

## MSC SUSTAINABLE FISHERIES CERTIFICATION

### On-Site Surveillance Visit - Report for Cornish Hake Gill Net Fishery



3<sup>rd</sup> Surveillance Audit

April 2019

Certificate Code	F-ACO-0040
Prepared For:	<b>Cornish Fish Producers Organisation Ltd.</b>
Prepared By:	<b>Lloyd's register</b>
Authors:	Jim Andrews and Robin Cook

## Assessment Data Sheet

Fishery name	Cornish Hake Gill Net		
Species and Stock	Northern Hake ( <i>Merluccius merluccius</i> ) Stock Division 3a, sub-areas 4, 6 and 7, and Divisions 8a, b, d)		
Date certified	11 <sup>th</sup> June 2015	Date of expiry	10 <sup>th</sup> June 2020
Surveillance level and type	Normal - Onsite		
Date of surveillance audit	25 <sup>th</sup> January 2018		
Surveillance stage (tick one)	1st Surveillance		
	2nd Surveillance		
	3rd Surveillance	✓	
	4th Surveillance		
	Other (expedited etc.)		
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# 1 Introduction

## 1.1 Scope of Surveillance

This report outlines the findings of the 3rd Annual Surveillance of the Cornish Hake Gill Net fishery. The scope of the certified fishery and therefore of this surveillance is specified in the Unit of Certification set out below:

<b>Species</b>	European Hake; Hake ( <i>Merluccius merluccius</i> )
<b>Geographical area</b>	Western English Channel, Bristol Channel, Celtic Sea and Western Approaches ICES Divisions VIIe, VIIf, VIIg, VIIh, VIIj, VIIk <sup>1</sup> , FAO statistical area 27 (North East Atlantic)
<b>Method of capture</b>	Bottom set gill nets
<b>Stock</b>	Northern Hake Stock Division IIIa, Sub-areas IV, VI and VII, and Divisions VIIIa, b, d
<b>Client Group</b>	Cornish Fish Producers Organisation Ltd.

## 1.2 Aims of the Surveillance

The purpose of the annual Surveillance Report is fourfold:

1. to establish and report on whether or not there have been any material changes to the circumstances and practices affecting the original complying assessment of the fishery;
2. to monitor the progress made to improve those practices that have been scored as below "good practice" (a score of 80 or above) but above "minimum acceptable practice" (a score of 60 or above) – as captured in any "conditions" raised and described in the Public Report and in the corresponding Action Plan drawn up by the client;
3. to monitor any actions taken in response to any (non-binding) "recommendations" made in the Public Report;
4. to re-score any Performance Indicators (PIs) where practice or circumstances have materially changed during the intervening year, focusing on those PIs that form the basis of any "conditions" raised.

**Please note:** The primary focus of this surveillance audit is to assess changes made in the previous year. For a complete picture, this report should be read in conjunction with the Public Certification Report for this fishery assessment which can be found here:

[https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-east-atlantic/cornish-hake-gill-net/assessment-downloads-1/20150520\\_PCR\\_HAK194.pdf](https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-east-atlantic/cornish-hake-gill-net/assessment-downloads-1/20150520_PCR_HAK194.pdf)

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<sup>1</sup> Note that in the latest ICES documents the Roman numerals used to identify Sub-areas have been replaced by Arabic equivalents. The Roman numerals are retained in section 1.1 for consistency with the certificate issued for the fishery.

## 2 Background to the fishery

The MSC-certified Cornish hake gill net fishery is a bottom-set gill net fishery for the European Hake, *Merluccius merluccius*, in the Celtic Sea to the west of the UK mainland and south of Ireland. The following is a brief resume of information about the hake and its fishery based on the original MSC Certification Report (Acoura Marine, 2015), to which the reader is referred if more detail is required.

### 2.1 Biology of the Target Species

European hake are widely distributed along the Continental shelf and the shelf slope in the north-eastern Atlantic from northern Norway and Iceland south to Mauritania, and are most abundant at depths of 100-300 m from west of Scotland south to Gibraltar. For assessment and management purposes, ICES assumes two different stock units: the Northern stock, in Division 3a, Subareas 4, 6 and 7 and Divisions 8a, b, d (essentially, north of 44° 30' N); and the Southern stock in Divisions 8c and 9a along the Spanish and Portuguese coasts (ICES, 2009). This report concerns the Northern hake stock.

The main areas used for spawning by the Northern hake stock extend along the shelf edge from the northern Bay of Biscay to the south and west of Ireland, from February through to July, (Arbault and Lacroix-Boutin, 1968; Coombs and Mitchell, 1982). Young hake descend to the seabed from May onwards and begin a demersal existence at a length of approximately 4 cm. Two major nurseries are recognised in the Northern stock area: one in the Bay of Biscay and one off southern Ireland. When three years old, hake begin to move into shallower regions of the Celtic Sea and the Bay of Biscay, but as they approach maturity they disperse to offshore regions.

The movements of adult hake are indicated by the seasonal distributions of catches in the fishery. From December to March, the hake fishery commences in the southern Bay of Biscay and moves north, reaching the northern Bay of Biscay in March and April. Subsequently, hake appear on the shelf-edge to the west and north of the British Isles in June and July. Between August and December, the hake fishery is centered to the west and southwest of Ireland, and catch rates decline in shallower waters. A small proportion of the hake involved in these migrations will enter the deeper regions of the western English Channel. The Cornish hake fishery takes place mainly in the Celtic Sea and Western English Channel.

### 2.2 History of the Fishery

Historically, hake have been caught in a number of métiers operating in ICES Sub-areas 6, 7 and 8, mainly operating out of Spain, France, the UK and Ireland, either as a target species (lines and set nets) or an important by catch (trawls). Today, Spanish vessels mainly use bottom pair-trawls operating with "Nabera" Very High Vertical Opening (VHVO) nets to target hake in the Bay of Biscay, whilst French trawlers have progressively adopted twin-trawl nets. A substantial increase in landings has occurred in the northern part of the distribution area (Division 3a, and Subareas 4 and 6) in recent years.

The number of UK and Irish vessels gill netting for hake has fallen considerably since the peak of the fishery in the early-mid 1990s, when a fleet of 40 hake netting vessels operated from Newlyn. At the time of the Certification of the client fishery (in June 2015), 19 vessels were operating from Newlyn, though there were signs of a resurgence of gill netting in the Irish hake fishing fleet.

Most of the vessels in the client fleet are over 15m in length, and all vessels > 12m are legally required to use acoustic "pingers" to mitigate cetacean interactions. The two vessels smaller than 12m also use these pingers at all times. All of the vessels in the UoC use hake nets with a mesh size greater than the 120mm legal requirement. All of the vessels work in waters shallower than 180m.



## 3 Surveillance Process

### 3.1 Findings of the original assessment

As a result of the assessment in 2015, five conditions of certification were raised by the assessment team, and maintenance of the MSC certificate is contingent on the Cornish Hake Gill Net fishery moving to comply with these conditions within the time-scales set at the time the certificate was issued.

### 3.2 Surveillance Activity

This surveillance audit was carried out in accordance with the procedures set out in MSC Certification Requirements version 2.0 (CR V2.0), as described below.

#### 3.2.1 Surveillance team details

This on-site surveillance visit was carried out by Jim Andrews and Robin Cook. The Team Leader was Jim Andrews.

This assessment team is different from that which originally certified the fishery and carried out the past two surveillance audits. Robin Cook has replaced Mike Pawson on the team. Lloyd's Register have determined that the expertise of this team is comparable to the original team and meets the requirements of Annex PC of the MSC Fisheries Certification Requirements v2.0.

##### **Jim Andrews (P2/3)**

Jim Andrews has over 25 years' experience working in marine fisheries and environmental management. His previous experience includes running the North Western and North Wales Sea Fisheries Committee as its Chief Executive from 2001 to 2005, and previously working as the SFC's Marine Environment Liaison Officer. During this time he was responsible for the regulation, management and assessment of inshore finfish and shellfish stocks along a 1,500km coastline. He has an extensive practical knowledge of both fisheries and environmental management and enforcement under UK and EC legislation. Jim has formal legal training & qualifications, with a special interest in the policy, governance and management of fisheries impacts on marine ecosystems. He has worked as an assessor and lead assessor on more than 20 MSC certifications within the UK, in Europe and in India since 2007. In 2008 he worked with the MSC and WWF on one of the pilot assessments using the new MSC Risk Based Assessment Framework. Jim has carried out numerous MSC Chain of Custody assessments within the UK.

##### **Robin Cook (P1/2)**

Robin Cook has a PhD in population dynamics from Oxford University. He worked for many years at the Marine Laboratory, Aberdeen and was Director there from 2002-2011. He worked mainly in the field of demersal fish stock assessments and assessment methodology. During the 1990s he was chair of the ICES North Sea demersal assessment working group and served on the ICES Advisory Committee on Fishery Management (ACFM) and the EU Scientific, Economic and Technical Committee on Fisheries (STECF). Presently, Robin is a Senior Research Fellow at Strathclyde University, Glasgow, focusing on bio-economic modelling of grey seal predation on demersal fish and the assessment of data-poor stocks. He has published over 80 scientific papers including a number dealing with the status of North Sea cod, and has provided his Principle 1 expertise for the MSC assessment of the following fisheries: SFSAG North Sea cod, SFSAG Rockall haddock, SFSAG North Sea haddock (expedited assessment for the addition of whiting, hake (European), Plaice (European) and saithe), Joint demersal fisheries in the North Sea and adjacent waters, SARPC Patagonian toothfish and Namibian hake. Robin has passed the MSC training and has no Conflict of Interest in relation to this fishery. Further CV details available on request.

#### 3.2.2 Date & Location of surveillance audit

This surveillance audit was held onsite in Newlyn, Cornwall on the 25<sup>th</sup> January 2019.

#### 3.2.3 What was inspected

This audit was conducted through an interview with the client and a review of reports and published information relating to Principles 1, 2, and 3 for this fishery. A list of the interviews conducted during



the audit is presented in section 3.2.4 of this report, and a list of the documentary evidence considered by the assessment team is provided in section 7.

This audit concentrated on assessing whether there have been any significant changes in the fishery and / or information about fishing activity and/or how the client has been addressing the conditions raised in the original assessment. In addition, a review was carried out of operational and management changes in the past year, using information provided by the client (see Appendix 6 for references used), interviews and e-mail exchanges, as required.

### **3.2.4 Stakeholder Consultation & meetings**

A total of 38 stakeholder organisations and individuals having relevant interest in the assessment were identified and consulted during this surveillance audit. The interest of others not appearing on this list was solicited through the postings on the MSC website.

Meetings were conducted with the following individuals & organisations:-

- 1) Paul Trebilcock, Chief Executive, Cornish Fish Producers Organisation, Newlyn, 25<sup>th</sup> January 2019.
- 2) Stuart Hetherington, Cefas, telephone interview, 13<sup>th</sup> February 2019.
- 3) Allen Kingston, Sea Mammal Research Unit, telephone interview, 22<sup>nd</sup> February 2019.

In addition to these interviews, the assessment team corresponded with staff at the Cefas laboratories in Lowestoft to obtain catch data for the fishery.

## **3.3 Surveillance Standards**

### **3.3.1 MSC Standards, Requirements and Guidance used**

This surveillance audit was carried out according to the MSC Fisheries Certification Requirements 1.3 using process requirements v2.0.

### **3.3.2 Confirmation that destructive fishing practices or controversial unilateral exemptions have not been introduced**

No indication was given or suggested during the surveillance audit to suggest that either of these practices is in evidence for this fishery

### **3.3.3 Forced labour**

The assessment team confirmed that fishery operators have not been prosecuted for any violations against forced labour laws.

### 3.4 Harmonisation

There are four MSC-certified fisheries prosecuting the Northern European hake stock and one fishery in assessment (see Table 1). Brief details of each fishery are provided below:

- The **Cornish Hake gill net fishery** was certified on 11<sup>th</sup> June 2015. The most recent surveillance report was published on the 8<sup>th</sup> February 2018 (Intertek Fisheries Certification 2015, Acoura Marine 2018).
- The **DFPO Danish North Sea, Skagerrak & Kattegat hake fishery** was certified in October 2014. The most recent surveillance report was published on 17<sup>th</sup> January 2019 (FCI 2014, MRAG Americas 2019).
- The **Norway North Sea Demersal fishery** was certified on 11<sup>th</sup> June 2018 (DNV-GL 2018). An expedited audit report has subsequently been published for North Sea cod, but no surveillance activities for hake have been conducted since the fishery was certified.
- The **SFSAG Northern Demersal Stocks fishery** was first certified Sea Haddock on 22<sup>nd</sup> October 2010 (as SFSAG North Sea Haddock) and subsequently re-certified on 3<sup>rd</sup> July 2018 (ME Certification 2018). There have been no surveillance activities since the fishery was re-certified.
- The **Joint Demersal fisheries in the North Sea and adjacent waters fishery** is currently under assessment. The Public Comment Draft Report for this fishery was published on 20<sup>th</sup> December 2018 (as 4 volumes) (CU-Pesca 2018a, 2018b, 2018c, 2018d).

Details of all of the relevant hake fisheries in the MSC programme are shown in Table 1. The scores awarded for each Performance Indicator for each of the fisheries are shown in Table 2.

A harmonisation discussion between the CABs for the MSC-certified hake fisheries took place on the 19<sup>th</sup> February 2019.

The appropriate approach to harmonisation of scores across these fisheries, based on the harmonisation discussions, is summarised below:-

- **Principle One:** all fisheries prosecute the same hake stock, so scores should be harmonised.
- **Principle Two:** there is a spatial overlap between the Cornish Hake fishery and the SFSAG demersal fishery, but the two fisheries use different gear types. There is no spatial overlap between the Cornish Hake fishery and the other fisheries, with which there are also differences in gear types, and differences in the stocks of P2 elements affected by each fishery. It is therefore not considered that the P2 scores for this fishery need to be harmonised with the other fisheries.
- **Principle Three:** all of the fisheries are located in the EU EEZ and are therefore subject to the EU Common Fisheries Policy which establishes the overall foundation for management and governance of the fishery. Fishery-specific objectives for the hake stock are set out in the proposed Western Waters Multi Annual Plan, a final version of which was considered by the European Parliament Fisheries Committee on 23<sup>rd</sup> January 2019 and which is due to be implemented shortly (European Commission 2018c, European Parliament 2018a, 2018b, 2019). It is therefore appropriate to harmonise Principle 3 scores with other fisheries, although the team notes that in the case of PI3.2.3 (Compliance and enforcement), the level of compliance monitoring can vary considerably between fishing métiers and geographic areas.

**Table 1: List of northern hake fisheries currently in the MSC fishery certification programme [Source: MSC website].**

Fishery	Species	Gear types	Locations	MSC status	CAB
<a href="#">Cornish hake gill net</a>	Hake (European) ( <i>Merluccius merluccius</i> )	Gillnets And Entangling Nets	Northeast Atlantic (FAO Area 27)	Certified	Lloyd's Register
<a href="#">DFPO Denmark North Sea, Skagerrak and Kattegat hake and plaice</a>	Hake (European) ( <i>Merluccius merluccius</i> ), Plaice (European) ( <i>Pleuronectes platessa</i> )	Gillnets And Entangling Nets - Combined gillnets-t...	Northeast Atlantic (FAO Area 27)	Certified	MEC
<a href="#">Norway North Sea demersal</a>	Cod (Atlantic) ( <i>Gadus morhua</i> ), Haddock ( <i>Melanogrammus aeglefinus</i> ), Hake (European) ( <i>Merluccius merluccius</i> ), Saithe ( <i>Pollachius virens</i> )	Gillnets And Entangling Nets - Gillnets Hooks And ...	Northeast Atlantic (FAO Area 27)	Certified	DNV
<a href="#">Joint demersal fisheries in the North Sea and adjacent waters</a>	Tusk(=Cusk) ( <i>Brosme brosme</i> ), Cod (Atlantic) ( <i>Gadus morhua</i> ), Megrin ( <i>Lepidorhombus whiffiagonis</i> ), Anglerfishes nei ( <i>Lophiidae</i> ), Haddock ( <i>Melanogrammus aeglefinus</i> ), Whiting ( <i>Merlangius merlangus</i> ), Hake (European) ( <i>Merluccius merluccius</i> ), Ling ( <i>Molva molva</i> ), Nephrops ( <i>Nephrops norvegicus</i> ), Prawn (northern) ( <i>Pandalus borealis</i> ), Plaice (European) ( <i>Pleuronectes platessa</i> ), Saithe ( <i>Pollachius virens</i> ), Sole ( <i>Solea solea</i> )	Miscellaneous Gear	Northeast Atlantic (FAO Area 27)	In Assessment	MEC
<a href="#">SFSAG Northern Demersal Stocks</a>	Haddock ( <i>Melanogrammus aeglefinus</i> ), Whiting ( <i>Merlangius merlangus</i> ), Hake (European) ( <i>Merluccius merluccius</i> ), Plaice (European) ( <i>Pleuronectes platessa</i> ), Saithe ( <i>Pollachius virens</i> )	Seine Nets - Boat or vessel seines - Danish seines...	Northeast Atlantic (FAO Area 27)	Certified	MEC



**Table 2: Summary of scores awarded for each Performance Indicator for the MSC-certified fisheries affecting the Northern hake stock. Yellow shading indicates scores of less than 80, which are associated with conditions of certification.**

CR Version				1.3						2.0
Principle	Component	Fishery		Cornish Hake		DFPO Hake & plaice		Norway North Sea Demersal	SFSAG Northern Demersal	Joint Demersal Fisheries
		Assessment / Source		Original	Current	Original (P2 shown for set nets)	Current	Original	Original	Original (P2 shown for North Sea Set Nets)
		Conformity Assessment Body		Lloyd's Register		MRAG Americas		DNV-GL	CU-Pesca	CU-Pesca
		UoC Spatial extent (ICES)		VIIe, VIIf, VIIg, VIIh, VIIj, VIIk		IIIa & IV		IIIa & IV	IIIa, IV, VI, VII, VIIla, VIIlb, VIIId	IIIa & IV
		Date		11/06/2015	This report	30/10/2014	17/01/2019	11/06/2018	03/07/2018	20/12/2018
		PI	Performance Indicator (PI)							
One	Outcome	1.1.1	Stock status	100	100	90	100	100	100	100
		1.1.2	Reference points	90	90	75	90	100	90	
		1.1.3	Stock rebuilding	NA	NA	NA	NA	NA	NA	NA
	Management	1.2.1	Harvest strategy	90	90	90	90	95	85	85
		1.2.2	Harvest control rules & tools	75	80	75	75	75	75	75
		1.2.3	Information & monitoring	80	80	80	80	100	100	100
	1.2.4	Assessment of stock status	90	90	90	90	95	100	100	
Two	Retained species	2.1.1	Outcome	85	85	85	85	85	75	80
		2.1.2	Management	90	90	80	80	90	75	85
		2.1.3	Information	90	90	90	90	90	80	85
	Bycatch	2.2.1	Outcome	70	70	80	80	80	80	80
		2.2.2	Management	80	80	85	85	95	80	80
		2.2.3	Information	75	85	75	75	85	80	80
	ETP species	2.3.1	Outcome	90	90	75	80	80	75	75
		2.3.2	Management	70	80	75	80	85	75	75
		2.3.3	Information	80	80	70	80	80	65	75
	Habitats	2.4.1	Outcome	90	90	90	90	100	75	85
		2.4.2	Management	90	90	85	85	90	75	75
		2.4.3	Information	80	80	85	85	95	80	75
	Trophic function	2.5.1	Outcome	80	80	90	90	100	90	90
		2.5.2	Management	90	90	90	90	95	100	85
		2.5.3	Information	75	90	90	90	95	95	100
Three	Governance and policy	3.1.1	Legal & customary framework	100	100	85	85	95	100	95
		3.1.2	Consultation, roles & responsibilities	100	100	80	80	100	100	100
		3.1.3	Long term objectives	100	100	100	100	100	100	100
		3.1.4	Incentives for sustainable fishing	80	80	90	90	100	100	
	Fishery specific management system	3.2.1	Fishery specific objectives	80	80	80	80	90	90	80
		3.2.2	Decision making processes	90	90	80	80	100	100	85
		3.2.3	Compliance & enforcement	90	75	95	95	100	95	70
		3.2.4	Research plan	80	80	80	80	80	90	
		3.2.5	Management performance evaluation	80	80	90	90	90	90	80

## 4 Updated Fishery Background

### 4.1 Changes in fleet structure or operation

There has only been one change in the UoC fleet since the year 2 surveillance audit. The current list of vessels in the UoC is given below.

