



Agenda item 6.3
For information

Council

CNL(00)19

Unreported Catches

Unreported Catches

Introduction

1. At its 1998 meeting the Council agreed that the Parties should be requested to provide, on an annual basis, the following information:
 - i) a description of its management control and reporting systems by country;
 - ii) an explanation of how it arrives at the figure for unreported catch;
 - iii) the extent of catch and release fishing;
 - iv) the measures taken to further minimise the level of unreported catch.
2. The first returns by the Parties of the information detailed above was presented to the Council last year. These returns indicated that all Parties make considerable efforts to obtain detailed and accurate catch statistics, but despite this, catches may be unreported for a number of reasons. Illegal fishing appears to be a particular problem for a number of Parties. The Council had recognised a number of discrepancies in the returns by the Parties. It was agreed that in future the Parties would also be asked to provide an estimate of unreported catch for each country, and that this estimate should be broken down to show the different categories of the unreported catch, indicating whether they result from legal or illegal activities. The Secretary was asked to amend the format for return of information to include these additional questions.
3. In accordance with this decision, the information was requested from the Contracting Parties using the revised format on 13 January 2000. The responses received from the Parties are attached. Where Parties have indicated that there has been no change, we have included the text from last year's return. At the time of preparation of this paper, information has not been received from all EU Member States which have salmon interests. No information is, therefore, available for Denmark, France, Portugal or Spain.
4. It is clear from the information provided by the Parties that a substantial proportion of the total catch goes unreported. In 1999 between 917-1160 tonnes were estimated to be unreported compared to a total reported catch of 2218 tonnes, i.e the estimate of unreported catch was between 41-52% of the reported catch. While a breakdown of unreported catch into legal and illegal components was not available for all countries, it is clear from the information provided that the illegal component may be in the region of 50% of the total estimate of unreported catch, and may be higher than this, although illegal fishing does not appear to be a problem for all countries. A number of measures to further minimise the level of unreported catches have been reported by some countries, but it is clear that this difficult problem remains. One technique which has been used to address the problem of illegal harvests of salmon in some countries is carcase tagging. There is presently increased interest in this technique in a number of countries. The pros and cons of carcase tagging were reviewed by the Council at its meeting in 1992 and if the Council thought it would be useful the

Secretariat might be asked to update this review for consideration at the Eighteenth Annual Meeting.

5. The returns also indicate that the extent of catch and release fishing in Europe is increasing, although this management practice is not used in all countries. Catch and release has been used in some areas of North America since the mid 1980's.
6. The Council is asked to consider what, if any, additional actions it wishes to take in relation to unreported catches. The Secretary will continue to request the information on unreported catches, referred to in paragraph 1 and 2 above, on an annual basis.

Secretary
Edinburgh
10 May, 2000

bureau "Statistics Norway". Sea-fishermen are registered by the County Governor before the fishing season starts. Catch reports from sea fishing are sent directly from each fisherman to Statistics Norway.

Russian Federation

For all types of fishing a licence is issued by the Fishery Protection authorities. For commercial fishing for salmon, and fishing based on "catch and release", a special seasonal day-book is available in which the daily catch statistics are registered. During "catch and retain" fishing the catch statistics are entered on a licence to further submit to the Fishery Protection authorities. Reporting on commercial fishing is practised on a decade basis and that on licensed recreational fishing - after the termination of the season. When the catch statistics are not reported the fishing licence is cancelled.

USA

There is no legal harvest of Atlantic salmon in the United States with the exception of the fishery on the Merrimack River on reconditioned broodstock. Fishermen on the Merrimack River are required to purchase a separate license and fill out a log book.

Commercial fishermen in state and federal waters are required to report catch, including by-catch. This data is entered into a database that can be searched by species, area, gear, etc.

<p>2. <i>Estimate of unreported catch by country, broken down by category and indicating whether the unreported catch is the result of legal or illegal activities.</i></p>
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Canada

Unreported catch estimates were 133 tonnes in 1999. No breakdown of this figure was provided nor whether it was the result of legal or illegal activities but unreported catch is attributed principally to illegal fishing (see paragraph 3.5).

Denmark (in respect of the Faroe Islands and Greenland)

Faroe Islands

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Greenland

Unreported catches are estimated at approximately 10 – 15 tonnes. It is not possible to indicate whether the unreported catch is the result of legal or illegal activities.

European Union

Finland

Unreported catch in-river fisheries 6 tonnes.

Ireland

122 t. Predominantly illegal catch by commercial fishing engines.

