

Marine Stewardship Council (MSC) 1st Annual Surveillance Audit

Scottish Fisheries Sustainable Accreditation Group (SFSAG) North Sea haddock

On behalf of SFSAG

Prepared by ME Certification Ltd

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Contents

Glos	ssary	2
1.	General Information	3
2.	Background	4
3.	Assessment Process	6
4.	Results	7
4.1	Principle 1	7
4.1.	1 North Sea Multi Annual Plan - MAP	8
4.2	Principle 2	10
4.2.	1 Retained species	11
4.2.2	2 ETP species	15
4.2.3	3 Habitats and ecosystems	20
4.3	Principle 3	21
5.	Conditions and Action Plan	22
6.	Principal level scores and summary	28
7.	Harmonisation	30
8.	Traceability	30
9.	Conclusion	31
10.	References	32
11.	Appendix	35
11.1	Rescoring of PI 1.2.2	35
11.2	2 Rescoring of PI 2.2.1	41
11.3	3 Rescoring of PI 2.2.2	42



Glossary

Acronym	Definition
Blim	Limit reference point for SSB
B _{pa}	Precautionary reference point for SSB
B _{trigger}	Value of SSB which triggers a specific management action
CPUE	Catch Per Unit Effort
DAG	Seafish Discard Action Group
ETP	Endangered, Threatened, Protected species
FMAC	Fisheries Management and Conservation Group
F _{MGT}	Fishing mortality according to management plan
F _{MSY}	Fishing mortality consistent with achieving MSY
F _{pa}	Precautionary reference point for fishing mortality
GITAG	Gear Innovation and Technology Group (industry-based)
ICES	International Council for the Exploration of the Sea
MASTS	Marine Alliance for Science and Technology for Scotland
MCRS	Minimum Conservation Reference Size
MEC	ME Certification Ltd
MLS	Minimum Landing Size
MSY	Maximum Sustainable Yield
MPA	Marine Protected Area
PETS	Protected, endangered and threatened species
SDSG	Scottish Discard Steering Group (until Sept. 2014)
SFF	Scottish Fishermen's Federation
SFSAG	Scottish Fisheries Sustainability Group
SIDI	Scottish Industry Discard Initiative
SNH	Scottish Natural Heritage
SSB	Spawning-Stock Biomass
SSBMGT	SSB according to management plan
TAC	Total Allowable Catch
UoC	Unit of Certification



1. General Information

Fishery name	Scottish Fisheries Sustainable Accreditation Group (SFSAG) North Sea haddock								
Units of assessment	 (ICES Divisions IVa & IVb) by Single-rig trawl (TR1 and TR2), pair traw (TR1), twin-rig trawl (TR1 and TR2) and Danish seine vessels covered by membership of the Scottish Fisheries Sustainable Accreditation Group (SFSAG) following organisations: Aberdeen Fish Producers Organisation Anglo-Scottish Fish Producers Organisation Fife Fish Producers Organisation Fishermen's Mutual Association (Pittenweem) North East of Scotland Fishermen's Organisation Orkney Fish Producers Organisation Scottish Fishermen's Organisation Scottish Fishermen's Organisation Scottish Fish Producers Organisation Scottish White Fish Producers Organisation Scottish White Fish Producers Organisation 								
Date certified	22 October 2010 Date of expiry 12 May 2021								
Surveillance level	Surveillance level 6, annual on-site visit								
Date of surveillance audit	28th February 2017 2 nd Ma	arch 2017							
	1st Surveillance	Х							
	2nd Surveillance								
Surveillance stage	3rd Surveillance								
	4th Surveillance								
	Other								
Surveillance team	Team Leader: Hugh Jones Second assessor: Jo Gaso	soigne							
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2. Background

This report outlines the process and outcome of the first annual surveillance audit (second cycle) for the MSC certified 'Scottish Fisheries Sustainable Accreditation Group (SFSAG) North Sea haddock' fishery. The fishery is conducted by vessels affiliated to the ten producer organisations (PO) and one trade association, SWFPA, making up the SFSAG (see list under unit of assessment).

The UoC includes all haddock caught in the North Sea and landed by SFSAG vessels, whether haddock is targeted or a retained bycatch species. The vessels use a variety of gears, including whitefish trawls (TR1 - single, twin-rig and pair), *Nephrops* trawls (TR2 - single and twin rig – mainly twin) and Danish and Scottish seines. An updated list of member vessels is available on the SFSAG website¹.

The most important fishing area for the fishery in terms of landings was updated in the Public Certification Report of 2016, including detailed maps². ICES considers the Haddock stock found in the North Sea to be a single stock extending through subarea 4 (North Sea), to Division 6.a (West Scotland) in the West, and to Subdivision 3.a.20 in the East (Skagerrak) (ICES 2016c). TAC for North Sea Haddock is provided at Subarea 4 level with inclusion of Union waters in 2a (HAD/2AC4) 33,643 in 2017 (EU 2017). In addition to its share of the UK quota, the Scottish fleet secures quota from swaps with other EU member states (Table 1).

TAC	Year	2017	4+2a: 33643, UK share 22225
TAU	Year	2016	4 + EU waters 2a: 61933;
UoC share of TAC	Year	2016	32,186
Total green weight catch	Year (most recent)	2016	20,207
by UoC (Scottish fleet)	Year (second most recent)	2015	19,704

Table 1. TAC and Catch Data for the UoC

Source: <u>http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0072&from=EN</u> and Marine Scotland statistics: <u>http://www.gov.scot/Topics/marine/Sea-Fisheries/management/17681/WhitefishQuotaUptake</u>

The fishery was re-certified in 2016, subject to four conditions. As this is the 1st surveillance audit, all were open prior to the surveillance commencing.