**Table 3:** List of eligible vessels for the Cornish Hake Gill Net Fishery MSC Certificate.

Boat Name	PLN	LOA
Serene Dawn	PW156	11.86*
Amanda of Ladram	E9	18.2
Ajax	PZ36	18.28
Britannia V	FH121	15.15
Harvest Reaper	PW177	17
Stelissa	PZ498	20.6
Silver Dawn	PZ1196	17.93
Govenek of Ladram	PZ51	22.65
Joy of Ladram	E22	20.4
Ocean Pride	FH24	18.75
Charisma	PW45	16.6
Karen of Ladram	PW3	20.84
Ygraine	SS284	11.95*

There have been no significant changes in the type of fishing gear used or fishing practices in the fishery since it was certified. It was noted that vessels may be using slightly heavier footropes on their gear to extend the period around neap tides that could be fished, and that fishers were generally fishing with larger meshed gear (to catch larger hake, and a response to market conditions and the increasing abundance of hake), but in all other respects the gear remains the same. The changes in fishing practices do not require any review of the assessment outcome.

### 4.2 Changes to scientific base of information including stock assessments

The most recent ICES stock assessment for the stock does not show any major change since the last assessment (ICES 2018). In 2013, a new length-based model (SS3) was adopted by ICES WGHMM and continues to be the model used. The assessment incorporates commercial landings, abundance indices from four surveys and new values for the maturity ogive and natural mortality (ICES, 2013b). Some discards are used in the model, and additional discards are included to calculate a catch forecast.

This stock was benchmarked by ICES in 2014, when ICES' assessment continued to show that the SSB has been very high in recent years and F has decreased significantly over the last decade. Using the benchmarked assessment, ICES adopted new reference points for this stock, which were slightly

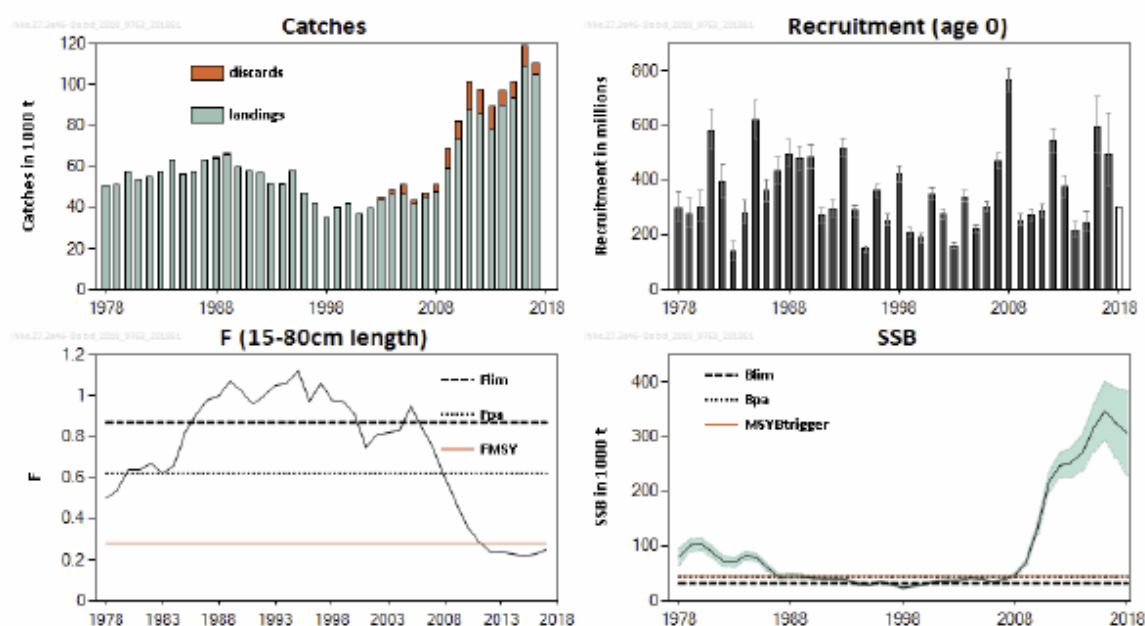
adjusted based on the 2016 assessment (Table 4). There has been no change in the reference points since the last assessment.

**Table 4: Reference points for hake in Subareas 4, 6, and 7, and Divisions 3a, 8a, b, d (Northern stock) (ICES, 2016a, 2016b).**

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	45000	$B_{pa}$	ICES (2016a)
	$F_{MSY}$	0.28	Stochastic simulations on a segmented regression stock–recruitment relationship	ICES (2016a)
Precautionary approach	$B_{lim}$	32000	A low biomass which was followed by a quick recovery	ICES (2016b)
	$B_{pa}$	45000	$1.4 \times B_{lim}$	ICES (2016b)
	$F_{lim}$	0.87	Fishing mortality resulting in a 5% probability of SSB falling below $B_{lim}$	ICES(2016b)
	$F_{pa}$	0.62	$F_{lim}/1.4$	ICES(2016b)
	$F_{MGT}$	Not defined		
	$SSB_{MGT}$	Not defined		
	MAP MSY $B_{trigger}$	45000	MSY $B_{trigger}$	
	MAP $B_{lim}$	32000	$B_{lim}$	
	MAP $F_{MSY}$	0.28	$F_{MSY}$	
	MAP range $F_{lower}$	0.180	Consistent with ranges resulting in no more than 5% reduction in long-term yield compared with MSY (ICES, 2016a)	
	MAP range $F_{upper}$	0.45	Consistent with ranges resulting in no more than 5% reduction in long-term yield compared with MSY (ICES, 2016a)	

The most recent assessment results (ICES 2018) are shown below.





**Figure 1:** Summary of the stock assessment for hake in Subareas 4, 6, and 7, and Divisions 3a, 8a, b, d (Northern stock). ICES estimated landings and discards (for the years with available discard data) (weights in thousand tonnes). Recruitment, F, and SSB plots show 95% confidence intervals (shaded area). Assumed recruitment value for 2018 is unshaded.

ICES notes that SSB has increased significantly since 2006 to well above MSY Btrigger, and fishing mortality (F) has decreased over the last decade and has been below  $F_{MSY}$  since 2012. Recruitment since 2009 has been around average for the time series, though the 2012 and 2016 year classes are estimated to be above average.

The assessment suffers from a shortage of tuning data, particularly in relation to earlier years, for some areas outside Subareas 7 and 8 and for the larger individuals in the hake population. This uncertainty manifests as large changes in biomass estimates in consecutive assessment years (the model confidence intervals underestimate uncertainty because they are narrower than inter-annual changes in estimates). However, while there has been a tendency for the assessment to underestimate SSB and overestimate F in past years, the estimates of SSB in the current assessment are close to those estimated in 2017.

Given the expansion of hake into northern areas there is a potential that not all catches are reported for this stock. The stock is exploited by several countries and data compilation is complicated. For these and other reasons, the assessment model is very sensitive to the data and the settings used, but the overall trends are quite consistent and there is no change in stock status for Northern hake since the last assessment. It continues to show an SSB that has increased significantly well above MSY Btrigger, and F has been below  $F_{MSY}$  since 2012.

#### 4.2.1 Harvest strategy

A recovery plan for the Northern hake stock was implemented in 2004 (EU 2004) with the aim to increase SSB to above 140,000 t, to be achieved by limiting fishing mortality to 0.25. This plan used target values based on precautionary reference points that are no longer appropriate. In addition to the 2004 recovery plan, a number of regulations and measures are used in the management of the Northern hake stock. These include:

- Minimum landing size set at 27cm for fish caught in Subareas 4, 6, 7 and 8 and 30cm for fish caught in 3a.
- Minimum mesh size of 100 mm for all otter trawlers fishing in two specific hake nursery areas, one SW of Ireland and the other in the Bay of Biscay, regardless of the amount of hake caught

- Fishing effort limitations measures in a biologically sensitive area in the Celtic Sea.

In June 2014, ICES used the benchmark assessment to set new reference points for this stock, as shown in Table 3 above. These reference points are currently being used by ICES (following the MSY approach) to give advice, as no agreed management plan was available to ICES in 2018. The TAC set for the fishery has been consistent with this advice in 2016- 2018 and for 2019.

The recent reform of the of the European Union (EU) Common Fisheries Policy (CFP) implemented a Landing Obligation (LO) that is applicable to all vessels fishing for TAC regulated species in EU waters. This is intended to end the practice of discarding unwanted fish at sea and obliges all fish caught to be landed. The LO is expected to be fully implemented in 2019 and will apply to vessels fishing for hake. There is some doubt as to the extent that this regulation can be policed and it is possible that compliance will be hard to verify given the logistics of at-sea inspections.

### 4.3 Harvest Control Rules & Tools

A long-term management plan for Northern hake has still to be developed, but the stock will come under the proposed multi-annual plan (MAP) for EU western waters (European Parliament 2018b, 2018a, 2019). The draft MAP obliges managers to set TACs within a range of  $F_{MSY}$  as defined by ICES. The range corresponds to  $F$  values that give at least 95% of Maximum Sustainable Landings (MSL), but constrained by a probability of no more than 5% that the SSB will fall below  $B_{lim}$ . Unless the stock is above  $B_{trigger}$ ,  $F$  must be set in the lower range of  $F_{MSY}$ . However, when the SSB is above  $B_{trigger}$   $F$  may be set in the upper range and this may be substantially higher than the conventional value of  $F_{MSY}$ . For hake the nominal value of  $F_{MSY}$  is 0.28 yet the upper bound is 0.45 (see Table 3) and in principle, given the current biomass, managers might select this high  $F$  value.

For a number of years ICES has advised TACs in line with  $F_{MSY}$  and managers have followed the advice, although prior to 2016 landings exceeded the TAC. For 2019 ICES advised a TAC corresponding to  $F_{MSY}$  of 0.28 giving a total catch of 142,240t; a figure that includes landings and “unwanted” catch. The latter corresponds to fish that would otherwise have been discarded. The ICES advice has been followed in the agreed TAC. However, if discarding at sea continues (and hence is not counted against the TAC) and landings reach the TAC, it will mean that  $F_{MSY}$  is exceeded.

## 4.4 Changes in ecosystem interaction or management

### 4.4.1 Non-target species

When the fishery was certified, the main non-target retained species in the fishery were considered to be cod, pollack and haddock, with monkfish, saithe, megrim and whiting considered minor retained non-target species. The main discarded non-target species were considered to be spurdog and lesser-spotted dogfish, with porbeagle shark, lesser spotted dogfish, mackerel and edible crab considered minor discarded species.

At this surveillance audit some more-recent information was provided to the assessment team that enabled the assessment of impacts on non-target species to be reviewed. This new information is summarised and considered below.

#### 4.4.1.1 New information

Data on the catch of both target and non-target species from gill netting vessels was obtained from Cefas during this surveillance audit and the previous (second) surveillance audit. These data are summarised here.

##### 4.4.1.1.1 Cefas observer reports

During 2017, Cefas observers made 6 trips aboard netting vessels working in the UoC area, and sampled fish from 57 net hauls in which hake were caught. The data gathered from analysis of the catch in hauls using the mesh sizes provides an indication of the catch composition for the different netting métiers in the UoC area, and are summarised in Table 5.

These data show that hake make up over 86% of the catch from all gears, and that there are no “main” non-target species that make up more than 5% of the catch. The most abundant non-target species in the catch was haddock (3.9%). Spurdog made up 2.1% of the catch. The retention of spurdog in the catch has been permitted under a derogation from the EU prohibition on landing this species in order to obtain information about the status of the spurdog stock (see section 4.4.1.1.2 of this report below).

As well as observing the catch composition, Cefas observers also record whether or not fish in their samples are likely to be retained or discarded (note that the EU landing obligation now prohibits any hake discarding in this fishery).

This information is presented in Table 6, and indicates that retention and discarding behaviour is polarized. Some species are always discarded (such as common skate and porbeagle), whilst others are almost always retained (such as cod, anglerfish, haddock, pollack and saithe).

#### 4.4.1.1.2 National Evaluation of Populations of Threatened and Uncertain Elasmobranchs (NEPTUNE)

As part of a programme monitoring bycatch in Celtic Sea fisheries (ICES Divisions 7e–j), aimed at developing pragmatic management measures for some of the more ‘threatened’ elasmobranchs in British waters, collaboration with commercial fishermen in the south-west has facilitated the collection of more detailed information on spurdog *Squalus acanthias* and porbeagle *Lamna nasus*.

Ellis et al. (2016) reports on a pilot project aimed at improving the availability of fishery-dependent information for assessing the fishery and status of the stocks, in which participating fishermen have been trained to collect data on catch composition. Though current regulations prevent landing of these species, a proportion of dead bycatch was retained (under dispensation) by a small number of vessels for biological sampling.

One of the three vessels participating in this study (all based at Newlyn) was an offshore netter, fishing mainly on open grounds using a combination of gillnets aimed at hake and pollack (and therefore representative of the UoC) and tangle nets aimed at anglerfish and turbot on most trips.

**Spurdog** frequently appeared in this vessel’s gillnet catches in all months for which data were available (October to May), often taken in large quantities. For example, the estimated biomass of spurdog taken in one trip during October was higher than the retained quantity of the main target species (hake and pollack); whilst catches in four other trips equated to some 300–580 kg of spurdog per tonne of hake and pollack. Smaller catches (<30 kg of spurdog per tonne of hake and pollack) were reported on six of the trips. Catches of spurdog were highly variable, which may be related to the aggregating nature of the species and as to whether fishing operations coincided with the locations of any aggregation.

Although **porbeagle** (n = 83) could be reported in low numbers (1–2 fish per trip) over much of the year, the largest catches made during trips undertaken in August and September (34 and 39 in two of the trips undertaken), confirming the seasonality of this species.

One of the other two netters used gillnets on open grounds for pollack, saithe and cod, whilst the third netter fished mainly near wrecks with gillnets, targeting pollack, saithe, cod, ling, hake and anglerfish, and also fished for turbot, hake and anglerfish with tangle nets.

This work was continued during 2017, and during 2018 Cefas published a report on the “Spurdog (Picked dogfish) By-catch Avoidance Programme” (Hetherington *et al.* 2018). This report demonstrated the feasibility of establishing an alternative to the current management arrangements for spurdog interactions. Fishermen have also been involved in the development of a “Code of conduct” for elasmobranch bycatch which aims to promote post-capture survival of spurdogs and other elasmobranchs (see section 12.1 of this report).

#### 4.4.1.2 Species status

On the basis of the information presented above, there are no “main” retained species in this fishery, whilst haddock, ling, and pollack are the more important minor retained non-target species.

None of the discarded species made up more than 5% of the catch. However some of the discarded species have either a life history or current population status that may make them of particular vulnerability, and they should therefore be considered as “main” rather than minor species (see CRv1.3

Guidance at GCB 3.5.2). These species include spurdog, which is not considered as an ETP species (see section 4.4.2.1 of this report).

In addition to these species, the assessment team noted comments from the client and from Cefas concerning an increase in abundance of porbeagle sharks in the catch. This species is now regarded as an ETP species (see section 4.4.2.1 of this report).

#### **4.4.1.3 Summary**

In the Public Certification Report the assessment team considered cod, pollack and haddock as “main” retained species, and that the minor retained species were monkfish, saithe, megrim whiting and ling. The “main” discarded species were considered to be spurdog, and lesser spotted dogfish; porbeagle sharks, mackerel and edible crabs were considered “minor” discarded species.

Information has been presented about catch composition at this surveillance audit that was not available when the fishery was certified in 2015. This information has shown that the assessment team adopted a precautionary approach in the PCR, and that there are no “main” retained or discarded species in the fishery at present.

The new information presented here therefore supports the certification findings. No re-scoring of Pls is required or appropriate.