Sweden

Approximately 10% (i.e. 1.3 tonnes in 1999). The unreported catch is mainly the result of insufficient reporting because of the national legislation which permits non-professional fishing with a limited number of nets with no mandatory obligation to report the catches. Hence the Swedish unreported catch is mainly the result of legal activities.

UK - England and Wales

35 tonnes. No breakdown of estimate between legal and illegal activities.

UK - Northern Ireland

5 tonnes. No breakdown of estimate between legal and illegal activities. The total unreported catch is estimated from intelligence reports of fishery officers on the ground and catch figures given to scientists by individual netmen on a confidential basis.

UK - Scotland

46 tonnes. No breakdown of estimate between legal and illegal activities.

Iceland

Unreported catch estimated to be 2 tonnes (legal fisheries by-catch).

Norway

Total catch:	1241 tonnes *
Reported catch:	811 tonnes
Unreported catch:	430 tonnes *

* uncertainty \pm 110 tonnes

Estimated breakdown of unreported catches:

Illegal catch in the sea:	110 tonnes
By-catch by commercial sea fishing:	15 tonnes
Legal catch in sea by bag-net and bend net:	90 tonnes
Legal catch in sea by angling:	90 tonnes
Illegal catch in rivers:	15 tonnes
Legal catch in rivers, mainly by angling:	110 tonnes

Russian Federation

Total unreported catch 237-255 tonnes
Legal coastal fishery – 20-30 tonnes
Illegal coastal fishery – 5-10 tonnes
Legal in-river fishery – 12-15 tonnes
Illegal in-river fishery – 200 tonnes (including 160 tonnes of Pechora salmon)

USA

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3. <i>Explanation of how the figure for unreported catch is arrived at.</i>
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3.1 *Absence of a requirement for catch statistics to be collected*

Canada

Denmark (in respect of the Faroe Islands and Greenland)

Faroe Islands

There is no unreported catch (see sections 1 and 2).

Greenland

All catches are landed to local markets, sold privately or kept for home consumption. Due to the scattered nature of the fishery, recordings of the landings are considered incomplete.

European Union

Denmark

Finland

The reporting is voluntary and fishermen underestimate their catch.

Ireland

No.

Sweden

No.

UK - England and Wales

Not applicable.

UK - Northern Ireland

Not applicable.

UK - Scotland

Not applicable.

Iceland

No.

Norway

See attached document. "Description of methods currently used for estimating unreported salmon catches in Norway".

Russian Federation

There is a requirement for catch statistics to be collected from all salmon fisheries.

USA

Commercial fishermen are required to report catches, including by-catch. No Atlantic salmon were reported in records submitted in 1999.

3.2 *Suppression of information thought to be unfavourable*

Canada

Denmark (in respect of the Faroe Islands and Greenland)

Faroe Islands

Greenland

Not available.

European Union

Finland

Ireland

No

Sweden

To some limited degree because of minor catches which are believed not to be reported for tax reasons.

UK - England and Wales

No separate estimate.

UK - Northern Ireland

No separate estimate.

UK - Scotland

A separate estimate is made from intelligence obtained from a number of sources.

Iceland

Yes.

Norway

See attached document "Description of methods currently used for estimating unreported salmon catches in Norway".

Russian Federation

To cut taxes the catch statistics are reduced by salmon fishermen fishing in the coastal zone. To estimate the size of unreported catch by the methods suggested is impossible. According to the estimate from experts, this figure annually constitutes 25-40 t.

USA

3.3 *Local sale or consumption*

Canada

Denmark (in respect of the Faroe Islands and Greenland)

Faroe Islands

Greenland

It has been established that salmon have been sold by persons with no license in the towns of Nuuk, Qaqortoq, Maniitsoq and Narsaq. Catches for home consumption seem to be heavily under-reported.

European Union

Finland

Ireland

An unknown proportion of the unreported catch.

Sweden

Less than 30% of the total unreported catches.

UK - England and Wales

No separate estimate.

UK - Northern Ireland

No separate estimate.

UK - Scotland

A separate estimate is made from intelligence obtained from a number of sources.

Iceland

Yes.

Norway

This is not believed to be a source of unreported catch in Norway.

Russian Federation

This is not believed to be a source of unreported catch.

USA
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3.4 *Innocent inaccuracy in making returns*

Canada
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Denmark (in respect of the Faroe Islands and Greenland)

Faroe Islands
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Greenland

Not available.

European Union

Finland

50-70% of fishermen inform their catch.

Ireland

No.

Sweden

Approximately 25% of the unreported catches are caught by non-professional fishermen with no legal obligation to report their catches because they fish within their own waters.

