NORTH ATLANTIC SALMON CONSERVATION ORGANIZATION

ORGANISATION POUR LA CONSERVATION DU SAUMON DE L'ATLANTIQUE NORD

P11

Council

CNL(03)36

Report by Iceland on Application of the Decision Structure for the Management of Atlantic Salmon Fisheries to the salmon stock in the index river Vesturdalsá

- A single river stock example

11 Rutland Square Edinburgh EH1 2AS Scotland UK
Telephone: (Int+44) 131 228 2551 Fax: (Int+44) 131 228 4384
e-mail: hq@nasco.int website: www.nasco.int

CNL(03)36

Report by Iceland on Application of the Decision Structure for the Management of Atlantic Salmon Fisheries to the salmon stock in the index river Vesturdalsá - A single river stock example

A. Brief Description of the Fishery(ies):

Date of review:	30.05.2003
Fishery location:	River Vesturdalsa
Gear types:	Rod
Magnitude of fishery (e.g. catch or effort):	Average catch (1974-2002) 226 fish Min 34, Max 513 Effort 1974-1988: 158 rod days Effort 1989-1992: 216 rod days Effort 1993-2002: 225 rod days
Current management restrictions:	Rod fishery from 5 July to 18 September 3 rods/day 12 fishing hours/day
Outline pre-agreed procedures (or provide references):	Historic reference point 1fish/rod/day
Principal river stock(s) exploited:	One
Other fisheries exploiting stock(s):	None
Other information:	R. Vesturdalsa is an Index river. It is relatively small. The information sampled in R. Vesturdalsa will be used as a basis for management of rivers in the Northeastern part of Iceland. Rod catch data is the most likely basis for transferring information between rivers.

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.

In practice, historic reference point (see above).
75% of maximum recruits calculated as CL. Counter is used for calculating stock size and composition (1SW, 2SW) of the run. Log books for recording catch and composition of the catch e.g. sex ratio and number of 1SW and 2SW fish.

Ricker S/R relationship egg to egg or alternatively egg to smolt.

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

- Include trends and forecasts of abundance.

Since 1956 the run has been above CL in 69% of the years. Long-term fluctuations are observed.

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
No other criteria have been set. There has been a downward trend in the 2SW component since around 1984-1985 as in most other Icelandic rivers. Likely explanation is higher ocean M for 2SW fish in the past 15 years. That affects the number of eggs spawned since higher proportion of the 2SW fish are females spawning close to twice the number of eggs/1SW female.

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

- If yes, describe reasons.

Yes/No
Exploitation rate for 1SW is 0.68 (average for 1996-2002) and 0.73 for 2SW for the same period in the rod fishery.

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
Potential threats can be linked to escapees of farmed fish of Norwegian origin raised in sea-cages in the Eastern part of Iceland. No escapees are recorded in R. Vesturdalsa to date. Escapees are likely to be detected since 10% of fish reared in sea cages are tagged with CWT tags.
If the stock will be regarded as threatened measures are likely to be taken.

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.

According to the present status of exploitation and economic importance of the fisheries for landowners, catch and release is the most likely measure. This is likely to give positive results since the fishery is a rod fishery only.

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.

Fish counter estimating the adult run and log book recordings including information on catch and release in the rod fishery are valuable information for estimating management measures. River Vesturdalsa is an Index river providing information also on spawning escapement, survival, juvenile abundance and smolt production.