

Agenda item 6.5
For decision

Council

CNL(05)22

Unreported Catches – Returns by the Parties

Unreported Catches – Returns by the Parties

Summary

Management control and reporting systems

1. The information on management control and reporting systems provided since 2000 is presented in Table 1.

Estimates of unreported catch

2. The Council has previously agreed that the Parties should be requested to provide, on an annual basis, information in relation to unreported catches, and has welcomed the progress made in transparent presentation of this information. In 2004, between 593-761 tonnes were estimated to be unreported compared to a provisional declared catch of 2,097 tonnes, i.e. the estimate of unreported catch is between 28-36% of the reported catch. The estimated unreported catch by Party (rounded to the nearest tonne) over the six years for which information is available is as follows:

Year	1999	2000	2001	2002	2003	2004
Canada	133	124	81	84	118	101
Denmark (Faroe Islands and Greenland)	10-15	10	10	11	10	11
European Union	215	240	169	165	125	116
Iceland	2	2	2	2	2	3
Norway	320-540	440-760	500-860	410-690	320-600	252-420
Russian Federation	237-255	249-309	200-252	166-206	99-152	110
USA	0	0	0	0	0	0
Total	917-1,160	1,065-1,445	962-1,374	838-1,158	674-1,007	593-761
Confirmed catch	2,247	2,903	3,066	2,636	2,450	2,097*
% of reported catch	41-52%	37-50%	31-45%	32-44%	27-41%	28-36%

* Note: 2004 catch data are provisional.

How the figure for unreported catch is derived

3. Information on how the figure for unreported catch is estimated by each Party is provided in Table 3.

Catch and release salmon angling

4. More than 144,000 salmon were released following capture in recreational fisheries in 2004. This is an increase of 14% compared to the number released in 2003 (125,600). Catch and release angling is not practised in all countries and in some countries no statistics are available on the extent of its use. The numbers of salmon caught and subsequently released by Party is as follows:

Year	2000	2001	2002	2003	2004
Canada	62,106	58,961	54,425	51,442	57,005
Denmark (Faroe Islands and Greenland)	0	0	0	0	0
European Union	27,346	33,504	32,984	34,968	55,064
Iceland	2,918	3,607	5,576	5,357	7,294
Norway	0	0	0	0	0
Russian Federation	12,624	16,410	25,248	33,862	24,679
USA	0	0	0	0	0
Total	104,994	112,482	118,233	125,629	144,042

5. The figures for the number of salmon caught and released for the EU are based on statistics for the UK (England and Wales and Scotland) until 2004. For 2004, information has also been included for Denmark. In other EU Member States catch and release is either not commonplace or no statistics are available.
6. It should be noted that unlike the return of official catch statistics, in the case of estimates of unreported catches and the number of salmon caught and released there is no requirement to confirm the provisional figures the year after they have been reported to NASCO, although some Parties have done so in some years.

Measures to minimise unreported catches

7. A number of new measures to minimise the level of unreported catch have been reported, including: extensive prosecutions, with heavy penalties, in each province of Canada so as to deter illegal fishing; an initiative in Greenland, prior to the start of the salmon fishery, to increase awareness of the fishery regulations; a specific enforcement campaign in one significant fishery in England and Wales; follow-up of unreturned carcass tags in Northern Ireland; regulatory measures in Iceland prohibiting the net fishery for char in designated areas at certain times so as to prevent by-catch of salmon and protect char stocks; continuing improvements to systems and routines for reporting catches in Norway; and continuation of educational efforts in the US to ensure that anglers can identify Atlantic salmon and are aware of fishery restrictions.

Additional actions

8. The Council has previously noted the continuing progress being made by the Parties in reducing the level of unreported catches and emphasised the need to take stronger measures to minimise the level of such catches. It appears that this progress in reducing the level of unreported catch is being maintained, and new measures to address this problem continue to be introduced. 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 information on unreported catches from the Parties on an annual basis.
9. At the time of preparation of this paper, information had not been received from some EU Member States (Germany, France and Portugal) which have salmon stocks.