UK - England and Wales

Rod fisheries - 10%: The Environment Agency has estimated that declared salmon rod catches in England and Wales should be increased by 10% to allow for under-reporting of the legal rod catch. This has been based on a study of catch returns made following reminders. Exceptions to this apply for a number of rivers for which the fishery owners' returns are regarded as more accurate.

Net fisheries - 8%: For net fisheries in England and Wales, the rate of reporting is generally considered to be high in most Regions and this has been supported by the findings of two studies. On the basis of these and opinions on the level of under-reporting in regional net fisheries, collected from Environment Agency fisheries personnel, a figure of 8% has been used for estimating the level of under-reporting of the national net catch. It has been suggested that over-reporting of catches may be occurring in some fisheries, and the north-east coast fishery in particular, in response to continuing rumours about potential future buy-outs (and the perception that compensation will be based on declared catches).

UK - Northern Ireland

No separate estimate.

UK - Scotland

No separate estimate.

Iceland

No.

Norway

See attached document "Description of methods currently used for estimating unreported salmon catches in Norway".

Russian Federation

This is not believed to be a source of unreported catch.

USA

3.5 *Illegal fishing*

Canada

Unreported catch is attributed principally to illegal fishing.

Denmark (in respect of the Faroe Islands and Greenland)

Faroe Islands

Greenland

Not available.

European Union

Finland

Some illegal fishing with drift nets late in season. Illegal gill net fishing in small tributaries.

Ireland

Comprises most of the unreported catch.

Sweden

Probably to some extent but at an insignificant level compared with the total level of unreported catches.

UK - England and Wales

All methods - 12%: Recent estimates of illegal catches, expressed as a percentage of the declared catch, have ranged from 5% to 18% for different Regions. A figure of 12% has been used to estimate the total illegal catch.

UK - Northern Ireland

No separate estimate.

UK - Scotland

Estimates illegal catch from intelligence obtained from a number of sources.

Iceland

Yes.

Norway

See attached document "Description of methods currently used for estimating unreported salmon catches in Norway".

Russian Federation

No new information. According to expert opinion, illegal fishing annually makes up from 50 to 100% of the commercial catch. Calculations based on the assessment of spawners (parent stock) and fry (offspring) indicate that in 1997 illegal fishing on the Tuloma river constituted about 50% of the fish released for spawning.

USA

4. <i>The extent of catch and release fishing</i>

Canada

23,210 small salmon
20,574 large salmon

Denmark (in respect of the Faroe Islands and Greenland)

Faroe Islands

None.

Greenland

None.

European Union

Finland

There is no catch and release fishing.

Ireland

Catch and release is not carried out extensively in Ireland.

Sweden

Catch and release fishing is only practised in a very few rivers in order to improve the protection of females during their most important spawning period. No statistics exist regarding the number of fish that are released.

UK - England and Wales

Provisional estimate - 44% released (5,223 fish). This includes both voluntary and compulsory catch and release.

UK - Northern Ireland

No figure available, but incidence increasing, according to observation.

UK - Scotland

Provisional estimate - 29% of all fish caught by rod licensees.

Iceland

3051 salmon (10% of angling).

Norway

The extent of catch and release fishing is sporadic and accidental.

Russian Federation

11,239 salmon, which was 95.9% of the total catch by rod.

USA

The number of salmon caught and released in Maine in 1999 was 212. The only other sport fishery for Atlantic Salmon in the United States is in the Merrimack River. Under this program, 3,275 surplus broodstock were released in 1999 from the hatchery to provide angling opportunities. This fishery resulted in the catch of 2,707 fish.

5. <i>Any measures taken to further minimise the level of unreported catches</i>

Canada

No measures reported.

Denmark (in respect of the Faroe Islands and Greenland)

Faroe Islands

There is no unreported catch.

Greenland

Official game keepers and inspectors from the GFLK make random checks at local markets in towns and settlements along the west coast. The GFLK have made random checks at hotels, restaurants, butcher's shops, hospitals and schools in various towns in order to compare purchases of salmon with reported catches.

European Union

Finland

In the new fishing agreements for the rivers Teno and Näätamo some stronger measures will be introduced.

Ireland

The recent legalisation (1996) of monofilament netting has reduced the unreported catch in many regions.

Sweden

According to FIFS 1995:23, a mandatory monthly reporting system has been implemented since 1 January 1999, for professional salmon fishing by fishing boats below 10 metres in length. The reporting will hopefully be able to cover the main part of the present unreported catches but any estimation of the catches during 1999 has still not been carried out. In addition the county administrations have increased their efforts to improve the level of reporting from sport fishing.

