Discarding of cod in the Danish Fully Documented Fisheries trials

Denmark was the first nation in Europe to promote the use of Fully Documented Fisheries (FDF) through Remote Electronic Monitoring (REM) and CCTV camera systems, with pilot schemes in place since 2008. In theory, such a scheme could supplement and even potentially replace expensive control and monitoring programmes; and when associated with a catch quota management (CQM) system, incentivize positive changes in fishing patterns in a results-based management approach. New data flows are, however, required to ensure the practical implementation of such a scheme. This paper reviews the quality of the FDF data collected during 2008–2014 and their potential in strengthening information on cod discards. The analyses demonstrate the improved reporting of discards in logbooks and overall discard reductions, but they also show that some uncertainties around the absolute estimates of discard quantities have remained. Regular validation of weight estimation methods and close collaboration between scientific monitoring and control are important to support the use of reported discards as a reliable source of information. We discuss the potential of electronic monitoring in the context of the EU landing obligation.

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Ecosystem based Marine Management, Section for Monitoring and Data, Public Sector Consultancy, Ministry of Food, Agriculture and Fisheries
Pages: 1848-1880
Publication date: 2015
Main Research Area: Technical/natural sciences

Publication information
Journal: ICES Journal of Marine Science
Volume: 72
Issue number: 6
Behind the shine: An appraisal of five years of Danish CCTV trials

Denmark has been the first nation in Europe to promote the use of Fully Documented Fisheries (FDF) through Remote Electronic Monitoring (REM) and CCTV camera systems, and some pilot schemes for monitoring cod catches have been in place since 2008. In theory, such a scheme could supplement and even potentially replace expensive control and monitoring programs; and, when associated to a Catch Quota management system, incentivize positive changes in fishing patterns in a results-based management approach. However, in practice, the technical and institutional challenges remain important hurdles to overcome for the system to be beneficial and reliable. In this paper we investigate the added value on catch information gained over the last five years, and discuss the future of REM as a monitoring program in the context of
Utilization of our common marine reassures has in later years had an increasing focus among the EU member states, with societal demands to reduce discarding. Discards have for many years been an unavoidable component of most commercial fisheries due to management regulation and profit optimizing. However, the first step into reducing the discard problem is to investigate where discard is occurring in larger amounts, to highlight the pattern in different fleet components and to document the monitoring of the sampling program. In 2010 the total discard observed in Danish waters were 21500 t corresponding to 26% of the total catch from these fleets. In Denmark sampling onboard commercial vessels has been ongoing since 1995. In this report the aim has been to describe the Danish commercial at sea sampling strategy and results from 2010.
FishFrame 5.0: A web based datawarehouse application for management, access and integration of fisheries and stock assessment data

General information
State: Published
Organisations: Section for Population- and Ecosystem Dynamics, National Institute of Aquatic Resources, Section for Monitoring, Institute Management
Authors: Jansen, T. (Intern), Degel, H. (Intern), Häkansson, K. B. (Intern), Egekvist, J. (Intern), Dalskov, J. (Intern), Köster, F. (Intern)
Pages: 1-137
Publication date: 2008
Main Research Area: Technical/natural sciences

Publication information
Journal: ICES Council Meeting
Volume: R:26
ISSN (Print): 1015-4744
Ratings:
ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Web of Science (2003): Indexed yes
Original language: English
Source: orbit
Source-ID: 229073
Publication: Research › Conference article – Annual report year: 2008

Projects:

Catch Quota Management and choke species 2014 (39079)
The aim of the project is further development and test of Catch Quota Management (CQM) systems in Danish demersal fisheries by the use of electronic monitoring systems. Furthermore, to test whether electronic monitoring – video and sensor recordings – can provide the necessary documentation to support a CQM system. In addition the project will illustrate whether full documentation of catches can support implementation and certification and traceability solutions which requires linkage to project dealing with these issues.

This project is coordinated by DTU Aqua.
National Institute of Aquatic Resources
Section for Monitoring and Data
Ministry of Food, Agriculture and Fisheries
Period: 22/07/2013 → 15/07/2015
Number of participants: 4
Research area: Fisheries Management
Project participant:
Dalskov, Jørgen (Intern)
Håkansson, Kirsten Birch (Intern)
Degel, Henrik (Intern)
Project Manager, academic:
Olesen, Hans Jakob (Intern)

**Catch quota project 2011 (38823)**
The aim of the project is further development and test of Catch Quota Management (CQM) systems in Danish fisheries by the use of electronic monitoring systems. Furthermore, to test whether electronic monitoring – video and sensor recordings – can provide the necessary documentation to support a CQM system. In addition the project will illustrate whether full documentation of catches can support implementation and certification and traceability solutions which requires linkage to project dealing with these issues.

