

**THE JOINT NAMMCO-ICES WORKSHOP
ON BY-CATCH MONITORING**

28 June – 1 July 2010, ICES, Copenhagen, Denmark

REPORT

EXECUTIVE SUMMARY

The Workshop was the result of an initiative from the North Atlantic Marine Mammal Commission who had expressed a wish to improve fishery by-catch monitoring among its Member States. Recognising that this is an area where the International Council for the Exploration of the Sea holds some expertise, a joint workshop was agreed with the aim of developing guidelines describing best practice for conducting marine mammal and seabird by-catch monitoring.

The workshop consisted of a series of informal invited presentations on a range of topics covering the agenda agreed by a joint NAMMCO/ICES steering group. Each presentation was followed by a group discussion focusing on the relevant topic. It was agreed that a manual providing guidelines for best practice would be drawn up after the workshop and would be published in the ICES Co-operative Research Report Series.

By-catch monitoring is mandated under several national and international laws and agreements on both sides of the Atlantic and further afield. Schemes to monitor by-catch play an important role in the development towards and process of managing the oceans from an ecosystem perspective.

Usually by-catch monitoring is addressed through direct on board observer schemes, but these can be expensive to implement, particularly in the early exploratory phase when by-catch levels are not known and early sampling effort may be focused in inappropriate areas. In such cases there are a number of other less direct approaches that can be used to obtain some initial information about possible by-catch levels.

Indirect approaches include the collection of anecdotal accounts, the systematic examination of dead stranded animals or those found floating at sea, the examination of live animals by photo-monitoring for evidence of past entanglements, interviews of fishermen, collection of fishery logbook data, and through 'parasitising' or piggybacking on other research programmes.

Wherever possible, results from any of these methods should be compared with one another. An example was discussed from Iceland where porpoise by-catch rates from research surveys in a limited time and area were compared with results from a questionnaire survey and with official logbook data. In this case by-catch rates calculated from logbook data were considerably lower than those estimated using the other methods.

The workshop reviewed recruitment and training procedures using examples from the USA and the UK. Basic training and safety standards were outlined and the Workshop recommended that standardised training should be implemented at a European level for observers working on by-catch monitoring programmes in European fisheries.

Two further presentations examined the operational aspects of a marine mammal by-catch observer scheme in the USA and a seabird by-catch observer scheme in Chile. The Workshop was able to identify a number of useful and practical strategies and tactics for implementing such schemes.

Several alternative by-catch monitoring systems involving independent observations, but not relying on dedicated onboard observer programmes were discussed. A system of GPS-linked video surveillance was described on boats in Denmark, where by-catches of porpoises and seabirds had already been identified and recorded. In the USA a system employing an alternative platform has been developed, where two observers used a flat power boat to monitor fishing operations by isolate gillnet