¹ <u>http://scottishfsag.org/wp-content/uploads/2017/02/MSC-Saithe-and-haddock-Master-110217.pdf</u>

² <u>https://fisheries.msc.org/en/fisheries/scottish-fisheries-sustainable-accreditation-group-sfsag-north-sea-haddock/@@view</u>



Table 2. Summary of Assessment Conditions

Condition number	Condition	Performance Indicator	Related to previously raised condition? (Y/N/ NA)
1	At or within 3 years of setting the condition (approximately October 2017), demonstrate that the fishery meets all the SG80 requirements of this PI. Specifically, this will be through meeting the requirements of PI 1.2.2, SG80, SIc, which requires that: "Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules."	PI 1.2.2	Y. This condition was raised under the Year 4 Surveillance Audit and has been carried forward into the re-assessment cycle.
2	The bycatch from the fishery should be restrained within a level which can be considered to be 'highly unlikely' to create unacceptable impacts on starry ray and common skate, and is not hindering the recovery of these stocks. This could be achieved with further analysis of the PET data, with actions targeted to reduce bycatch of these species to a minimum or by other appropriate methods.	PI 2.3.1	No
3	There needs to be an objective basis for confidence that the strategy for reducing bycatch of starry ray and common skate from the fishery will work to reduce the bycatch to a level which can be considered to be 'highly unlikely' to create unacceptable impacts. This could be on the basis of an assessment of the stock trajectory (by ICES or other) or on the basis of an evaluation of trends in bycatch across the fleet, or by some other suitable method.	PI 2.3.2	No
4	There needs to be sufficient information available such that the impact of this fishery on common skate can be quantitatively estimated, and hence it can be determined whether the fishery may be a threat to the recovery of the common skate complex. This requires, as a minimum, a fleet-wide estimate of bycatch of common skate, as well as some basis by which population-level trends can be evaluated (noting that ICES considers that existing data are insufficient for this purpose).	PI 2.3.3	No



3. Assessment Process

The fishery was certified as sustainable on the 22nd October 2010 and re-certified on 17th May 2016. This is the first annual surveillance audit, against V1.3 of the standard since recertification. The on-site audit was carried out from the 28th February to 2nd March 2017 by Hugh Jones (Team Leader) and Joanne Gascoigne.

Stakeholders were informed of the scheduled site visit, its time and location and the proposed audit team on the 26th January 2017³. No comments or requests for interviews were received. The visit was held on 28th February through 2nd March 2017 in Aberdeen, between Hugh Jones, Jo Gascoigne, Jennifer Mouat (Aegir Consultancy) and Elena Balestri (SFF). Mike Park (SFSAG chair) and Ben Dipper (Scotland Government) were in contact by phone during the assessment. Marine Scotland Science and Marine Scotland Compliance (Simon Dryden) were also contacted. Also in attendance were Robin Cook (P1) and Geir Honneland (P3) whom were undertaking the expedited assessment of the SFSAG North Sea Haddock Certificate to which this certificate will be expanded to include additional species and areas³.

The main purpose of the annual surveillance audit is to review progress in meeting the conditions as set out in the Client Action Plan in the Public Certification Report (MEC 2016). The audit team also reviewed the fishery management system and regulations and its scientific information base for any significant changes since certification.

The fishery remains in conformance with the Scope Criteria relating to unilateral exemption and destructive fishing practices (<u>Certification Requirements v2.0</u>, Section 7.4.1).

³ <u>https://fisheries.msc.org/en/fisheries/scottish-fisheries-sustainable-accreditation-group-sfsag-north-sea-haddock/@@assessments</u>



4. Results

4.1 Principle 1

The overall reporting of catch data for haddock provided to ICES has improved during 2012–2015 through the fully-documented fisheries (FDF) programme and increased coverage by the Scottish industry/science observer sampling scheme (ICES 2016c). The latest ICES scientific advice (November 2016) for Haddock (*Melanogrammus aeglefinus*) in Subarea 4, Division 6.a, and Subdivision 3.a.20 (North Sea, West of Scotland, Skagerrak) notes that recruitment since 2000 has been characterized by a low average level with occasional larger year classes, the size of which is diminishing (Figure 1). ICES consider '*Fishing mortality (F) is above* F_{MSY} [note: although only by a small proportion] *and spawning-stock biomass (SSB) has fallen below* MSY $B_{trigger}$ (Figure 2). *Recruitment since 2000 has been characterized by a low average level with occasional larger year classes, the size of which is diminishing the size of which is diminishing. The 2014 recruitment estimate is higher than recent poor recruitment years, but is still below the long-term average'.*



Figure 1. Summary of the 2016 stock assessment of Haddock (*Melanogrammus aeglefinus*) in Subarea 4, Division 6.a, and Subdivision 3.a.20 (North Sea, West of Scotland, Skagerrak) (ICES 2016c).



	Fishing pressure						Stock size					
		2013	2014		2015			2014	2015		2016	
Maximum sustainable yield	F _{MSY}	\bigcirc	8	⊗	Above]	MSY B _{trigger}	\bigcirc	\bigcirc	₿	Below trigger	
Precautionary approach	F _{pa} , F _{lim}	\bigcirc	0	⊗	Harvested unsustainably		B _{pa} , B _{lim}	\bigcirc	\bigcirc	0	Increased risk	
Management plan	F _{MGT}	-	-	-	Not applicable		SSB _{MGT}	-	-	-	Not applicable	

Figure 2. State of the haddock stock and fishery relative to reference points (ICES, 2016c). Source: From ICES graphs⁴

The interbenchmark protocol carried out in 2016 re-evaluated the stock assessment model, which ICES previously considered was failing to adequately represent the stock dynamics (ICES 2016j). The committee found the problem to be the treatment of larger recruitment events prior to 1999, and application of new assessment model configurations removed this effect (ICES 2016j). Reassessment of the stock model shows significant retrospective underestimation of fishing mortality and overestimation of spawning-stock biomass. New reference points, except for B_{lim} , were estimated using only data post -1999, while B_{lim} was taken as the lowest SSB on record (1972). F_{MSY} in the latest advice is revised down from 0.37 to 0.19 (ICES 2016c). The reconfiguring of the assessment model and downward revisions of reference points resulted in reduced catch advice (45%) for 2017 (ICES 2016c). Under this surveillance audit all PIs retained their scored record at the time of certification with the exception of PI 1.2.2 (condition 1) which was rescored (Table 10 and Table 17).