As the Danish Government has worked intensively for the implementation of CQM in the new Common Fisheries Policy (to be implemented from 2013 and onwards) the project should also facilitate international cooperation on European level to set up common standards for CQM data collection, data processing, data exchange and base development.

The project is coordinated by DTU Aqua.

National Institute of Aquatic Resources
Public Sector Consultancy

Ministry of Food, Agriculture and Fisheries
Archipelago Marine Research Ltd
Gemba Seafood Consulting
Period: 01/01/2011 → 30/09/2012
Number of participants: 5

**Research area: Fisheries Management**
**Project participant:**
Olesen, Hans Jakob (Intern)
Jensen, Reinhardt (Intern)
Kirkegaard, Eskild (Intern)
Håkansson, Kirsten Birch (Intern)
Project Manager, academic:
Dalskov, Jørgen (Intern)

**Catch quota project 2010 (38787)**
The aim of the project is further development and test of Catch Quota Management (CQM) systems in Danish fisheries by the use of electronic monitoring systems. Furthermore, to test whether electronic monitoring – video and sensor recordings – can provide the necessary documentation to support a CQM system.

In addition the project will illustrate whether full documentation of catches can support implementation and certification and traceability solutions which requires linkage to project dealing with these issues.

From January 2010 the European Council has adopted possibilities for EU Members States to conduct trials on catch quota management on cod in the North Sea, the Skagerrak and the Kattegat.

As the Danish Government has worked intensively for the implementation of CQM in the new Common Fisheries Policy (to be implemented from 2013 and onwards) the project should also facilitate international cooperation on European level to set up common standards for CQM data collection, data processing, data exchange and data base development.

The project is coordinated by DTU Aqua.

National Institute of Aquatic Resources
Public Sector Consultancy
Sandeel Dredge Survey (39064)
The scientific sandeel dredge survey is carried out each year in November/December and it covers the most important sandeel fishing banks in the North Sea.

The aim is to collect the sandeels when they are buried in the seabed and compare the catches (number and age composition) with the previous year’s collections. The specific year class strength of sand eels is assessed for the different areas adopted by ICES in 2009.

Data from the dredge survey is the basis for calculating an index, which is used in the stock assessment.

This project is coordinated by DTU Aqua.
ICES - Second Workshop on practical implementation of statistical sound catch sampling programmes - WKPICS2
(External organisation)
Period: 2012 → …
Kirsten Birch Håkansson (Participant)
National Institute of Aquatic Resources
Section for Public Sector Consultancy
Degree of recognition: International

Related external organisation
ICES - Second Workshop on practical implementation of statistical sound catch sampling programmes - WKPICS2
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Study Group on Practical Implementation of Discard Sampling Plans - SGPIDS (External organisation)
Period: 2012 → …
Kirsten Birch Håkansson (Participant)
National Institute of Aquatic Resources
Section for Public Sector Consultancy
Degree of recognition: International

Related external organisation
ICES - Study Group on Practical Implementation of Discard Sampling Plans - SGPIDS
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Working Group on Mixed Fisheries Advice for the North Sea - WGMIXFISH (External organisation)
Period: 2012 → …
Kirsten Birch Håkansson (Participant)
National Institute of Aquatic Resources
Section for Public Sector Consultancy
Degree of recognition: International

Related external organisation
ICES - Working Group on Mixed Fisheries Advice for the North Sea - WGMIXFISH
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Workshop on Regional Database (External organisation)
Period: 2012
Kirsten Birch Håkansson (Participant)
National Institute of Aquatic Resources
Section for Public Sector Consultancy
Degree of recognition: International

Related external organisation
ICES - Workshop on Regional Database
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Workshop on Regional Database (External organisation)
Period: 2012 → …
Kirsten Birch Håkansson (Participant)
National Institute of Aquatic Resources
Section for Public Sector Consultancy
Degree of recognition: International

Related external organisation

ICES - Workshop on Regional Database
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Workshop on Regional Database (External organisation)
Period: 2012
Kirsten Birch Håkansson (Participant)
National Institute of Aquatic Resources
Section for Public Sector Consultancy
Degree of recognition: International

Related external organisation

ICES - Workshop on Regional Database
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar