

Discarding

A further unintended consequence of TAC management has been substantial unaccounted discarding. Within the EU discarding is legal, so rather than having TAC regime, a TAL (Total Allowable Landings) system exists and the discarded component of the catch is unregulated and unrecorded.

The economic realities of fishing dictate that fishermen must continuously maximize the value of the landed catch. In practice this will involve discarding of low value species and size grades whilst retaining the most profitable components of the catch for landing. As with unaccounted landings this also leads to substantial biases in stock assessments and forecasts.

Although scientific programmes have been developed in many countries to estimate discarding rates, scientists are becoming increasingly aware that to do this accurately is extremely difficult. Discarding patterns are also very fleet specific and incomplete coverage of sampling in space and time means that the use of available discard data in stock assessments is not always possible.

Fishers, managers and scientists need to investigate and implement mechanisms to more effectively estimate discarding where it is having a significant impact on the ability to accurately estimate stock trends.

Conclusions

Misreporting and discarding are currently major issues for scientists that carry out international stock assessments. There are increasing concerns among scientists about the accuracy of scientific advice for a number of critical stocks as a result of poor discard and catch data. In a regime where stock size is low and exploitation is high, there is a real danger that management may not be sufficient to prevent stock collapses. There is now an urgent need to move to lower fishing mortality in the medium term. In addition the systemic problems of misreporting and discarding need to be addressed as a matter of urgency.

Misreporting and Discarding are very difficult issues that urgently need to be addressed. The need for scientists, industry and managers to work closely together is now greater than ever.

The Fisheries Science Services Team

In order to ensure the sustainable harvesting of the fisheries resources, it is essential that management is underpinned by sound marine science that is clear, transparent, timely, impartial and inclusive.

The Marine Institute's Fisheries Science Service Team works closely with the fishing industry to provide this marine science through.

- Research Vessel Surveys (Acoustic, Groundfish, Egg and Larval Fish, Underwater TV)
- Surveys on Commercial Vessels
- Market Sampling of Landings
- Discard Sampling at Sea
- Analysis of Logbook Data
- Studies on the Biology of Fish
- Working with the Regional Advisory Councils (RAC's)
- Articles in the trade press
- Working with our international scientific colleagues
- Regular meetings with Industry Representatives and DCMNR
- Regular Meetings with EU

This information is essential to our understanding of the current state of the fisheries resources and the ecosystem in which they live.

More detailed information, as well as similar leaflets on related issues are available from

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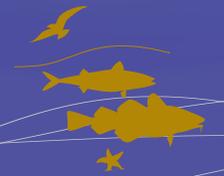
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The Issue

The quality of the international stock assessments carried out by scientists are directly linked to the quality of the fisheries data they use. In recent years, scientists have expressed great concern over the poor quality of catch data from most of the important fisheries in the EU area. Although scientists have been struggling with the problem for many years, the problem has become more acute in recent years. In 2005, it was not possible to carry out stock assessments for a number of key stocks in EU waters (including the waters around Ireland) because of the poor quality of the catch data. The issues of 'misreporting and discarding' are now a serious problem for the scientific community and need to be urgently addressed.

Misreporting

The conservation and management of many international fish stocks are being undermined by increasing levels of illegal, unreported and unregulated (IUU) fishing. The United Nations have reported that IUU fisheries threaten responsible fisheries management within the EEZ (Exclusive Economic Zones) of coastal states through activities such as fishing without authorisation, fishing in a manner contrary to the authorisation, failing to report catches or failing to accurately and fully report them.



when quotas are being reduced, but economic imperatives remain to maintain catches. It is also an inherent problem that practices of misreporting may develop when TAC regulations are not effectively implemented.

Misreporting is a major problem in many Northeast Atlantic fisheries and may occur in the following ways:

Area misreporting where landings are reported into area other than where the fish were caught.

Species misreporting where one species is reported as another.

Under or over reporting where the quantities landed are purposefully under or over recorded.

Non reporting where none of the landings quantities are reported.

Illegal fisheries where vessels fish but their activities are not documented in anyway.

The majority of stock assessments methods used by EU scientists assume the landings data are exact. Increasingly, through direct and indirect observations scientists are becoming aware that this is very often not the case. In some case misreporting is such a problem that the assessments (on which scientific advice is based) cannot be carried out.

Open and transparent handling of misreporting data has been particularly problematic for scientists and is not always consistent across stocks, fisheries and countries. Often misreporting data available to the scientific community are qualitative rather than quantitative. Where quantitative estimates exist they tend to be limited in sample size and may not be representative or precise and cannot be used to accurately adjust reported landings.

Catch controls are the most effective way of adjusting fishing mortality in a fisheries management system. However, there are strong incentives for fishermen to misreport landings, especially in a period

The need for increasing transparency creates problems for fisheries scientist as misreporting estimates, if transparently described, could be used for control and enforcement rather than scientific purposes. If this situation develops then fleets or vessels where data exists on misreporting may be prosecuted whereas fleets or vessels where no data exists but where misreporting might also be as prevalent continue operations with impunity.

The Vicious Cycle

In the case of misreporting where stock assessments and catch forecasts are based on input catch data that are lower than real catches then a 'vicious cycle' may develop. This cycle is shown below. When misreporting cannot be estimated accurately and underestimates of catch data are included in stock assessments, the result will be inaccurate scientific advice. This results in even more restrictive TAC's which leads to increased misreporting.

Over time it becomes impossible to establish the real stock situation and for scientists to advise on sustainable catches. In this situation, a TAC regulation is not adequate to regulate fishing mortality. Increasingly, scientists have begun to recommend input controls (mainly effort) accompanied by measures to effectively record catches in attempt to break this 'vicious cycle'. Scientists believe that effort control can be very effectively regulated through limitation of days-at-sea and used of new technologies such as VMS.

The Vicious Cycle of Misreporting

