

Council

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Unreported Catches – Tabled by EU (Ireland)

Estimating unreported catches for Irish salmon fisheries

Introduction

There are seven designated salmon fishing regions around the Republic of Ireland with a total of 17 separate salmon fishing districts. Up to 2000, official catch statistics were collected by staff of the Regional Fisheries Boards from records of licenced salmon dealers registers. In 1995, rod catch statistics were improved by the Regional Fisheries Boards and collated by the Central Fisheries Board. From 2001 to 2006, catches have been estimated directly from mandatory log book reporting from the commercial and recreational sectors. All fishermen (commercial and rod) are now obliged to tag their catch with locking coded strap tags indicating the region, year and method of capture and to record details of the catch in a logbook. These logbooks must be returned to the Central and Regional Fisheries Boards who collate the information and report the annual catch statistics (Central Fisheries Board, 2006).

Catch statistics for the Foyle Fisheries Area are provided by the Foyle and Carlingford and Irish Lights Commission (The Loughs Agency), a cross boarder organisation with Northern Ireland. Traditionally, half of the drift net and draft catch declared by the Agency is attributed to fishermen in the South of Ireland for statistical purposes while the other half is included with the declared catch for Northern Ireland.

These data have been collated into a national data set by the Marine Institute for the period 1970 to present.

Methods of estimating unreported catches

Unreported catches can be broken into two broad categories i.e. legal unreported catch and illegal unreported catch. They can also be split broadly between commercial unreported catches and recreational unreported catches.

Commercial catches

Prior to 2001, it was not possible to systematically separate out the legal from the illegal unreported catch in Ireland and in recent years a range (maximum and minimum) of values has been used for assessment and modelling purposes. These estimate have always been made contemporaneously during the season when catches were being landed and in a number of ways.

Local observation during catch scanning of coded wire tags since 1980 provide some information as to number of fish available relative to those declared

and

Information from local inspectors as to level of illegal activities were also used in the final estimate.

With the introduction of the carcass tagging and logbook programme this has provided for the first time, an estimate of the previously unrecorded legal catch in Ireland. Return rate of logbooks has exceeded 95% since 2001 and has generally exceeded 98% returns. Also, since 2001, the disposal of the catch must be reported in the commercial logbooks according to the following categories:

Domestic Consumption	Guesthouse B&B	Hotel	Licensed Dealers	Private sales	Restaurant	Unknown	Retail Outlet
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This has provided important information on legal catch previously unreported. In previous years, catch statistics mainly derived from a collation of the licenced dealers records only (except in the Eastern Region where it was based on sample fishermen's reports) and therefore fish disposed of through the other outlets above were not recorded in the official landings but as part of the "unreported" catch.

Assuming that the fishing activities remained relatively similar over recent years, the difference between the estimates of total catch up to 2000 from dealers registers alone and from 2001 on (assuming no major change in the distribution practices of the fishermen after the introduction of the carcass tags) of the extra fish disposed of in other outlets provides an indication of the magnitude of legal unrecorded catch in recent years. Whether this also provides an indication of unrecorded catch over a longer time period depends on how much the fisheries have changed over time in each district. Overall, the estimated percentage of the national catch not recorded in dealers registers was approximately 30% from 2002 to 2006.

The illegal unreported catch is now thought to be relatively small due to the difficulties of distributing untagged salmon in large numbers and the scarcity of salmon in general which command high prices in legal outlets. Most Regional authorities do not believe that there is more than 1 illegally caught salmon to every 10 legally caught salmon and the maximum and minimum range now applied is between 5 and 10% (and includes angling illegal unreported catch).