Secretary
Edinburgh
11 May, 2005

1. Description of Management Control and Reporting Systems by Country

Party	Year of Return	Description
Canada	2000	Within Quebec, all legally harvested commercial and recreational salmon have to be registered. In the rest of Atlantic Canada, recreational fisheries are estimated by licence stub return systems and surveys. Aboriginal Food Fisheries are either reported by the Native People themselves or estimated by local enforcement staff. This means that all legal fisheries have reporting systems and unreported catches arise mainly from those harvests which are illegal. Unreported catches are generally estimated by local enforcement or scientific staff based on local assessment of illegal activity.
Denmark (in respect of the Faroe Islands and Greenland)		
Faroe Islands	2003	In the Faroe Islands there is currently no reporting system regarding sport fishing for salmon. The Sportfishermen's Association works on estimates of catches for its own purposes. There are plans to introduce a reporting system.
	2005	The recreational rod catch in rivers is limited by a licensing system where fishing licences are sold. The catch is reported to the Faroese Sportfishermen's Association which then informs the Ministry of Fisheries.
Greenland	2000	All commercial catches of salmon must be reported to the Greenland Fishing Licence Control Authority (GFLK) by the fishermen on a daily basis. Catches from the recreational fishery and the fishery for non-residents/tourists must be reported to the GFLK by the fishermen as soon as possible. Only persons licensed for the commercial salmon fishery can sell their catches. The catches from the commercial salmon fishery can only be sold at local markets and local shops, to hotels, schools, hospitals and other public eating places.
European Union		
Denmark	2002	At sea, control is based on registration (logbooks) and landing control. (Denmark has national technical rules but no quota regulations). In rivers, private landowners, in cooperation with angler associations, are responsible for the control of the recreational fisheries.
	2005	The catch statistics in Danish rivers come from local angling clubs on a voluntary basis.
Finland	2000	Recreational fishing catch statistics are well reported (angler response rate was 75%). The total salmon catch is estimated. Local salmon catches (set nets, drift nets, weirs and rod and reel fishing) are requested after the fishing season ends. Fishermen are asked to complete a catch report or answer personally to interviews (out of a total of 800 fishermen, 50-65% report their catch). Reported salmon catches are underestimated by about 20-30%.
Germany	2004	There has been a legal obligation since 1993 for all fishermen to report catches of salmon to the authorities but no management control system has been established.
Ireland	2000	The Department of the Marine and Natural Resources is charged with the enactment and enforcement of fisheries legislation. Authorised officers in seven regional fisheries areas carry out enforcement and fisheries protection. Commercial catch statistics are reported from licensed salmon dealers' registers in all regions except one, where an estimate is made based on sample fishermen's catches. Angling catch returns are not collected systematically and best estimates are made in most regions.
	2002	Until 2000, catch statistics were derived primarily from recorded sales in licensed salmon dealers' registers. An estimate of private sales of legally caught salmon was included in unreported catch estimates. A carcass tagging and logbook system was introduced in 2001. Under this scheme all salmon landed are tagged with the appropriate coloured and coded tag and catch details are recorded in an official logbook. A national database of catch information has been established. Initial analyses indicate a significant increase in the reported catch compared to the previous 5 years due mainly to the inclusion of previously unreported catches and, therefore, a corresponding decrease in the unreported catch.

