



Agenda item 5.7(a)
For information

Council

CNL(03)22

Returns Made Under the Oslo Resolution

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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. 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. 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. For 2002, some Parties have also reported on the development of regulations and standards that will come into force in 2003 or 2004. These are not included here since it is assumed that they will be included with the returns for those calendar years. It should be noted that not all forms of aquaculture are practised by all Parties. For example, Greenland has no aquaculture. At the time of preparation of this paper, no return of information for 2002 was available for the Faroe Islands and for some EU Member States with salmon interests (Denmark, France and Spain).
3. The report on the Standing Committee on the Precautionary Approach's meeting on application of the Precautionary Approach to aquaculture, introductions and transfers and transgenics is contained in document CNL(03)17. This report contains reviews by the Parties and the Secretariat on the consistency of NASCO's agreements with the Precautionary Approach and the SCPA's recommendations.

Secretary
Edinburgh
2 May, 2003

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

Canada

New Brunswick and Fisheries and Oceans Canada have been studying the relationship between hydrography and fish health (epidemiology) for ISA.

No new measures reported by the other Parties.

1.1.2 Siting of units to avoid risk of damage by collision

No new measures reported by any Party.

1.1.3 Adequate marking of aquaculture units

No new measures reported by any Party.

1.2 Operations

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

European Union

Ireland

Aquaculture protocols have been agreed for sea lice management, sea lice monitoring, benthic monitoring and fallowing.

Sweden

The parasite *Gyrodactylus salaris* was found in a Swedish rainbow trout farm located on the border river to Norway, Enningdalsälven. The farm is now empty and the permit to cage rear rainbow trout in the system has been withdrawn. This decision has been appealed by the farmer and higher courts have not yet made a final decision.

USA

The US Department of Agriculture (USDA), the Maine Department of Marine Resources (DMR), and industry continue ISA surveillance and epidemiological research at all US farm sites. All aquaculture equipment and vessel traffic is regulated within US and between US and Canada through State fish health regulations.

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. Newfoundland's Code of Containment and Implementation has been updated. Growers bear responsibility of net testing via third party and audits are performed regularly to verify. DFO - Newfoundland has implemented a new Recapture Plan to respond to escapes. Requirements for mooring systems currently under review. Industry in New Brunswick has developed a draft code of Containment.

European Union

UK (Scotland)

Statutory Instrument 2002 No. 193 "The Registration of Fish Farming and Shellfish Farming Business Amendment (Scotland) Order 2002" came into force on 10 May 2002. This Order requires notification of escapes or significant risk of escapes, measures taken to recover the fish and numbers recovered.

USA

All marine and freshwater facilities have developed containment management plans based on a hazard analysis critical control point approach (HACCP). The first round of audits on these plans will be completed by the summer of 2003.

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

1.3 Transfers

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

No new measures reported by any Party.

1.3.2 Introduction of mechanisms to control transfers where necessary

No new measures reported by any Party.

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)*

European Union

Ireland

A policy document on containment has been developed and is undergoing consultations with the industry and Irish authorities.

USA

The containment management system plans mentioned above contain specifications for marine and freshwater facilities. These plans will be included as permit conditions for facilities and will be audited annually.

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

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

European Union

Ireland

A policy document on containment has been developed and is undergoing consultations with the industry and Irish authorities.

UK (Northern Ireland)

Escape contingency plans in place.

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

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

Canada

In Newfoundland, new net-testing guidelines are in effect, reflecting more stringent minimum criteria as exist in British Columbia and Norway.

European Union

UK (Scotland)

Monitoring of compliance with the industry Code of Practice on Containment.

USA

The containment management system requires annual audits of facilities. These audits are to be conducted by an independent third party. Escapes from facilities will also trigger additional audits.

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

2.1.4 Regular monitoring and use of efficient security systems

European Union

UK (Northern Ireland)

Escape contingency plans in place.

UK (Scotland)

Monitoring of compliance with the industry Code of Practice on Containment.

USA

The containment management system plans include regular monitoring of facilities and inventory tracking procedures.

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

2.2 Salmon enhancement

2.2.1 Use of local stocks wherever possible

USA

Recovery efforts for populations of endangered Atlantic salmon include river-specific hatchery programs. In the past the aquaculture industry has assisted wild fish recovery by raising river-specific eggs to smolts and adults to be stocked back to their river of origin.

No new measures reported by the other Parties.

2.2.2 *Implementation of criteria for broodstock selection and management*

No new measures reported by any Party.

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*

European Union

Ireland

Only one Irish hatchery currently producing commercial salmon ova. The remainder are imported from the UK and Iceland.

USA

Draft permit conditions for aquaculture facilities include a prohibition on the use of reproductively viable non-North American strain Atlantic salmon.

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

2.4.2 *Efforts to recapture escaped farmed salmon*

Canada

DFO-Newfoundland has developed a rapid response licensing and recapture policy as a new element under the Code of Containment for marine cage salmonid aquaculture. Salmonid aquaculturists are required to establish stock recapture plans, train staff in the use of recapture gear, report details/causes of escape incidents, initiate recapture efforts within 24 hours of incidents, and maintain logbooks of catches.