4.1.1 North Sea Multi Annual Plan - MAP

The European Union's proposal for multi-annual plan for demersal stocks in the North Sea was released in 2016 (EU 2016b). The MAP was not evaluated in this surveillance audit as it is not yet active but is reviewed here for relevance to the fishery for the next surveillance audit. The proposal lays out set of common harvest control rules for all 'category 1 stocks' (Table 3), based upon the ICES MSY framework. The proposal requires the EU to set catch limits that restore and maintain fish stocks above MSY levels. It will define ranges within which catch limits can be set. The F_{MSY} based management should allow TAC flexibility within a range to allow for mixed-fisheries interactions, discard avoidance objectives, avoiding too drastic TAC changes. These ranges are to be sanctioned by ICES to ensure a 'pretty good yield '(95% MSY) and with precautionary rules to minimize the risk of SSB < B_{lim} . There are additional safeguard rules where SSB is lower than MSYB_{trigger} and where SSB is below B_{lim} (EU 2016b). The North Sea proposal follows a multi-annual plan for the Baltic that the European Parliament and Council agreed on earlier this year. Negotiations on the specifications of the MAP are taking place in 2017 with the European Parliament expected to state their position in summer 2017 with a trial log to follow.

The principle elements of the plan are laid out below (EU 2016b):

⁴ ICES advice graphs from <u>http://standardgraphs.ices.dk/ViewCharts.aspx?key=8066</u>



- Objectives and targets (achieve levels of fishing mortality consistent with the principle of maximum sustainable yield). In accordance with Article 10 of the Basic Regulation the targets should be quantifiable. The proposed targets are expressed as fishing mortality ranges around F_{MSY} as advised by ICES. These F_{MSY} ranges allow for a maximum sustainable yield-based management for the stocks concerned, and appear to allow for adaptations in case of changes in the scientific advice, while at the same preserving a high level of predictability;
- Conservation reference points, expressed in tonnes of spawning stock biomass or abundance in numbers, included in the plan are determined by ICES, usually through their benchmarking exercise. In the absence of advice on spawning stock biomass or abundance reference points, action should be taken when scientific advice states that a stock is under threat.
- Safeguards and specific conservation measures are linked to the conservation reference points. When scientific advice states that any of the stocks concerned is below that point, the TAC for that stock should be reduced This measure may be complemented as necessary by measures such as technical measures, Commission or Member State emergency measures.
- Provisions related to the landing obligation to be adopted under regionalisation are necessary for allowing for possible future exemptions from the landing obligation for species for which scientific evidence demonstrates high survival rates, and "de minimis" exemptions, in line with the development of scientific advice.
- Control provisions are provided on prior notifications, logbooks and designated ports. For the prior notification and logbook requirements it is necessary to adapt the general rules of Regulation 1224/2009 to the particularities of the North Sea and its demersal fisheries. As regards designated ports, Regulation 1224/2009 requires multi-annual plans to adopt thresholds above which catches of demersal stocks should only be landed in ports with enhanced control.
- Periodic evaluation of the plan based on scientific advice: the plan should be evaluated every five years. This period allows, initially, for the full implementation of the landing obligation and for regionalised measures to be adopted, implemented and to show effects on the stocks and fishery. This is also a minimum required period by scientific bodies. Recently, scientific advice could not be delivered due to insufficient data or trends to be evaluated, when the evaluation concerned a period of three years.



Species	Stock
Cod	Subarea IV and Divisions VIId and IIIa West (North Sea, Eastern
Haddock (<i>Melanogrammus aeglefinus</i>)	Subarea IV and Divisions VIa and IIIa west (North Sea, West of Scotland, Skagerrak)
Plaice (<i>Pleuronectes platessa</i>)	Subarea IV (North Sea) and Division IIIa (Skagerrak)
Saithe (<i>Pollachius virens</i>)	Subareas IV and VI and Division IIIa (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat)
Sole (<i>Solea solea</i>)	Subarea IV (North Sea)
Sole (<i>Solea solea</i>)	Division IIIa and Subdivisions 22–24 (Skagerrak and Kattegat, Western Baltic Sea)
Whiting (<i>Merlangius merlangus</i>)	Subarea IV and Division VIId (North Sea and Eastern English Channel)

Table 3. Category 1 stocks identified as part of the North Sea MAP proposal (EU 2016b).

4.2 Principle 2

The SFSAG haddock fleet is a mixed fleet, using different gears to target a mix of demersal species, of which haddock is not always the main component. The vessels are divided into two broad categories according to the codend mesh size: "TR1" vessels (mesh size >100mm), which mainly target whitefish: saithe, haddock, whiting and cod; and "TR2" vessels (mesh size 70-100mm) which land mainly *Nephrops* alongside some demersal fish, principally monkfish and megrim.