Party	Year of Return	Description
	2003	The carcass tagging and logbook scheme introduced in 2001 has resulted in an increase in the reported catch in 2002 over the previous five-year period and, therefore, a corresponding decrease in the unreported catch. Up to 2000, the catch statistics were derived from recorded sales by licensed salmon dealers. As a result of the introduction of the carcass tagging and logbook scheme, it is possible to estimate the proportion of the catch not sold through licensed dealers and, therefore, to assess the validity of previous estimates of unreported catch.
	2004	A national database of catch information has been established. The carcass tagging and logbook scheme introduced in 2001 has resulted in an increase in the reported catch for the period 2001-2003 over the previous 5 years and therefore a corresponding decrease in unreported catch. Prior to 2001 catch statistics had been derived primarily from recorded sales in licensed salmon dealers' registers, with estimates of private sales of legally caught salmon included in unreported catches. Preliminary analyses suggest that approximately 30% of salmon caught in 2002 and 2003 were not sold through licensed dealers but were either kept for domestic consumption or sold through retail outlets, hotels, etc. While there is still an element of illegal catch this is thought to be low at present.
Spain	2005	All salmon catches must be reported. Salmon fishing is strongly regulated. For example, in Cantabria and Navarre rod and line fishing only is permitted, all other techniques are prohibited.
Sweden	2000	The level of unreported catches is assumed to be between 5 to 25% of the total catch. The level has been estimated based on the official catch figures collected yearly by the National Board of Fisheries through the mandatory log-books and sales notes regarding the licensed professional fishing, and the county administrations regarding all salmon catches in the coastal area and in the rivers. The county administrations issue fishing licences to fishermen, a condition of which is the submission of a yearly report of all catches. Sport fishing organisations and fisheries management areas managing the salmon fishing through the sale of one-day fishing licences for smaller areas in the rivers are also obliged to report all catches of salmon, including specification of individual length, weight, sex and date of the catch. Even the place of the catch and fishing method used are commonly reported. The information is compiled yearly at the respective county administration's fishing unit and submitted to the Board of Fisheries. The information regarding sport fishing with rod and line and professional fishing with fixed gears is estimated to be quite complete but the catch by the public, because of their right to fish with a limited number of nets, is assumed to be the major part of the Swedish unreported catch.
UK (England and Wales)	2000	All net, fixed engine and rod fishing is subject to licence. All licensees are required to submit a mandatory catch return. The proportion of netsmen submitting returns is usually at, or very close to, 100%, with active follow-up of non-respondents. A lower proportion of rod licensees respond; a postal reminder system operates. Declared catches are adjusted for under-reporting.
	2002	In England and Wales anglers were issued with a second reminder, in respect of catches in the 2001 season, in an effort to reduce the level of unreported catch. No change for net fisheries or in the methodology applied for assessing illegal catches.
UK (Northern Ireland)	2000	Returns from netsmen as a licence condition.
	2002	In Northern Ireland, control of commercial netting and sport angling exploitation in the Foyle, Carlingford and Irish Lights Commission (FCILL) area is in real time based on management targets for salmon. Salmon carcass tagging and logbooks have been introduced for all forms of exploitation. In the Fisheries Conservancy Board (FCB) area a salmon tagging and log book scheme was introduced in 2001 and should provide angling and commercial effort data which has previously been unreported.
UK (Scotland)	2000	Wild resources are policed by the District Salmon Board's bailiff force. Catch return forms are sent to owner/occupiers of the salmon fishery. A reminders system is in place to maximise returns. A return rate of 95% or greater is received annually.
Iceland	2000	Detailed catch statistics for angling. Reliable catch statistic for net fishing in rivers. No legal sea fisheries for salmon.

Party	Year of Return	Description
Norway	2000	The main responsibility for collection and administration of the catch reports lies with the County Governors. The County Governors collect reports at the end of the year from land owners on the rivers. A report from each county is sent to the official 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	2000	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	2000	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.

2. Estimate of unreported catch by country, broken down by category and indicating whether the unreported catch is the result of legal or illegal activities

Party	Estimate (tonnes)	Breakdown												
Canada	101	A result of Illegal activities, with about 43% in marine waters, 41% in rivers and 16% unspecified.												
Denmark (in respect of the Faroe Islands and Greenland)														
<i>Faroe Islands</i>	1.4	The unreported catch is the result of legal activities – recreational rod catches in rivers.												
<i>Greenland</i>	Approx. 10	The reported catches in 2004 are almost 83% higher than in 2003 but the reason for this is not known. The figure for unreported catch is still estimated by the Greenland Institute of Natural Resources to be about 10 tonnes but this is a very rough estimate. In 2004 the Wildlife and Fisheries Officers reported one incident of illegal fishing for salmon. A total of 155 licences were issued to professional fishermen in 2004, but only 22 of these were utilised, according to catch reports.												
European Union														
<i>Denmark</i>	-	No information.												
<i>Finland</i>	10	Negligible illegal catch.												
<i>Ireland</i>	47	Predominantly illegal catch. Approximately 10% of the declared catch.												
<i>Spain</i>	-	No estimate of unreported catch is available but it is considered to be very low because of strict controls on fishing.												
<i>Sweden</i>	Approx. 1.9	Approximately 10% of catch. Largely the result of legal activities in fisheries with no obligation to report catches but poaching probably contributes to a minor extent. It is believed that new fishery regulations in recent years have reduced the proportion of the catch that is not reported.												
<i>UK – England and Wales</i>	33	Estimates are not made for separate categories of unreported catch. The total is calculated using the percentages in Table 3.												
<i>UK – Northern Ireland</i>	0.34													
<i>UK – Scotland</i>	24	Legal and illegal components.												
Iceland	2.6													
Norway	336 (uncertainty ± 84 tonnes)	<table> <tr> <td>Illegal catch in the sea:</td> <td>91 tonnes</td> </tr> <tr> <td>By-catch in commercial sea fishing:</td> <td>14 tonnes</td> </tr> <tr> <td>Legal catch in sea by bag-net and bend net:</td> <td>81 tonnes</td> </tr> <tr> <td>Legal catch in sea by angling:</td> <td>70 tonnes</td> </tr> <tr> <td>Illegal catch in rivers:</td> <td>10 tonnes</td> </tr> <tr> <td>Legal catch in rivers, mainly by angling:</td> <td>70 tonnes</td> </tr> </table>	Illegal catch in the sea:	91 tonnes	By-catch in commercial sea fishing:	14 tonnes	Legal catch in sea by bag-net and bend net:	81 tonnes	Legal catch in sea by angling:	70 tonnes	Illegal catch in rivers:	10 tonnes	Legal catch in rivers, mainly by angling:	70 tonnes
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Illegal in-river fishery:	84 tonnes													
USA	0													
TOTAL	593-761													

