NORTH ATLANTIC SALMON CONSERVATION ORGANIZATION

ORGANISATION POUR LA CONSERVATION DU SAUMON DE L'ATLANTIQUE NORD

Agenda item 6.8(a)
For information

**Council**

**CNL(02)23**

***Returns Made Under the Oslo Resolution***

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# CNL(02)23

## *Returns Made Under the Oslo Resolution*

1. The Resolution by the Parties to the Convention for the Conservation of Salmon in the North Atlantic Ocean to Minimise Impacts from Salmon Aquaculture on the Wild Salmon Stocks (the "Oslo Resolution") was adopted by the Council in 1994. Under Article 5 of the Resolution each Party is required to provide to the Organization, on an annual basis, information of a scope to be determined by the Council concerning measures adopted under Article 2 (measures to minimise genetic and other biological interactions), Article 3 (measures to minimise the risk of transmission of diseases and parasites to the wild stocks of salmon) and on research and development (Article 4). A format for the return of information was agreed in 1995 and the first returns (covering the calendar year 1995) were presented to the Council at its 1996 Annual Meeting. In 1998 the Council adopted a revised format for the returns by the Parties under the Oslo Resolution so as to ensure that the Organization has available to it comprehensive information concerning the measures in force when deciding if additional measures to those contained in the Oslo Resolution may be necessary.

2. The request for the return of information for the calendar year 2001 was circulated on 4 January 2002. At its 2000 Annual Meeting the Council had agreed that it wished only to be advised of new measures. Therefore measures reported in earlier years have not been reported here but the information returned to the Organization in these and all earlier returns has been incorporated in a database and the information is now available to the Parties if requested. The entries in the database indicate, where appropriate, that while a Party may not have reported any new measures in a particular year, previously reported measures still apply. It should be noted that not all forms of aquaculture are practised by all Parties. Greenland has no aquaculture at all. At the time of preparation of this paper, no return of information for 2001 was available for three EU Member States with salmon interests (France, Spain and Portugal).

Secretary
Edinburgh
3 May, 2002

# 1. General Measures

## 1.1 Sites

### *1.1.1 Sites only to be assigned for aquaculture where hydrographical, epidemiological, biological and ecological standards can be met*

**European Union**

*UK (Northern Ireland)*

Pre-licensing public consultation including mandatory conditions enforced by inspection and/or sampling. Aquaculture licence applications for marine sites also subject to the provisions of the Environmental Impact Assessment (Fish Farming in Marine Waters) regulations (Northern Ireland) 1999 which transpose Council directive 85/337/EEC as amended by Council Directive 97/11/EC.

**Iceland**

Revised aquaculture licensing system.

**Russian Federation**

No federal regulations exist. Regional guidelines have been developed including requirements relating to siting of aquaculture units and transfers of fish in the Murmansk Region. Regional authorities have the authority to issue licences for aquaculture based on these guidelines.

**No new measures reported by the other Parties or the other EU Member States.**

### *1.1.2 Siting of units to avoid risk of damage by collision*

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

### *1.1.3 Adequate marking of aquaculture units*

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

## 1.2 Operations

### *1.2.1 Management of aquaculture units to prevent and control diseases and parasites*

**European Union**

*Ireland*

Implementation of a new Quality Scheme which most farms have signed up to. This sets down protocols with respect to disease control, fish husbandry, etc. The scheme is audited annually by independent assessors who determine whether the desired standard has been achieved or not. Successful enterprises are awarded a Quality mark.

*UK (Northern Ireland)*

High existing fish health status. Only ova can be imported. Twice yearly government inspection and testing every 2 years. Controlled access to sites. Permits required for fish movements.

**Iceland**

Revised aquaculture licensing system and increased enforcement.

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**USA**

An Infectious Salmon Anemia (ISA) Programme was implemented by the US Department of Agriculture Animal Plant Health Inspection Service which establishes procedures for the prevention and containment of ISA from farm-raised Atlantic salmon. As part of this program, indemnity payments will be made to producers provided established procedures and standards are followed.

**No new measures reported by the other Parties or the other EU Member States.**

### *1.2.2 Management of aquaculture units to prevent escape of fish*

**Canada**

Containment Codes are in place or are under development within provinces; they are under provincial jurisdiction. The Newfoundland Code of Containment is being fully implemented. Industry in Nova Scotia has developed a draft Code of Containment.

**Iceland**

Improved enforcement and improved control of sea-cages.