Since the start of the MSC certification process for demersal species in Scotland (saithe; certified 2013) there has been a significant improvement in data collection for the North Sea. Scottish Fishermen's Federation (SFF) started an observer programme to collect information about discards, which initially ran in parallel to the Marine Scotland observer programme which aimed to quantify discards of cod and the main commercial species. The two programmes were subsequently merged and collect and process data on discards of all species, including ETP species (see below). The Scottish fishing industry has also run and funded several projects to assess quantities discarded for specific species and identify mitigation measures (for ex. Spurdog in the Minches WS in 2014/15 with SAMS); and to conduct gear trials to improve selectivity and reduce bycatch (starting with the Conservation Credits programme under the Cod Recovery Plan and continuing now through initiatives such as the Gear Innovation and Technology Group, GITAG).

Under the landing obligation (EU, 2013a), from 1st January 2016 in the North Sea vessels using gear of 100 mm or more have been required to land haddock, plaice and northern prawn, and vessels using gear of 80-99 mm are required to land *Nephrops*, common sole and northern prawn. From 1st January 2017 it was expanded in the North Sea as follows:

• Vessels using gear of 100 mm or more will need to land all catches of saithe (if caught by a saithe targeting vessel), plaice, haddock, whiting, cod, northern prawn, sole and *Nephrops*. A saithe targeting vessel is considered a vessel which has landed more than 90% saithe.



• Vessels using gear of 80-99 mm will need to land all catches of *Nephrops*, haddock, sole and northern prawn.

Marine Scotland plans to add further additional species in 2018: see <u>http://www.gov.scot/Topics/marine/Sea-Fisheries/discards</u>.

4.2.1 Retained species

The main retained species identified when the fishery was recertified by gear type with >5% of catch composition are listed in Table 4. The full data set for 2015 is presented in Tables 5-7 of the PCR for SFSAG North Sea cod: see <u>https://fisheries.msc.org/en/fisheries/scottish-fisheries-sustainable-accreditation-group-sfsag-north-sea-cod/@@assessments</u>).

There are some changes in 2014 and 2015 relative to previous years, which relate mainly to an improved estimate of discards for a wider range of species by Marine Scotland than in previous years. One new 'main' bycatch species is identified (dab) and several species are found to apply to more gear types than in the full assessment. Dab are ~100% discarded (according to Marine Scotland data), so are considered under PI 2.2; other species are considered under PI 2.1. Summaries of landings, estimated discards, estimated catch and landing and catch composition data from 2015 are provided for the North Sea (Table 6).



Table 4. Species making up >5% of landings in each year for each gear type. Species are designated 'main' retained species if they make up >5% of landings in 3 or 4 of the years. New additions to 'main' bycatch species are highlighted in red.

Mesh size	Gear type	2011	2012	2013	2014	2015	Main retained species
TR1	Danish seine	Cod, whiting	Cod, whiting	Cod, whiting	Cod, whiting, hake	cod, whiting, hake	Cod, whiting, hake
	Pair trawl	Cod, whiting, <i>Nephrops</i> , hake	Cod, whiting, saithe, monkfish	Cod, whiting, saithe, hake	Cod, whiting, saithe, hake	cod, whiting, saithe, hake	Cod, whiting, saithe, hake
	Scottish seine	Cod, whiting	Cod, whiting	Cod, whiting	Cod, whiting	cod, whiting	Cod, whiting
	Single trawl	Cod, saithe, whiting, monkfish	Cod, saithe, whiting, monkfish	Cod, saithe, whiting, monkfish, plaice	Cod, saithe, whiting, monkfish, <i>Nephrops</i>	cod, saithe, whiting, plaice, monkfish, hake	Cod, saithe, whiting, plaice, monkfish, hake
	Twin Trawl	Cod, saithe, whiting, monkfish, plaice, ling, megrim	Cod, saithe, whiting, monkfish, plaice, ling, megrim	Cod, saithe, whiting, monkfish, plaice, ling	Cod, saithe, whiting, monkfish, plaice, ling, <i>Nephrops</i>	cod, saithe, whiting, monkfish, plaice, ling, <i>Nephrops</i>	Cod, saithe, whiting, monkfish, plaice, ling, <u>Nephrops</u>
TR2	Single Trawl	<i>Nephrops</i> , whiting, monkfish	<i>Nephrops</i> , whiting, monkfish	Nephrops, whiting, monkfish	<i>Nephrops</i> , whiting, monkfish	<i>Nephrops</i> , whiting, monkfish, dab	<i>Nephrops</i> , whiting, monkfish, dab
	Twin Trawl	Nephrops, whiting, monkfish	Nephrops, whiting, monkfish	Nephrops, whiting, monkfish	Nephrops, whiting, monkfish	<i>Nephrops</i> , whiting, monkfish, dab	<i>Nephrops</i> , whiting, monkfish, dab
	Pair Trawl				<i>Nephrops</i> , whiting	Nephrops, whiting, dab	<i>Nephrop</i> s, whiting, dab

The most recent ICES advice for the main species identified above has been reviewed (Table 5). Since there are no conditions associated with any of these species, scoring was only reviewed if the advice is that the stock status is materially different from during the full assessment; this does not apply to any of these stocks. However, scoring and rationales for 2.2.1 and 2.2.2 were revised to include dab – see Sections 11.211.3.