3. *Explanation of how the figure for unreported catch is arrived at*

Party	Year of Return	Explanation
Canada	2000	Illegal fishing: Unreported catch is attributed principally to illegal fishing.
	2001	Illegal fishing: Estimates supplied by enforcement staff.
	2003	Illegal fishing: Unreported catches are estimated by enforcement, management and biological staff.
	2005	Illegal fishing: Almost all unreported catch in Canada arises from illegal fishing: estimates are usually provided by enforcement staff, in some cases based on a proportion of the reported catch (the proportion being determined from previous studies) or are current or previous years' estimates based on knowledge of illegal activities in specific fishing areas.
Denmark (FI&G)		
Faroe Islands	2000	Absence of a requirement for catch statistics to be collected: There is no unreported catch.
	2003	Local sale or consumption: The unreported catch is used for local consumption.
	2005	Unreported catches result from legal activities, recreational rod catches in rivers. They arise from an absence of a requirement for catch statistics to be collected and from local consumption.
Greenland	2000	Absence of a requirement for catch statistics to be collected: 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. Suppression of information thought to be unfavourable: Not available. Local sale or consumption: It has been established that salmon have been sold by persons with no licence in the towns of Nuuk, Qaqortoq, Maniitsoq and Narsaq. Catches for home consumption seem to be heavily under-reported. Innocent inaccuracy in making returns: Not available. Illegal fishing: Not available.
	2001	Absence of a requirement for catch statistics to be collected: 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. Suppression of information thought to be unfavourable: Not available. Local sale or consumption: Catches for home consumption seem to be heavily underreported. The catches from the commercial salmon fishery in 2000 were restricted to subsistence use only, and one private company was given permission to purchase salmon from the fishermen for distribution in Greenland. Almost all the catch reports originated from landings to this company in 2000, and only a few of the catches from the commercial salmon fishery are reported to have been sold at local markets, local shops, to hotels, schools, hospitals or other public eating places in comparison with previous years. The short season is probably the reason for this, and is not necessarily an indicator of unreported catches. Innocent inaccuracy in making returns: Not available. Illegal fishing: Official gamekeepers and inspectors from the GFLK have reported incidents of illegal gill net fishing after the closure of the salmon fishery. The inspection of this fishery had high priority after the closure, and due to the very short season (5 days) it is estimated that there were more illegal fishing incidents in 2000 than previous years.
	2003	Absence of a requirement for catch statistics to be collected: All catches must be reported to Greenland Fisheries Licence Control (GFLK). Suppression of information thought to be unfavourable: Not available. Local sale or consumption: Catches are landed to local markets, sold privately or kept for home consumption. Due to the scattered nature of the fishery, recordings of landings are considered incomplete. Innocent inaccuracy in making returns: Not available. Illegal fishing: The unreported catches are mostly legal.

