

## *NAC(12)4*

### *Proposal by the US – Management Objectives*

#### **Management Objectives for Atlantic Salmon in the US and the Scotia-Fundy Region of Canada**

**Issue:** Currently, the stated management objectives for Atlantic salmon stocks in the US and the Scotia-Fundy Region of Canada are a 25% increase in returns of 2SW salmon from the average returns in 1992-1996. This rebuilding objective was established in light of the extremely depleted state of these endangered populations. However, selection of this management objective is inconsistent with NASCO's Agreement on the Adoption of the Precautionary Approach, Action Plan for the Application of the Precautionary Approach, NASCO Guidelines for the Management of Salmon Fisheries, and scientific advice from ICES. We, therefore, recommend revisiting these management objectives.

#### **Background:**

NASCO has on many previous occasions stated a clear management objective of maintaining all stocks above their conservation limit. Some key examples are listed below:

#### **Agreement on Adoption of the Precautionary Approach (CNL(98)46)**

- An objective for the management of salmon fisheries for NASCO and its Contracting Parties is to promote the diversity and abundance of salmon stocks. For this purpose, management measures, taking account of uncertainty, should be aimed at maintaining all salmon stocks in the NASCO Convention area above their conservation limit (currently defined by NASCO as the spawning stock level that produces maximum sustainable yield), taking into account the best available information, and socio-economic factors including the interests of communities which are particularly dependent on salmon fisheries and the other factors identified in Article 9 of the Convention.
- The application of the Precautionary Approach to salmon fishery management is an integrated process which requires the following (below is a subset of what is contained in the Precautionary Approach Agreement):
  - a. that stocks be maintained above the conservation limits by the use of management targets;
  - b. that conservation limits and management targets be set for each river and combined as appropriate for the management of different stock groupings defined by managers;
  - c. stock rebuilding programmes (including, as appropriate, habitat improvement, stock enhancement and fishery management actions) be developed for stocks that are below their conservation limits.

#### **Action Plan for the Application of the Precautionary Approach (CNL(99)48)**

- Management objectives should be aimed at maintaining all stocks above their conservation limits by the use of management targets.

**NASCO Guidelines for the Management of Salmon Fisheries - 2009**

- Fishing on stocks that are below CLs should not be permitted. If a decision is made to allow fishing on a stock that is below its CL, on the basis of overriding socio-economic factors, fishing should clearly be limited to a level that will still permit stock recovery within a stated timeframe.
- Mixed Stock Fisheries Management - actions should aim to protect the weakest of the contributing stocks.

**In addition, ICES, the scientific advisor to NASCO, has offered the following:**

- ICES considers that to be consistent with the maximum sustainable yield (MSY) and the precautionary approach, fisheries should only take place on salmon from rivers where stocks have been shown to be at full reproductive capacity.
- Conservation limits for North Atlantic salmon stocks have been defined by ICES as the level of stock (number of spawners) that will achieve long-term average maximum sustainable yield. These CLs are limit reference points; having populations fall below these limits should be avoided with high probability.
- ICES considers that to be consistent with the MSY and the precautionary approach, fisheries should only take place on salmon from rivers where stocks have been shown to be at full reproductive capacity.

**Current Management Objectives for the US and the Scotia-Fundy Region of Canada and Current Status**

- Provision of catch advice on fish exploited at West Greenland – 75% probability of simultaneous attainment of seven management objectives
  - Meet the 2SW CLs for the 4 northern areas of NAC (Labrador, Newfoundland, Quebec, Gulf)
  - Achieve a 25% increase in returns of 2SW salmon from the average returns in 1992-1996 for the Scotia-Fundy and USA regions
  - Meet the MSW southern NEAC CL
- Provision of catch advice on fish exploited within the NAC – 75% probability of simultaneous attainment of six management objectives
  - Meet the 2SW CLs for the 4 northern areas of NAC (Labrador, Newfoundland, Quebec, Gulf)
  - Achieve a 25% increase in returns of 2SW salmon from the average returns in 1992-1996 for the Scotia-Fundy and USA region

<b>Region</b>	<b>Unit</b>	<b>Management objective (number of fish)</b>	<b>CL</b>	<b>Management Objective as % of CL</b>
Scotia-Fundy	2SW Returns	10,976	24,705	44.4%
USA	2SW Returns	2,548	29,199	8.7%

ICES predicts the probability that the 2SW returns to the USA will meet or exceed management objectives in 2012 were 89%. However, even if the prediction was that there was 100% probability that US stocks would meet the management objective stated, it would mean that returns were minimally predicted to be 8.7% of the CL. This falls very short of the NASCO and ICES objective of having all stocks above CLs.

**Recommendation:** NASCO and ICES clearly agree that conservation and rationale management of Atlantic salmon stocks require establishing conservation limits and only allowing fishing on stocks (individually or as part of a mixed stock) which are above their conservation limits. Atlantic salmon in the U.S. and in the Scotia-Fundy region of Canada are extremely depleted and are listed on the Endangered Species Act and the Species at Risk Act, respectively. Fifteen years ago, returns were so low relative to conservation limits, the decision was made to establish management objectives for rebuilding. As noted above, rebuilding targets of a 25% increase in returns were established for the US and Scotia Fundy regions. While these may have been acceptable interim targets during the rebuilding stage, they ultimately are not consistent with the precautionary approach, ICES advice, and previous agreements of NASCO.

*It is recommended that managers and scientists from the US and Canada meet intercessionally to draft a recommendation for more appropriate management objectives for Atlantic salmon stocks in the U.S. and the Scotia-Fundy Region of Canada. The recommendation from this working group would be made during the 2013 annual meeting of the NAC and the WGC with the goal to reach consensus so that the new management objectives could be utilized by ICES in preparing scientific advice, if needed, for the 2014 meeting of NASCO.*