Table 5. Comparison of ICES advice in PCR vs. most recent for the 'main' stocks identified in Table 4

Main species	Stock status as used in PCR (from ICES)	Current stock status 2017 (most recent ICES advice)	Bycatch Pls rescored?	Refs
cod	Blim <b<btrigger< td=""><td>B~=Btrigger</td><td>no</td><td>(ICES 2016b) (updated Nov.)</td></b<btrigger<>	B~=Btrigger	no	(ICES 2016b) (updated Nov.)
saithe	B~=Btrigger	B>Btrigger	no	(ICES 2016k)
whiting	B>Blim; F>Fmgt	B>Btrigger	no	(ICES 2016I)
hake	B>>Btrigger	B>>Btrigger	no	(ICES 2016d)
monkfish	B increasing	B increasing	no	(ICES 2016a)
plaice	B>Btrigger	B>>Btrigger	no	(ICES 2016i)
ling	B increasing	B increasing	no	(ICES 2015c)
Nephrops FU7	B~=Btrigger	B>Btrigger	no	(ICES 2016e)
Nephrops FU8	B>Btrigger	B>Btrigger	no	(ICES 2016h)
Nephrops FU9	B~=Btrigger	B>Btrigger	no	(ICES 2016g)
Nephrops FU34	harvest rate	harvest rate	no	(ICES 2016f)
	precautionary	precautionary		
dab	not included	biomass stable	2.2.1 and 2.2.2 – See sections 11.2 and 11.3	(ICES 2015b)



Table 6. Landings, estimated discards, estimated catch (landings + estimated discards) and landing and catch composition data from 2015 for North Sea (Subarea 4). Data from Marine Scotland. Data ordered by descending % catch estimate (Declared landings + Discard Estimate / Total estimated landings * 100). MCRS = Minimum Conservation Reference size. Catches in green > 5% catch total.

Species	Declared landings (tonnes)	Number of landings trips sampled	Number of discard trips sampled	Estimated Discarded Weight (tonnes)	Discard rate estimate as a % of estimated catch weight	Percentage of numbers discarded above MCRS	% Declared Iandings	Catch estimate (tonnes)	% Catch Estimate
Haddock	25,401	172	103	121	13	0.21	35.7	25,522	35.0
Cod	13,491	165	107	168	34	0.7	19.0	13,659	18.7
Whiting	8,940	205	106	114	28	0.57	12.6	9,054	12.4
Anglerfish	6,781	71	99	51	2	NA	9.5	6,832	9.4
Saithe	6,703	173	63	126	39	0.96	9.4	6,829	9.4
Plaice	3,742	70	111	40	28	0.28	5.3	3,782	5.2
Hake	3,136	41	84	109	50	0.97	4.4	3,245	4.4
Megrim	1,158	72	63	161	5	0.97	1.6	1,319	1.8
Lemon Sole	713	60	107	76	23	NA	1.0	789	1.1
Witch Flounder	484	10	79	38	23	NA	0.7	522	0.7
Pollack	516	53	25	4	0	1	0.7	520	0.7
Flounder	0	NA	14	177	NA	NA	0.0	177	0.2
Common Dab	0	NA	101	162	NA	NA	0.0	162	0.2
Brill	9	24	11	122	31	NA	0.0	131	0.2
Red mullet	1	1	16	119	97	NA	0.0	120	0.2
Torsk	1	1	16	119	97	NA	0.0	120	0.2
Sole	9	2	4	71	18	0.24	0.0	80	0.1
Turbot	67	75	24	4	1	NA	0.1	71	0.1
Grey gurnard	0	NA	105	55	NA	NA	0.0	55	0.1
Total	71,152			1,837				72,989	



4.2.2 ETP species

Discard data which includes ETP species for the fishery are available from the Marine Scotland observer programme and include samples of all elasmobranch species that are not 'exceptional' catches. Currently these data are only available at a fishery level which includes ICES subarea 4 and 6a combined. Exceptional catches of ETP species are reported on a 'PETS' (protected, endangered and threatened species) bycatch recording sheet. Exceptional catch refers to animals which are identified prior to entering the vessels catch baskets e.g. large or easily distinguished animals from target species. Discard data are dependent upon the observer present, gear type and haul rate but provide broad estimates of ETP incidences. Between 2014 and 2016 the most commonly caught elasmobranch within the discard data was the starry ray (*Amblyraja radiata*) but in no year, did the proportional composition of this species to the discard total exceed 2 % (Table 7**Error! Reference source not found.**). No other elasmobranchs were recorded with composition proportions >0.5% (Table 7).



Table 7. Discard species data for elasmobranch species caught between 2014 and 2016. Data from Marine Scotland. Total discards is the total number of discarded fish measured. Current data includes ICES Subareas 4 and 6a.

Year	Species	Common Name		Tota	ıl	trips	hauls	fish	% trips	% hauls	% discard
			trips	hauls	Discards	_					
	Amblyraja radiata	Starry Ray				26	126	861	32.1	19.2	0.9
	Dipturus batis	Common Skate				13	73	201	16.0	11.1	0.2
Year 2014 2014 2015	Dipturus intermedia	Flapper Skate (Common Skate cplx.)				10	26	70	12.3	4.0	0.1
	Dipturus flossada	Blue Skate (Common Skate cplx.)				5	25	62	6.2	3.8	0.1
2014	Dipturus nidarosiensis	Norwegian Skate	81	656	95811	2	4	9	2.5	0.6	0.0
	Rostroraja alba	White Skate				0	0	0	0.0	0.0	0.0
	Raja undulata	Undulate Ray				0	0	0	0.0	0.0	0.0
	Squalus acanthias	Pike dogfish / Spurdog				26	68	176	32.1	10.4	0.2
	Lamna nasus	Porbeagle				0	0	0	0.0	0.0	0.0
	Amblyraja radiata	Starry Ray				19	156	1230	24.4	23.1	1.2
	Dipturus batis	Common Skate				9	42	93	11.5	6.2	0.1
	Dipturus intermedia	Flapper Skate (Common Skate cplx.)				13	24	104	16.7	3.6	0.1
2015	Dipturus flossada	Blue Skate (Common Skate cplx.)				7	10	13	9.0	1.5	0.0
2015	Dipturus nidarosiensis	Norwegian Skate	78	674	99835	1	1	2	1.3	0.1	0.0
	Rostroraja alba	White Skate				0	0	0	0.0	0.0	0.0
	Raja undulata	Undulate Ray				0	0	0	0.0	0.0	0.0
	Squalus acanthias	Pike dogfish / Spurdog				19	43	64	24.4	6.4	0.1
	Lamna nasus	Porbeagle				0	0	0	0.0	0.0	0.0
	Amblyraja radiata	Starry Ray				27	190	1533	39.1	31.4	1.8
	Dipturus batis	Common Skate				2	6	10	2.9	1.0	0.0
0040	Dipturus intermedia	Flapper Skate (Common Skate cplx.)		005	00050	20	33	57	29.0	5.5	0.1
2016	Dipturus flossada	Blue Skate (Common Skate cplx.)	69	605	80852	5	22	71	7.2	3.6	0.1
	Dipturus nidarosiensis	Norwegian Skate	1			0	0	0	0.0	0.0	0.0
	Rostroraja alba	White Skate	1			0	0	0	0.0	0.0	0.0