**Table 5:** Catch composition from gill netting vessels operating in the UoC and landing hake, from 6 trips by independent fisheries observers in 2017. Data show kg of fish caught on all trips for each gear type (kg) and the species composition (%) for each gear type. Shading shows the target species (hake) in rose. [Source: Cefas, unpubl]

Species	Net mesh size sampled								All mesh sizes	
	124		125		127		130			
	kg	%	kg	%	kg	%	kg	%	kg	%
(EUROPEAN) MACKEREL	0.2	0.1%	2.2	0.0%		0.0%		0.0%	2.4	0.0%
ALLIS SHAD		0.0%	1.5	0.0%	7.3	0.1%		0.0%	8.7	0.0%
ANGLERFISH (MONK)	4.7	1.8%	191.3	0.4%	6.8	0.1%		0.0%	202.7	0.3%
BLACK-BELLIED ANGLERFISH		0.0%	6.8	0.0%		0.0%		0.0%	6.8	0.0%
BLACKMOUTHED DOGFISH		0.0%	1.5	0.0%		0.0%		0.0%	1.5	0.0%
BOAR FISH	0.0	0.0%		0.0%		0.0%		0.0%	0.0	0.0%
BRILL		0.0%	3.3	0.0%		0.0%		0.0%	3.3	0.0%
COD	1.3	0.5%	439.3	0.9%	196.9	1.5%		0.0%	637.5	1.0%
COMMON LING	4.1	1.6%	766.0	1.6%	250.0	1.9%	16.8	0.7%	1,036.9	1.6%
COMMON SKATE		0.0%	28.7	0.1%	12.1	0.1%		0.0%	40.8	0.1%
COMMON SPIDER CRAB		0.0%	0.8	0.0%		0.0%		0.0%	0.8	0.0%
CUCKOO WRASSE		0.0%	0.5	0.0%		0.0%		0.0%	0.5	0.0%
EDIBLE CRAB UNSEXED	3.2	1.2%	15.9	0.0%		0.0%		0.0%	19.1	0.0%
EUROPEAN HAKE	177.5	68.8%	42,457.4	87.9%	10,464.6	78.9%	2,066.6	91.3%	55,166.2	86.1%
EUROPEAN SEA BASS		0.0%	4.0	0.0%		0.0%		0.0%	4.0	0.0%
GREATER FORKBEARD		0.0%	1.1	0.0%		0.0%		0.0%	1.1	0.0%
Greater weever	0.5	0.2%		0.0%		0.0%		0.0%	0.5	0.0%
GREY GURNARD		0.0%	15.6	0.0%		0.0%	2.0	0.1%	17.7	0.0%
HADDOCK	13.4	5.2%	1,739.1	3.6%	672.9	5.1%	84.1	3.7%	2,509.5	3.9%
HORSE-MACKEREL (SCAD)		0.0%	5.4	0.0%	2.3	0.0%		0.0%	7.7	0.0%
JOHN DORY	0.6	0.2%	5.9	0.0%	21.2	0.2%		0.0%	27.7	0.0%
LESSER SPOTTED DOGFISH	18.9	7.3%	196.3	0.4%	105.2	0.8%	16.0	0.7%	336.3	0.5%
MEGRIM	0.9	0.3%	63.5	0.1%	10.4	0.1%	4.2	0.2%	78.9	0.1%

Species	Net mesh size sampled								All mesh sizes	
	124		125		127		130			
	kg	%	kg	%	kg	%	kg	%	kg	%
NORWAY LOBSTER		0.0%	0.7	0.0%		0.0%		0.0%	0.7	0.0%
NURSE HOUND	2.2	0.8%	10.1	0.0%		0.0%		0.0%	12.3	0.0%
Palinurus spp		0.0%	0.6	0.0%		0.0%		0.0%	0.6	0.0%
POLLACK		0.0%	770.9	1.6%	111.8	0.8%	16.8	0.7%	899.6	1.4%
PORBEAGLE		0.0%	25.8	0.1%		0.0%		0.0%	25.8	0.0%
RED GURNARD		0.0%	12.2	0.0%	0.2	0.0%		0.0%	12.4	0.0%
SAITHE		0.0%	110.0	0.2%		0.0%		0.0%	110.0	0.2%
SMOOTH HOUND		0.0%	12.4	0.0%	902.9	6.8%		0.0%	915.3	1.4%
SOLE (DOVER SOLE)	0.5	0.2%	2.7	0.0%	1.4	0.0%		0.0%	4.5	0.0%
SPURDOG	3.5	1.3%	966.7	2.0%	369.2	2.8%	36.0	1.6%	1,375.4	2.1%
TOPE SHARK	15.8	6.1%	129.0	0.3%	63.8	0.5%		0.0%	208.7	0.3%
TUB GURNARD	4.7	1.8%	39.2	0.1%		0.0%	5.7	0.3%	49.6	0.1%
TURBOT	1.4	0.5%		0.0%		0.0%		0.0%	1.4	0.0%
WHITING	4.5	1.8%	267.8	0.6%	66.9	0.5%	16.3	0.7%	355.6	0.6%
WHITING-POUT (BIB)	0.3	0.1%	18.7	0.0%	0.6	0.0%		0.0%	19.6	0.0%
WITCH		0.0%	2.9	0.0%	0.4	0.0%		0.0%	3.2	0.0%
Grand Total	258.2	100.0%	48,315.6	100.0%	13,266.8	100.0%	2,264.6	100.0%	64,105.2	100.0%

**Table 6:** Observed rates of discarding and retention of different catch components in hake gill nets from Cefas observer trips in 2017. Target species (hake) is shaded in rose. [Source: Cefas, unpubl].

Species	For all mesh sizes					
	Discarded		Retained		Grand Total	
	kg	% of species catch	kg	% of species catch	kg	% of total catch
(EUROPEAN) MACKEREL	2.4	100.0%		0.0%	2.4	0.0%
ALLIS SHAD	8.0	91.8%	0.7	8.2%	8.7	0.0%
ANGLERFISH (MONK)		0.0%	202.7	100.0%	202.7	0.3%
BLACK-BELLIED ANGLERFISH	0.6	9.5%	6.2	90.5%	6.8	0.0%
BLACKMOUTHED DOGFISH	1.5	100.0%		0.0%	1.5	0.0%
BOAR FISH	0.0	100.0%		0.0%	0.0	0.0%
BRILL		0.0%	3.3	100.0%	3.3	0.0%
COD		0.0%	637.5	100.0%	637.5	1.0%
COMMON LING	6.6	0.6%	1,030.3	99.4%	1,036.9	1.6%
COMMON SKATE	40.8	100.0%		0.0%	40.8	0.1%
COMMON SPIDER CRAB	0.8	100.0%		0.0%	0.8	0.0%
CUCKOO WRASSE	0.5	100.0%		0.0%	0.5	0.0%
EDIBLE CRAB UNSEXED	16.9	88.4%	2.2	11.6%	19.1	0.0%
EUROPEAN HAKE	816.7	1.5%	54,349.5	98.5%	55,166.2	86.1%
EUROPEAN SEA BASS		0.0%	4.0	100.0%	4.0	0.0%
GREATER FORKBEARD		0.0%	1.1	100.0%	1.1	0.0%
Greater weever		0.0%	0.5	100.0%	0.5	0.0%
GREY GURNARD	1.1	6.2%	16.6	93.8%	17.7	0.0%
HADDOCK	206.0	8.2%	2,303.6	91.8%	2,509.5	3.9%
HORSE-MACKEREL (SCAD)	6.1	79.2%	1.6	20.8%	7.7	0.0%
JOHN DORY	0.5	1.8%	27.2	98.2%	27.7	0.0%
LESSER SPOTTED DOGFISH	295.4	87.8%	40.9	12.2%	336.3	0.5%
MEGRIM	2.8	3.5%	76.2	96.5%	78.9	0.1%
NORWAY LOBSTER	0.7	100.0%		0.0%	0.7	0.0%
NURSE HOUND	6.6	53.4%	5.7	46.6%	12.3	0.0%
Palinurus spp	0.6	100.0%		0.0%	0.6	0.0%
POLLACK	18.1	2.0%	881.4	98.0%	899.6	1.4%
PORBEAGLE	25.8	100.0%		0.0%	25.8	0.0%
RED GURNARD	6.6	52.9%	5.8	47.1%	12.4	0.0%
SAITHE		0.0%	110.0	100.0%	110.0	0.2%
SMOOTH HOUND	59.3	6.5%	856.0	93.5%	915.3	1.4%
SOLE (DOVER SOLE)		0.0%	4.5	100.0%	4.5	0.0%
SPURDOG	1,095.7	79.7%	279.7	20.3%	1,375.4	2.1%
TOPE SHARK	206.2	98.8%	2.5	1.2%	208.7	0.3%
TUB GURNARD		0.0%	49.6	100.0%	49.6	0.1%
TURBOT		0.0%	1.4	100.0%	1.4	0.0%



Species	For all mesh sizes					
	Discarded		Retained		Grand Total	
	kg	% of species catch	kg	% of species catch	kg	% of total catch
WHITING	33.0	9.3%	322.6	90.7%	355.6	0.6%
WHITING-POUT (BIB)	5.5	27.8%	14.1	72.2%	19.6	0.0%
WITCH		0.0%	3.2	100.0%	3.2	0.0%
<b>Grand Total</b>	<b>2,864.7</b>	<b>4.5%</b>	<b>61,240.6</b>	<b>95.5%</b>	<b>64,105.2</b>	<b>100.0%</b>

#### 4.4.2 ETP species

##### 4.4.2.1 Definition of ETP species

Since this fishery was certified the MSC has made a key change in the interpretation of Principle 2 with respect to ETP species. This change is briefly explained below, and its implications for the Cornish Hake Gill Net fishery are then considered.

During 2015 MSC indicated that species listed as “prohibited” in the annual EU TAC Regulation should be regarded as ETP species. Spurdog were added to the list of “prohibited” species in Regulation 72/2016 (listed in in Article 13); which was subsequently replaced by Regulation 127/2017 (Article 12); then Regulation 120/2018 (Article 13); and now Regulation 124/2019 (Article 14) which was in place at the time of this audit and which will, in turn, be amended for 2020.

A consequence of the MSC interpretation of ETP species is that catch data for all fisheries taking place in EU waters must be evaluated to see if any of the “Prohibited” species listed in Article 14 of EU Regulation 120/2019 are caught in the fishery (and indeed whether catch records are adequate to identify the capture of such species).

During the course of the site visit the assessment team discussed this list of prohibited species with the client, the Sea Mammal Research Unit (SMRU) and examined independent observer data from Cefas for evidence of interactions with the prohibited species listed in this Regulation.

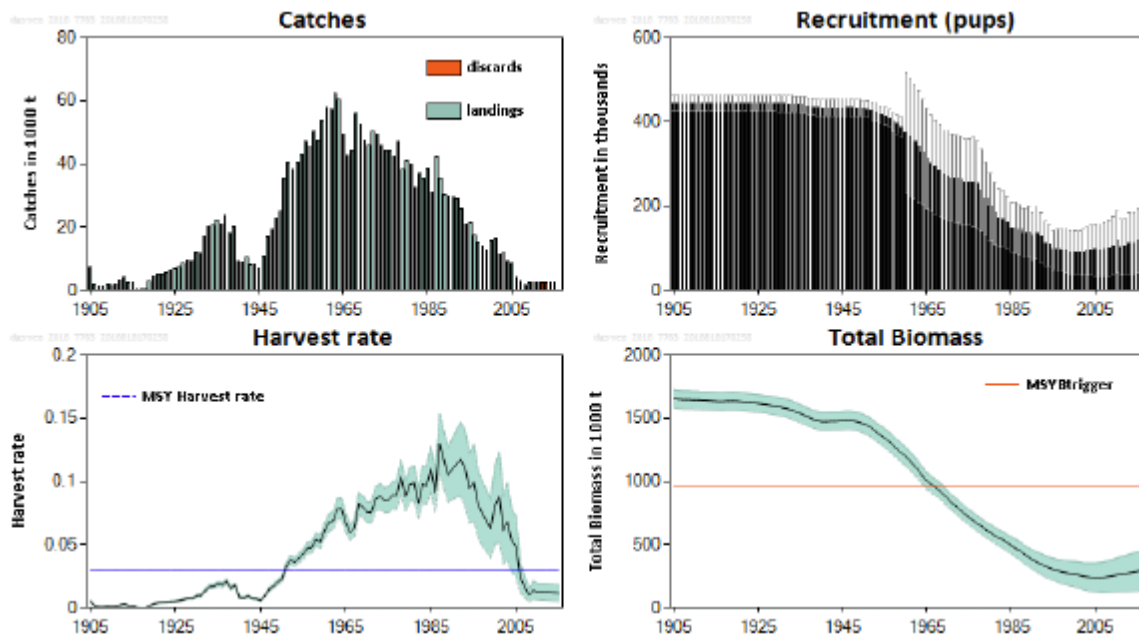
The client reported that the hake fleet do not fish for nor retain on board their vessels any of the prohibited species (except from those spurdogs caught and retained in accordance with the derogation from the EU Regulations as part of the “NEPTUNE” project (described in section 4.4.1.1.2 of this report). The catch of porbeagle sharks is reported by the client to have been increasing recently, but these are all returned to the sea immediately after capture.

Data from Cefas observers in 2018 show catches of 25.8kg porbeagle sharks in 2017 (all returned to the sea), 1.3t of spurdog (mostly returned to the sea, apart from those retained under the NEPTUNE project), and 8.7kg of Allis shad. No other ETP species were encountered.

It is clear from the data provided at this 3<sup>rd</sup> surveillance audit that there continue to be occasional catches of protected species in the fishery, including Allis shad, spurdog and porbeagle sharks. This catch composition is very similar to that seen during the initial assessment of the fishery and the last surveillance audit. The status of the NE Atlantic porbeagle shark population is kept under review by ICES (see ICES 2015, 2016d).

##### 4.4.2.2 Spurdog

ICES has not recently updated its assessment of spurdog in the Northeast Atlantic (considered to be a single stock). This suggests that SSB and recruitment have shown signs of a recovery over the last decade after having declined substantially since the 1960s, and the recent harvest rate has is estimated to have been well below the MSY level (0.03: catch as a proportion of the total biomass, assuming a non-target selection pattern over the ages 5–30). Targeted fisheries for spurdog have been prohibited in EU and Norwegian waters since 2011 (+ zero TAC).



**Figure 2:** Summary of ICES' stock assessment of spurdog in the Northeast Atlantic, long-term trends in catches, mean harvest rate (average ages 5–30), recruitment (number of pups), and total biomass. Shaded areas reflect estimates of precision ( $\pm 2$  standard deviation) and horizontal lines indicate the associated MSY levels.

ICES observe that spurdog remain a bycatch in gillnet fisheries, and levels of discard survival are variable and unknown (probably low).

ICES advice is that, when the precautionary approach is applied, there should be no targeted fisheries on this stock. Annual catches at the recent assumed level (2468 t) would allow the stock to increase at a rate close to that estimated with zero catches, whilst any possible provision for the landing of spurdog bycatch should be part of a management plan. However, there is as yet no management plan for this stock.

#### 4.4.2.3 Interactions with cetaceans

A summary of hake gill-net fishery interactions with cetaceans was provided to the assessment team by Allen Kingston from the Sea Mammal Research Unit (SMRU) following the site visit. He reported that SMRU monitored 52 gill net hauls on 6 observer trips covering 26 sea days during 2018 (see section 11.1 of this report).

Over 90% of monitored hauls were equipped with Acoustic Deterrent Devices ("pingers"). Most nets had more than two pingers. SMRU observers check the pinger voltage (a proxy for functioning) when nets are hauled. Net length ranged from 2200m to 8800m, with 4400m being the most common length.

There were 3 recorded cetacean bycatches: 1 harbour porpoise and 2 common dolphins. The harbour porpoise and one of the common dolphins were recorded in nets that were respectively 18 and 20 panels (1.8 & 2.0km) from the nearest pinger, which is likely to be towards the limit of its range. The other common dolphin was found 10 net panels (approx. 1km) from the nearest pinger, which may have had a malfunctioning battery.

SMRU note that the very low incidence of common dolphin bycatches makes it hard to evaluate whether pingers are an effective deterrent. SMRU scientists are looking at ways to evaluate the data available to look for trends and effects.

In terms of other protected species bycatches, SMRU recorded blue and porbeagle shark, flapper and blue skate, plus several other smaller (not officially protected but which might be classed as vulnerable) elasmobranch species. A single shad (unspiciated) was also recorded.

#### **4.5 Changes in the management system**

The key change in the management system for this fishery since it was certified in 2015 has been the introduction of “landing obligations” for catches taken from stocks subject to catch limits under the revised EU Common Fisheries Policy (CFP) (EU Regulation 1380/2013).

The implementation of the landing obligation in western waters has been achieved progressively through a succession of “discard plans”. The first of these was EU Regulation 2438/2015 which applied from the 1<sup>st</sup> January 2016, and required that all fishing vessels more than 12m long and which use either gill nets or tangle nets must retain on board all hake caught in ICES sub-Areas 4, 7 and EU waters of 5b. The Marine Management Organisation (MMO) published guidance for the fishing industry on the implementation of the landing obligation in this area (MMO 2015). EU Regulation 2438/2015 was repealed in 2016 and replaced by Regulation 2375/2016; which was in turn repealed and replaced by Regulation 46/2018, which expired on 31<sup>st</sup> December 2018. The landing obligation set out in the CFP now applies with full effect throughout Western Waters.

During the period since the last surveillance audit the EU has reviewed the current status of the CFP and in particular the implementation of the landing obligation (European Commission 2018a). A key conclusion of this review was that there is limited evidence of the effective implementation of the landing obligation by Member States, and that there are concerns about the capacity of national and EU agencies to monitor and enforce compliance with the landing obligation. This finding resulted in some MSC assessments raising a condition in response to this issue.

As part of the harmonisation process (described in section 3.4 of this report), it has been concluded that the harmonised condition relating to the implementation of the landing obligation should be applied to this fishery.

#### **4.6 Changes in relevant regulations**

As noted above, the key change in regulations governing this fishery has been the introduction of the EU “landing obligation”, which has applied to the hake gill net fishery since the 1<sup>st</sup> January 2016.

#### **4.7 Changes to personnel involved in science, management or industry**

No significant changes in personnel were noted. It was noted that the MMO had relocated its local office to Hayle in North Cornwall, but this was not considered by the client to have affected the level of enforcement coverage at the port of Newlyn. The MMO continue to operate small office on the quayside in Newlyn.

#### **4.8 Any developments or changes within the fishery which impact traceability or the ability to segregate between fish from the Unit of Certification (UoC) and fish from outside the UoC (non-certified fish)**

No changes in the fishery that would impact on traceability or the ability to segregate UoC and non-UoC fish were reported at this audit.

#### **4.9 Any complaints against the certified operation**

No reports have been made of any complaints against the certified operation.

#### 4.10 TAC and catch data

TAC and catch data for the fishery and client group for the last complete year of fishing (2016) are summarised in the table below. The UoA share of the TAC is that allocated to the UK in 2016. The client (UoC) share of the TAC is the amount available following swaps and transfers by the CFPO during the year. The catch data are for those vessels listed in the UoC (Table 3).

**Table 7: TAC and Catch Data**

<b>TAC</b>	<b>Year</b>	<b>2018</b>	<b>Amount</b>	<b>111,785t</b>
<b>UoA share of TAC</b>	<b>Year</b>	<b>2018</b>	<b>Amount</b>	<b>12,103t</b>
<b>UoC share of TAC</b>	<b>Year</b>	<b>2018</b>	<b>Amount</b>	<b>2,025t</b>
<b>Total green weight catch by UoC</b>	<b>Year (most recent)</b>	<b>2018</b>	<b>Amount</b>	<b>1,812t</b>
	<b>Year (second most recent)</b>	<b>2017</b>	<b>Amount</b>	<b>1,413t</b>

#### 4.11 Summary of Assessment Conditions

The table below summarises the status of the five conditions of certification following the first surveillance audit. One condition was closed at this audit; progress with the other four is considered to be either “on target” or “ahead of target”.