European Union

Ireland

No formal procedure but regional authorities respond on the basis of the specific circumstances.

UK (Scotland)

Statutory Instrument 2002 No. 193 "The Registration of Fish Farming and Shellfish Farming Business Amendment (Scotland) Order 2002" came into force on 10 May 2002. This Order requires notification of escapes or significant risk of escapes, measures taken to recover the fish and numbers recovered.

USA

Containment management plans include provisions for emergency response and recapture attempts. The specifics of these plans have yet to be developed and the state and federal resource agencies need to develop a policy on recapture that would guide issuance of permits.

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

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

USA

Each facility-specific containment management plan includes a description of escape response actions.

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

A Programme of veterinary and sanitary control of salmon sea farms has been developed. It includes: regular veterinary and sanitary inspection of farms, examination of reared fish for pathologies (4 times a year), water and feed quality control.

USA

The University of Maine and industry integrated pest management program for sea lice control lowered the treatment threshold from prior years, required physical examination of anesthetized fish, and coordinated treatments. In addition, all US sites were audited by USDA staff for compliance with biosecurity plans and protocols.

In response to ISA outbreaks in Cobscook Bay, a bay management program was previously adopted. Under this program, in 2002 new stocking protocols were implemented allowing only a portion of the Bay to be stocked. In 2003, stocking will be allowed in the other portions of the Bay. No cases of ISA were detected in Maine aquaculture facilities in 2002.

Maine DMR and USDA are working directly with New Brunswick provincial officials to bring the two countries programs into conformance, which includes direct requests for New Brunswick's surveillance and eradication policies to be upgraded to match US standards.

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

No new measures reported by any Party.

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*

European Union

UK (Northern Ireland)

In practice and controlled by organic status.

USA

Maine DMR is tracking stocking densities at all sites through transfer permit requests and monthly harvest reporting.

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

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*

USA

The Maine biosecurity audit program and existing fish health rules contain provisions on the removal of dead and dying fish.

No new measures reported by the other Parties.

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

USA

The Maine biosecurity audit program and existing fish health rules contain provisions on the removal of dead and dying fish.

No new measures reported by the other Parties.

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

USA

The Maine biosecurity audit program and existing fish health rules contain provisions on the removal of dead and dying fish.

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

Newfoundland enforces a minimum 1 km between sites.

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*

Canada

Newfoundland has enforced a single year class site policy for existing and new applicants. New Brunswick has moved towards single year class farming, as well as single year class Bay Management Areas.

USA

The permit issued by the Maine DMR stipulates the phase-out of multi year class stocking by 2004. In addition, the draft discharge permit requires single year class stocking.

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. In New Brunswick, some sites have been fallowed as a tool in reducing the spread of ISA from one year class to another year class. Newfoundland has

traditionally fallowed all sites for a minimum of 5 months, due to movement of sites to avoid ice. Year-round sites must fallow for a year after the production cycle is complete.

European Union

UK (Scotland)

In 2002 a National Development Officer for Area Management was appointed. Synchronous fallowing is an element of Area Management Agreements. The Tripartite Working Group (the Scottish Executive, Fish Farming Industry and Wild Fish Interests) facilitated the development of two new Area Management Agreements, bringing the total to seven.

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*

No new measures reported by any Party.

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*

European Union

Sweden

Gyrodactylus salaris has been included on the list of notifiable diseases.

Russian Federation

Provisional veterinary and sanitary standards for sea cage farms have been developed, which include a list of infectious diseases and parasites and methods for control.

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

4. Research And Development

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

4.1.1 *Wild salmon protection areas*

European Union

UK (Northern Ireland)

Under the EU Habitat Directive it is proposed to designate rivers in the Foyle catchment as Special Areas of Conservation (SACs) for salmon.

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

4.1.2 *Sterile salmon*

European Union

Ireland

Publication of EU-funded research undertaken by University College, Galway, on ocean migration and recaptures of tagged triploid, mixed-sex and all-female Atlantic salmon (*Salmo salar*) released from rivers in Ireland.

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

4.1.3 *Tagging and marking*

European Union

Ireland

300,000 salmon smolts tagged and released in 2001/02 marking season.

UK (Northern Ireland)

Micro-tagging programme commenced on River Finn in 2002.

Iceland

Microtagging 10 % of smolts in large cage rearing stations

USA

Laboratory trials have been conducted on a number of tagging techniques and field trials are now ongoing with otolith marking and coded wire tags. Mandatory marking of aquaculture fish is included in a draft permit for all facilities.

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

4.1.4 Designation of aquaculture regions

No new measures reported by any Party.

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

Norway

Research institute programme on the development of environmental friendly technology (SINTEF).

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

European Union

UK (Northern Ireland)

A programme of genetic sampling has been introduced in the Foyle area.

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

4.1.8 Prevention and control of disease and parasites

Norway

Increased focus on IPN. New parasite discovered on farmed salmon in Finnmark county.

USA

The U.S. Department of Agriculture and National Marine Fisheries Service are continuing disease screening of wild fish. USDA is also conducting environmental

surveillance on the spread of ISAv around infected sites including characteristics of how ISAv spreads and its viability outside of infected fish.

No new measures reported by the other Parties.