Year	Species	Common Name		Tota	ıl	trips	hauls	fish	% trips	% hauls	% discard
			trips	hauls	Discards						
	Raja undulata	Undulate Ray				0	0	0	0.0	0.0	0.0
	Squalus acanthias	Pike dogfish / Spurdog				7	15	17	10.1	2.5	0.0
	Lamna nasus	Porbeagle				0	0	0	0.0	0.0	0.0



The total PETS dataset for the North Sea for 2016 covered 137 trips with 25 trips recording PET species interactions (Table 8). ETP interactions are predominately with elasmobranchs (most frequently flapper skate), which are considered ETP's where they are not permitted to be landed by EU fisheries regulations (Regulation 2015/104).

Table 8. All species recorded by observers on the PETS bycatch recording sheets for 2014, covering 47 North Sea trips, TR1 and TR2, for 2015 to September, covering 63 trips and for 2016 for 201 trips. Species ordered by total number dead. * Part of the common skate species complex; all previous classified as D. batis. ^ no information on status dead or alive; assumed dead.

Species		2014		2015		2016		Cate-	Main?
Common name	Scientific name	Alive	Dead	Alive	Dead	Alive	Dead	gory	
Starry ray	Amblyraja radiata	1	67	1	26			ETP	No
Cuckoo ray	Leucoraja naevus	3	45	16	1			Bycatch	No
Picked dogfish / Spurdog	Squalus acanthias	19	38	8				ETP	No
Lesser-spotted dogfish	Scyliorhinu s canicula	12	32		4			Bycatch	No
Flapper skate*	Dipturus intermedia	1	15	10	15	5	66^	ETP	No
Starry smoothhound	Mustelus asterias	7	5	2	10		1	Bycatch	No
Common skate*	Dipturus batis	4	1	3	2			ETP	No
Blue skate*	Dipturus flossada		1	1	1		13^	ETP	No
Thornback ray	Raja clavata				2			Bycatch	No
Grey seal	Halichoerus grypus		1	1			2	ETP	No
Shagreen ray	Raja fullonica			1	1			Bycatch	No
Rabbit ratfish	Chimaera monstrosa		1					Bycatch	No
Blonde ray	Raja brachyura				1			Bycatch	No
Six-gilled shark	Hexanchus griseus				1			Bycatch	No
Porbeagle	Lamna nasus	1				1	2	ETP	No
Skates nei	Rajidae	1						-	-
Basking Shark	Cetorhinus maximus						1	ETP	No
Common Guillemot	Uria aalge					1		ETP	No
Greenland Shark	Somniosus microcepha lus						1^	ETP	No



Species		2014		2015		2016		Cate-	Main?
Common name	Scientific name	Alive	Dead	Alive	Dead	Alive	Dead	gory	
Common Seal	Phoca vitulina						1	ETP	No
Northern Gannet	Morus bassanus						2	ETP	No
Торе	Galeorhinu s galeus					2		ETP	No
Starling	Sturnus vulgaris				1			ETP	No

There are conditions on the fishery related to the common skate species complex (*Dipturus batis/flossada/intermedia*) and starry ray (*Amblyraja radiata*). ICES advice for the common skate complex and for starry ray in 2016 is the same as 2015; review is planned in 2019 (ICES 2015a; ICES 2015d). Common skate (*Dipturus batis*) was the key ETP species identified during the initial assessment. This species is now considered a complex of three species: blue skate (*D. flossada*), flapper skate (*D. intermedia*) and common skate (*D. batis*) (Iglésias et al. 2010) and therefore all records of *D. flossada*, *D. intermedia* and *D. batis* have been considered for the conditions raised. ICES advice for common skate complex in 2015 suggest 'The available information does not change the previous perception that the common skate complex is depleted in the North Sea.' and that there should be no landings of this species before review in 2019 (ICES 2015a).

Concerns were also raised with regards to the current status of starry ray (*Amblyraja radiata*) in the North Sea (IV). This species was the most common elasmobranch reported in the discard data (Table 7), but at low-levels (< 2% composition of all discards) and there were no recorded PET interactions with starry ray in 2016, despite higher catches in 2014 and 2015 (Table 8). Starry rays have been found to have near-negligible mortality at the time of capture and have a 72-hour mortality rate <20% from trawl gear (Mandelman et al. 2013).

The EU TAC and quota now prohibits a significant number of skate and shark species from being retained by all Union vessels fishing in the North Sea, (EU 2016a). The full list of rays, skates and sharks has been updated for 2017 (Table 9).

