

# Can the Spurdog By-catch Avoidance Programme align spurdog (*Squalus acanthias*), a zero quota species, with the reformed Common Fisheries Policy landing obligation without creating a 'choke' species?

MB0142: Spurdog By-catch Avoidance Programme

## What's the problem?

Although spurdog are a zero Total Allowable Catch (TAC) species, they are caught in demersal trawl and gillnet fisheries within European waters. As a consequence of their current management, catches of spurdog are discarded, although the extent of this problem is unknown. The reformed Common Fisheries Policy (CFP) introduced a landing obligation with a phased implementation from 2015. Species for which there is minimal or zero TAC have the potential to become 'choke' species in mixed fisheries, whereby it forces fishermen to stop fishing altogether and tie-up their vessels in areas where spurdog is caught as by-catch. As a zero TAC species, spurdog is not compliant with the principles of CFP reform and the landing obligation. An option for preventing spurdog from becoming a 'choke' species would be to add it to the Prohibited Species list, in effect opting out of fisheries legislation and therefore ensuring continued discarding. However, this is not in the spirit of the landings obligation, would not contribute to reduction in fishing pressure of the stock and does not address wasteful dead discarding.

## What are the aims of the project?

To trial and evaluate an alternative option to the prohibition of spurdog; a UK pilot project to develop a real-time Spurdog By-catch Avoidance Programme, with the purpose of:

- (i) reducing the number of significant spurdog by-catch events in order to reduce wasteful dead discarding and overall fishing induced mortality of spurdog;
- (ii) promoting best practice in the return of live spurdog to the sea for the benefit of the stock;
- (iii) minimising the risk of spurdog becoming a 'choke' species by accounting for unpredictable and unavoidable bycatches within the future landing obligation through the provision of a by-catch quota for dead spurdog (at a level that allows for continued stock recovery and is within safe biological limits);
- (iv) not incentivising any targeting of the stock.

Whilst working with other Member States to help adopt the approach more widely, the project will contribute to the development of a rebuilding and management plan for spurdog by aiding in its conservation and speed stock recovery in the Northeast Atlantic.



Figure 1: Dead spurdog by-catch. Source: (S. Hetherington, Cefas)

## Which policy areas will the research inform?

The project will improve data collection for spurdog distributions in the Celtic Sea fisheries (ICES Divisions VIIe-h), provide real-time mapping of seasonal by-catch of spurdog and evaluate the utility of potential avoidance measures for spurdog populations in the Northeast Atlantic. It will inform the implementation of the reformed CFP, including the landing obligation, whilst engaging fishers by facilitating additional data collection and, ultimately, will contribute to the overarching aim of the Defra Shark, Skate and Ray Conservation Plan to manage elasmobranch stocks sustainably. The outcomes of this approach could then be applied to other low or zero TAC species, providing options to assist with their management in line with the CFP.



Department  
for Environment  
Food & Rural Affairs

## MB0142: Spurdog By-catch Avoidance Programme - Aligning spurdog with the Common Fisheries Policy landing obligation by reducing spurdog by-catch and subsequent dead discards, whilst minimising the risk of creating 'choke' species.

### What are the results from the project and how will they be used?

By promoting the avoidance of spurdog, this project will reduce spurdog by-catch levels and subsequent dead discarding, therefore it has the potential to reduce overall fishing induced mortality of spurdog. This will contribute to the development of a rebuilding and management plan for spurdog by aiding in its conservation and speed stock recovery in the Northeast Atlantic.

The project will be undertaken through a real-time self-reporting scheme that relies upon participating fishing vessel skippers to collect and provide daily information, over a 24-hour period before midnight, on spurdog by-catch within pre-defined reporting grids. This information is compiled for the participating vessels, and the amount of spurdog by-catch in each grid cell classified to predetermined thresholds, using a traffic light system. The cells of the reporting grid are coloured to the level of spurdog by-catch (Figure 1), green (low risk of significant by-catch), amber (medium risk of significant by-catch) and red (high risk of significant by-catch and choking the fishery), which is sent back in near real-time (within 12 hours) to those vessels actively taking part, in the form of an advisory notice. This advises fishermen of the by-catch "hotspots", enabling them to make informed decisions on their fishing behaviours, reducing spurdog by-catch, reducing fishing mortality and prevent choking the fishery..

By utilising data collected directly by the fishing industry, fishermen will more likely 'buy-in' to adapting their fishing behaviour to avoid spurdog by-catch as the evidence provided is based on their own observations. This stakeholder engagement will help underpin future decisions on avoiding by-catches in key 'hotspot' areas within the life-time of the project. Furthermore, this project will help assess the feasibility of devolving management of spurdog by-catch to the fishing industry.

The proposed pilot project will be evaluated against clear measurable objectives including, but not exclusively, the level of (i) landings, (ii) take-up of the programme, (iii) timely provision of data, and (iv) data quality. In addition a number of indicators will be used against which spurdog

by-catch avoidance behaviour by commercial fishing vessels will be measured. These include a comparison of spurdog by-catch, discards and fishing activity of the participating vessels before and after implementation of the pilot project.

The main findings will be presented to Defra. Depending on the outcome, recommendations on the way forward on the approach will be presented to Advisory Council's, submitted to Scientific, Technical and Economic Committee for Fisheries (STECF) for evaluation and proposed to the European Commission in 2016 by Defra. The latter will be part of a package of measures to manage dead discards of spurdog, establishing a safe by-catch allowance for spurdog, and working with other Member States to help adopt the pilot project more widely. The approach and lessons learnt could also be applied to other fishery species at risk of becoming 'choke' species.

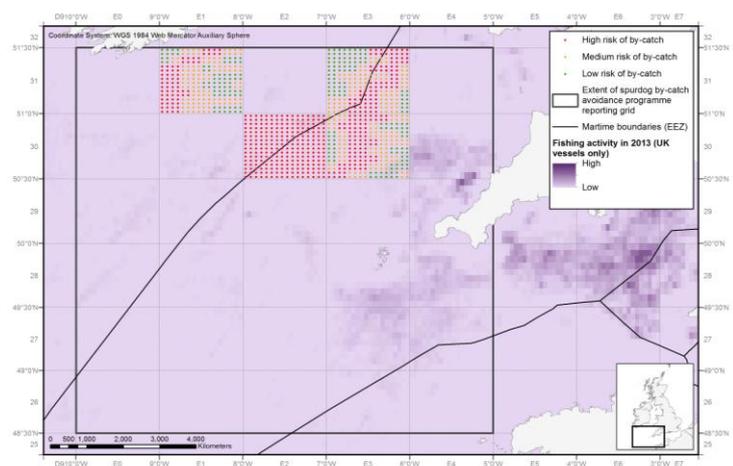


Figure 2: An illustrative example of the Spurdog By-catch Avoidance Programme 'traffic light' system. The plot includes 2013 UK VMS data and shows UK EEZ boundary lines. Source: (R. Nicholson, Cefas)

### Where can I find further information about this and related research?

Cefas are leading the project MB0142. For more information contact Stuart Hetherington on 01502 527719 or [stuart.hetherington@cefas.co.uk](mailto:stuart.hetherington@cefas.co.uk)

Alternatively, please contact Defra's Marine and Fisheries Science Unit:

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