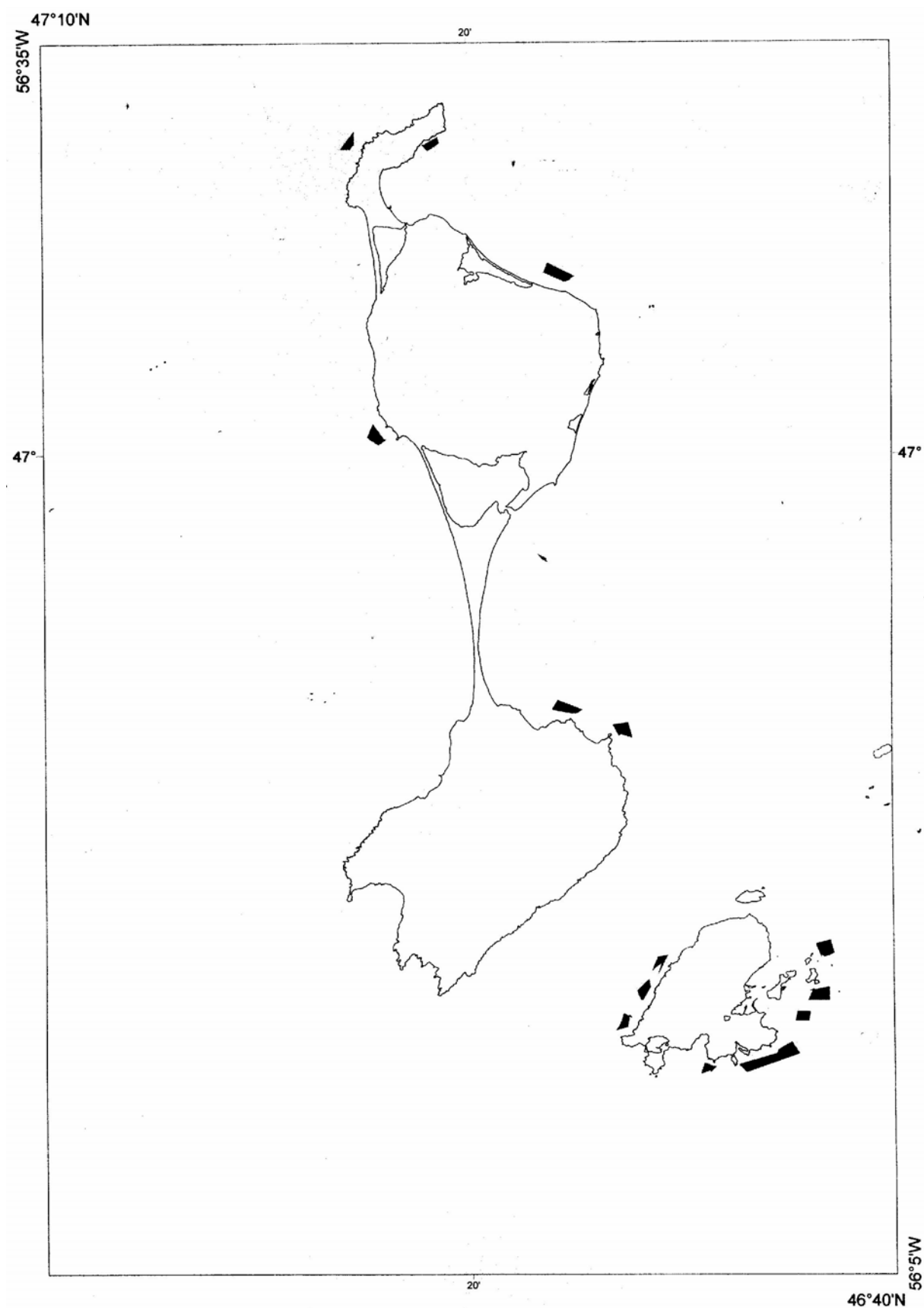


Fig. 5 – Localisation des filets de pêche au saumon atlantique à Saint-Pierre et Miquelon en 2006