Table 9. Shark and ray species prohibited under the European TAC and quota regula	tion 2017
(EU 2016a).	

Species and Area
starry ray (<i>Amblyraja radiata</i>) in Union waters of ICES divisions IIa, IIIa and VIId and ICES subarea IV;
white shark (Carcharodon carcharias) in all waters;
leafscale gulper shark (<i>Centrophorus squamosus</i>) in Union waters of ICES division IIa and subarea IV and in Union and international waters of ICES subareas I and XIV;
Portuguese dogfish (<i>Centroscymnus coelolepis</i>) in Union waters of ICES division IIa and subarea IV and in Union and international waters of ICES subareas I and XIV;
basking shark (Cetorhinus maximus) in all waters;
kitefin shark (<i>Dalatias licha</i>) in Union waters of ICES division IIa and subarea IV and in Union and international waters of ICES subareas I and XIV;
birdbeak dogfish (<i>Deania calcea</i>) in Union waters of ICES division IIa and subarea IV and in Union and international waters of ICES subareas I and XIV;

Species and Area			
common skate (Dipturus batis) complex (Dipturus cf. flossada and Dipturus cf. intermedia) in Union			
waters of ICES division IIa and ICES subareas III, IV, VI, VII, VIII, IX and X;			
great lanternshark (<i>Etmopterus princeps</i>) in Union waters of ICES division IIa and subarea IV and in			
Union and international waters of ICES subareas I and XIV;			
smooth lanternshark (<i>Etmopterus pusillus</i>) in Union waters of ICES division IIa and subarea IV and			
in Union and international waters of ICES subareas I, V, VI, VII, VIII, XII and XIV;			
tope shark (Galeorhinus galeus) when taken with longlines in Union waters of ICES division IIa and			
subarea IV and in Union and international waters of ICES subareas I, V, VI, VII, VIII, XII and XIV;			
porbeagle (Lamna nasus) in all waters;			
reef manta ray (Manta alfredi) in all waters;			
giant manta ray (Manta birostris) in all waters;			
the following species of Mobula rays in all waters:			
• devil fish (<i>Mobula mobular</i>);			
 lesser Guinean devil ray (Mobula rochebrunei); 			
 spinetail mobula (Mobula japanica); 			
 smoothtail mobula (Mobula thurstoni); 			
 longhorned mobula (Mobula eregoodootenkee); 			
Munk's devil ray (Mobula munkiana);			
Chilean devil ray (Mobula tarapacana);			
• shortfin devil ray (Mobula kuhlii); (
lesser devil ray (Mobula hypostoma);			
the following species of sawfish (<i>Pristidae</i>) in all waters:			
 narrow sawfish (Anoxypristis cuspidata); 			
• dwarf sawfish (<i>Pristis clavata</i>);			
• smalltooth sawfish (<i>Pristis pectinata</i>);			
largetooth sawfish (<i>Pristis pristis</i>);			
• green sawfish (<i>Pristis zijsron</i>)			
thornback ray (Raja clavata) in Union waters of ICES division IIIa;			
Norwegian skate (Dipturus nidarosiensis) in Union waters of ICES divisions VIa, VIb, VIIa, VIIb,			
VIIc, VIIe, VIIf, VIIg, VIIh and VIIk;			
undulate ray (<i>Raja undulata</i>) in Union waters of ICES subareas VI and X;			
white skate (Rostroraja alba) in Union waters of ICES subareas VI, VII, VIII, IX and X;			
guitarfishes (<i>Rhinobatidae</i>) in Union waters of ICES subareas I, II, III, IV, V, VI, VII, VIII, IX, X and XII:			

picked dogfish (Squalus acanthias) in Union waters, with the exception of avoidance programmes as set out in Annex IA; angel shark (Squatina squatina) in Union waters.

4.2.3 Habitats and ecosystems

A range of offshore MPAs have been designated since the fishery was certified (see http://www.gov.scot/Topics/marine/marine-environment/mpanetwork/SACmanagement).

Marine Scotland prepared an audited proposal for the management measures of the offshore MPAs (MarineScotland 2017a; MarineScotland 2017b). An accompanying letter to stakeholders (including other EU member states) sets out a timetable for discussion by stakeholders (via the Scheveningen Group) and potentially STECF, followed by implementation via a delegated act from the European Commission. The objective is for management measures to be in place by early 2018. The proposals suggest closures to demersal towed gears for all or relevant parts of each MPA. No final decisions on management of the offshore MPAs have been taken as yet. JNCC, in consultation with Marine Scotland, prepared a 'management options paper' for each site, which is intended to serve as a basis



for stakeholder consultation, which is ongoing (and behind schedule) see Marine Scotland (2017b) for examples of audits for each site. The proposed timetable would have management plans approved for each MPA in January 2018. The proposals have been forwarded to the EU for discussion and approval under the CFP (see http://www.gov.scot/Topics/marine/marine-environment/mpanetwork/SACmanagement/Offshore2017).

The SFSAG Cod certificate⁵ in assessment is reviewing information and SFSAG management in relation to burrowed mud habitats as a vulnerable marine environment. Review of this information will take place as part of the on-going expedited assessment of this fishery⁶.

4.3 Principle 3

There have been no significant changes to governance and policy in the fishery since certification, although Brexit is causing uncertainty; e.g. in relation to the landings obligation. The Scottish Industry Discards Initiative (SIDI) which was in place to address the landings obligation, has been ended. For the moment, however, the landing obligation continues to be implemented in the fishery as described under Principle 2 above.

The Cod Recovery Plan has been repealed for the North Sea (since for North Sea cod $B \sim = B_{trigger}$); ICES provide advice and the TAC is set following the standard MSY framework. The landing obligation already applies to cod for TR1 vessels, but this means that there are no longer 'days at sea' limits.

