

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.**