Party	Year of Return	Explanation
	2005	All catches must be reported to the Greenland Fishing Licence Control. Due to the scattered nature of the fishery, effective control by the authorities is impossible within any reasonable effort. Presently there is no reliable method of estimating the magnitude of the unreported catch.
European Union		
Finland	2000	Absence of a requirement for catch statistics to be collected: The reporting is voluntary and fishermen underestimate their catch. Innocent inaccuracy in making returns: 50-70% of fishermen report their catch. Illegal fishing: Some illegal fishing with drift nets late in season. Illegal gill net fishing in small tributaries.
	2003	Absence of a requirement for catch statistics to be collected: Licensed fisheries without requirement to report catch. Extrapolation from reported catch used to estimate total catch. An additional margin has been included in the estimate of unreported catch of 15 tonnes. Illegal fishing Thought to be small but difficult to evaluate. Only a guess-estimate.
	2004	In Finland there are licensed fisheries which are not required to report their catch, but the total catch is estimated by extrapolation from the reported catch. There is negligible illegal catch but suppression of information thought to be unfavourable might also lead to unreported catches.
	2005	Absence of a requirement for catch statistics to be collected: 50% of total, a guess-estimate. Suppression of information thought to be unfavourable: 50% of total, a guess-estimate.
Ireland	2000	Absence of a requirement for catch statistics to be collected: No. Suppression of information thought to be unfavourable: No. Local sale or consumption: An unknown proportion of the unreported catch. Innocent inaccuracy in making returns: No. Illegal fishing: Comprises most of the unreported catch.
	2001	Absence of a requirement for catch statistics to be collected: Not applicable. Returns for all methods are required by law. Suppression of information thought to be unfavourable: May be some element of this in some areas. Local sale or consumption: Most of the unreported catch comes from this category. Innocent inaccuracy in making returns: Not a large part of the estimate. Illegal fishing: Some of the input derives from this category.
	2002	Absence of a requirement for catch statistics to be collected: All catches must be declared in logbooks. Suppression of information thought to be unfavourable: Unlikely given the presumption of buy-outs, quotas or set-asides in recent years. Local sale or consumption: It is obligatory to provide details in logbooks of all disposal of salmon landed in Ireland. Innocent inaccuracy in making returns: A small element of this may occur given that the carcass tagging/logbook scheme was only introduced in 2001. Illegal fishing: Thought to represent most of the unreported catch but still difficult to assess accurately.
	2003	Absence of a requirement for catch statistics to be collected: Not applicable – all catches must be declared in logbooks. Suppression of information thought to be unfavourable: This is unlikely given the presumption of buyouts, quotas or set-aside in recent years. Local sale or consumption: It is obligatory to provide details of all disposals of salmon landed in Ireland. Innocent inaccuracy in making returns: This may occur but will reduce as familiarity with the carcass tagging logbook scheme increases. Illegal fishing: Difficult to assess accurately, based on accounts from local sources (fishery inspectors, fishermen). Thought to represent most of the unreported catch and is believed to be at a low level presently.
	2004	Local sale or consumption was thought to have been a source of unreported catches in the past but since 2001, with the introduction of logbooks, it is obligatory to provide details of all disposals of salmon landed in Ireland.

Party	Year of Return	Explanation
	2005	<p>Absence of a requirement for catch statistics to be collected: Not applicable – all catches must be declared in logbooks by both commercial fishermen and recreational anglers.</p> <p>Suppression of information thought to be unfavourable: This is unlikely in recent years given the anticipation, on the part of some commercial fishermen at least, of the possible introduction in the future of non-transferable quotas or the prospects for the introduction of buyouts, or set-aside schemes.</p> <p>Local sale or consumption: This may have been true in the past but it is obligatory since 2001 to furnish details in the logbook of all disposal of salmon landed in Ireland.</p> <p>Innocent inaccuracy in making returns: This may occur but would not be significant and will reduce as familiarity with the scheme increases.</p> <p>Illegal fishing: This is thought to represent most of the unreported catch which is believed to be at a low level presently (reports from local inspectors).</p>
Spain	2005	<p>Illegal fishing: In Cantabria illegal fishing is estimated and reported by the foresters.</p>
Sweden	2000	<p>Absence of a requirement for catch statistics to be collected: No.</p> <p>Suppression of information thought to be unfavourable: To some limited degree because of minor catches which are believed not to be reported for tax reasons.</p> <p>Local sale or consumption: Less than 30% of the total unreported catches.</p> <p>Innocent inaccuracy in making returns: 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.</p> <p>Illegal fishing: Probably to some extent but at an insignificant level compared with the total level of unreported catches.</p>
	2001	<p>Absence of a requirement for catch statistics to be collected: A large part of the unreported catch.</p> <p>Suppression of information thought to be unfavourable: To some limited degree because of minor catches which are believed not to be reported for tax reasons.</p> <p>Local sale or consumption: Less than 30% of the total unreported catches.</p> <p>Innocent inaccuracy in making returns: Underestimation of catch is probably not a common source of unreported catch.</p> <p>Illegal fishing: This occurs but to a lesser extent than some other categories of unreported catch.</p>
	2003	<p>Absence of a requirement for catch statistics to be collected: A large proportion of the unreported catch.</p> <p>Suppression of information thought to be unfavourable: To some limited degree because of minor catches which are believed to be unreported for tax reasons.</p> <p>Local sale or consumption: Less than 30% of the total unreported catch.</p> <p>Innocent inaccuracy in making returns: Under-estimation of catch is not a common source of unreported catches. Catches are as likely to be over-estimated.</p> <p>Illegal fishing: Important factor in a few rivers and river mouths where illegal fishing may occur without proper control of the fishery.</p>
	2005	<p>Absence of a requirement for catch statistics to be collected: A major factor behind unreported catch.</p> <p>Suppression of information thought to be unfavourable: Unlikely to be important.</p> <p>Local sale or consumption: Less than 30% of total unreported catches.</p> <p>Innocent inaccuracy in making returns: Underestimation of catch is not a common source of unreported catches. Catches are as likely to be overestimated.</p> <p>Illegal fishing: Important factor in a few rivers and river mouths where illegal fishing may occur without proper control of the fishing.</p>