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Press Release

**Twenty-Fourth Annual Meeting
Bar Harbor, Maine, USA
June 4 - 8, 2007**

**North Atlantic Nations Take Crucial Steps
For Conservation of Wild Atlantic Salmon**

The North Atlantic Salmon Conservation Organization (NASCO) concluded its 24th Annual Meeting in Bar Harbor, Maine, USA, on June 8, 2007, and succeeded in taking vital steps towards enhancing transparency and accountability of Nations in the conservation and recovery of Atlantic salmon. NASCO is continuing a process begun in 2004 to strengthen the Organization. All Nations will present final plans by November 1 on how they will implement measures to manage salmon fisheries, protect critical salmon habitat, and control the impacts of salmon aquaculture and related activities on wild Atlantic salmon populations. Importantly, the new plans will make it easier to measure how well NASCO's Parties are doing in meeting their obligations in future years.

"The development of Implementation Plans by NASCO's Parties is of critical importance for ensuring the protection of Atlantic salmon. They establish a roadmap and benchmarks for how each country is meeting its international obligations. NASCO and its Parties should be extremely proud of this achievement. I believe what we have done is unprecedented in the world of regional fisheries management organizations," said Dr. Ken Whelan, President of NASCO.

Significant new commitments were also made by NASCO's Parties to an international research program, SALSEA (Salmon at Sea), that is investigating the reasons for high mortality of Atlantic salmon during their sea phase. Canada will provide an additional contribution of \$100,000 for the work of the International Atlantic Salmon Research Board, the co-ordinating body for salmon research at sea. More new funding is being sought from European sources and the Atlantic salmon sampling program in West Greenland has been expanded. In addition, work is continuing on the coordinated research program in the Northwest Atlantic.

"Finding out why Atlantic salmon are not surviving their sea journey to return to home rivers for spawning is a huge task that cannot be accomplished by one country alone. I am very proud of the leadership NASCO is showing in this critically important area," stressed Dr. Whelan.

Another key action taken this week was the agreement to continue the closure of the commercial fishery at West Greenland, which harvests salmon originating from North America and southern Europe. Under a multi-annual agreement, the fishery will be limited to internal consumption, which is estimated to be about 20 tonnes. The Faroe Islands mixed stock fishery will continue to be managed in a precautionary manner in accordance with scientific advice. No fishery has occurred in the Faroe Islands in recent years.

Salmon travel incredible distances, starting in their natal streams in North America and Europe and ending up in the waters off Greenland and the Faroe Islands. It is here where they feed and grow before returning to home rivers to spawn—starting the incredible lifecycle of this magnificent species over again. Dr. Whelan noted that the threats to Atlantic salmon are considerable and NASCO and its Parties are taking their responsibilities to control mixed stock fisheries and reduce threats to Atlantic salmon very seriously.

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-Fourth Annual Meeting of NASCO was held in Bar Harbor, Maine, USA, from June 4 - 8, 2007. NASCO's members are Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Union (which currently has 27 Member States), Iceland, Norway, the Russian Federation, and the United States of America. Representatives from 21 non-governmental organizations (NGOs) and 3 inter-governmental organizations (IGOs) also attended the meeting.

The report of the 2007 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 2 to 6 June 2008 in Spain.

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CNL(07)0***List of Council Papers***

<u>Paper No.</u>	<u>Title</u>
CNL(07)0	List of Council Papers
CNL(07)1	Provisional Agenda
CNL(07)2	Explanatory Memorandum on the Agenda
CNL(07)3	Draft Agenda
CNL(07)4	Draft Schedule of Meetings
CNL(07)5	Report of the Twenty-Fourth Annual Meeting of the Finance and Administration Committee (issued at meeting)
CNL(07)6	Report on the Activities of the North Atlantic Salmon Conservation Organization in 2006
CNL(07)7	Report of the ICES Advisory Committee on Fishery Management (to be distributed by ICES)
CNL(07)8	Catch Statistics - Returns by the Parties
CNL(07)9	Historical Catch Record 1960-2006
CNL(07)10	Unreported Catches – Returns by the Parties
CNL(07)11	Programme for Special Session on Unreported Catches
CNL(07)12	Report of the Sixth Meeting of the International Atlantic Salmon Research Board (issued at meeting)
CNL(07)13	Programme for Special Session on Salmon at Sea: Research Programmes in the North Pacific and North Atlantic
CNL(07)14	Request for Scientific Advice from ICES (issued at meeting)
CNL(07)15	Report of the <i>Ad Hoc</i> Review Group on the Parties' Implementation Plans
CNL(07)16	Report of the Public Relations Group
CNL(07)17	Returns under Articles 14 and 15 of the Convention
CNL(07)18	Report of the Meeting of the Liaison Group with the North Atlantic salmon farming industry