**Table 8: Summary of Assessment Conditions at 3<sup>rd</sup> Surveillance Audit**

<b>Condition number</b>	<b>Performance indicator (PI)</b>	<b>Status</b>	<b>PI original score</b>	<b>PI revised score</b>
1	1.2.2	On target	75	80
2	2.2.1	Ahead of target	70	70
3	2.2.3	On Target	70	85
4	2.3.2	On target Condition closed at 1st audit	70	80
5	2.5.3	On target	75	90
6	3.2.2	New at this audit	90	75

## 5 Results

### 5.1 Condition 1: Harvest Control Rules & Tools

Performance Indicator(s) & Score(s)	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
	1.2.2	Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.	75
Condition	Support work to develop and adopt well-defined harvest control rules that are consistent with the harvest strategy and ensure that exploitation rates is reduced as limit reference points are approached. The HCR should be contained within a long-term management plan.		
Milestones	<p><b>Revised milestones following 2<sup>nd</sup> Surveillance Audit:-</b></p> <p>Years 1-2: Promote the adoption of well-defined harvest control rules which are consistent with the harvest strategy and ensure that the exploitation rates is reduced as limit reference points are approached.</p> <p>Resulting score: 75</p> <p>Year 3: Evidence shall be presented that a harvest control rule is being implemented that is consistent with the harvest strategy (i.e. the objective of attaining MSY specified in the EU Common Fisheries Policy or equivalent international agreements) and that would ensure that the exploitation rate is reduced as limit reference points are approached.</p> <p>Resulting score: 80</p> <p>Years 4-5: Ongoing evidence of the implementation of the harvest control rule shall be required.</p> <p>Resulting score: 80</p>		
Client action plan	<ul style="list-style-type: none"> <li>CFPO is working closely with the NWW RAC (other Member States involved in Hake fisheries) and European Association of Fish Producers Organisation (EAPO) in the development of a long-term management plan for this stock that will include well-defined harvest control rules which are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.</li> <li>CFPO actively participate in meetings with STECF to ensure their knowledge of the fisheries concerned is as accurate as possible, and that management is appropriate.</li> </ul>		
Progress on Condition: Year 1	The requirement in Year 1 is that the client (CFPO) supports the adoption of well-defined harvest control rules which are consistent with the harvest strategy and ensure that the exploitation rate on hake is reduced as limit reference points are approached. CFPO continues to work with the NWW RAC (as member, rapporteur and chair of hake-related discussions) and EAPO in the development of a long-term management plan for this stock, and has participated in relevant meetings with STECF, to ensure their knowledge of the fisheries concerned is as accurate as possible and that management is appropriate.		

The surveillance team noted (as have MRAG in their surveillance report for the DFPO) that progress with the development of a long-term management plan for this and other EU fisheries is presently delayed by disagreements between the European Parliament and Council of Ministers about the implementation of the co-decision process. This could present an obstacle to meeting the Year 3 milestone for this condition that the client (and any other fishery client in Europe) has little power to influence. However, the surveillance team also noted evidence that an appropriate set of harvest control rules are emerging that could meet the requirements of this PI even if a formal long-term management plan is not agreed. Since the certification year (2014), advice on management of the hake fishery has moved on from the Hake Recovery Plan and in 2015 and 2016 ICES (2015a, 20161a) provided catch advice based on the MSY approach: this provides a well-defined HCR based on a target fishing mortality reference point ( $F_{MSY}$ ) and two SSB reference points ( $B_{lim}$  and  $MSYB_{trigger}$ ). The latter is intended to be at the lower range of variability of SSB expected while fishing at  $F_{MSY}$ , while the former is the point below which biomass should not decline in order not to impair reproductive capacity. Following the MSY approach, catch advice is given such that for current SSB values below  $MSYB_{trigger}$ , fishing mortality is linearly reduced (in proportion to the ratio of the current SSB to  $MSYB_{trigger}$ ), implying that as  $B_{lim}$  is approached, fishing mortality is reduced. Below  $B_{lim}$ , special measures can be introduced to further reduce fishing mortality and thus protect reproductive capacity, and described in Articles 5 & 6 of the Recovery Plan (EU 2004).

This (the MSY) approach essentially constitutes a long-term management plan for Northern hake (or any stock), with the objective of sustaining exploitation levels so as to achieve MSY, and having a well-defined harvest control rule that ensure that exploitation rates are reduced as limit reference points are approached.

We note, however, that landings of hake have greatly exceeded the TACs since 2009 (due, possibly to the disconnect between the recovery plan measures and the unexpected large increase in biomass since 2008).

Further, the surveillance team note that since this fishery was assessed, a revised Common Fisheries Policy has been implemented in the EU EEZ. One of the key objectives of the CFP is to maintain populations of harvested species above levels that can produce the MSY, by achieving a level of exploitation equivalent to  $F_{MSY}$  by 2015 (Article 2, EU Regulation 1380/2013).

ICES consider that  $F_{MSY}$  for the northern hake stock is  $F=0.28$ , and that  $F$  has been below this value since 2012.

The team consider that many of the requirements of this condition are presently met, both by the binding legal commitment set out in the CFP and through the advice provided by ICES. If the constitutional issues that are preventing the development of long-term management plans in the EU are not addressed by Year 2, it may be appropriate to revise the condition and milestones to recognise that a pragmatic and alternative solution to this condition has been achieved.

### Conclusion

From a pragmatic perspective, the requirements of this Performance Indicator are now met by the combination of the 2004 Hake Recovery Plan coupled with the revised CFP and the response of the management system relative to advice provided by ICES using the MSY approach. However from an administrative perspective there is little sign of progress at the EU level with a long-term management plan for this fishery.

The Year 1 requirements are that the client fishery should support the development of appropriate harvest control rules, and the evidence presented at this audit indicates that progress is **on target** in this regard.



	<p>It will be important at the Year 2 surveillance audit to review the likelihood of the EU developing a long-term management plan for this fishery, and if management continues to be consistent with the MSY approach described above, whether this is in fact necessary.</p>
<p><b>Progress on Condition: Year 2</b></p>	<p>The comments made at surveillance audit 1 are still relevant.</p> <p>It is now clear that, as a result of constitutional issues, the development and implementation of a long-term EU management plan for hake is unlikely in the near future and, furthermore, that inclusion of such a management plan in a multi-species multi-annual plan is also unlikely within the period of certification.</p> <p>The assessment team note that the MSY approach set out in the CFP and used as the basis for ICES advice has been adhered to by the EU in its TAC determinations for 2016, 2017 and 2018. Therefore, as noted in the year 1 surveillance audit, a <i>de facto</i> harvest control rule can be considered to be "in place".</p> <p>In last year's surveillance audit the team anticipated that it may be appropriate to revise the condition and milestones in response to this situation at this year's surveillance audit. The team has considered that this would be an appropriate response to the current situation, and has drawn up a revised version of this condition (see Appendix 1 of the year surveillance report).</p> <p>The evidence available at this surveillance audits shows that the client fleet have supported the adoption of a TAC that is consistent with the harvest strategy and the harvest control rule, which meets the requirements of the Year 2 milestone for this condition.</p> <p>It is anticipated that if the TAC continues to be set at a level that is consistent with the MSY approach enshrined in the harvest strategy (EU CFP) and is based on ICES' advice following this approach, then the requirements of the revised condition are likely to be met at the next surveillance audit in 2018.</p> <p><b>Conclusion</b></p> <p>Progress is <b>on target</b>. The harvest control rules in place have resulted in a TAC being set for the fishery that is consistent with the harvest strategy.</p> <p>The condition and milestones have been revised as a pragmatic response to the constitutional issues that are preventing the development of a long-term management plan. If the TAC continues to be set in line with ICES advice and the MSY approach, it is likely that the SG80 requirements will be met at the third surveillance audit.</p>
<p><b>Progress on Condition: Year 3</b></p>	<p>The milestones for this condition were revised at the last surveillance audit following harmonisation discussions between CABs. They now require at this surveillance audit that:-</p> <p><i>Evidence shall be presented that a harvest control rule is being implemented that is consistent with the harvest strategy (i.e. the objective of attaining MSY specified in the EU Common Fisheries Policy or equivalent international agreements) and that would ensure that the exploitation rate is reduced as limit reference points are approached.</i></p> <p>Although no formal HCR has been adopted, the harvest rule now followed by ICES is to give advice is based on <math>F_{MSY}</math> as the maximum <math>F</math>. This is reduced linearly when the biomass falls below <math>MSY B_{trigger}</math> and is zero below <math>B_{lim}</math>. The rule is well defined and consistent with the Precautionary and MSY Approaches.</p>



	<p>In recent years the agreed TAC has usually followed the ICES MSY HCR advice:</p> <table><tr><th>Year</th><th>ICES advice</th><th>Agreed TAC</th></tr><tr><td>2014</td><td>81846</td><td>81846</td></tr><tr><td>2015</td><td>78457</td><td>90849</td></tr><tr><td>2016</td><td>109592</td><td>108764</td></tr><tr><td>2017</td><td>123777</td><td>119765</td></tr><tr><td>2018</td><td>115335</td><td>104190</td></tr><tr><td>2019</td><td>142240</td><td>142240</td></tr></table> <p>Since 2016 managers have followed ICES advice, including the TAC for 2019. In response to this evidence, the assessment team has re-scored the relevant Performance Indicator (PI 1.2.2). The scoring is presented in section 9.1.2 of this report. A new score of 80 has been awarded for this PI.</p>	Year	ICES advice	Agreed TAC	2014	81846	81846	2015	78457	90849	2016	109592	108764	2017	123777	119765	2018	115335	104190	2019	142240	142240
Year	ICES advice	Agreed TAC																				
2014	81846	81846																				
2015	78457	90849																				
2016	109592	108764																				
2017	123777	119765																				
2018	115335	104190																				
2019	142240	142240																				
<b>Status of condition</b>	<p>The evidence available at this surveillance audit satisfies the requirements of the year 3 milestone. Progress is considered to be <b>on target</b>, and following re-scoring of the PI 1.2.2 this condition can now be <b>closed</b>.</p>																					

## 5.2 Condition 2: Discarded species outcome

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
<b>Performance Indicator(s) &amp; Score(s)</b>	2.2.1	<b>Main bycatch species are <u>highly likely</u> to be within biologically based limits or if outside such limits there is a <u>partial strategy of demonstrably effective</u> mitigation measures in place such that the fishery does not hinder recovery and rebuilding.</b>	70
<b>Condition</b>	Evidence is required to show that the partial strategy in place for managing the impact of the fishery on spurdog ensures that the fishery does not hinder the recovery or rebuilding of spurdog stocks. If the current strategy is not effective, then new management measures should be identified and adopted with a view to establishing a more effective regime.		
<b>Milestones</b>	<p>Years 1-2: Design and implement a programme of monitoring work that will determine the contribution of this fishery to overall mortality of spurdog. Resulting score: 70</p> <p>Years 2-3: Ongoing implementation of monitoring programme. Resulting score: 70</p> <p>Years 4-5: Report results of monitoring programme; implement any new management measures (if necessary) that are likely to improve effectiveness of management strategy.</p>		

	Resulting score: 80
<b>Client action plan</b>	<ul style="list-style-type: none"> <li>• CFPO currently lead industry partners with CEFAS in project NEPTUNE looking at Spur-dog and Porbeagle by-catch rates, mitigation strategies and stock data enhancement.</li> <li>• CFPO involved in tagging work with CEFAS on an on-going basis.</li> <li>• CFPO involvement on number of FSP projects in recent years</li> <li>• CFPO vessels have an open door policy with CEFAS discard observers and most if not all vessels in the Group have taken discard observers from time to time.</li> <li>• CFPO will work with CEFAS and vessels to design and implement an appropriate discard monitoring programme for the fishery.</li> <li>• CFPO will test and implement new management measures, if necessary, to mitigate impacts of the fishery on spurdogs.</li> </ul>
<b>Progress on Condition: Year 1</b>	<p>Evidence was provided at this surveillance audit to demonstrate that the client is working in partnership with Cefas to monitor catch composition in the hake gill net fishery (see section 4.4.1 of this report). The information presented at this audit covers the period 2015-2016, and Cefas report an ongoing commitment to maintaining the monitoring programme.</p> <p>Results of the monitoring programme were made available to the assessment team by Cefas at this audit. The evidence provided shows that spurdog are typically a minor element of the catch (less than 2%).</p> <p>The most recent ICES assessment of spurdog status indicates that the partial strategy for managing impacts on spurdog (i.e. setting a zero TAC to prevent directed fishing) is likely to be effective and will not impede the recovery of this species. ICES (2016) provides evidence for this, in that the long-term decline in SSB has ceased and stabilized over the last decade, whilst the harvest rate has declined substantially and is estimated to be well below the MSY level.</p> <p>CFPO, Cefas, the Shark Trust, and the MMO are also working together to develop new management measures to reduce the impacts of this fishery on spurdog through real time closures. Under this scheme, 3 CFPO vessels are presently reporting any spurdog catch incidents on a daily basis to Cefas, who are then providing management advice to the vessels on how to avoid catching spurdogs in subsequent hauls. Whilst participating in this project the vessels are allowed to land a small quantity of spurdog for sale (limited to 2t per month), and which are made available to Cefas for biological sampling when landed.</p> <p><b>Conclusion</b></p> <p>The evidence presented at this audit shows that a monitoring programme has already been designed and implemented for this fishery, meeting the Year 1 and Year 2 requirements. Some initial results of the monitoring programme were made available to the team, meeting part of the Year 4-5 requirements as well.</p> <p>There is evidence that work has already started on the development of new management measures (such as real-time management responses to spurdog catches), which will ultimately improve the effectiveness of the management strategy.</p> <p>Progress at this audit is therefore considered to be <b>ahead of target</b> for this condition.</p>

<p><b>Progress on Condition: Year 2</b></p>	<p>At this surveillance audit the assessment team discussed the ongoing catch monitoring and management work with the client and with Cefas. This is being conducted under the Neptune Programme (see section 4.4.1.1.2 of this report).</p> <p>The spurdog catch monitoring programme described last year remains in place and is reported to be operating successfully. In summary, vessel skippers provide daily reports of their spurdog catch to Cefas; these data are rapidly collated by Cefas to produce maps of the fishing area that show where fishing vessels have caught spurdogs in the previous 24h period. The maps use a "traffic light" colour coding for 17x17km grid squares which show where spurdogs have been caught.</p> <p>The maps are provided in real time to skippers and are advisory. Vessels are not prohibited from fishing in "red" squares. Spurdogs are a very mobile species, and skippers often realise that a shoal is moving through an area so that there may be a significant catch of spurdogs on one day followed by a negligible catch in the exact same area in the following days.</p> <p>In return for their participation in this project, the vessels are permitted to land up to 2 tonnes of spurdog per month. These spurdogs can only be landed if they were already dead when they were caught. Any live spurdogs must be returned to the sea. The retention and landing of spurdogs is allowed under a derogation from the CFP Regulation that prohibits their retention and landing. The retained spurdogs are sold, and are also made available for biological sampling by Cefas.</p> <p>On the day prior to the site visit the skippers of 6 gill net fishing vessels, including 3 from the UoC, had met with Cefas and the Shark Trust to discuss progress with this initiative. Cefas observers deployed on vessel participating in this scheme have found that the catch and discarding rates recorded when observers are present are consistent with those recorded when observers are not present. Arrangements have also been made for a Shark Trust observer to be present on a fishing trip.</p> <p>The client reported that the total catch of spurdogs for the vessels participating in this project between 1<sup>st</sup> November 2016 and 1<sup>st</sup> November 2017 was 90t, of which 38t were landed. Between 12 and 14t of the 52t of spurdog that were returned to the sea were dead.</p> <p>The skippers' perception is that spurdog abundance is increasing. Catches of spurdog in hake nets are reported to be sporadic and unpredictable. The sharing of information about spurdog catches appears to be informing skippers' fishing decisions and assisting with a reduction of accidental spurdog catches.</p> <p><b>Conclusion</b></p> <p>The evidence presented at this audit shows that the monitoring programme established in Year 1 continues to be implemented successfully. Some results of the monitoring programme were made available to the team, meeting part of the Year 4-5 requirements as well.</p> <p>There is evidence that work is continuing on the development of new management measures (such as real-time management responses to spurdog catches), which will ultimately improve the effectiveness of the management strategy.</p> <p>Progress at this audit is therefore considered to continue to be <b><u>ahead of target</u></b> for this condition.</p>
<p><b>Progress on Condition: Year 3</b></p>	<p>Cefas have presented evidence of ongoing monitoring of catches from the hake gill net fishery (see section 4.4.1.1 of this report).</p>

A report on the findings of the spurdog by-catch avoidance programme has been published (Hetherington *et al.* 2018). This study has demonstrated that the use of real-time spurdog catch data from the fishery to identify areas where there is a high risk of spurdog bycatch coupled with a derogation to allow a limited quantity of dead bycatch to be landed provides a viable management option and an alternative to the prohibition set out in the annual TAC regulation.

This project has required close collaboration between fishing vessel skippers, the CFPO, scientists from Cefas and fishery managers at Defra. An illustration of the processes that have been developed to gather and analyse data and then communicate information back to the fishing fleet is provided in Figure 3.

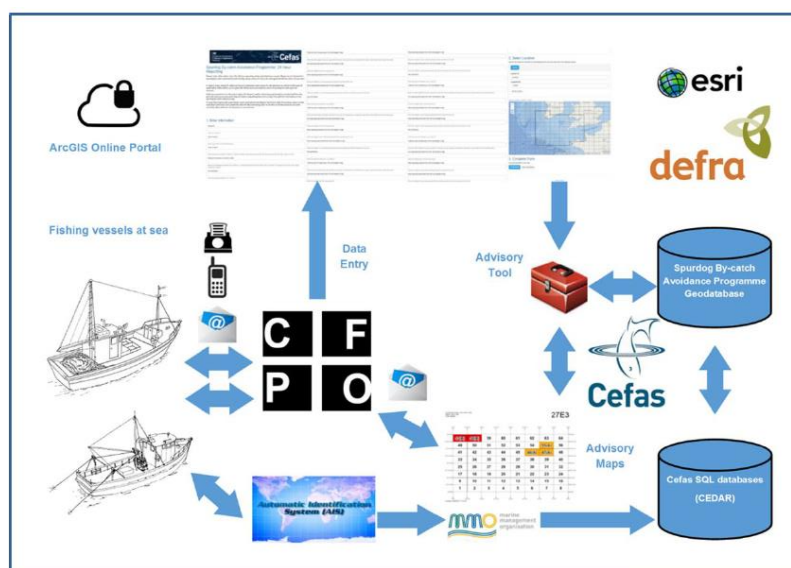


Figure 3: Schematic of the spurdog by-catch reporting and advisory tools.

**Figure 3:** Schematic diagram of the data communication and analysis procedures established in the spurdog bycatch avoidance programme (Hetherington *et al.* 2018).

The scope of this programme has also included studies of the spurdog movements and distribution using data storage tags; analysis of post-capture vitality of spurdogs using different fishing métiers; and improved communication between scientists, managers and fishers that has developed a better understanding of fishing practices and has helped to ensure that the handling of live spurdogs which are returned to the sea optimises their survival. A new code of conduct has been developed and implemented to promote best practice in the return of live spurdog to the sea.

Work on this programme is ongoing. Cefas and CFPO are working to refine the monthly landing allowance issued to vessels participating in the programme (currently set at 2t of dead spurdogs per month) to take account of the higher catches reported during the winter months (October – April).

Future work has also been planned to further reduce the number of significant bycatch events; to develop the bycatch advisory tool so that it is predictive rather than reactive; and to rollout this approach more widely, both within the Celtic Sea and in other UK sea areas.

#### Status of condition

The evidence presented at this surveillance audit shows that a report has been produced which presents the results of bycatch monitoring in the fishery. This report evaluates the management measures that have been trialled and adopted by some of the CFPO vessels in the unit of certification. This progress is **ahead of target** for Year 3 of certification.