Party	Year of Return	Explanation
UK (England and Wales))	2000	<p>Absence of a requirement for catch statistics to be collected: Not applicable.</p> <p>Suppression of information thought to be unfavourable: No separate estimate.</p> <p>Local sale or consumption: No separate estimate.</p> <p>Innocent inaccuracy in making returns: 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).</p> <p>Illegal fishing: 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.</p>
	2001	<p>Absence of a requirement for catch statistics to be collected: Not applicable.</p> <p>Suppression of information thought to be unfavourable: No separate estimate.</p> <p>Local sale or consumption: No separate estimate.</p> <p>Innocent inaccuracy in making returns: Rod fisheries – 10% of declared catch based on a study of catch returns made following reminders. Net fisheries – 8% of declared catch (with the exception of the North-East coast fishery for which no correction was applied in 2000).</p> <p>Illegal fishing: All methods – 12% of total declared catch.</p>
	2003	<p>Absence of a requirement for catch statistics to be collected: Not applicable.</p> <p>Suppression of information thought to be unfavourable: 6% of declared net catch.</p> <p>Local sale or consumption: No separate estimate.</p> <p>Innocent inaccuracy in making returns: Figure of 10% of declared rod catch; may be reviewed in the light of issuing second reminders in 2001 and 2002.</p> <p>Illegal fishing: 12% of total declared catch.</p>
	2005	<p>Absence of a requirement for catch statistics to be collected: Not applicable.</p> <p>Suppression of information thought to be unfavourable: No separate estimate – included in the overall total.</p> <p>Local sale or consumption: No separate estimate – included in the overall total.</p> <p>Innocent inaccuracy in making returns: Rod fisheries 10% of declared catch (may be reviewed in future in light of results from the issue of a second reminder to anglers in the period 2001 to 2004). Net fisheries 8% of declared catch.</p> <p>Illegal fishing: All methods – 12% of total declared catch.</p>
UK (Northern Ireland)	2000	<p>Absence of a requirement for catch statistics to be collected: Not applicable.</p> <p>Suppression of information thought to be unfavourable: No separate estimate.</p> <p>Local sale or consumption: No separate estimate.</p> <p>Innocent inaccuracy in making returns: No separate estimate.</p> <p>Illegal fishing: No separate estimate.</p>

Party	Year of Return	Explanation
	2001	<p>Absence of a requirement for catch statistics to be collected: 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.</p> <p>Suppression of information thought to be unfavourable: No separate estimate.</p> <p>Local sale or consumption: No separate estimate.</p> <p>Innocent inaccuracy in making returns: No separate estimate.</p> <p>Illegal fishing: No separate estimate.</p>
	2005	<p>Innocent inaccuracy in making returns: Yes.</p>
UK (Scotland)	2000	<p>Absence of a requirement for catch statistics to be collected: Not applicable.</p> <p>Suppression of information thought to be unfavourable: A separate estimate is made from intelligence obtained from a number of sources.</p> <p>Local sale or consumption: A separate estimate is made from intelligence obtained from a number of sources.</p> <p>Innocent inaccuracy in making returns: No separate estimate.</p> <p>Illegal fishing: A separate estimate is made from intelligence obtained from a number of sources.</p>
	2005	<p>Absence of a requirement for catch statistics to be collected: Not applicable.</p> <p>Suppression of information thought to be unfavourable: Guess-estimate.</p> <p>Local sale or consumption: Guess-estimate.</p> <p>Innocent inaccuracy in making returns: Guess-estimate.</p> <p>Illegal fishing: Guess-estimate.</p>
Iceland	2000	<p>Absence of a requirement for catch statistics to be collected: No.</p> <p>Suppression of information thought to be unfavourable: Yes.</p> <p>Local sale or consumption: Yes.</p> <p>Innocent inaccuracy in making returns: No.</p> <p>Illegal fishing: Yes.</p>
	2001	<p>Absence of a requirement for catch statistics to be collected: Catch statistics are required by law.</p> <p>Suppression of information thought to be unfavourable: Information on catches in coastal and marine salmon fisheries which are prohibited tends to be suppressed.</p> <p>Local sale or consumption: Some local consumption and limited sale.</p> <p>Innocent inaccuracy in making returns: Not a source of unreported catch.</p> <p>Illegal fishing: Some coastal fishing with illegal mesh-sizes. By-catch in marine fisheries for haddock, etc.</p>
Norway	2000	<p>Absence of a requirement for catch statistics to be collected: See document "Description of methods currently used for estimating unreported catches in Norway" in Annex 1.</p> <p>Suppression of information thought to be unfavourable: See document "Description of methods currently used for estimating unreported catches in Norway" in Annex 1.</p> <p>Local sale or consumption: This is not believed to be a source of unreported catch in Norway.</p> <p>Innocent inaccuracy in making returns: See document "Description of methods currently used for estimating unreported catches in Norway" in Annex 1.</p> <p>Illegal fishing: See document "Description of methods currently used for estimating unreported catches in Norway" in Annex 1.</p>