Recreational unreported catches

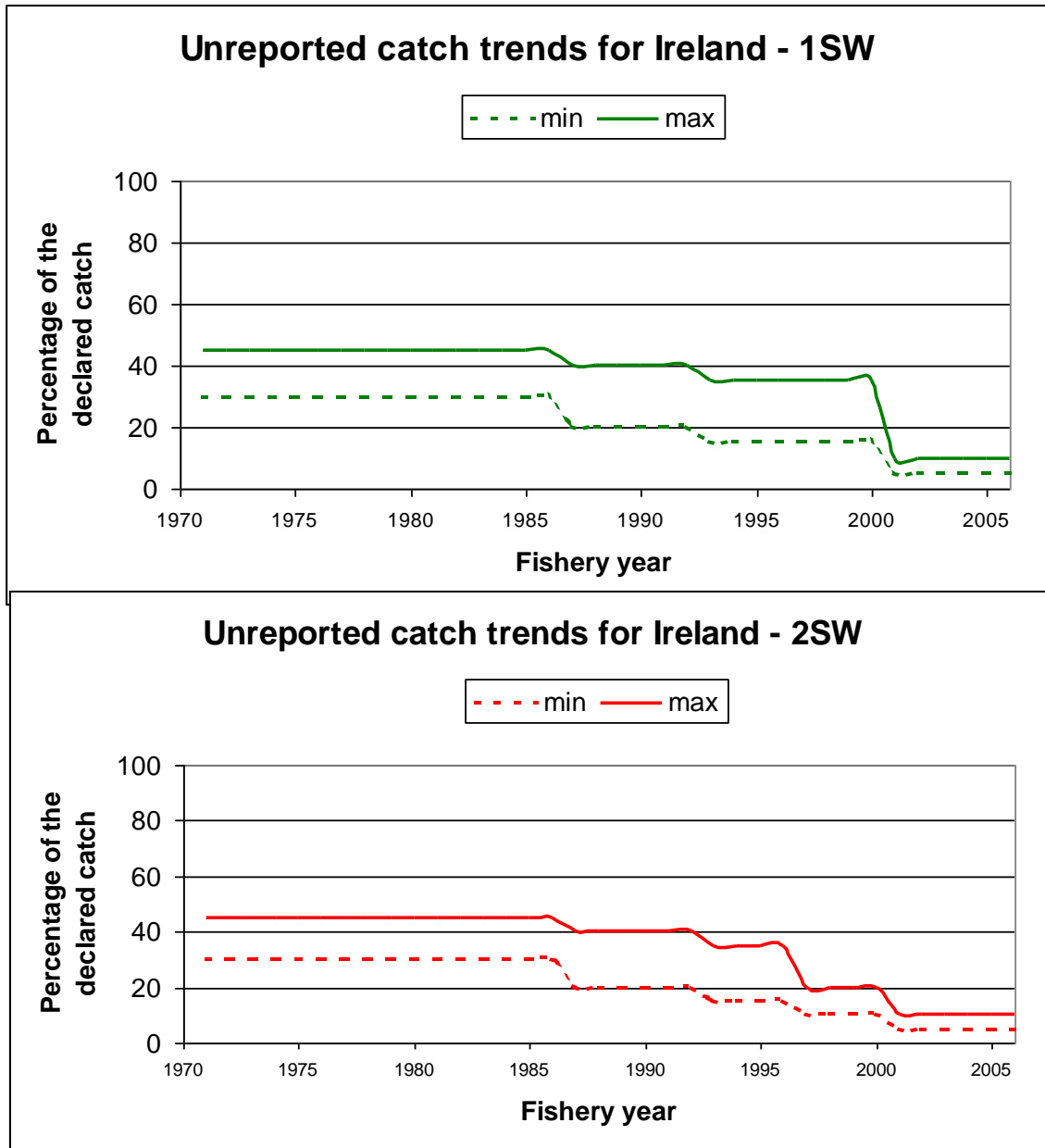
The unreported angling catch has been included in the one national estimate (or range of estimates) rather than being calculated separately. This is due to the difficulty in estimating this on a systematic basis. In fact, the declared estimate of rod catch was greatly improved by the Central Fisheries Board after 1995.

The return of angling logbooks has been increasing over the period 2001 to 2006 and about 68% of anglers now return logbooks. In this instance a raising factor is applied to provide an estimate of the total catch by district (Small, 1991). The rate of unreported illegal catch currently has not been assessed.

Trend in unreported catch

In analyses used to provide catch advice, the rate of unreporting is an important input in the estimation of Conservation Limits and Total Allowable Catch. The values currently used for the National model analyses (ICES 2007) assume an unreported range from 30 to 45% up to 1986, 20 to 40% up to 1992, 15 to 35% up to 2000. These changes are generally associated with changes to fisheries management

practices (season, gear, area restrictions etc). From 2001 on a 5 to 10% range was adopted due to the incorporation of the extra information from the carcass tagging and logbook scheme. In the absence of specific information prior to 2001, it seems likely that the estimates of unreported catch were a relatively good approximation for most years although the actual fluctuations over time cannot be ascertained.



References

ICES 2007 Report of the Working Group on North Atlantic Salmon. ICES CM/07 XX. Copenhagen

Small, I. 1991. Exploring data provided by angling for salmonids in the British Isles. In : Catch effort sampling strategies (ed. I.G. Cowx), pp 81-91. Fishing News Books, Oxford