Council

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NASCO – The Past, Present, and Future
(Tabled by the United States)

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The Formation of NASCO

The North Atlantic Salmon Conservation Organization (NASCO) was established under the Convention for the Conservation of Salmon in the North Atlantic Ocean which entered into force on 1 October 1983. A driving force behind the creation of NASCO was the existence of distant water commercial fisheries targeting mixed stocks of Atlantic salmon and the need for international cooperation to properly manage those fisheries. However, recognizing that there are a wide range of threats impacting Atlantic salmon throughout their migratory range, the objective of the Organization was more broadly defined to include the conservation, restoration, enhancement and rational management of salmon stocks and the acquisition, analysis and dissemination of scientific information.

Structure and Function

NASCO is composed of a Council, three regional Commissions and a Secretariat. In addition, 27 non-governmental organizations have observer status to NASCO and inter-governmental organizations and media representatives may also attend NASCO meetings. One of the primary functions of the Council is to provide a forum for the study, analysis, and exchange of information and for consultation and cooperation on matters concerning salmon stocks. The Rules of Procedure for the Council state that the President will convene regular annual meetings of the Council and Commissions. One of the functions of the regional Commissions is to provide a forum for consultation and cooperation on salmon stocks including the establishment of regulatory measures, including quotas. The regional Commissions are chaired by a member of one of the participating delegations whereas the Council is chaired by the President. In the initial years of NASCO, the primary focus of activities was in the Commissions where regulatory measures were debated and developed. In addition to this function, they provide a forum for exchange of information that is more regional in nature. As less time has been spent in the Commissions on regulatory measures, there has been more focus and activity within the Council. For example, Council activity in recent years has included all of the activity related to the Precautionary Approach, the International Atlantic Salmon Research Board, and the Aquaculture Liaison Group.

The Evolution of NASCO

In recent years, NASCO's scientific advisors at ICES have consistently delivered the message that there should be no commercial fishery for Atlantic salmon in international waters. The challenge has been to see how closely the Parties could agree to adhere to this advice in light of the status of the stocks while still recognizing the dependence of some Parties on salmon fishing. The NASCO Parties have, in some cases, not strictly adhered to the scientific advice provided by ICES. The extent to which the decisions and factors affecting the management decisions has been explicitly stated has varied among Commissions and years. In the case of the fishery at West Greenland, in some years the West Greenland Commission has adhered to the scientific advice and warnings by not agreeing to any commercial harvest quota, but has attempted to account for the needs of local

communities by allowing an internal-use-only fishery to continue. The members of the West Greenland Commission have also cooperated in a scientific evaluation of this fishery to gain as much information as possible on the composition of the stocks in the mixed stock fishery and also to screen for any diseases.

Of significant disappointment has been the narrow range and scope of a response from the stocks to drastic management measures undertaken, especially in recent years. It was reasonably expected that with commercial fisheries greatly restricted, the stocks would respond and recovery would begin. It is clear at this time that the recovery will take much longer than initially anticipated and will require aggressive action on a number of threats to the species and its habitat. Under NASCO's broad objective, NASCO has sought to identify factors, other than fisheries, that could be adversely affecting Atlantic salmon stocks. In fact, at its 10-year review in 1995, the NASCO Parties identified the following new issues requiring further consideration: increased cooperation on freshwater issues such as pollution and habitat damage; how to adopt the Precautionary Approach; the Organization's working methods including its relations with non-government and inter-government organizations; global warming and its potential impact on salmon distribution; and the role NASCO could play in educating the young on salmon conservation and management issues. In venturing into these other areas, it is important to recognize that NASCO as a body does not have any regulatory authority within homewaters, and therefore the actions of NASCO must come in the form of guidelines which serve only as recommendations to the Parties.

Perhaps the most visible example of the evolution of NASCO's approach to stock management, is the focus on the adoption and implementation of the Precautionary Approach. In 1998, NASCO agreed to adopt and apply the Precautionary Approach to its work and in 1999 adopted an Action Plan for the Application of the Precautionary Approach. The action plan included the following components: management of North Atlantic salmon fisheries; socio-economic issues; unreported catch; scientific advice and research requirements; stock rebuilding programmes; introductions, transfers, aquaculture and transgenics; habitat issues; and by-catch. As this list illustrates, in agreeing to this action plan, NASCO has responded to the lack of recovery of salmon stocks by broadening its management approach to more holistically encompass the variety of threats salmon encounter throughout their migration. From 1999 – 2003, NASCO has tackled the difficult task of taking the commitments made in the action plan and developing specific implementation plans.