	The Year 4-5 milestones are largely met. The assessment team considers that it would be appropriate to review progress at the Year 4 audit before formally closing this condition.
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### 5.3 Condition 3: Discarded species - information

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
<b>Performance Indicator(s) &amp; Score(s)</b>	2.2.3	<b>Sufficient data continue to be collected to detect any increase in risk to main bycatch species (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy).</b>	<b>70</b>
<b>Condition</b>	Action should be taken to establish a discard monitoring programme for the fishery that is capable of detecting any increase in risk to the main bycatch species.		
<b>Milestones</b>	<p>Years 1-2: Design and implement a discard monitoring programme for this fishery. Resulting score: 70</p> <p>Years 2-3: Ongoing implementation of monitoring programme; start of annual reporting. Resulting score: 80</p> <p>Years 4-5: Ongoing monitoring and reporting of discarding from the fishery. Resulting score: 80</p>		
<b>Client action plan</b>	<ul style="list-style-type: none"> <li>CFPO will work with CEFAS to design and implement an appropriate discard monitoring programme for the fishery</li> <li>CFPO will work with CEFAS to ensure that data collected from this discard monitoring programme are collated and the results provided annually to relevant parties.</li> </ul>		
<b>Progress on Condition: Year 1</b>	<p>Evidence was provided at this surveillance audit to demonstrate that the client is working in partnership with Cefas to monitor catch composition in the hake gill net fishery (see section 4.4.1 of this report). The information presented at this audit covers the period 2015-2016, and Cefas have indicated their ongoing commitment to maintaining the monitoring programme.</p> <p>Results of the monitoring programme were made available to the assessment team by Cefas at this audit. The evidence provided shows that spurdog are typically a minor element of the catch (less than 2%), and that all of the spurdog caught in the fishery are returned to the sea (apart from on the 3 vessels now participating in the real-time closure programme).</p> <p>The information provided from this monitoring programme to date has been in the form of raw data; no annual reports have yet been produced. The condition</p>		

	<p>does not, however, require the production of annual reports of monitoring activity and findings until Years 2-3 of certification.</p> <p><b>Conclusion</b></p> <p>The evidence presented at this audit shows that a monitoring programme has already been designed and implemented for this fishery, meeting the Year 1 and Year 2 requirements.</p> <p>Some initial results of the monitoring programme were made available to the team, indicating that prospects for meeting the annual reporting requirements in Years 2-3 are good.</p> <p>Progress at this audit is therefore considered to be <b>on target</b> for this condition.</p>
<b>Progress on Condition: Year 2</b>	<p>Further evidence was provided at this surveillance audit to demonstrate that the client is working in partnership with Cefas to monitor catch composition in the hake gill net fishery (see section 4.4.1 of this report). The information presented at this audit covers the 2017, and Cefas have indicated their ongoing commitment to maintaining the monitoring programme under the EU's Data Collection Regulation.</p> <p>Results of the monitoring programme were made available to the assessment team by Cefas at this audit. The evidence provided shows that spurdog are typically a minor element of the catch (around 2%), and that all of the spurdog caught in the fishery are returned to the sea (apart from catches on the vessels participating in the NEPTUNE programme).</p> <p>The information provided from this monitoring programme to date has been in the form of raw data; no formal report has been produced. The condition does not, however, require the production of annual reports of monitoring activity and findings until Years 2-3 of certification.</p> <p><b>Conclusion</b></p> <p>The evidence presented at this audit shows that a monitoring programme continues to be implemented for this fishery, meeting the Year 1 and Year 2 requirements.</p> <p>Some initial results of the monitoring programme were made available to the team. A report of monitoring results has not yet been produced. This milestone relates to Years 2 &amp; 3 of the period of certification.</p> <p>Progress at this audit is therefore considered to be <b>on target</b> for this condition.</p> <p>At the Year 3 surveillance audit in 2018 the assessment team anticipate that it should be possible to rescore this PI and close the condition if an annual report on catch monitoring is available.</p>
<b>Progress on Condition: Year 3</b>	<p>Further evidence was provided at this surveillance audit to demonstrate that the client is working in partnership with Cefas to monitor catch composition in the hake gill net fishery (see section 4.4.1 of this report). The information presented at this audit covers the 2018, and Cefas have indicated their ongoing commitment to maintaining the monitoring programme under the EU's Data Collection Regulation.</p> <p>Results of the monitoring programme were made available to the assessment team by Cefas at this audit. The evidence provided shows that spurdog are typically a minor element of the catch (around 2%), and that all of the spurdog caught in the fishery are returned to the sea (apart from catches on the vessels participating in the NEPTUNE programme).</p> <p>As noted in the report on progress with Condition 2 above, a report has been produced by Cefas on the bycatch of spurdog in this fishery since the last</p>



	surveillance audit (Hetherington <i>et al.</i> 2018). This report demonstrates that a monitoring and management programme has been successfully established that enables real-time monitoring and management of risk to this species.
<b>Status of condition</b>	The provision of a report summarising progress with bycatch monitoring and avoidance meets the requirements of the Year 3 milestone. The assessment has re-scored PI 2.2.3 and this condition has been <b><u>closed, on target.</u></b>

#### 5.4 Condition 4: ETP Species - Management

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
<b>Performance Indicator(s) &amp; Score(s)</b>	2.3.2	There is <u>evidence</u> that the strategy is being implemented successfully.	70
<b>Condition</b>	Evidence should be provided to demonstrate the successful implementation of the management strategy for reduction of ETP species interactions with the fishery.		
<b>Milestones</b>	<p>Years 1: Work with the appropriate management authority (MMO) and observers (SMRU) to gather information that demonstrates the effective implementation of ETP bycatch reduction measures (i.e. the use of pingers on nets).</p> <p>Resulting score: 80</p> <p>Years 2-5: Ongoing monitoring of implementation of management measures.</p> <p>Resulting score: 80</p>		
<b>Client action plan</b>	<ul style="list-style-type: none"> <li>CFPO vessels have been involved in acoustic pinger trials for over 10 years. We have worked collaboratively with SMRU on developing and testing various pinger designs/models.</li> <li>All vessels in the Groups have been issued and actively use DDD acoustic deterrents.</li> <li>CFPO vessels all have an open door policy on Cetacean Observers and all have carried an observer at least once.</li> <li>As custodians of the marine environment all of our skippers are committed to minimising any cetacean by-catch and are willing to take all necessary and practicable steps to ensure this.</li> <li>Monitoring has shown that cetacean by-catch levels are minimal in the fishery, and CFPO will continue to monitor the effectiveness of pingers as a management tool.</li> <li>CFPO will work with MMO to ensure that the Group demonstrably use pingers on all Hake nets</li> </ul>		
<b>Progress on Condition: Year 1</b>	Evidence has been presented by the SMRU at this surveillance audit to demonstrate the effectiveness of acoustic deterrents (pingers) at reducing the incidence of cetacean bycatch in hake gill nets. Observations conducted by		



	<p>SMRU observers indicated that pingers can reduce the bycatch level of harbour porpoise by over 80%.</p> <p>Information from MMO inspections of fishing vessels indicates that the use of pingers is now established throughout the fleet. The CFPO reported to the surveillance team that one vessel received a warning for not having adequately charged the batteries in the pingers attached to fishing gear while in harbour. No incidents of non-compliance with the EC Regulations that require the use of pingers have been detected.</p> <p>The progress to date meets the requirements of the Year 1 milestone for this condition, and it is therefore appropriate to re-score this Performance Indicator (see section <b>Error! Reference source not found.</b> of this report).</p> <p>The evidence of monitoring of pinger use by the fleet by the MMO, coupled with ongoing monitoring of bycatch rates by SMRU suggests that the fishery should meet the Year 2-5 milestone commitments, which will be reviewed at future surveillance audits.</p> <p><b>Conclusion</b></p> <p>Progress with this condition is <u>on target</u>. In response to the progress made in the first year of certification and in accordance with the milestones, the assessment team has re-scored the relevant Performance Indicator (see first surveillance report) and has concluded that a score of 80 is now appropriate, and that <u>this condition can now be closed</u>.</p> <p>At future surveillance audits the assessment team will continue to keep this aspect of the fishery under review to ensure that the commitments anticipated by the milestones for Years 2-5 are attained.</p>
<b>Progress on Condition: Year 2</b>	<p>The client reports that pingers continue to be used by all UoC vessels, in accordance with the EU Regulations that require this. There have been no incidents of non-compliance with these Regulations.</p> <p>The Sea Mammal Research Unit reported at this surveillance audit that the level of compliance with the requirement to use "pingers" is good. This is reflected in low observed catches of cetaceans in this fishery.</p> <p><b>Conclusion</b></p> <p>The evidence of good compliance with legislation requiring the use of pingers, coupled with SMRU observations of good compliance with the requirement to use pingers and low levels of cetacean bycatch in the fishery, demonstrates that the requirements of Year 2-5 milestones for this condition are being met.</p> <p>The team considers that the decision to close the condition in the first year of certification remains appropriate.</p>
<b>Progress on Condition: Year 3</b>	<p>The client reported again that pingers continue to be used by all UoC vessels, in accordance with the EU Regulations that require this. There have been no incidents of non-compliance with these Regulations.</p> <p>The Sea Mammal Research Unit reported at this surveillance audit that the level of compliance with the requirement to use "pingers" is good. This is reflected in low observed catches of cetaceans in this fishery (1 harbour porpoise and 2 common dolphins recorded in 6 observer trips during 2018).</p>
<b>Status of condition</b>	<p>The evidence of good compliance with legislation requiring the use of pingers, coupled with SMRU observations of good compliance with the requirement to use pingers and low levels of cetacean bycatch in the fishery, demonstrates that the requirements of Year 2-5 milestones for this condition are being met.</p>

	The team considers that the decision to close the condition in the first year of certification remains appropriate.
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## 5.5 Condition 5: Ecosystems

Performance Indicator(s) & Score(s)	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
	2.5.3	Sufficient data continue to be collected to detect any increase in risk level (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).	75
<b>Condition</b>	Action should be taken to establish a discard monitoring programme for the fishery that is capable of detecting any increase in ecosystem risk level resulting from changes in the quantity and identity of the main bycatch (discarded) species.		
<b>Milestones</b>	<p>Years 1-2: Design and implement a discard monitoring programme for this fishery. Resulting score: 70</p> <p>Years 2-3: Ongoing implementation of monitoring programme; start of annual reporting. Resulting score: 80</p> <p>Years 4-5: Ongoing monitoring and reporting of discarding from the fishery. Resulting score: 80</p>		
<b>Client action plan</b>	<ul style="list-style-type: none"> <li>CFPO will work with CEFAS and vessels to design and implement an appropriate discard monitoring programme for the fishery</li> <li>CFPO will work with CEFAS to ensure that data collected from this discard monitoring programme are collated and the results provided annually to relevant parties</li> </ul>		
<b>Progress on Condition: Year 1</b>	<p>Evidence was provided at this surveillance audit to demonstrate that the client is working in partnership with Cefas to monitor catch composition in the hake gill net fishery (see section 4.4.1 of this report). The information presented at this audit covers the period 2015-2016, and Cefas have indicated their ongoing commitment to maintaining the monitoring programme.</p> <p>Results of the monitoring programme were made available to the assessment team by Cefas at this audit.</p> <p>The information provided from this monitoring programme to date has been in the form of raw data; no annual reports have yet been produced. The condition does not, however, require the production of annual reports of monitoring activity and findings until Years 2-3 of certification.</p> <p><b>Conclusion</b></p> <p>The evidence presented at this audit shows that a monitoring programme has already been designed and implemented for this fishery, meeting the Year 1 and Year 2 requirements.</p> <p>Some initial results of the monitoring programme were made available to the team, indicating that prospects for meeting the annual reporting requirements in Years 2-3 are good.</p> <p>Progress at this audit is therefore considered to be <b>on target</b> for this condition.</p>		

<p><b>Progress on Condition: Year 2</b></p>	<p>Evidence was provided at this surveillance audit to demonstrate that the client is working in partnership with Cefas to monitor catch composition in the hake gill-net fishery (see section 4.4.1 of this report). The information presented at this audit covers 2017 (following on from the 2015-16 data presented at the first surveillance audit), and Cefas have indicated their ongoing commitment to maintaining the monitoring programme.</p> <p>Results of the monitoring programme were made available to the assessment team by Cefas at this audit.</p> <p>The information provided from this monitoring programme to date has been in the form of raw data; no formal reports have been produced. The condition does not, however, require the production of annual reports of monitoring activity and findings until Years 2-3 of certification.</p> <p><b>Conclusion</b></p> <p>The evidence presented at this audit shows that a monitoring programme continues to be implemented for this fishery, meeting the Year 1 and Year 2 requirements.</p> <p>Some initial results of the monitoring programme were made available to the team. A report of monitoring results has not yet been produced. This milestone relates to Years 2 &amp; 3 of the period of certification.</p> <p>Progress at this audit is therefore considered to be <b>on target</b> for this condition.</p> <p>At the Year 3 surveillance audit in 2018 the assessment team anticipate that it should be possible to rescore this PI and close the condition if an annual report on catch monitoring is available.</p>
<p><b>Progress on Condition: Year 3</b></p>	<p>Further evidence was provided at this surveillance audit to demonstrate that the client is working in partnership with Cefas to monitor catch composition in the hake gill net fishery (see section 4.4.1 of this report). The information presented at this audit covers the 2018, and Cefas have indicated their ongoing commitment to maintaining the monitoring programme under the EU's Data Collection Regulation.</p> <p>Results of the monitoring programme were made available to the assessment team by Cefas at this audit. The evidence provided shows that spurdog are typically a minor element of the catch (<b>around 2%</b>), and that all of the spurdog caught in the fishery are returned to the sea (apart from catches on the vessels participating in the NEPTUNE programme).</p> <p>As noted in the report on progress with Condition 2 above, a report has been produced by Cefas on the bycatch of spurdog in this fishery since the last surveillance audit (Hetherington <i>et al.</i> 2018). This report demonstrates that a monitoring and management programme has been successfully established that enables real-time monitoring and management of risk to this species.</p>
<p><b>Status of condition</b></p>	<p>The provision of a report summarising progress with bycatch monitoring and avoidance meets the requirements of the Year 3 milestone. The assessment has re-scored PI 2.5.3 and this condition has been <b>closed, on target</b>.</p>

## 5.6 Condition 6: Monitoring, Control & Surveillance

This is a new condition that was raised at the 3<sup>rd</sup> surveillance audit following harmonisation discussions with other Conformity Assessment Bodies.

It is important to note that this condition reflects a general concern about the monitoring of compliance with the EU Landing Obligation throughout the EU EEZ. It does not indicate a specific concern about the Cornish hake gill net fishery or the work of the enforcement agencies in the UK.

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
Performance Indicator(s) & Score(s)	3.2.3	<p><b><i>Sla: A monitoring, control and surveillance system has been implemented in the fishery and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.</i></b></p> <p><b><i>Slc: Some evidence exists to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.</i></b></p>	70
Condition	Evidence should be provided that the MCS-system has demonstrated an ability to enforce relevant management measures, strategies and rules. It should also be evident that fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.		
Milestones	<p><b>Year 1-3 (2019-2022):</b> The fishery must provide evidence that the monitoring, control and surveillance mechanisms work together to form part of a system and demonstrate an ability to enforce relevant management measures, strategies and/or rules, key amongst which is the Landing Obligation <b>(Score: 75)</b></p> <p><b>Year 4 (2023):</b> At the annual surveillance audit, the fishery must provide evidence that demonstrates that fishers comply with the management system under assessment, key among which the Landing Obligation <b>(Score: 80)</b></p>		
Client action plan	<p><b>Year 1-3 (2019-2022):</b> The client will provide evidence from national authorities of monitoring, control and surveillance mechanisms working together to ensure enforcement of management measures, strategies and/or rules, particularly with a focus on the implementation of the landing obligation.</p> <p><b>Year 4 (2023):</b> The client will provide evidence from national authorities of fishermen compliance with management measures, strategies and/or rules in form of example inspection reports with an overview of infringement, sanctions etc. and/or presentations of changing landing patterns for fishermen</p>		

<b>Progress on Condition: Year 1</b>	<p>The condition is new at this surveillance audit.</p> <p>At this surveillance audit the client has produced a client action plan and secured the support of the relevant agencies to provide evidence of monitoring and compliance by the UoC vessels with the EU Landing Obligation.</p>
<b>Status of condition</b>	<p>This is a new condition. The status of progress cannot yet be evaluated.</p>

## 6 Conclusion

### 6.1 Summary of findings

This fishery was certified in 2015 with five conditions of certification. At this surveillance audit, good progress was found to have been made against the milestones for all conditions, and two conditions have been closed.

Following harmonisation discussions with other CABs it has been agreed that it is appropriate to raise a condition of certification relating to monitoring, control and surveillance in response to EU-wide concerns about the implementation of the Landing Obligation.

Progress is briefly summarised below:-

- Condition 1: Harvest Control Rules & Tools. Progress is on target. Following harmonisation discussions with other CABs this condition has been closed.
- Condition 2: Discarded species outcome. Progress is on target. This condition has been closed.
- Condition 3: Discarded species – information. Progress is on target.
- Condition 4: ETP species – management. Condition closed on schedule in Year 1.
- Condition 5: Ecosystems. Progress is on target. This condition has been closed.
- Condition 6: Monitoring, Control & Surveillance. This condition is new at this surveillance audit. Progress will be reviewed at future surveillance audits.

The spawning stock biomass (SSB) for the northern hake stock has been consistently increasing since 2006 and is well above  $MSY B_{trigger}$ . Fishing mortality has decreased over the past decade and has been below  $F_{msy}$  since 2011. Both stock status and the management response to advice seem to be favourable.

No changes in management have taken place that would detrimentally affect the performance of this fishery against the MSC standard and the fishery continues to meet the requirements of the MSC Standard.

No destructive fishing practices or controversial unilateral exemptions to an international agreement have been introduced.

The scores awarded for individual Performance Indicators and MSC Principles following this surveillance audit are shown in

**MSC Certification should therefore continue with annual audits** following the surveillance schedule set out in the Public Certification Report for the fishery (and included in section 0 of this report).