CNL(07)19	Report on Progress with the Development of a Database of Salmon Rivers
CNL(07)20	St Pierre and Miquelon Salmon Fishery
CNL(07)21	Applications for NGO Observer Status to NASCO
CNL(07)22	Compilation of Implementation Plans
CNL(07)23	Summary of Council Decisions
CNL(07)24	Unreported Catches – tabled by UK (Northern Ireland)
CNL(07)25	Unreported Catches – tabled by UK (Scotland)
CNL(07)26	Unreported Catches – tabled by UK (England and Wales)
CNL(07)27	Main features of Norwegian policy for the preservation of wild salmon
CNL(07)28	Application for NGO Observer Status to NASCO
CNL(07)29	Supplementary Return – EU (France) and EU (Germany – Baden-Wuerttemberg))
CNL(07)30	Incentivising the Industry - A Discussion Document from the International Salmon Farmers' Association
CNL(07)31	Unreported Catches - tabled by Iceland
CNL(07)32	Description of methods currently used for estimating Unreported Salmon Catches in Norway
CNL(07)33	Unreported Catches – tabled by USA
CNL(07)34	Methods used for Estimating the Unreported Catch in the Russian Federation
CNL(07)35	Information From EU on Irish Post-Smolt Experimental Research Cruise - May 2007
CNL(07)36	Unreported Catches – Tabled by EU (Ireland)
CNL(07)37	EU (Germany): Report of Implementation Plan for Meeting Objectives of NASCO Resolutions and Agreements
CNL(07)38	Unreported Catch - Canada
CNL(07)39	Agenda
CNL(07)40	Draft 2008 Budget, 2009 Forecast Budget and Schedule of Contributions
CNL(07)41	Information Note from the European Union – Extract from UN Resolution 61/05, adopted on 8 December 2006, regarding Performance Review

CNL(07)42	Report from the <i>Ad Hoc</i> Review Committee on Implementation Plans
CNL(07)43	EU Proposal for a Performance Review - Resolution by NASCO to Undertake a Performance Review of the Organization
CNL(07)44	Incorporating Social and Economic Factors into NASCO's Work – Terms of Reference
CNL(07)45	Proposal by the President (Text to be inserted in the report of the meeting) – Performance Review
CNL(07)46	2008 Budget, 2009 Forecast Budget and Schedule of Contributions
CNL(07)47	Fisheries Management Focus Area
CNL(07)48	Resolution by NASCO Regarding a Performance Review of the Organization - Proposal by the United States
CNL(07)49	Special Session on Unreported Catches – Tabled by Denmark (in respect of the Faroe Islands and Greenland)
CNL(07)50	Proposals by the President – (Alternative texts to be inserted in the report of the meeting)
CNL(07)51	Tor (f) – to review and provide recommendations on the application state of the art Genetic Stock Identification methods, with particular emphasis on evaluating the precision for identifying the population of origin of individual Atlantic salmon
CNL(07)52	Wild Salmon Management in Ireland
CNL(07)53	2007 NASCO – ICES Advice
CNL(07)54	Draft Report
CNL(07)55	Draft Press Release
CNL(07)56	Draft Implementation Plan – Tabled by EU (France)
CNL(07)57	Press Release
CNL(07)58	Report of the Twenty-Fourth Annual Meeting of the Council of NASCO
CNL(07)59	Incorporating Social and Economic Factors into NASCO's Work – Terms of Reference
CNL(07)70	Statement by AIDSA

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