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

## 1.3 Transfers

### *1.3.1 Transfers conducted so as to minimise potential for disease/parasite transmission and for genetic and other biological interactions*

**Iceland**

Improved control of transfers between rearing stations.

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

### *1.3.2 Introduction of mechanisms to control transfers where necessary*

**Canada**

By federal regulation fish may not be introduced to waters without a licence. A National Code for Introductions and Transfers was signed by Provincial and Federal Fisheries and Aquaculture Ministers in Fall 2001. It will ensure uniform application of Risk Analysis evaluation criteria prior to movements of fish. There is an 18-month implementation and review period for the National Code, beginning January 2002.

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

# 2. Measures To Minimise Genetic And Other Biological Interactions

## 2.1 Design standards for aquaculture units

### *2.1.1 Establishment of standards and technical specifications for the design and deployment of aquaculture units (marine and freshwater)*

**Iceland**

Increased enforcement.

**Russian Federation**

In accordance with standards and technical specifications used in Norway.

**No new measures reported by the other Parties.**

### *2.1.2 Optimisation of containment of fish through use of appropriate technology for prevailing conditions*

**Canada**

Containment Codes fully implemented in Newfoundland. Newfoundland Containment Guidelines specify net type and configuration and specify minimum smolt size. Containment codes under development in New Brunswick.

**Russian Federation**

See return under 2.1.1.

**No new measures reported by the other Parties.**

### *2.1.3 Regular routine inspection and maintenance of aquaculture systems and upgrading of equipment as new technological improvements become available*

**Iceland**

Increased enforcement.

**Russian Federation**

See return under 2.1.1.

**No new measures reported by the other Parties.**

### *2.1.4 Regular monitoring and use of efficient security systems*

**Iceland**

Larger marine farms have underwater surveillance systems.

**Russian Federation**

See return under 2.1.1.

**No new measures reported by the other Parties.**

## 2.2 Salmon enhancement

### *2.2.1 Use of local stocks wherever possible*

**European Union**

*UK (Northern Ireland)*

Have been used but are scarce. Genetic profiling of salmon in Foyle catchment is being undertaken and this information will be used in making decisions in relation to viability of restocking/enhancement work.

**No new measures reported by the other Parties or the other EU Member States.**

### *2.2.2 Implementation of criteria for broodstock selection and management*

**European Union**

*UK (Northern Ireland)*

Wild stock held in hatcheries for selection and return of progeny to own waters. In the Foyle, Carlingford and Irish Lights Commission area, where necessary, stocking is on a sub-catchment basis.

**No new measures reported by the other Parties or the other EU Member States.**

## 2.3 Salmon ranching

### *2.3.1 Use of local stocks or alternatively local ranching stocks*

**No new measures reported by any Party.**

### *2.3.2 Harvesting of ranched fish at or close to release site or in fisheries managed in a way that prevents over-harvesting of wild stocks*

**No new measures reported by any Party.**

## 2.4 Salmon farming

### *2.4.1 Use of local broodstocks where practicable*

**Russian Federation**

Smolts originate from Northern Norway.

**No new measures reported by the other Parties.**

*2.4.2 Efforts to recapture escaped farmed salmon*

**No new measures reported by any Party.**

*2.4.3 Establishment of site-specific contingency plan in the event of large escapes*

**Iceland**

Specified in an operating licence.

**Russian Federation**

A contingency plan has been developed for a salmon farm in the Murmansk region, including early notification of escapes and recapture measures.

**No new measures reported by the other Parties.**

# 3. Measures To Minimise Disease And Parasite Interactions

## 3.1 Control and prevention of diseases and parasites

*3.1.1 Aquaculture production process conducted in accordance with appropriate fish health protection and veterinary controls, including the application of appropriate husbandry techniques to minimise risk of diseases*

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**USA**

The ISA Programme includes components to address the risk of ISA.

**No new measures reported by the other Parties.**

*3.1.2 Treatment or removal of diseased stock and measures to ensure diseased fish are not released to the wild*

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**USA**

This factor is addressed in the ISA Programme.

**No new measures reported by the other Parties.**

## 3.2 Stocking density

*3.2.1 Aquaculture production adapted to the site's holding capacity and stocking density should not exceed levels based on good husbandry practices*

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

## 3.3 Removal of dead or dying fish

### 3.3.1 *Removal of dead/dying fish and disposal along with waste materials in an approved manner*

**European Union**

*Ireland*

Routine mortalities are removed regularly by divers. They are generally ensiled on site and stored in an ensiler for collection and subsequent disposal either by rendering or by use as a fertilizer.