On the surface, the adoption of the Precautionary Approach by NASCO may not appear to have tangible benefits for Atlantic salmon protection and recovery. The concepts embodied in the Precautionary Approach are not new to management or conservation. The most important step NASCO Parties took, however, was to attempt to operationalize the Precautionary Approach. Rather than simply adopting the approach and making a broad and general commitment to it, the Parties went one step further and applied it to the work of the Organization. Specifically, the Parties developed, and are implementing, a decision structure for fishery management decisions that incorporates the Precautionary Approach. The Parties then identified the need for the development of a database on habitat to facilitate information exchange and monitoring on habitat conditions for Atlantic salmon. The Williamsburg Resolution was adopted as an effort to bring together all of the NASCO actions related to identifying and minimizing potential adverse risks to wild Atlantic salmon stocks from introductions and transfers of fish. Finally, the Parties are continuing to work on a structure that incorporates and considers socio-economic factors when making management decisions.

As the Parties gain and exchange more experience in implementing these plans and structures, it is expected that suggestions for improvement will be brought forward. These documents should be viewed as dynamic and continuously revisited and revised. It might also be appropriate to reexamine the action plan at this point to see if the products produced achieve the intended goal and if there are any other remaining issues to be addressed.

NASCO was able to make so much progress in adopting and implementing the Precautionary Approach because the extremely depressed status of the stocks demanded that managers analyze the threats to the species more holistically. The fact that saving salmon requires more than reducing or eliminating commercial fisheries provides a strong incentive to adopt a more broad-based approach to management. Parties had moved beyond the point of debating the science and reached agreement that the predictions of low abundance at sea and the low numbers of fish returning to home rivers to spawn demanded a conservative approach. NASCO and its Contracting Parties seized this opportunity to agree to key principles that would guide its decisions on allocations of harvestable surplus in the future when the stock status improved. In adopting the Precautionary Approach and applying it to its work, NASCO and its Contracting Parties have formally recognized that the foundation of any good decision-making is the articulation and understanding of the consequences (risks) of alternative choices. NASCO has asked its scientific advisors at ICES to present the status of the stocks and the management advice in a way that these consequences are transparent and has agreed to make decisions in a more risk-averse manner. For example, on the advice of ICES, NASCO has moved away from adopting management measures that provide only a 50% or less probability of achieving conservation goals. The Precautionary Approach encourages the collection of data necessary to fill in gaps in knowledge and this was a major driving force behind the significant improvement made by the EU in collecting data on salmon rivers with the goal of using this information to refine and improve the model used to calculate pre-fishery abundance at West Greenland. At NASCO's request, ICES also provided the consequences of various management options on the rate and success of rebuilding depleted stocks. While one could argue that these steps should have been implemented earlier by NASCO, the fact that an international fishery organization is asking these questions and is seriously considering the answers in making management decisions is a very significant accomplishment and tangible evidence of NASCO's commitment to the Precautionary Approach.

In recent years, NASCO has been increasingly looking beyond regulatory control of fishing to focus on improving the Parties collective understanding of threats that may be impacting salmon stocks and of measures that could be taken to avoid or minimize those threats. In 1994, NASCO expressed concern over potential impacts from commercial aquaculture on wild stocks of Atlantic salmon with the adoption of the *Resolution by the Parties to the Convention for the Conservation of Salmon in the North Atlantic Ocean to Minimize Impacts from Salmon Aquaculture on the Wild Salmon Stocks* (called the Oslo Resolution). Closely related interests between NASCO and the aquaculture industry also led to the formation of a Liaison Group between NASCO and the international salmon farming industry in 2000. Another threat NASCO identified as an area of concern was predators and prey. NASCO held a Special Session on this topic and has periodically requested updates from Contracting Parties on the state of knowledge and management actions to minimize adverse effects on predation on Atlantic salmon stocks and to increase prey. NASCO Parties have always shared a common desire to better understand the factors affecting the survival of salmon at sea and, in 2002, jointly sponsored a symposium with the International Baltic Sea Fishery Commission, International Council for the Exploration of the Sea, North Pacific Anadromous

Fish Commission and North Pacific Marine Science Organization to look for common factors affecting salmon stocks at sea. Work is currently underway to schedule a follow-up workshop in 2006. The limited response of stocks to drastic reductions in commercial fisheries again elevated the importance of understanding what other factors may be affecting salmon at sea. NASCO recognized the complexities involved in conducting research at sea and the resource demands of such studies. This recognition led to the creation of the International Atlantic Salmon Research Board to first create an inventory of ongoing and completed research on salmon at sea and then to attempt to solicit funds so that large-scale cooperative studies could be undertaken in an attempt to unlock the many mysteries of salmon at sea. Finally, under the Habitat Action Plan, NASCO Parties have agreed to populate a database with information on physical, biological and chemical factors that may be adversely affecting salmon stocks.