UK - England and Wales

The Environment Agency continues to issue multiple reminders to rod fishermen who fail to submit returns, and actively pursues missing returns from net licensees who fail to respond.

UK - Northern Ireland

The Salmon Tagging Scheme, when introduced, will provide accurate catch statistics of angling and commercial fishing exploitation.

UK - Scotland

Continuous updating of register of fishery owners.

Iceland

Increased enforcement and educational activities.

Norway

See attached document "Description of methods currently used for estimating unreported salmon catches in Norway".

Russian Federation

No new measures. To minimise the level of unreported catches it has been suggested that commercial fishing conducted in the White Sea coastal areas should be prohibited. However, this suggestion is not supported by the local authorities since it is a traditional fishery for the population of coastal settlements.

USA

Additional wardens were assigned to patrol Atlantic salmon rivers in 1999. In addition, signs were posted to help fishermen distinguish between Atlantic salmon parr and trout.

DESCRIPTION OF METHODS CURRENTLY USED FOR ESTIMATING UNREPORTED SALMON CATCHES IN NORWAY

Main approach

The main approach to estimate unreported catch is to divide total unreported catch into components and then establish estimates for each component in relation to reported catches. Detected trends on the extent of the fishery or catches from one year to another are also taken into account. Total unreported catch is divided into the following components:

- Illegal catches in sea;
- By-catch in marine commercial fisheries;
- Legal catches in sea bag net and bend net;
- Legal catches in sea by angling;
- Illegal catches in rivers;
- Legal catches in rivers, mainly by angling.

Illegal catches in sea

In 1996 a study on illegal fishing in Norway was conducted (ØF-Rapport nr. 23/1996). In the report the extent of illegal fishing in sea and illegal catches are estimated. Information on annual numbers of confiscations of fishing gear and reports of illegal activity, derived from surveillance activities, are used to estimate trends in levels of illegal fishing and illegal catches. Current estimates are based upon this study and detected trends from reports on surveillance activities.

By-catch in marine commercial fisheries

A system for reporting by-catch of salmon in marine commercial fisheries is not established, and the knowledge on by-catches from different types of these fisheries is limited. However, by-catches by marine commercial fisheries in home water are in general not considered to be a major contributor to the total figure of unreported catches. Test fishing by mackerel gill nets, which are considered to be the main problem, has given information about by-catches of salmon in this type of fishery. The current estimate is based upon these studies, reports on the increase or decrease of this fishery and an overall consideration of potential by-catches in other commercial fisheries.

Legal catches in sea by bag net and bend net

The reporting system for legal takes by bag net and bend net has been improved by introduction of catch journals mailed directly to Statistics Norway from the fishermen themselves. The return of catch journals was about 95 per cent for the years 1993-1999 (93 per cent in 1999). A study by Mørkved & Krokan conducted in 1996 entitled "An analysis of Norwegian bag and bend net fishermen" indicates that catches are slightly under-reported. However this study was not specifically designed to explore the potential extent of under-reporting of catches. Current estimates are based on this study and more "common knowledge" of the fisheries, which still gives reason to believe that catches are under-reported.

Legal catches in sea by angling

Although every fisherman has an obligation to “somehow” report salmon catches in the sea by angling to Statistics Norway, there is no system to report these catches. The lack of a system is mainly due to the fact that no license is necessary to participate. Some trial surveys on the extent of legal takes in the sea by angling have been carried out for some rather limited geographical areas such as fjords. In order to try to get an overview of the extent of and catches by this fishery a nationwide study (ØF-rapport nr.7/1997) was conducted in 1996 in co-operation with Statistics Norway. Current estimates are based on these studies.

Illegal catches in rivers

Information derived from reports on surveillance activities is used to estimate trends in levels of illegal fishing and illegal catches in rivers. There is also reason to believe that surveillance activities in rivers by fishing right holders have increased over the last few years due to substantial efforts for better organization and local management of salmon rivers. Illegal catches in rivers are in general not considered to be a major contributor to the total figure of unreported catches. Current estimates are based on these reports and detected trends.

Legal catches in rivers, mainly by angling

The reporting system for legal catches in rivers by angling has been improved due to better organization of fishing right holders and local management of salmon rivers. Several studies conducted in different rivers show that with a catch report return-rate of 30-50%, which is common in Norway, about 60%-75% of the total catch is reported. In many rivers a deposit on fishing licenses has been introduced, which is refunded when catch reports are returned. In these rivers catch-reports are improved and the return-rate of catch reports has risen to 85-95%. However there is still reason to believe that legal takes in rivers are under-reported and current estimates are based on an overall consideration of the facts presented.