*UK (England, Wales and Scotland)*

Disposal of fish from sites with List I (ISA) or List II (VHS and IHN) diseases controlled by official service. Routine mortality disposal is the responsibility of the operator. Disposal must be by incineration or rendering.

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties or the other EU Member States.**

### 3.3.2 *Establishment of procedures for effective removal and disposal of infectious material*

**European Union**

*UK (Scotland)*

Infrastructure continues to be developed (such as strategic location of holding tanks for ensiled waste).

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties or the other EU Member States.**

### 3.3.3 *Establishment of contingency plans for disposal of mortalities from emergency situations*

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

## 3.4 Adequate separation

### *3.4.1 Separation of aquaculture facilities on the basis of a general assessment of local conditions*

**Canada**

In progress. New Brunswick has a recommended minimum separation of 300 m between sites, but the actual separation is usually greater and is dependent on site-specific factors.

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

## 3.5 Year-class separation

### *3.5.1 Rearing of different generations in separate locations where possible*

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

## 3.6 Fallowing of sites

### *3.6.1 Use of a fallowing regime wherever possible*

**Canada**

In progress. Some sites have been fallowed, but the number of infected sites has decreased, so less fallowing has been required.

**European Union**

*UK (England and Wales)*

There would be a compulsory fallow period following any outbreak of a serious notifiable disease.

**USA**

This is contained in the ISA Programme standards.

**No new measures reported by the other Parties or the other EU Member States.**

## 3.7 Use of medicines and disinfectants

*3.7.1 Careful use of medicines and disinfectants in accordance with manufacturers' instructions, Codes of Practice and in compliance with regulatory authorities*

**European Union**

*UK (Northern Ireland)*

In practice. Organic standards maintained.

**No new measures reported by the other Parties or the other EU Member States.**

## 3.8 Lists of diseases

*3.8.1 Lists of prevailing infectious diseases and parasites and methods for control to be maintained by appropriate authorities*

**Russian Federation**

See return under 1.1.1 concerning regional guidelines.

**No new measures reported by the other Parties.**

# 4. Research And Development

## 4.1 Research, small-scale testing and full-scale implementation of:

### *4.1.1 Wild salmon protection areas*

**Iceland**

Prohibition of rearing of fertile salmon close to salmon rivers in accordance with Regulation no. 226/2001.

**No new measures reported by the other Parties.**

### *4.1.2 Sterile salmon*

**Canada**

Development of culture techniques and environmental assessment of triploid salmon is in progress in New Brunswick. Sea cage trials are planned for 2002. No new trials took place in Baie d'Espoir in 2001. It was found that the superior salmon strain used from Washington State produced a superior triploid salmon.

**No new measures reported by the other Parties.**

### *4.1.3 Tagging and marking*

**Iceland**

Minimal micro-tagging of 5% of smolts put into sea-cages.

**USA**

A Workshop was held in Maine to identify and discuss available marking and tagging techniques and technologies. A Working Group was subsequently created with membership from the federal government, state government, conservation organizations and the aquaculture industry. The Working Group has compiled existing information on marking and tagging approaches and laboratory trials have been initiated.

**No new measures reported by the other Parties.**

### *4.1.4 Designation of aquaculture regions*

**European Union**

*UK (Scotland)*

A review of hydrographic definition of aquaculture regions has begun. Research commissioned into aquaculture carrying capacity of coastal waters.

**Iceland**

Feasible by law to designate such regions and specify quantity produced.

**No new measures reported by the other Parties or the other EU Member States.**

### *4.1.5 Alternative production methods (land-based, closed or contained floating facilities and other containment technologies)*

**Iceland**

Advanced land-based technology.

**No new measures reported by the other Parties.**

### *4.1.6 Use of local broodstocks*

**No new measures reported by any Party.**

### *4.1.7 Understanding of genetic interactions*

**No new measures reported by any Party.**

### *4.1.8 Prevention and control of disease and parasites*

**European Union**

*UK (England and Wales)*

Range of governmental funded research programmes.

*Sweden*

The parasite *Gyrodactylus salaris* was found in a Swedish rainbow trout farm located in the border river to Norway, Enningdalsälven. As the parasite is not on the list of notifiable diseases in Sweden, effective measures to avoid spreading the infection to the salmon stock have been difficult to implement.

**Norway**

Studies on DNA vaccines primarily VHS and IHN.

**USA**

The ISA Programme was designed to control ISA.

**No new measures reported by the other Parties or the other EU Member States.**