The Challenge and the Opportunity

As noted above, NASCO has taken bold steps forward in broadening its concern to encompass a wide range of factors that could affect salmon and their habitat. Ultimately the effectiveness of the guidance provided by NASCO on habitat, aquaculture, stock rebuilding and stocking issues depends on the strength of the commitment made by NASCO Parties in fulfilling the actions identified and in reporting these back to NASCO. Implementing these action plans and items is no small undertaking and requires a firm commitment of resources by the NASCO Parties. Reporting on actions undertaken to protect and restore habitat is more complicated than reporting back on a fishery. It has and will take some trial and error for the NASCO Parties to determine the best way to provide information back in a concise but meaningful manner. Part of the difficulty arises from the dual purposes of reporting. On the one hand, Parties report on actions they have taken to demonstrate a commitment to the resource and a real contribution in terms of sharing the burden of recovery. The other equally valuable component of reporting back is to share information and expertise with the other Parties that might be experiencing similar challenges. For example, all of the Parties face the problem of passing fish around barriers such as dams and a great deal could be learned by hearing of obstacles faced and solutions implemented. Generally speaking, current reporting procedures do not lend themselves to the type of technology and expertise transfer that would have great benefit to the Parties, and ultimately to salmon. Perhaps a Special Session or workshop format would be an appropriate format to achieve meaningful information transfer.

NASCO has demonstrated its utility as a forum to promote the conservation, restoration, enhancement and rational management of salmon stocks. It has facilitated international cooperation, including the acquisition, analysis and dissemination of scientific information. It is perhaps easiest to gauge NASCO's effectiveness in this area where it has the most influence – in setting regulatory measures. NASCO has succeeded in providing a forum for these discussions and debates within the Commissions where Parties have agreed management measures. In areas other than fishery regulation, the Council and Commissions have provided a forum for the exchange of information and for consultation and cooperation on matters affecting salmon stocks. New relationships and structures have been created to explore those areas further such as the use of Special Sessions, creation of the Standing Committee on the Precautionary Approach, the Aquaculture Liaison Group and the International Atlantic Salmon Research Board. When evaluating the effectiveness of NASCO in these areas, it is important to recall that the Council and Commissions can only make recommendations and not require actions on these issues.

NASCO – THE NEXT 20 YEARS

As noted above, in recent years, due to the extremely depleted status of Atlantic salmon stocks range wide, there has been little if any harvestable surplus to debate and allocate at NASCO. The importance of international cooperation is never greater than when the stocks are in such poor condition. Many of the Contracting Parties are experiencing very low returns despite extreme measures to protect and restore habitat and increase runs through stocking programmes. In some countries, salmon stocks have been designated as endangered or otherwise deserving of added protection. As individual countries attempt to rebuild and recover salmon populations, the more we can pool our knowledge and collaborate on efforts to identify threats and effective mitigation measures, the greater our chances of successful salmon recovery. NASCO was created to serve this exact need. It has and can play a vital role in facilitating the effort to unravel the mystery of salmon survival and mortality.

In order to increase the efficiency and effectiveness of NASCO in achieving its objectives, the Contracting Parties need to be flexible and adaptive. Given the depleted status of wild Atlantic salmon stocks across their range, the importance of international cooperation to identify causes of salmon decline and effective strategies to improve stock status cannot be overstated. For the next few years, projections indicate that the stock status is unlikely to dramatically improve and therefore the attention on multiple threats needs to continue and intensify. It follows then that the major focus of NASCO actions over the coming years should be the development of ecosystem-based strategies to improve Atlantic salmon stocks and their habitats. In 1998, NASCO and its Contracting Parties agreed to adopt and apply a Precautionary Approach to the conservation, management and exploitation of salmon in order to protect the resource and preserve the environments in which it lives. Additional work is needed on stock rebuilding guidelines and monitoring implementation of other guidelines and resolutions. Given the change in emphasis, it may be appropriate to reexamine the way in which NASCO carries out its work so that the potential to achieve this goal is maximized.

Although in recent years NASCO has spent a greater amount of time on these non-regulatory measures, often they have been dealt with on the margins of the Annual Meeting, during intersessional meetings and/or through separate committees and working groups. Many of these groups meet intersessionally requiring greater resources to travel and participate in additional meetings. Also, there are a number of ad-hoc working groups that are created during the Annual Meeting and during intercessional meetings to tackle specific tasks. Perhaps thought should be given to restructuring the annual meeting so that more time can be spent on development of broader-based strategies. The traditional manner in which the Council and Commission meetings have been run has been more formal and less conducive to detailed information exchange and technology transfer.

Recommendations

In light of the observations noted above, the U.S. offers the following recommendations:

- Restructure the format of the Annual Meeting to improve the efficiency and effectiveness of the Organization.

- Improve the interaction between scientists and managers and between the Parties and non-governmental organizations. NASCO Parties are accustomed to asking ICES for advice on fishery management measures, but asking for scientific information on

factors other than fisheries and then taking action on the basis of that data is relatively new to the NASCO Parties.

- Create a Working Group to plan an experimental new approach for the structure and content of an Annual Meeting designed around the further implementation of an ecosystem-based strategy. The group could consider an alternate meeting structure where every other year the meeting agenda would be similar to the historical format and in alternate years could focus on non-regulatory measures and be arranged in a workshop format. The working group could solicit ideas on the structure and content for the alternate meeting from the Parties, non-governmental organizations and other interested parties and work over the course of the next year to make a proposal for consideration at the 2005 Annual NASCO Meeting.