**Table 9: Scores awarded for Performance Indicators and overall Principle-level scores for the Cornish hake gill net fishery. Original scores are shown along with the “current” scores following this surveillance audit. Yellow shading indicates scores of less than 80 for which a condition of certification has been generated.**

Principle	Component	Fishery		Cornish Hake	
		Assessment / Source		Original	Current
		Conformity Assessment Body		Lloyd's Register	
		UoC Spatial extent (ICES)		VIlle, VIlf, VIlg, VIlh, VIlj, VIlk	
		Date		11/06/2015	This report
		PI	Performance Indicator (PI)		
One	Outcome	1.1.1	Stock status	100	100
		1.1.2	Reference points	90	90
		1.1.3	Stock rebuilding	NA	NA
	Management	1.2.1	Harvest strategy	90	90
		1.2.2	Harvest control rules & tools	75	80
		1.2.3	Information & monitoring	80	80
		1.2.4	Assessment of stock status	90	90
Two	Retained species	2.1.1	Outcome	85	85
		2.1.2	Management	90	90
		2.1.3	Information	90	90
	Bycatch	2.2.1	Outcome	70	70
		2.2.2	Management	80	80
		2.2.3	Information	75	85
	ETP species	2.3.1	Outcome	90	90
		2.3.2	Management	70	80
		2.3.3	Information	80	80
	Habitats	2.4.1	Outcome	90	90
		2.4.2	Management	90	90
		2.4.3	Information	80	80
	Trophic function	2.5.1	Outcome	80	80
		2.5.2	Management	90	90
		2.5.3	Information	75	90
Three	Governance and policy	3.1.1	Legal & customary framework	100	100
		3.1.2	Consultation, roles & responsibilities	100	100
		3.1.3	Long term objectives	100	100
		3.1.4	Incentives for sustainable fishing	80	80
	Fishery specific management system	3.2.1	Fishery specific objectives	80	80
		3.2.2	Decision making processes	90	90
		3.2.3	Compliance & enforcement	90	75
		3.2.4	Research plan	80	80
		3.2.5	Management performance evaluation	80	80

Overall weighted Principle-level scores	Cornish Hake	
	Original	Current
	11/06/2015	This report
Principle 1 - Target speci PI 1.1.3 Not scored	89.4	90.0
PI 1.1.3 Scored	NA	NA
Principle 2 - Ecosystem	82.3	84.7
Principle 3 - Management	89.5	88.0

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## 8 Glossary

ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas
Cefas	Centre for Environmental Fisheries & Aquaculture Science
CFP	Common Fisheries Policy
CFPO	Cornish Fish Producers Organisation
CODA	Cetacean Offshore Distribution and Abundance in the European Atlantic
CR	Certification Requirements
ETP	Endangered, Threatened or Protected species
EU	European Union
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICES	International Council for the Exploration of the Sea
MMO	Marine Management Organisation
MSC	Marine Stewardship Council
NEPTUNE	National Evaluation of Populations of Threatened and Uncertain Elasmobranchs
P1	MSC Principle 1
P2	MSC Principle 2
P3	MSC Principle 3
PI	Performance Indicator
SCANS	Small Cetacean Abundance in the North Sea
SI	Scoring Issue
SMRU	Sea Mammal Research Unit
WGEF	Working Group on Elasmobranch Fisheries

## 9 Appendix 1 – Re-scoring evaluation tables (if necessary)

### Note:

This fishery was certified prior to the implementation of the performance Indicators set out in MSC Fisheries Certification Requirements v2.0 (FCRv2.0). In accordance with the Implementation Timeframes set out in FCRv2.0, the Performance Indicators (PIs) have been re-scored using the PIs from Certification Requirements v1.3. The fishery will transition to the FCR v2.0 PIs on its re-assessment.

### 9.1 Performance Indicator 1.2.2.

#### 9.1.1 Original Scoring

1.2.2: Harvest control rules and tools: There are well defined and effective harvest control rules in place		
SG60	SG80	SG100
<p><u>Generally understood</u> harvest control rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached.</p> <p>There is <u>some evidence</u> that tools used to implement harvest control rules are appropriate and effective in controlling exploitation.</p>	<p><u>Well defined</u> harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.</p> <p>The <u>selection</u> of the harvest control rules takes into account the <u>main</u> uncertainties.</p> <p><u>Available evidence indicates</u> that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules</p>	<p>The <u>design</u> of the harvest control rules takes into account a <u>wide</u> range of uncertainties.</p> <p><u>Evidence clearly shows</u> that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.</p>
Scoring Comments		
<p>The existing HCRs are clearly set out in the harvest strategy. In 2004, a recovery plan for the Northern hake stock was implemented (EC Reg. No. 811/2004) with the aim to increase the SSB to above 140,000 t by limiting fishing mortality to 0.25 and by allowing a maximum change in TAC between years of 15%. Together with technical measures that include restricted areas and mesh size controls aimed at protecting juvenile hake, these measures are well defined and aimed at exceeding <math>B_{pa}</math> for the stock. The exploitation rate has been reviewed annually and set at a level that ensures these objectives will be attained and that limit reference points are avoided by a substantial margin. Although the harvest control rules of the recovery plan could be considered as well defined, they are now effectively obsolete, due to the changing perception of the stock (biomass at an historic high, but uncertainty in the absolute value), and a long-term management plan has not yet been implemented. As a consequence, the harvest control rules for the hake fishery are currently ill-defined, though advice is given by ICES according to its MSY approach (i.e. exploit at <math>F_{MSY}</math>). Nevertheless, it is not apparent how the exploitation rate will be reduced if limit reference points are approached, and issue 1 of SG 80 is not met and a condition for certification applies.</p> <p>Because the harvest control rule is aimed at achieving MSY, it effectively takes account of the main uncertainties by ensuring that the stock is maintained at a level that ensures a low risk of recruitment overfishing.</p> <p>Since the recovery plan was initiated, fishing mortality has decreased to just above <math>F_{MSY}</math> and the stock biomass has increased to an historic high level: the management objective has been met. During the</p>		

recovery period, the TAC and other technical measure management tools have been effective in achieving SSB and F targets, but landings between 2009 and 2012 greatly exceeded the set TAC (55.1 kt). This is reflected in the ICES advice which, on the basis of the MSY approach, is that total catches in 2014 should be no more than 84.1kt and 78.5 kt in 2015. Although this demonstrates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules (landings of 78.5 kt in 2015 are expected to lead to an SSB of 277,000 t in 2015 -an historic high – at a fishing mortality of  $0.27 = F_{MSY}$ ), there has clearly been a problem with setting TACs in line with catch opportunities (due, possibly, to the disconnect between the Recovery Plan measures and the unexpected large increase in biomass since 2008) in recent years.

The design of the HCRs recognises the impact of uncertainties such as discarding, growth, ageing, recruitment and natural mortality. All of these uncertainties have recently been re-evaluated by ICES. Evidence (in the form of sustained increases in SSB and reductions in F) clearly show that these HCRs are effective.

However, the EC Regulation for the stock is due to be replaced (the stock has met the requirements set out in the recovery plan), and though a proposed new regulation has been put forward, this is not yet in force. EU policy guidance might be seen to allow an increase in TAC, which would not be consistent with current ICES advice.

#### Score: 75

The harvest control rules in force meet all of the SG60 and the second and third SG80 requirements, and also the third of the SG100 requirements. However, there is currently some uncertainty about the design of the future HCR for this stock, as it moves from a recovery plan to management against MSY, and whether the HCR will ensure that the exploitation rate is reduced as limit reference points are approached. A condition is imposed, and it will be important to keep this performance indicator under review as this transition is made, to ensure that the HCRs remain compatible with the MSC requirements.

#### Audit Trace References

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ICES, 2010a. ICES Advice 2010. Hake in Division IIIa, Subareas IV, VI, and VII, and Divisions VIIIa, b, d (Northern Stock).

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### 9.1.2 Revised Scoring

PI 1.2.2		There are well defined and effective harvest control rules in place																						
Scoring Issue		SG 60	SG 80	SG 100																				
a	Guidepost	Generally understood harvest rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached.	Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.																					
	Met?	Y	Y																					
	Justification	A recovery plan (EU, 2004) has been in place for some time and has been used to set fishing mortality rates in response to the size of the stock. The plan had a target $F=0.25$ (less than $F_{MSY}$ ) and a built-in decision rule to increase the SSB (EU, 2004) based on the current stock size. The stock has recovered both in terms of SSB and $F$ .  The harvest rule now followed by ICES is to give advice is based on $F_{MSY}$ as the maximum $F$ . This is reduced linearly when the biomass falls below $MSY B_{trigger}$ and is zero below $B_{lim}$ . The rule is well defined and consistent with the Precautionary and MSY Approaches. In recent years the agreed TAC has usually followed the ICES MSY HCR advice: <table><tr><td>Year</td><td>ICES advice</td><td>Agreed TAC</td></tr><tr><td>2014</td><td>81846</td><td>81846</td></tr><tr><td>2015</td><td>78457</td><td>90849</td></tr><tr><td>2016</td><td>109592</td><td>108764</td></tr><tr><td>2017</td><td>123777</td><td>119765</td></tr><tr><td>2018</td><td>115335</td><td>104190</td></tr><tr><td>2019</td><td>142240</td><td>142240</td></tr></table> Since 2016 managers have followed ICES advice, including the TAC for 2019, so SG80 is met.			Year	ICES advice	Agreed TAC	2014	81846	81846	2015	78457	90849	2016	109592	108764	2017	123777	119765	2018	115335	104190	2019	142240
Year	ICES advice	Agreed TAC																						
2014	81846	81846																						
2015	78457	90849																						
2016	109592	108764																						
2017	123777	119765																						
2018	115335	104190																						
2019	142240	142240																						
b	Guidepost		The selection of the harvest control rules takes into account the main uncertainties.	The design of the harvest control rules takes into account a wide range of uncertainties.																				
	Met?		Y	N																				
	Justification	As there is a detailed stock assessment using both fishery-dependent and fishery independent data the HCR is likely to be robust to the main assessment uncertainties																						

PI 1.2.2		There are well defined and effective harvest control rules in place		
		and SG80 is met. An HCR has been developed and tested, (ICES 2016), and is used for advice. It takes into account a wide range of uncertainties including assessment error and implementation error. As it has not been formally adopted by managers there is uncertainty about the implementation of the rule and SG100 is not met		
c	Guidepost	There is some evidence that tools used to implement harvest control rules are appropriate and effective in controlling exploitation.	Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.	Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.
	Met?	Y	Y	N
	Justification	The principal tool used to implement HCRs is a Total Allowable Catch. This has been effective during the recovery plan and current F and SSB satisfy MSY reference points, hence SG80 is met. Although no formal HCR has been adopted ICES provides advice using a standard HCR which has been followed by managers in recent years. However, the procedure of topping up the TAC to allow compliance with the Landing Obligation may undermine the control of catches unless there is adequate enforcement of the Landing Obligation. At present it is unclear whether compliance with the LO is effective and SG100 is not met.		
References		<p>EU. 2004. COUNCIL REGULATION (EC) No. 811/2004 of 21.4.2004 establishing measures for the recovery of the Northern hake stock. Official Journal of the European Union, L 150/1.</p> <p>ICES. 2016. EU request to ICES to provide FMSY ranges for selected stocks in ICES subareas 5 to 10. In Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 5, Section 5.4.1. 13 pp.</p>		
OVERALL PERFORMANCE INDICATOR SCORE:				80
CONDITION NUMBER (if relevant):				

## 9.2 Performance Indicator 2.2.3

### 9.2.1 Original Scoring

2.2.3: <i>Information / monitoring</i> - Information on the nature and amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch.		
SG60	SG80	SG100
<p>Qualitative information is available on the amount of main bycatch species affected by the fishery.</p> <p>Information is <u>adequate</u> to <u>broadly understand</u> outcome status with respect to biologically based limits.</p> <p>Information is adequate to support <u>measures</u> to manage bycatch.</p>	<p>Qualitative information and some <u>quantitative information</u> are available on the amount of main bycatch species affected by the fishery.</p> <p>Information is sufficient to estimate outcome status with respect to biologically based limits.</p> <p>Information is adequate to support a <u>partial strategy</u> to manage main bycatch species.</p> <p>Sufficient data continue to be collected to detect any increase in risk to main bycatch species (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy).</p>	<p>Accurate and <u>verifiable information</u> is available on the amount of all bycatch and the consequences for the status of affected populations.</p> <p>Information is <u>sufficient</u> to quantitatively estimate outcome status with respect to biologically based limits with a <u>high degree of certainty</u>.</p> <p>Information is adequate to support a <u>comprehensive strategy</u> to manage bycatch, and evaluate with a high degree of certainty whether a strategy is achieving its objective.</p> <p>Monitoring of bycatch data is conducted in sufficient detail to assess ongoing mortalities to all bycatch species.</p>
Scoring Comments		
<p>There is good information about historic landings and on catch composition for this fishery from fishery-independent sources that provides accurate, verifiable and quantitative information about by catch. This enables spurdog to be identified as a main bycatch species and porbeagle as a minor but vulnerable species.</p> <p>This information has contributed to current understanding of the status of the respective populations, based on which ICES have recommended the strategy of prohibiting spurdog and porbeagle landings as a means of restoring the population, and the EC has implemented these proposals.</p> <p>Now that spurdog and porbeagle are no longer retained species, the quantity of information recorded by the client fleet will reduce, since this focuses on retained species. It is possible, therefore, that insufficient data will in future be gathered to detect a change in risk to both species, especially since their capture tends to be sporadic.</p>		
Score: 75		
<p>The fishery meets all of the SG60 requirements and the first 3 of the SG80 requirements. A condition has been generated to address the need for recording information about discarding from the fishery.</p>		

### Audit Trace References

Bendall et al., 2012; Babcock and Cortes 2012; ICES, 2012A; ICES 2013d; IUCN, 2010; section 6.3.2 of this assessment

## 9.2.2 Revised Scoring

PI 2.2.3		Information on the nature and the amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch		
Scoring Issue		SG 60	SG 80	SG 100
a	Guided post	Qualitative information is available on the amount of main bycatch species taken by the fishery.	Qualitative information and some quantitative information are available on the amount of main bycatch species taken by the fishery.	Accurate and verifiable information is available on the catch of all bycatch species and the consequences for the status of affected populations.
	Met?	Y	Y	N
	Justification	<p>For the purposes of this performance indicator the following definitions apply:-</p> <ul style="list-style-type: none"> <li>“bycatch species” are those that are discarded from the fishing vessel prior to landing. The assessment team note that the EU Landing Obligation now applies throughout the EU EEZ, and that it is now an offence to discard any species subject to a TAC in the Celtic Sea;</li> <li>“main” species are typically those that make up 5% or more of the total weight of the catch (or 2% or more for “less resilient” species).</li> </ul> <p>Information about the catch composition is gathered by Cefas observers (both at sea and monitoring landings); and by the fishing fleet under the “NEPTUNE” (National Evaluation of Populations of Threatened and Uncertain Elasmobranchs) project. The information produced by these monitoring activities is described in section 4.4.1 &amp; 4.4.2 of this report.</p> <p>A report on the spurdog bycatch avoidance programme has recently been published (Hetherington <i>et al.</i> 2018) which provides data on the location and seasonal character of catches and discarding of spurdogs. This report did not report the proportion of spurdogs in the catch as a weight, instead focusing on the frequency of interactions and how these may be reduced.</p> <p>These monitoring activities have produced quantitative data on catch composition and discarding (see Table 5 &amp; Table 6 of this report). The most recent data indicate that spurdog make up around 2% of the total catch, and that 80% are discarded.</p> <p>Quantitative information is therefore available from the fishery describing the catch composition. This indicates that there are no bycatch species making up 5% or more of the total catch; the quantity of spurdogs discarded (a less resilient species) is consistently less than 2% of the catch weight. The SG60 and SG80 requirements are therefore met because there are quantitative data available for bycatch species.</p>		



PI 2.2.3		Information on the nature and the amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch		
		Although there is accurate and verifiable data available on the catch of all bycatch species, the consequence for the status of all of the affected population is not known, so SG100 is not considered to be met.		
b	Guided post	Information is adequate to broadly understand outcome status with respect to biologically based limits	Information is sufficient to estimate outcome status with respect to biologically based limits.	Information is sufficient to quantitatively estimate outcome status with respect to biologically based limits with a high degree of certainty.
	Met?	Y	Y	
	Justification	<p>The quantitative information on catch composition (summarised in SIa above), coupled with ICES advice on the “main” species is sufficient to determine their status with respect to biologically based limits, meeting the SG60 and SG80 requirements.</p> <p>As noted in section 4.4.2.2 of this report there is a degree of uncertainty about the status of the NE Atlantic spurdog stock, so the SG100 requirements are not considered to be met.</p>		
c	Guided post	Information is adequate to support measures to manage bycatch.	Information is adequate to support a partial strategy to manage main bycatch species.	Information is adequate to support a strategy to manage bycatch species, and evaluate with a high degree of certainty whether the strategy is achieving its objective.
	Met?	Y	Y	Y
	Justification	<p>As noted in SIa above, information on catch and landings composition is gathered by Cefas scientists both at sea and ashore. This has confirmed that the only bycatch species that approaches the “main” species definition is the spurdog, <i>Squalus acanthias</i>. This information meets the SG60 and SG80 requirements for this SI.</p> <p>Cefas scientists and the CFPO have worked in partnership to gather data and trial a new bycatch avoidance strategy for spurdogs in the UoC area since 2016. The information gathered to inform this strategy includes catch reports from fishing vessels (both with and without observers aboard), information about the vitality of the spurdog bycatch, and data about the distribution and seasonal movements of spurdogs. This information has been used to create a new management strategy using real-time data to inform decisions by fishermen on where to fish in order to minimise the risk of catching (and subsequently discarding) spurdogs. The innovative and comprehensive nature of this information gathering and management system meets the SG100 requirements for this SI.</p>		
d	Guided post		Sufficient data continue to be collected to detect any increase in risk to main bycatch species (e.g. due to	Monitoring of bycatch data is conducted in sufficient detail to assess ongoing mortalities to all bycatch species.

<b>PI 2.2.3</b>		<b>Information on the nature and the amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch</b>		
			changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the strategy).	
	<b>Met?</b>		Y	N
	<b>Justification</b>	<p>As reported above, data on catch composition and landings from the fishery are gathered by Cefas as part of an established an ongoing monitoring programme which records the abundance of all species caught and discarded on the fishing trips sampled. Total catches and the location of fishing activity is monitored continuously by the Marine Management Organisation (MMO) using the VMS and AIS systems. This monitoring is capable of detecting any increase in risk to bycatch species, meeting the SG80 requirements.</p> <p>Although there is detailed and ongoing monitoring of mortalities of spurdog, the same level of detail does not apply to all bycatch species, so SG100 is not considered to be met.</p>		
<b>References</b>		<p>Section 4.4.1 &amp; 4.4.2 of this report.</p> <p>(DEFRA 2016, Hetherington <i>et al.</i> 2016, ICES 2016a, 2017a, 2017a, 2017b, Hetherington <i>et al.</i> 2018)</p>		
<b>OVERALL PERFORMANCE INDICATOR SCORE:</b>				<b>85</b>
<b>CONDITION NUMBER (if relevant):</b>				<b>NA</b>

## 9.3 Performance Indicator 2.5.3

### 9.3.1 Original Scoring

2.5.3: <i>Information / monitoring</i> - There is adequate knowledge of the impacts of the fishery on the ecosystem.		
Information is adequate to <u>identify</u> the key elements of the ecosystem (e.g. trophic structure and function, community composition, productivity pattern and biodiversity).	Information is adequate to <u>broadly understand</u> the key elements of the ecosystem.	
Main impacts of the fishery on these key ecosystem elements can be inferred from existing information, but <u>have not been investigated in detail</u> .	Main impacts of the fishery on these key ecosystem elements can be inferred from existing information, but <u>may not have been investigated in detail</u> .	Main <u>interactions</u> between the fishery and these ecosystem elements can be inferred from existing information, and <u>have been investigated</u> .
	The main functions of the Components (i.e. target, Bycatch, Retained and ETP species and Habitats) in the ecosystem are <u>known</u> .	The impacts of the fishery on target, Bycatch, Retained and ETP species and Habitats are identified and the main functions of these Components in the ecosystem are <u>understood</u> .
	Sufficient information is available on the impacts of the fishery on these Components to allow some of the main consequences for the ecosystem to be inferred.	Sufficient information is available on the impacts of the fishery on the Components <u>and elements</u> to allow the main consequences for the ecosystem to be inferred.
	Sufficient data continue to be collected to detect any increase in risk level (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).	Information is sufficient to support the development of strategies to manage ecosystem impacts.
Scoring comments		
The key elements of the Celtic Sea ecosystem are understood, and the main effects of the fishery (depletion of target species; effect on non-target species; and effects on ETP species) have been investigated; other effects (on habitats and ecosystems) can be inferred from existing information. The main consequences of these impacts are likely to be a reduction in trophic level due to hake stock depletion (but this is not happening); reductions in non-target species abundance; and fishing mortality of cetaceans. Habitats are unlikely to be affected.		