Party	Year of Return	Explanation
Russian Federation	2000	<p>Absence of a requirement for catch statistics to be collected: There is a requirement for catch statistics to be collected from all salmon fisheries.</p> <p>Suppression of information thought to be unfavourable: 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.</p> <p>Local sale or consumption: This is not believed to be a source of unreported catch.</p> <p>Innocent inaccuracy in making returns: This is not believed to be a source of unreported catch.</p> <p>Illegal fishing: 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.</p>
USA	2000	<p>Absence of a requirement for catch statistics to be collected: Commercial fishermen are required to report catches, including by-catch. No Atlantic salmon were reported in records submitted in 1999.</p>
	2003	<p>Absence of a requirement for catch statistics to be collected: As a condition of having a federal fishing permit, reporting of bycatch is required. There were no reports of Atlantic salmon in the mandatory logbooks completed and returned by fishermen. In addition, observers are placed on some fishing vessels to provide a third-party estimate of bycatch. No observers documented a bycatch of Atlantic salmon in any fishery in 2002.</p> <p>Suppression of information thought to be unfavourable: There is no evidence that this is occurring. In the past, there have been reports made of Atlantic salmon bycatch.</p> <p>Local sale or consumption: There is no evidence that this is occurring.</p> <p>Innocent inaccuracy in making returns: Fisheries observers are trained in species identification, which should reduce the potential for misidentification.</p> <p>Illegal fishing: On occasion, there are reports of potential recreational poaching in the rivers. When such reports are made, law enforcement personnel increase their presence on the river. There were no documented poaching activities in 2002.</p>
	2005	<p>Absence of a requirement for catch statistics to be collected: As a condition of having a federal fishing permit, reporting by-catch is mandatory. There were no reports of Atlantic salmon in the mandatory logbooks completed and returned by fishermen; however, one dealer reported Atlantic salmon by-catch of 25lbs. In addition, observers are placed on some fishing vessels to provide a third-party estimate of by-catch. No observers documented the by-catch of Atlantic salmon in any fishery in 2004.</p> <p>Suppression of information thought to be unfavourable: There is no evidence that this is occurring. In the past, there have been reports made of Atlantic salmon by-catch by fisherman.</p> <p>Local sale or consumption: The Atlantic salmon bycatch referred to above was valued at \$125.00. There is no evidence, however, that Atlantic salmon are being illegally targeted and sold for local consumption.</p> <p>Innocent inaccuracy in making returns: Fisheries observers are trained in species identification, which should reduce the potential for misidentification.</p> <p>Illegal fishing: There have been reports of potential poaching in the rivers in Maine; however, it is infrequent and in some cases it could not be confirmed by law enforcement and therefore never prosecuted. When such reports are made law enforcement personnel increase their presence on the river. In 2004, NOAA Fisheries and the USFWS developed a cooperative agreement with the Maine Atlantic Salmon Commission (ASC) to increase enforcement on rivers within the GOM DPS. Under this agreement, the ASC was awarded a \$10,000 grant from NOAA Fisheries to implement a more effective and ambitious enforcement program. The new enforcement plan includes: increased patrols by the Maine Warden Service on rivers within the GOM DPS that have listed salmon populations; increased coverage by the Warden Service during critical time periods such as during stocking activities, adult out-migration, and when salmon are pooled up in cool water; and installation of cameras in key areas to document activity when Wardens are not in those areas. A USFWS enforcement agent will also be working closely with the Warden Service to implement the new enforcement program.</p>

