



Agenda item 6.1
For information

Council

CNL(17)11

Programme for the 2017 Theme-based Special Session

*Understanding the risks and benefits of hatchery and stocking activities to
wild Atlantic salmon populations*

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Understanding the risks and benefits of hatchery and stocking activities to wild Atlantic salmon populations

A Theme-based Special Session of the Council of NASCO
Wednesday (am) 7 June 2017

Background

The objective of NASCO's Theme-based Special Sessions is to allow for greater exchange of information and sharing of experience of best practice on a topic related to NASCO's agreements and guidelines. The following Theme-based Special Sessions have been held to date:

- Management of single and mixed stock fisheries, with particular focus on fisheries on stocks below their conservation limit (2014);
- Maintaining and improving river connectivity with particular focus on impacts of hydropower (2015); and
- Addressing impacts of salmon farming on wild Atlantic salmon: challenges to, and developments supporting, achievement of NASCO's international goals (2016).

The Council has agreed to hold a half-day Theme-based Special Session during the Thirty-Fourth (2017) Annual Meeting of NASCO on the theme of risks and benefits to Atlantic salmon populations from hatchery and stocking activities. A Steering Committee was appointed (Gérald Chaput (Canada), Paul Knight (NGOs) Ian Russell (EU) and Arne Sivertsen (Norway)) to work with the Secretary in developing a Programme and Objectives for the session. The Steering Committee will also prepare a report of the session following the 2017 Annual Meeting.

Stocking of salmon at various life stages has been conducted for more than a century for a variety of purposes including to support fisheries, to mitigate for habitat loss, to re-build populations affected by pathogens such as *Gyrodactylus salaris* and to re-build salmon populations at severe risk of demographic extinction. The current period of low marine survival of salmon in the North Atlantic has led to increased interest in actions to mitigate for the reduced abundance through stocking activities. NASCO has adopted Guidelines for Stocking Atlantic Salmon (Annex 4 of the Williamsburg Resolution, CNL(06)48). These guidelines recognise that while stocking programmes are sometimes successful, it is known that there can be negative impacts on wild salmon populations and other species and that poor stocking practices may negatively impact the characteristics of the wild salmon populations they are intended to conserve. The guidelines are designed to assist NASCO's Parties in applying the Precautionary Approach to the authorisation and conduct of any stocking of Atlantic salmon into the wild. The Council's intention was that the guidelines would be regularly reviewed and updated, as appropriate, in the light of new scientific information. Such a review has not yet occurred but over the last decade new information on the risks of stocking, including the domestication effects of hatchery interventions on the fitness of the cultured animals and the subsequent fitness consequences to wild Atlantic salmon populations exposed to stocking activities, has become available.

There are many possible causes for the decline of Atlantic salmon populations and stocking may not be an appropriate solution in every situation. NASCO has adopted Guidelines on the Use of Stock Rebuilding Programmes, CNL(04)55, which provide guidance on compliance assessment, evaluation of the problem, development of a management plan and monitoring and evaluation of progress.

Article 1 of the Williamsburg Resolution seeks co-operation among NASCO Parties in order to minimise adverse effects to the wild salmon stocks from, *inter alia*, stocking activities and, under the 2013 - 2018 Implementation Plans, Parties/jurisdictions are requested to provide information on the progress made in implementing NASCO's guidance including the Guidelines for Stocking Atlantic Salmon. There are likely to be benefits from an exchange of information among Parties given the concerns that have arisen on the potential negative consequences of hatchery programmes to wild Atlantic salmon populations and the potential benefits to salmon populations that are at imminent risk of extinction in the absence of interventions including stocking. The Steering Committee has, therefore, decided that the title for the 2017 Theme-based Special Session will be 'Understanding the risks and benefits of hatchery and stocking activities to wild Atlantic salmon populations'.

Objectives of the Theme-based Special Session

The over-arching objective for the 2017 Theme-based Special Session is to facilitate an exchange of information relating to understanding the risks and benefits of hatchery and stocking activities to wild Atlantic salmon populations by:

- reviewing the latest scientific information on the risks (genetic and ecological) and benefits (demographic, reduced extinction risk) to wild Atlantic salmon fitness of hatchery and stocking activities;
- reviewing the approaches used to prevent the loss of Atlantic salmon populations at high risk of extinction (e.g. by live gene banking, smolt to adult supplementation);
- reviewing the approaches used to minimise unintended negative consequences to wild Atlantic salmon populations from hatchery and stocking activities;
- sharing information on policy frameworks for assessing the risks and benefits and the decision-making process for stocking proposals; and
- reviewing NASCO's Guidelines for Stocking Atlantic Salmon and considering the need for any revisions to them in the light of new information.

Programme

A half day (09.00 - 12.45) has been allocated to the Theme-based Special Session on Wednesday 7 June 2017. The Steering Committee requests that written papers for each presentation be submitted to the Secretariat by 30 April for distribution to all delegates and uploading to the NASCO website prior to the Thirty-Fourth Annual Meeting. These papers will not be subject to evaluation but, following the Annual Meeting, the Steering Committee will prepare a report of the Theme-based Special Session synthesising the management implications.

Presentations

Overview presentations have been requested to address the first three objectives. The Steering Committee has requested that in the presentations by the Parties/jurisdictions on the policy frameworks, general background information be kept to a minimum and that specific information be provided describing the current management and regulatory framework associated with stocking of Atlantic salmon and hatchery activities and how the risks and benefits are assessed and managed. Invited presentations have been allocated 30 minutes to include 5 minutes for discussion. Presentations by the Parties/jurisdictions have been allocated 15 minutes. There will also be a period for general discussion at the end of the session.

Secretary
Edinburgh
7 April 2017



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Programme

	Title	Contributor
09.00 - 09.10	Introduction	President
09.10 - 09.40	Risks and benefits to wild Atlantic salmon populations from hatchery and stocking activities	Dylan Fraser, Concordia University, Canada
09.40 - 10.10	Approaches to minimising unintended negative consequences to wild Atlantic salmon populations from hatchery and stocking activities	Kyle Young, University of Zurich, Switzerland
10.10 - 10.40	Approaches used to prevent the loss of Atlantic salmon populations at high risk of extinction including gene banks, adult captive rearing, smolt-to-adult supplementation	Arne Sivertsen, Norwegian Environment Agency, Norway
10.40 - 11.00	Tea/coffee break	
11.00 - 11.15	The policy relating to hatchery and stocking activities in Canada - managing risks and benefits	TBC
11.15 - 11.30	The policy relating to hatchery and stocking activities in Wales - managing risks and benefits	Peter Gough, Natural Resources Wales, UK
11.30 - 11.45	The policy relating to hatchery and stocking activities in France - managing risks and benefits	Bénédicte Valadou, Agence Française pour la Biodiversité, France
11.45 - 12.00	The policy relating to hatchery and stocking activities in Norway - managing risks and benefits	Anne Kristin Jøranlid, Norwegian Environment Agency, Norway
12.00 - 12.45	General Discussion	