Although the main components of the ecosystem have been identified, and their functions are known, there has been no multispecies modelling of the Celtic Sea ecosystem, so the functions of these different components of the ecosystem have not been quantified, and are thus not understood. For some impacts (notably discarding of spurdog), data collection has limitations that prevent an increase in risk level being detected.

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The fishery meets all of the SG60 requirements, and meets the first, second, third and fourth of the SG80 requirements. A condition has been generated in response to these findings.

#### Audit trace references

Section **Error! Reference source not found.** of this [assessment] report.

### 9.3.2 Revised Scoring

PI 2.5.3		There is adequate knowledge of the impacts of the UoA on the ecosystem.		
Scoring Issue		SG 60	SG 80	SG 100
a	Information quality			
	Guide post	Information is adequate to <b>identify</b> the key elements of the ecosystem.	Information is adequate to <b>broadly understand</b> the key elements of the ecosystem.	
	Met?	Y	Y	
	Justification	<p>The “<i>key elements</i>” of the ecosystem are defined by the MSC as:-</p> <p><i>“the features of an ecosystem considered as being most crucial to giving the ecosystem its characteristic nature and dynamics, and are considered relative to the scale and intensity of the UoA; they are features most crucial to maintaining the integrity of its structure and functions and the key determinants of the ecosystem resilience and productivity”</i></p> <p>FCR v 2.0 at SA3.16.3</p> <p>An overview of the Celtic Sea ecoregion ecosystem was published by ICES in 2018 (ICES 2018). This overview demonstrates that there is sufficient information available to understand the key elements of the ecosystem. The Celtic Seas are characterized by a transition from relatively shallow coastal seas into the deeper eastern Atlantic Ocean. The oceanic inputs result in a higher species richness in the Celtic Sea than in adjacent ecoregions.</p> <p>The key drivers of change in this ecosystem have been identified. Fishing pressure is one of these drivers. ICES note that fishing pressure has fallen in this ecoregion since its peak in 1998 and that the overall biomass of commercial fish and shellfish species had increased; most species have a biomass above Btrigger.</p> <p>Some ecosystem modelling has recently been carried out for the Celtic Sea, indicating that reducing fishing mortality on pelagic fish rather than demersal fish appear to be more efficient at maximizing catch, total biomass and conserving both top-predators and species at intermediate trophic levels (Moullec <i>et al.</i> 2017).</p>		

PI 2.5.3		There is adequate knowledge of the impacts of the UoA on the ecosystem.		
		The information available shows that the key ecosystem elements have been identified and are broadly understood, meeting the SG60 and SG80 requirements.		
b	Investigation of UoA impacts			
	Guide post	Main impacts of the UoA on these key ecosystem elements can be inferred from existing information, but <b>have not been investigated</b> in detail.	Main impacts of the UoA on these key ecosystem elements can be inferred from existing information, and <b>some have been investigated in detail.</b>	Main interactions between the UoA and these ecosystem elements can be inferred from existing information, and <b>have been investigated in detail.</b>
	Met?	Y	Y	Y
	Justification	<p>Gill nets are a static fishing gear. They do not disrupt seabed habitats or physically disturb the ecosystem.</p> <p>The main impacts of the UoA on the Celtic Sea ecosystem arise from the removal of the target species (hake) and impacts on non-target species including ETP species.</p> <p>Good data are available on the catch of target and non-target species (including ETP species) in the fishery from Cefas and SMRU observer data. For the target species and for many of the non-target species there are stock assessments available. The Europe-wide “SCANS” surveys provide estimates of the abundance of cetaceans, against which impacts of the UoA on ETP species can ben inferred.</p> <p>At the time when the fishery was first certified, there was some uncertainty about the impact of the UoA on spurdogs. This interaction has now been investigated in detail.</p> <p>The information available about the scale of the impact of the UoA on ecosystem elements and the evidence that the main interactions have been investigated in detail meets the SG60, 80 and 100 requirements.</p>		
c	Understanding of component functions			
	Guide post		The main functions of the Components (i.e., target, Bycatch, Retained and ETP species and Habitats) in the ecosystem are known.	The impacts of the fishery on target, Bycatch, Retained and ETP species are identified and the main functions of these Components in the ecosystem are understood.
	Met?		Y	N
	Justification	Ecosystem models have shown the main functions of the different ecosystem components and have been used to explore ecosystem changes over time (Lauria 2012, Moullec <i>et al.</i> 2017). These studies have explored the impact of fisheries in the Celtic Sea in general terms but have not looked specifically at the impact of the hake gill net fishery on the ecosystem. The SG80 requirements are therefor met, but not SG100.		
d	Information relevance			
	Guide post		Adequate information is available on the impacts of the UoA on these components to allow some of the main consequences	Adequate information is available on the impacts of the UoA on the components <b>and elements</b> to allow the main consequences for

PI 2.5.3		There is adequate knowledge of the impacts of the UoA on the ecosystem.			
			for the ecosystem to be inferred.	the ecosystem to be inferred.	
	Met?		Y	Y	
	Justification	<p>The main impact of the UoA on ecosystem components is the removal of the target and non-target species and mortality of ETP species. All of these removals and impacts are monitored on an ongoing basis by Cefas and SMRU, providing information on the scale of the impact on individual species (elements) for each component.</p> <p>When the fishery was certified there was some uncertainty about its impact on spurdogs. This uncertainty has been addressed in the Cefas-CFPO bycatch avoidance project which has helped to improve understanding of the scale and nature of this interaction.</p> <p>The information now available about the impacts of the fishery extends to an understanding of the impacts on both components and elements (species). Coupled with the understanding of the status of these species, it is possible for the main consequences of the fishery for the elements to be inferred, meeting the SG80 and SG100 requirements.</p>			
e	Monitoring				
	Guide post		Adequate data continue to be collected to detect any increase in risk level.	Information is adequate to support the development of strategies to manage ecosystem impacts.	
	Met?		Y	N	
	Justification	<p>As reported above, data on catch composition and landings from the fishery are gathered by Cefas as part of an established an ongoing monitoring programme which records the abundance of all species caught and discarded on the fishing trips sampled. Total catches and the location of fishing activity is monitored continuously by the Marine Management Organisation (MMO) using the VMS and AIS systems. SMRU carry out cetacean bycatch monitoring to inform the UK contribution to monitoring the overall impact on cetaceans in accordance with EU Regulations. Cefas and the CFPO are working in partnership to monitor and manage the impacts on spurdogs. This monitoring is capable of detecting any increase in impacts on target, non-target and ETP species, meeting the SG80 requirements.</p> <p>Ecosystem modelling has been carried out and shows how the management of fisheries can impact the overall ecosystem, and some simulation modelling has been carried out to investigate how changes in fisheries management strategy could affect fish populations. The extent of this information is not, however, considered adequate to meet the SG100 requirements.</p>			
References		(Hammond <i>et al.</i> n.d., Lauria 2012, ICES 2016b, 2017c, 2018, Moullec <i>et al.</i> 2017, Hetherington <i>et al.</i> 2018)			
OVERALL PERFORMANCE INDICATOR SCORE:					90
CONDITION NUMBER (if relevant):					NA

## 9.4 Performance Indicator 3.2.3

### 9.4.1 Original Scoring

<b>3.2.3: Compliance and enforcement - Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with.</b>		
<b>SG60</b>	<b>SG80</b>	<b>SG100</b>
<p>Monitoring, control and surveillance <u>mechanisms</u> exist, are implemented in the fishery under assessment and there is a reasonable expectation that they are effective.</p> <p>Sanctions to deal with non-compliance exist and there is some evidence that they are applied.</p> <p>Fishers are <u>generally thought</u> to comply with the management system for the fishery under assessment, including, when required, providing information of importance to the effective management of the fishery.</p>	<p>A monitoring, control and surveillance <u>system</u> has been implemented in the fishery under assessment and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.</p> <p>Sanctions to deal with non-compliance exist, <u>are consistently applied</u> and thought to provide effective deterrence.</p> <p><u>Some evidence exists</u> to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.</p> <p>There is no evidence of systematic non-compliance.</p>	<p>A <u>comprehensive</u> monitoring, control and surveillance system has been implemented in the fishery under assessment and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules.</p> <p>Sanctions to deal with non-compliance exist, are consistently applied and <u>demonstrably</u> provide effective deterrence.</p> <p>There is a <u>high degree of confidence</u> that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery.</p>
<b>Scoring comments</b>		
<p>There is a high degree of enforcement and control and in this fishery, which has increased recently in response to identification of substantial under-reporting, which recent changes and improvements in overall monitoring, control and surveillance have been designed to address. Enforcement includes use of satellite VMS, patrol vessels and aerial surveillance, checked against landings data and paper trails (such as the new catch certificates required by IUU regulations). All landings are weighed at designated points of landing.</p> <p>Agreements have been reached by the EC to address concerns about IUU fishing. Enforcement, management and compliance information is now being shared between organisations to create a comprehensive monitoring, control and surveillance system.</p> <p>Non-compliance is dealt with by the relevant national authorities through their criminal justice systems, using agreed and tested procedures.</p> <p>The assessment team interviewed the Marine Management Organisation (MMO), which is responsible for inspecting landings by the CFPO vessels in the UK. Compliance by this fleet with the relevant regulations is reported to be excellent.</p>		



The client fleet have provided information on quota uptake by their vessels which demonstrates compliance with quota regulations at the national level (see **Error! Reference source not found.**).

**Score: 90**

The fishery meets all of the SG80 requirements and the first and third of the SG100 requirements.

#### Audit Trace References

Section **Error! Reference source not found.**; EC, 2009a, b; ICES advice 2010; I8, **Error! Reference source not found.**, I13

## 9.4.2 Revised Scoring

**Note:** the scoring below is harmonised with other fisheries. The scoring justification has been adapted to suit the circumstances of the Cornish Hake Gill Net Fishery.

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with.		
Scoring Issue		SG 60	SG 80	SG 100
a	<b>MCS implementation</b>			
	<b>Guide post</b>	Monitoring, control and surveillance <b>mechanisms</b> exist, and are implemented in the fishery and there is a reasonable expectation that they are effective.	A monitoring, control and surveillance <b>system</b> has been implemented in the fishery and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.	A <b>comprehensive</b> monitoring, control and surveillance system has been implemented in the fishery and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules.
	<b>Met?</b>	Y	N	N
	<b>Justification</b>	<p>The fishery takes place in EU waters. EU legislation establishes a framework of legislation establishing rules and also provisions for the monitoring, control and surveillance of fishing activities. These are implemented at the EU and Member State level. A summary of the systems in place for monitoring, control and surveillance is provided here.</p> <p><b>1. European Union Monitoring, Control &amp; Surveillance Systems</b></p> <p>The basis for the EU enforcement system is the Control Regulation (1224/2009). The Regulation applies to all activities covered by the CFP carried out on the territory of member states or in EU waters, and by EU fishing vessels or nationals of a member state. It is the responsibility of the EU Member States to make sure that the rules agreed under the CFP are enforced.</p> <p>Fisheries controls play a central role in encouraging compliance, deterring fraud and ensuring sustainable fishing. Some of the substantial requirements of the Control Regulation are that Member States operate VMS and AIS systems, that they make use of fishing logbooks (vessels &gt; 10m) or electronic logbooks (vessels &gt; 12m).</p> <p>The European Fisheries Control Agency (EFCA), set up in 2005 and operational since 2007, has the mission "to promote the highest common standards for control, inspection and surveillance under the CFP". "Its primary role is to organise</p>		

PI 3.2.3	<b>Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with.</b>
	<p>coordination and cooperation between national control and inspection activities so that the rules of the CFP are respected and applied effectively.” The Agency, in cooperation with the European Border and Coast Guard Agency and the European Maritime Safety Agency, each within its mandate, supports the national authorities carrying out coast guard functions.</p> <p>EFCA coordinates the implementation of the Specific Control and Inspection Programme (SCIP). In order to meet the objective of the uniform and effective application of conservation and control measures rules in the NS SCIP area, the EFCA provided, in collaboration with the Member State concerned, a specific organisational framework for operational coordination of control activities in this area, known as a Joint Deployment Plan (JDP). The Western Waters JDP (WW JDP) has been in operation since 20125 with the participation of Denmark, Estonia, France, Germany, Ireland, Latvia, Lithuania, the Netherlands, Poland, Portugal, Spain and the United Kingdom which collaborate in the implementation of these conservation and control measures through the system of joint campaigns based on permanent year-round control and inspection activities (EFCA 2019).</p> <p>Joint campaigns are planned, implemented and assessed each year in close cooperation between the Member State concerned and the EFCA at the regional level, to ensure achievement of the compliance with the conservation and control measures in force.</p> <p>The most recent JDP campaign reports for Western Waters indicate that a coordinated campaign of inspections of fishing vessels was carried out at sea; however no records of inspections of hake catches either at sea or on landing are reported (EFCA 2018a, 2018b).</p> <p>The Control Regulation allows “Union Inspectors” to be nominated. These inspectors are described on the EFCA website as:-</p> <p><i>“Union inspectors are mandated, under EU legislation, to carry out inspection and surveillance of fishing activities in European Union waters, outside the zones under the sovereignty of Member States, and in international waters” (EFCA website).</i></p> <p>The first Union Inspectors were nominated in 2011, their number reached 1924 from Member States and 46 from ECFA and DG MARE in 2016 (ECFA Annual Report 2016). At the end of 2017 ECFA announced the charter of a fisheries patrol vessel, the Lundy Sentinel, that will be deployed in 2018 in international, EU and third country waters.</p> <p>In addition the EU has adopted the EU Regulation to prevent, deter and eliminate illegal, unreported and unregulated fishing (IUU) (Council Regulation (EC) No 1005/2008), which entered into force on 1 January 2010. Each Member State shall take appropriate measures, in accordance with Community law, to ensure the effectiveness of that system.</p> <p><b>2. National Monitoring, Control &amp; Surveillance Systems</b></p> <p>The national fisheries control agencies in England is the Marine Management Organisation (MMO) and the Inshore Fisheries and Conservation Authorities (IFCAs). The MMO is a government agency with responsibility for fishing throughout the English EEZ. The IFCAs are regional inshore fisheries management authorities with responsibility for fisheries and environmental management up to 6 nautical miles offshore. The Cornwall Inshore Fisheries &amp; Conservation Authority has jurisdiction over inshore waters around Cornwall.</p> <p>The MMO has a regional office in Hayle in Cornwall and an office at Newlyn, the main port in Cornwall and the location for most of the landings from the Cornish hake gill net fishery. Over the course of the certification of the fishery the MMO has demonstrated an effective ability to enforce management strategies, measures and</p>

PI 3.2.3	<b>Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with.</b>
	<p>rules; at the most recent surveillance audit the MMO provided a reported that showed a capacity to detect and respond to a range of offences (over the past 2 years 7 offences have been detected, most of which were associated with overshoots of bycatch allowances).</p> <p>One of the most significant changes to the management of EU fisheries has been the introduction of the "Landing Obligation" established by Article 15 of the 2013 CFP Regulation. The Landing Obligation as been implemented gradually over the past few years through a succession of "Discard Plans". The last Discard Plan ended on 31<sup>st</sup> December 2018, and Landing Obligation is now fully operational throughout the EU EEZ.</p> <p>The implementation of the Landing Obligation by control agencies is being monitored throughout the EU. In its most recent review of the state of play with the implementation of the CFP, the European Commission reported that it is not currently possible to determine whether the Landing Obligation has resulted in a change in discard quantities; in many areas the fishing practices are described as "<i>business as usual</i>" (European Commission 2018a).</p> <p>Within the UK, the House of Lords European Union Committee has recently held an Inquiry into the implementation and enforcement of the EU landing obligation (House of Lords 2019). After interviewing a wide range of stakeholders from the fishing industry, enforcement agencies and environment NGOs, the inquiry found that:-</p> <p>19. <b><i>Although the landing obligation has applied to a number of UK fish stocks since 2015, we heard no evidence that fishers have been complying with it. Little attempt appears to have been made to enforce the landing obligation's requirements thus far, allowing the discarding of fish to continue.</i></b></p> <p>[...]</p> <p>30. <b><i>With only a few weeks until it [the landing obligation] was due to come into force, witnesses to this inquiry did not believe the UK was in a position to implement the landing obligation.</i></b></p> <p>The CFPO consider that the Landing Obligation has little impact on the hake gill net fishery. This view is based on the fact that the gear used and areas fished tends to result in a catch of larger fish; and gill nets result in a good quality catch. This view is supported by data from recent Cefas observer trips which suggests that discarding of species that are covered by the Landing Obligation is typically low (see Table 6 of this report); however the same evidence indicates that discarding has been taking place at this low level since the Landing Obligation applied to the fishery.</p> <p><b>3. Conclusion</b></p> <p>The MSC has recently issued an interpretation to Conformity Assessment Bodies on how to consider the Landing Obligation (MSC 2019). This indicates that for PI3.2.3 evidence is required of <u>both</u> the practice of discarding in the fishery and the provision of data.</p> <p>The existence of a well established monitoring, control and surveillance system with a local presence and the capacity to monitor the activities of the fleet provides a reasonable expectation that enforcement of management measures will be effective, meeting the SG60 requirements for this SI.</p> <p>Whilst there is anecdotal evidence of good practice in this Unit of Certification, there is not presently sufficient evidence available to demonstrate that the monitoring,</p>

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with.		
		control and surveillance system in place has the ability to enforce the EU Landing Obligation. The SG80 and 100 requirements are not met.  A condition of certification has been raised in response to this finding.		
b	Sanctions			
	Guide post	Sanctions to deal with non-compliance exist and there is some evidence that they are applied.	Sanctions to deal with non-compliance exist, <b>are consistently applied</b> and thought to provide effective deterrence.	Sanctions to deal with non-compliance exist, are consistently applied and <b>demonstrably</b> provide effective deterrence.
	Met?	Y	Y	N
	Justification	<p>Sanctions to deal with non-compliance are set out in EU and national legislation. The EU Control Regulation (1224/2009) sets out the framework for ensuring compliance and for determining appropriate sanctions (Article 89 <i>et seq</i>). and detailed rules for implementing these sanctions are set out in EU Regulation 404/2011.</p> <p>The UK government has each made legislation to transpose the sanctions and controls set out in the CFP and its daughter Regulations into enforceable national legislation (the Sea Fishing (Enforcement and Miscellaneous Provisions) Order 2015, made under the Sea Fisheries Act 1981) (UK Government 1981, 2015).</p> <p>Under this legislation, statutory bodies in each UK can enforce CFP and national fisheries legislation, and fishermen may be subject to fines, confiscation of catches and equipment, and also suspension of fishing licences (under the CFP “points system” for a period of 2 months (for 18 penalty points) incrementally increasing to suspension for a year (for 72 penalty points).</p> <p>The MMO ensures consistent application of regulations and sanctions by issuing a “Blue Book” of consolidated and up-to date legislation to all UK Fishery Officers and by providing adequate training to all Fishery Officers (MMO 2019).</p> <p>Evidence of the consistent application of sanctions and evidence of deterrence is provided by the Western Waters Joint Deployment Plan. The JDP requires the secondment of enforcement officers between Member States.</p> <p>The MMO have provided some evidence that sanctions are applied to the fishery, meeting the SG60 requirements. The low incidence of non-compliance indicates that the sanctions available provide some deterrent, meeting the SG80 requirements.</p> <p>In view of the concerns raised at the national level about the level of compliance with the EU landing obligation, it is not possible to conclude that the sanctions available demonstrably provide an effective deterrent, so the SG100 requirements are not met.</p>		
c	Compliance			
	Guide post	Fishers are <b>generally thought</b> to comply with the management system for the fishery under assessment, including, when required, providing information of importance to the effective management of the fishery.	<b>Some evidence exists</b> to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.	There is a <b>high degree of confidence</b> that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery.
	Met?	Y	Y	N

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with.		
	Justification	<p>Evidence has been provided by the MMO which indicates that fishers from the UoC comply with the management system under assessment. Catch and landings data are provided as required under EU and national legislation.</p> <p>In addition to this, the UoC fleet works in partnership with scientists from Cefas and the Sea Mammal Research Unit (SMRU) to gather data about the interaction of the fishery with non-target and ETP species.</p> <p>There is therefore some evidence available to demonstrated compliance with the management system and the provision of information important to the effective management of the fishery, meeting the SG60 and SG80 requirements.</p> <p>SG100 is not considered to be met because of the concerns (detailed in SIa above) about compliance with the EU Landing Obligation.</p>		
d	Systematic non-compliance			
	Guide post		There is no evidence of systematic non-compliance.	
	Met?		Y	
	Justification	On the basis of the information presented above, there is no evidence of systematic non-compliance by the vessels in the Unit of Certification.		
References		(UK Government 1981, 2015, EC 2008, 2009, EU 2013, EFCA 2018a, 2018b, 2018c, 2019, European Commission 2018a, 2018b, House of Lords 2019, MMO 2019, MSC 2019)		
OVERALL PERFORMANCE INDICATOR SCORE:				75
CONDITION NUMBER (if relevant):				

## 10 Appendix 2 – Revised conditions

### 10.1 New Condition 6 – Monitoring, Control & Surveillance

This is a new condition that was raised at the 3<sup>rd</sup> surveillance audit following harmonisation discussions with other Conformity Assessment Bodies.