4. *The extent of catch and release fishing*

Party	Estimated Number Released	Comment
Canada	57,005	32,344 small salmon (generally 1SW) and 24,661 large salmon (generally MSW salmon). This information is usually estimated from angler reports.
Denmark (in respect of the Faroe Islands and Greenland)		
<i>Faroe Islands</i>	0	No catch and release fishing.
<i>Greenland</i>	0	
European Union		
<i>Denmark</i>	255	Of 1,070 salmon caught in 2004, 255 were released in the river.
<i>Finland</i>	Negligible.	
<i>Ireland</i>	No statistics available.	Catch and release is only mandatory on a small number of rivers although it may be practised by individual anglers in other areas voluntarily.
<i>Spain</i>	No statistic available.	In general salmon returned are not declared. In Navarre, catch and release fishing in the Bidesoa river is uncommon.
<i>Sweden</i>	No statistics available.	Catch and release fishing is practised in a few rivers in order to improve the protection of females before and during the spawning period. The practice of catch and release fishing is likely to increase.
<i>UK - England and Wales</i>	12,379	Provisional estimate for 2004 is 48% of rod-caught fish released (including voluntary and compulsory catch and release). Agreements (both formal and voluntary) have been reached for some rivers in southern England for the release of all fish caught by anglers.
<i>UK - Northern Ireland</i>	No statistics available.	Unquantifiable, but reports suggest that there has been a considerable increase in catch and release fishing.
<i>UK - Scotland</i>	42,430	50% of all rod-caught salmon. Catch and release figures are required in the statutory annual catch returns made by the owners and operators of salmon fisheries. Confirmed figure for 2003 is 28,987 salmon released.
Iceland	7,294	16% of all rod-caught salmon.
Norway	0	The extent of catch and release fishing is sporadic and accidental.
Russian Federation	24,679	75.6% of the total recreational catch. This information is based on catch reports sent to the relevant authorities.
USA	0	There is no directed catch and release fishing for sea-run Atlantic salmon in the US. However, there is a limited catch and release fishery for reconditioned broodstock in both the Connecticut and Merrimack river systems.
TOTAL	144,042	

5. Any measures taken to further minimise the level of unreported catches

Party	Measures taken
Canada	No new measures but extensive prosecutions in each province, that could be documented, with those found guilty having to pay stiff fines. This should act as a deterrent to such activities.
Denmark (in respect of the Faroe Islands and Greenland)	
<i>Faroe Islands</i>	No new measures.
<i>Greenland</i>	In August 2004, the Organization of Small Fishermen and Hunters produced a short article about the regulations concerning the upcoming salmon fishery in their member magazine. No other new measures.
European Union	
<i>Denmark</i>	No new measures.
<i>Finland</i>	No new measures.
<i>Ireland</i>	No new measures.
<i>Sweden</i>	No new measures.
<i>UK - England and Wales</i>	No new general measures. Specific enforcement campaign carried out in one significant fishery.
<i>UK - Northern Ireland</i>	No new measures. The introduction of a tagging scheme for angling and commercial fishing in 2002 and the follow-up of unreturned tags.
<i>UK - Scotland</i>	No new measures.
Iceland	Regulatory measures were introduced in 2004 which prohibit net fishing for char in designated areas at certain times so as to protect char stocks and prevent by-catch of salmon.
Norway	In recent years systems and routines for reporting catches have gradually improved in many salmon rivers, including many of the major sport-fishing rivers. The measures taken include introducing deposits in relation to catch reports, employing data technology to support the collection and compilation of catch reports and increasing general awareness of the importance of more accurate catch reporting among fishermen. These improvements have led to a considerable reduction in unreported catches from angling.
Russian Federation	No new measures.
USA*	Educational efforts are continuing to ensure that recreational anglers can identify Atlantic salmon and are aware of the fishing restrictions. Particular emphasis has been placed on distinguishing between trout and juvenile Atlantic salmon to reduce bycatch at the early life stages.

* Unreported catch estimated to be zero.

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 the sea;
- By-catch in marine commercial fisheries;
- Legal catches in sea bag net and bend net;
- Legal catches in the 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 the sea and illegal catches is 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 licence 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 licences 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.