

CNL(09)10

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 2009¹;
- 1.2 report on significant new or emerging threats to, or opportunities for, salmon conservation and management²;
- 1.3 continue the work already initiated to investigate 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 abundance³;
- 1.4 describe how catch and release mortality and unreported catch are incorporated in national and international stock assessments and indicate how they can best be incorporated in future advice to NASCO;
- 1.5 further develop approaches to forecast pre-fishery abundance for North American and European stocks with measures of uncertainty;
- 1.6 provide a compilation of tag releases by country in 2009 and advise on progress with analysing historical tag recovery data from oceanic areas;
- 1.7 identify relevant data deficiencies, monitoring needs and research requirements⁴.

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

- 2.1 describe the key events of the 2009 fisheries⁵;
- 2.2 review and report on the development of age-specific stock conservation limits;
- 2.3 describe the status of the stocks and provide annual catch options or alternative management advice for 2011-2013, with an assessment of risks relative to the objective of exceeding stock conservation limits and advise on the implications of these options for stock rebuilding⁶;
- 2.4 further investigate opportunities to develop a framework of indicators or alternative methods that could be used to identify any significant change in previously provided multi-annual management advice.

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

- 3.1 describe the key events of the 2009 fisheries (including the fishery at St Pierre and Miquelon)⁵;
- 3.2 update age-specific stock conservation limits based on new information as available;

In the event that NASCO informs ICES that the framework of indicators (FWI) indicates that reassessment is required:*

- 3.3 describe the status of the stocks and provide annual catch options or alternative management advice for 2010-2013 with an assessment of risks relative to the objective of exceeding stock conservation limits and advise on the implications of these options for stock rebuilding⁶.

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

- 4.1 describe the key events of the 2009 fisheries⁵;

- 4.2 provide clarification of the levels of reported and unreported catch in the subsistence fishery since 2002,

In the event that NASCO informs ICES that the framework of indicators (FWI) indicates that reassessment is required:*

- 4.3 describe the status of stocks and provide annual catch options or alternative management advice for 2010-2012 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^{6,7};

Notes:

1. *With regard to question 1.1, ICES is asked to ensure that the terminology used in presenting the data on ranching is clearly defined. For the estimates of unreported catch the information provided should, where possible, indicate the location of the unreported catch in the following categories: in-river; estuarine; and coastal.*
 2. *With regard to question 1.2, ICES is requested to include information on any new research into the migration and distribution of salmon at sea.*
 3. *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.*
 4. *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.*
 5. *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.*
 6. *In response to questions 2.3, 3.3 and 4.3 provide a detailed explanation and critical examination of any changes to the models used to provide catch advice.*
 7. *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 2.3 and 3.3.*
- **The aim should be for NASCO to inform ICES by 31 January of the outcome of utilising the FWI**