

**The North Atlantic Salmon
Conservation Organization**

*Decision Structure
For Management of
North Atlantic Salmon Fisheries*

***Decision Structure to Aid the Council and Commissions of NASCO and the
Relevant Authorities in Implementing the Precautionary Approach to
Management of North Atlantic Salmon Fisheries***

Introduction

In response to concern about the status of Atlantic salmon stocks, NASCO and its Contracting Parties have 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. Accordingly, NASCO and its Contracting Parties should be more cautious when information is uncertain, unreliable or inadequate and the absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.

To assist in applying the Precautionary Approach to the management of North Atlantic salmon fisheries, the Council of NASCO has developed this Decision Structure which was adopted in 2002. The Decision Structure provides a basis for more consistent approaches to the management of exploitation throughout the North Atlantic range of the species. It proposes the use of reference points such as conservation limits (i.e. the number of spawning salmon below which the stock would decline markedly) and management targets, or other indicators of stock status, to trigger management actions to address any failure in abundance or diversity. It is intended that the Decision Structure be widely applied by managers with stakeholders on salmon rivers. In applying the Decision Structure, management decisions should be taken in accordance with an assessment of risk, such that, in the face of uncertainty, there is a low risk to abundance and diversity of the stock(s). The probability of achieving the management goals should be high. The results of using the Decision Structure should be monitored and evaluated to ensure that the actions taken in managing salmon fisheries are consistent with the Precautionary Approach. The Contracting Parties have agreed to report annually to NASCO on their experiences in applying the Decision Structure and on the extent of its implementation.

Secretary
Edinburgh
14 November, 2002

A. Brief Description of the Fishery(ies):

<i>Date of review:</i>	
<i>Fishery location:</i>	
<i>Gear types:</i>	
<i>Magnitude of fishery (e.g. catch or effort):</i>	
<i>Current management restrictions:</i>	
<i>Outline pre-agreed procedures (or provide references):</i>	
<i>Principal river stock(s) exploited:</i>	
<i>Other fisheries exploiting stock(s):</i>	
<i>Other information:</i>	

*If fishery primarily exploits salmon from only one river answer all questions in Section B;
If fishery exploits salmon from more than one river answer all questions in section C.*

B. Single River Stock Fishery(ies)

B1. Specify the reference points (Conservation Limit and/or Management Target) or alternative measures used to define adequate abundance of the stock.

B2. Describe the status of the stock relative to the abundance criteria in B1.

- Include trends and forecasts of abundance.

B3. Is the stock meeting other diversity criteria (e.g. age structure, run-timing, fecundity)?

- Describe criteria assessed;
- Identify possible reasons for any failure.

Yes/No

B4. Is the fishery(ies) selective for certain stock components (e.g. age groups, size groups, populations)?

- If yes, describe reasons.

Yes/No

B5. Is the stock threatened by factors other than fisheries (e.g. habitat degradation, disease/parasites, predators)?

- If yes, describe threat and management action that will be taken (e.g. establish gene bank; habitat mitigation).

Yes/No

B6. Describe management actions that will be employed to control harvest, including measures that will be used to address any failure or trend in abundance or diversity, taking account of pre-agreed procedures.

- Decisions should take account of: uncertainty in the assessments; abundance of the stock (q. B2); diversity of the stock (q. B3); selectivity of the fishery (q. B4); any non-fishery factors affecting the stock (q. B5); and socio-economic factors; and other fisheries exploiting the stock;
- Describe the expected extent and timescale of effects.

B7. Outline programmes (including in-season programmes) that will be used to monitor the effect of the management measures and identify information deficiencies and timeframe for resolution.

C. Mixed River Stock Fishery

C1. Specify the reference points (Conservation Limits and/or Management Targets) or alternative measures used to define adequate abundance of the exploited stocks.

C2. Describe the status of all stocks relative to the abundance criteria in C1.

- Include trends and forecasts of abundance.

C3. Are all the stocks meeting other diversity criteria (e.g. age structure, run-timing, fecundity)?

- Describe criteria assessed;
- Identify possible reasons for any failures.

Yes/No

C4. Is the fishery selective for certain stock components (e.g. age groups, size, populations, river stocks)?

- If yes, describe reasons.

Yes/No

C5. Are any of the stocks threatened by factors other than fisheries (e.g. habitat degradation, disease/parasites, predators)?

- If yes, describe threat and management action that will be taken (e.g. establish gene bank; habitat mitigation).

Yes/No

C6. Describe management actions that will be employed to control harvest, including measures that will be used to address any failure or trend in abundance or diversity, taking account of pre-agreed procedures.

- Decisions should take account of: uncertainty in the assessments; abundance of the stock (q. C2); diversity of the stock (q. C3); selectivity of the fishery (q. C4); any non-fishery factors affecting the stock (q. C5); and socio-economic factors; and other fisheries exploiting the stock;
- Describe the expected extent and timescale of effects.

C7. Outline programmes (including in-season programmes) that will be used to monitor the effects of the management measures, and identify information deficiencies and the timeframe for their resolution.

Definitions

Population: A group of salmon, members of which breed freely with each other, but not with others outside the group. The smallest group that can be usefully managed.

Stock: A management unit comprising one or more salmon populations. This would be established by managers, in part, for the purpose of regulating fisheries. (The term may be used to describe those salmon either originating from or occurring in a particular area. Thus, for example, salmon from separate rivers are referred to as “river stocks” and salmon occurring at West Greenland may be referred to as the “West Greenland stock”).

Mixed stock fishery: A fishery exploiting a significant number of salmon from two or more river stocks.

Conservation Limits: Conservation limits demarcate the undesirable spawning stock level at which recruitment would begin to decline significantly. The level cannot be used in management without also defining the acceptable probability (e.g. proportion of years) when the stock may be permitted to fall below the conservation limit.

Currently NASCO and ICES define the conservation limit as the spawning stock level that produces maximum sustainable yield. Formerly referred to as Minimum Biologically Acceptable Level (MBAL) or a Spawning Target.

Management Target: The management target is the stock level employed by managers/scientists to aim at in order to achieve the objective of exceeding the conservation limit for the desired proportion of years and for achieving other management objectives. The management target will therefore be greater than the conservation limit with the margin between them at least reflecting the risks, decided by managers, of stocks falling below the conservation limit.