It is important to note that this condition reflects a general concern about the monitoring of compliance with the EU Landing Obligation throughout the EU EEZ. It does not indicate a specific concern about the Cornish hake gill net fishery or the work of the enforcement agencies in the UK.

Performance Indicator	PI 3.2.3 Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with.
Score	75
Rationale	<p><i>Scoring issue 3.2.3a (SG80) A monitoring, control and surveillance <b>system</b> has been implemented in the fishery and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.</i></p> <p>See Evaluation Table for PI 3.2.3 for the full rationale. A summary is provided below:</p> <p>The MSC has recently issued an interpretation to Conformity Assessment Bodies on how to consider the Landing Obligation (MSC 2019). This indicates that for PI3.2.3 evidence is required of <u>both</u> the practice of discarding in the fishery and the provision of data.</p> <p>The existence of a well-established monitoring, control and surveillance system with a local presence and the capacity to monitor the activities of the fleet provides a reasonable expectation that enforcement of management measures will be effective, meeting the SG60 requirements for this SI.</p> <p>Whilst there is anecdotal evidence of good practice with the EU Landing Obligation in this Unit of Certification, there is not presently sufficient evidence available to demonstrate that the monitoring, control and surveillance system in place has the ability to enforce the EU Landing Obligation. The SG80 and 100 requirements are not met.</p> <p>A condition of certification has been raised in response to this finding.</p>
Condition	Evidence should be provided that the MCS-system has demonstrated an ability to enforce relevant management measures, strategies and rules. It should also be evident that fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.
Milestones*	<p><b>Year 1-3 (2019-2022):</b> The fishery must provide evidence that the monitoring, control and surveillance mechanisms work together to form part of a system and demonstrate an ability to enforce relevant management measures, strategies and/or rules, key amongst which is the Landing Obligation <b>(Score: 75)</b></p> <p><b>Year 4 (2023):</b></p>

	At the annual surveillance audit, the fishery must provide evidence that demonstrates that fishers comply with the management system under assessment, key among which the Landing Obligation <b>(Score: 80)</b>
<b>Client action plan</b>	<p><b>Year 1-3 (2019-2022):</b> The client will provide evidence from national authorities of monitoring, control and surveillance mechanisms working together to ensure enforcement of management measures, strategies and/or rules, particularly with a focus on the implementation of the landing obligation.</p> <p><b>Year 4 (2023):</b> The client will provide evidence from national authorities of fishermen compliance with management measures, strategies and/or rules in form of example inspection reports with an overview of infringement, sanctions etc. and/or presentations of changing landing patterns for fishermen</p>
<b>Consultation on condition</b>	<p>The client has consulted with Cefas and the MMO. During the period of this surveillance audit the staff at both agencies have been tasked with working on Brexit preparations as a priority. The ongoing uncertainty about Brexit has prevented these authorities from making a formal commitment to support work on this condition, although verbal assurances have been made to the client.</p> <p>In order to meet MSC surveillance audit deadlines this report has been published with the Client Action Plan but without the evidence of consultation with relevant entities, which Lloyds' Register shall ensure that the client and these entities provide as soon as possible.</p>



### **10.1.1 Letter of supports from enforcement agencies**

As noted above, the statutory bodies in the UK are currently prioritising work on the UK's exit from the EU. Verbal commitments of support have been made to the client, and written evidence will be added once there is greater clarity on the Brexit process and the relevant officers are able to dedicate time to this MSC audit process.

## 11 Appendix 3 - Stakeholder submissions

### 11.1 Written submission from Sea Mammal Research Unit



#### **SW hake fishery bycatch summary for MSC interim assessment.**

Prepared by A. Kingston, Feb 2019.

Based on data collected under the UK protected species bycatch monitoring programme during 2018.

##### **1. Sampling summary**

During 2018, 6 trips totalling 26 sea days and 52 hauls were monitored for protected species bycatch in the hake fishery. Approximately 70% of sampled hauls occurred in ICES division 7g, with the remainder in 7f and 7j.

Observed net fleet lengths (as calculated by the number of and stretched length of individual net panels) ranged from 2200m to 8800m, with 4400m being the most common length. Soak times ranged from 10hrs to 40hrs but were mostly 18-24hrs.

Over 90% of monitored hauls were equipped with acoustic deterrent devices (ADDs). For purely scientific purposes related to understanding the possible causes of bycatch events, fisheries observers check the voltages (a proxy for functioning) of ADDs when nets are hauled.

##### **2. Cetacean bycatch**

Three cetaceans were caught during observed hauls. A single harbour porpoise was caught approximately 18 nets (circa 1.8km stretched length) from the nearest ADD. The ADD in most common use in the fishery has an expected maximum effective range of about 2km and the effect diminishes with distance from the device, so this bycatch is in line with our expectations.

Two common dolphins were also bycaught. One was 20 nets (about 2km stretched length) from the nearest ADD, and the second was 10 nets (about 1km) from the nearest ADD but this particular device did not appear to be working correctly at the point of hauling, which may be a factor in this. Our understanding of how effective ADDs are for reducing dolphin bycatch is not as developed as for harbour porpoise, because background bycatch rates of dolphins in the relevant fisheries are significantly lower than porpoise rates, but we are gradually obtaining enough data that will in time allow us to calculate likely reduction rates for different dolphin species.

##### **3. Other bycatch**

Several elasmobranch species including blue and porbeagle shark, spurdog, tope, smoothhound and flapper and blue skate were also recorded during observation. A single shad (unspeciated) was also recorded.


## 12 Appendix 4 - Additional detail on conditions/ actions/ results

### 12.1 Discarding Spurdog – Code of Practice

**SPURDOG  
BY-CATCH  
AVOIDANCE  
PROGRAMME**




# Best practice

- ✓ Good handling practice improves the long-term survival of sharks, skates and rays returned alive to the sea.
- ✓ This can contribute to stock recovery for zero-TAC and Prohibited species.
- ✓ Maximise the survival of any juvenile fish and large breeding females being discarded.



- Inform other fishermen of the location of significant by-catch and take appropriate avoiding action.
- Avoid deploying fishing gear in the vicinity of observed or reported significant by-catch events.
- Where possible 'shake out' zero-TAC or Prohibited species from static gear into the sea, prior to hauling gear back on board.
- If brought aboard, increase the animal's chance of survival by handling with care.
- Where possible, have a dedicated 'soft surface' area on deck to lay sharks, skates and rays on while removing fishing gear.
- Clear the net as quickly as possible, return live sharks, skates and rays to the water prior to sorting the commercial catch.
- Process wanted catch as soon as safely possible; where possible avoid leaving fish in direct sunlight.


March 2017  
Image © Bay Photographic (CC BY 2.0)

supported by:   **Cefas** 

SPURDOG  
BY-CATCH  
AVOIDANCE  
PROGRAMME

## Discarding SPURDOG


DGS



✓

**Always lift a Spurdog to move it**

**Grip shark behind head - in front of pectoral fins, but avoiding gills**



✗

**Dragging or lifting a Spurdog solely by its tail can damage the animal**

**Avoid contact with the gills which are easily damaged**


## GOOD PRACTICE

**1** Increase chance of survival by removing live Spurdog carefully from fishing gear and avoid dropping them onto the deck.

**2** As quickly as possible, clear the net and return live Spurdog back to the sea.

**3** Return Spurdog to the sea by hand, not by foot through the vessel's scuppers.

**4** Record estimated volume of discarded Spurdog.




### REMEMBER: Return all live Spurdog to the water ASAP.

March 2017


Illustrations © Marc Dando | Shark Trust

Supported by:

C  
F  
P  
O



Cefas





## 12.2 Scientific poster presented at ICES Annual Science Conference, 2017

# Spurdog By-catch Avoidance Programme

Near real-time communication of the spatial and temporal abundance of spurdog (*Squalus acanthias* L.), to reduce by-catch, discards and fishing mortality in a mixed fishery

Stuart J. Hetherington<sup>1</sup>, Rose E. Nicholson<sup>1</sup>, Victoria A. Bendall<sup>1</sup>, Jamie Rendell<sup>2</sup>, Paul Trebilcock<sup>3</sup>, Ali Hood<sup>4</sup> & Carl O'Brien<sup>1\*</sup>

### The Issue




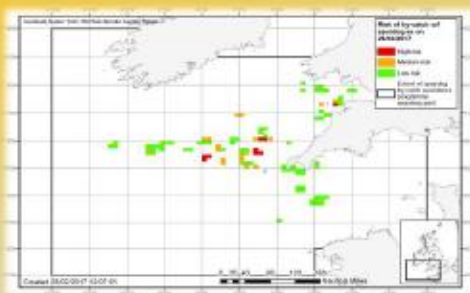
Image courtesy of Paul Trebilcock

- Zero landings does not result in zero take from the stock, although a 'Prohibited Species' listing prevents spurdog from becoming a 'choke' species under the Common Fisheries Policy landing obligation, whereby it would force fishermen to stop fishing in regions where spurdog are caught.
- Incidental spurdog by-catch continues in mixed fisheries, as the current management does not address the continued issue of wasteful dead discarding, nor reduces fishing induced mortality.

- Spurdog (*Squalus acanthias* L.) in the North-east Atlantic is classed as endangered by the International Union for the Conservation of Nature (IUCN) and in 2017 became a 'Prohibited Species' under EU fisheries legislation, precluding landings.

### Trialling an alternative approach


- A collaborative research partnership between scientists, Government policy advisors, the fishing industry and an environmental non-governmental organisation, has informed the development and trial of the near real-time reporting and avoidance of spurdog.
- Through an ArcGIS on-line portal, fishermen report their spurdog by-catch in near real-time, by area. This information is compiled and reported back to fishers using a RAG traffic light system.
- Red (high risk of by-catch), Amber (medium risk of by-catch) and Green (low risk of by-catch).
- This allows fishers to make informed fishing behaviour decisions in near real-time.




Map of spurdog by-catch distribution in the North-east Atlantic, showing areas of high, medium and low risk of by-catch. Legend: Red (high risk), Amber (medium risk), Green (low risk). Source: (BCC-0147) 12/07/17.

### Outcome & Application


- Between Nov to Apr 2017, fishers provided, by 9 x 7 km grid cells, 558 daily real-time reports of spurdog by-catch.
- Verified by Vessel Monitoring System (VMS), Remote Electronic Monitoring (REM) and landings data, the fishers reports are sufficiently accurate and reliable, incentivised by a dead spurdog by-catch allowance.
- Fishers adopted a Code of Conduct for spurdog avoidance and handling.
- As the trial continues, more data will make the near real-time reporting tool more predictive, potentially offering a regional solution to the sustainable management of spurdog and a possible alternative to it's 'Prohibited Species' listing.




Always lift a Spurdog to move it  
Grip shark behind head - in front of pectoral fins, but avoiding gills  
Illustration: © Gary Dunlop / Shark Trust




Dragging or lifting a Spurdog solely by its tail can damage the animal  
Avoid contact with the gills which are easily damaged




<sup>1</sup> carl.obrien@cefaz.co.uk | Centre for Environment, Fisheries and Aquaculture Science (Cefas), Pakefield Road, Lowestoft, Suffolk, NR33 0HT, UK



<sup>2</sup>



<sup>3</sup>



<sup>4</sup>

## 13 Appendix 5 – Variation to surveillance timing

### 13.1 Variation request from Lloyd's Register

MSC Variation Request template 20180803



#### Marine Stewardship Council - Variation Request

Date submitted to MSC	30 <sup>th</sup> November 2018
Name of CAB	Lloyd's Register
Fishery Name/CoC Certificate Number	Cornish hake gill net
Lead Auditor/Programme Manager	Jim Andrews/Louise Allan
Variation prepared by:	Louise Alan/Jim Andrews
Scheme requirement(s) for which variation requested	7.23.6.1 CABs may elect to undertake surveillance audits up to 6 months earlier or later than the anniversary date, where this deviation is appropriate given the circumstances of the fishery.
Is this variation sought in order to fulfil IPI requirements (FCR 7.4.14)?	No

<b>1. Proposed variation</b>	
The certificate anniversary is the 10 <sup>th</sup> June 2018, therefore the 3 <sup>rd</sup> surveillance audit should be held no later than 11 <sup>th</sup> December 2018 (6 months from the certificate anniversary date). We propose to hold the audit by 31 <sup>st</sup> January 2019, exceeding the 6-month deadline.	
<b>2. Rationale/Justification</b>	
The 1 <sup>st</sup> surveillance audit was delayed by 5 months due to administrative reasons and availability of the team, taking place in November 2016. Due to the need to monitor progress on conditions and based on client availability the 2 <sup>nd</sup> surveillance audit was held approximately 12 months after the 1 <sup>st</sup> audit, in November 2017. Following on from this, the 3 <sup>rd</sup> audit was planned to be held a few months after the certificate anniversary. Unfortunately, due to client availability the audit needs to be delayed and will be held in January 2019.	
<b>3. Implications for assessment (required for fisheries assessment variations only)</b>	
None	
<b>4. Have the stakeholders of this fishery assessment been informed of this request? (required for fisheries assessment variations only)</b>	No
<b>5. Further Comments</b>	
We will ensure that a 4 <sup>th</sup> surveillance is completed within the 5 year certificate timeframe as per MSC requirements.	



## 13.2 Variation response from MSC



Marine Stewardship Council

Louise Allan  
Lloyds Register (Acoura)  
6 Redheughs Rigg  
Edinburgh  
United Kingdom  
EH12 9DQ

Sent by email

Date: 11/12/2018

Subject: Request for variation to the MSC Certification Requirement v2.0 FCR-7.23.6.1 for Cornish hake gill net

Dear Louise Allan,

I write with reference to your submission on 30/11/2018 of a request for variation to the MSC Certification Requirement (CR) to allow:

The audit to be held by 31st January 2019, exceeding the 6-month deadline (i.e. 11 December 2018).

As you are aware, the CR procedures relating to v2.0 FCR-7.23.6.1 state:

CABs may elect to undertake surveillance audits up to 6 months earlier or later than the anniversary date, where this deviation is appropriate given the circumstances of the fishery

These are integral to ensuring all MSC accredited Conformity Assessment Bodies operate in a consistent and transparent manner. The MSC intends that these requirements be met across all fisheries and CoC certificate holders, except in exceptional, well-justified circumstances, as part of the MSC programme.

MSC notes the factors presented supporting your request, including:

- The 1st surveillance audit was delayed by 5 months due to administrative reasons and availability of the team, taking place in November 2016.
- The 2nd surveillance audit was held approximately 12 months after the 1st audit, in November 2017, due to the need to monitor progress on conditions.
- Due to client availability the 3rd surveillance audit needs to be delayed until January 2019, outside of the 6 month deadline.

Given the rationale provided, the MSC is willing to grant a variation to the CR in this case subject to the following conditions:

- The CAB can confirm that it is not aware at this time of any factor (related to either fishery status, or performance against conditions) that could result in the fishery no longer being in compliance with the MSC Fisheries Standard.
- Stakeholders are informed.
- The 4th surveillance audit is completed within the 5 year certificate timeframe.
- The acceptance of the variation request does not alter the need to conform to GCR v2.2 7.4.2.d.

If you have any questions regarding this response, please do not hesitate to contact the relevant Fisheries Assessment Manager for this fishery.

Marine Stewardship Council  
cc: Accreditation Services International

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## 14 Appendix 6 - Revised Surveillance Program

The MSC Certification Requirements specify that after each certification, surveillance and re-certification the Conformity Assessment Body (CAB) shall determine the level at which subsequent surveillance of the fishery shall be undertaken.

When this fishery was initially certified the CAB carried out this procedure using the scoring rationale set out in CRv1.3 and considered that a "Normal" surveillance level was appropriate, with annual on-site surveillance audits. The equivalent under CR v2.0 is surveillance level 6, and it is appropriate to adopt this here.

The surveillance program for this fishery is set out in the tables below, with a rationale to support the proposed program.

**Table 10: Surveillance level rationale**

Year	Surveillance activity	Number of auditors	Rationale
4	On-site surveillance audit.	2 auditors on-site	The fishery has four open conditions, spanning two MSC Principles. The presence of two auditors on-site is required to ensure an effective surveillance audit is carried out.

**Table 11: Timing of surveillance audit**

Year	Anniversary date of certificate	Proposed date of surveillance audit	Rationale
2	11 <sup>th</sup> June	11 <sup>th</sup> June 2019	This is the certificate anniversary.

**Table 12: Fishery Surveillance Program Revised**

Surveillance Level	Year 1	Year 2	Year 3	Year 4
6	On-site surveillance audit.	On-site surveillance audit.	Off-site surveillance audit.	On-site surveillance audit & recertification site visit