In terms of research, SFF note that the joint Marine Scotland/SFF observers have four agreed data priorities:

- quantifying discards
- taking length-frequency measures for all discard species and main landing species
- quantifying (as far as possible) interactions with PET species
- collecting otoliths

In 2017, field research priorities for Marine Scotland are i) otoliths for Rockall haddock; and ii) monkfish biology (age and growth) in both 4 and 6.

SFF/Marine Scotland also provide observers to projects from Fisheries Innovation Scotland (FIS) and GITAG (described above), which both aim to provide a framework for fishermen to propose new gear innovations. SFF and Aberdeen University are also working on a project with West coast fishermen to develop data collection via self-sampling.

No particular issues were noted by Marine Scotland Compliance in relation to enforcement and non-compliance for this fishery. Issues have been raised regarding the enforcement of the landing obligation; Marine Scotland acknowledge that it may be problematic, but are

⁵https://fisheries.msc.org/en/fisheries/scottish-fisheries-sustainable-accreditation-group-sfsag-north-seacod/@@view

⁶<u>https://fisheries.msc.org/en/fisheries/scottish-fisheries-sustainable-accreditation-group-sfsag-north-sea-haddock/@@view</u>



developing some strategies – for example, using the fully-documented vessels (FDF – see above) to develop catch profiles which can be used for comparison with landings from other vessels. Management measures to reduce discards, such as the real-time closures, continue as described in the PCR.

5. Conditions and Action Plan

The most important aspect of the annual audit is to assess progress with the Action Plan towards meeting the conditions. The Scottish haddock fishery was certified with 4 conditions, all of which were open prior to this audit (since this is the first annual audit).

	PI	Scoring guidepost			
PI and scores	1.2.2	Harvest control rules and tools: There are well defined and effective harvest control rules in place	75		
Condition 1 (set at the Y4 audit of the previous certification cycle)	TACs are has been of the LT manager subarea areas ba Norway r manager effective upon the estimate allocation distribution not achie compone rates. Fu a new No estimation that the areal Therefor possible exploitati Note that Danish N by Interte condition adopted appropria form thro At or with demonst Slc, whic appropria	e split among stock subareas to avoid potential local depletion. In done for the North Sea + Skagerrak component since implem MP. The addition of the West of Scotland component to the nent unit in 2014 requires that a portion of the TAC be allocated as well. For 2015 and 2016, TACs were split amongst the three sed upon the historical average catch shares outlined in the EL negotiations (ICES, 2015b). This has added uncertainty to the nent of fishing mortality in each area and thus to the overall ness of the HCR. The TAC should be allocated amongst areas relative fishable biomass in each area, taking into account son of the minimum acceptable biomass in each area. The current n process based upon catch opens the possibility of a suboptim on of fishing mortality amongst areas such that the overall stock wed. This effect is likely subtle, given the relative size of the sto- active of Scotland about 10% of the total) and current explo- rther exploration of the appropriate areal split of the TAC in sup- porthern Shelf haddock management plan is required, which may achievement of the plan's overall objectives is not adversely aff. TAC allocation process and that local depletion does not occu e, until further evidence through these explorations is available, to state that the current tools are clearly effective in controlling on levels to achieve objectives. Slc does not meet SG80.	This entation d to this e stock J- based ne hal k FMP is ock oitation oport of y include ure both ected by r. , it is not e DFPO e audit a also on is urrent 7), G80, use are nder the		

Table 10. Condition 1



Milestones	 Year 1 (~October 2015): No milestone (end of existing fishery certificate, beginning of new certificate if reassessment successful). Year 2 (~October 2016): Client to report on the management response to the change in stock designation. (Resulting score: 75). Year 3 (~October 2017): Client to demonstrate that the fishery meets the PI 1.2.2 SG80 scoring issues
	in full (Resulting score: 80). Under the EU Norway Agreement, parties concluded that they would begin a review of a range of species-based Long Term Management Plans, including haddock, in 2015. The SFSAG Chairman (Mike Park) as well as members of the SFSAG Group are involved in both the North Sea and NW Waters Regional Advisory Councils and will be involved in the progression of this review. SFSAG will work closely with Marine Scotland in relation to input to this review and subsequent plan taking account of ICES advice and their recent review of the existing Long Term Management Plan. It should be noted the SFSAG are not in the position to bring about their own management rule for this species. However, through close working with the relevant bodies they will input and
Action Plan	 review development of the Long Term Management Plan. The SFSAG has committed to the following Client Action Plan: Year 1 (October 2015 if concurrent certification achieved): No milestone (end of existing fishery certificate, beginning of new certificate if reassessment successful). Year 2 (October 2016 if concurrent certification achieved): SFSAG will provide an update of progress towards agreeing a new management Long Term management Plan. Year 3 (October 2017 if concurrent certification achieved): SFSAG will show how the fishery meets the SG80 requirements of Pl 1.2.2
	The multi-annual plan for the North Sea continues through the co-decision legislative process within the EU (see Section 4.1.1.) The timeline for implementation is as yet uncertain, however we do expect agreement within the current year. Negotiations on the specifications of the MAP are taking place in 2017 with the European Parliament expected to state their position in summer 2017 with a trialogue to follow.
Progress on Condition, Year 1 of the new certificate; Year 2 milestone for the condition	that tools used to implement the HCR were not robust; specifically, that the lack of agreement on the division of the TAC between areas (3a+4 vs. 6a) might lead to local depletion. The EU-Norway agreement now fixes the proportion of the TAC to be taken in each area: 90.5% in 3a and 4, and 9.5% in 6a. For 2017 the TACs have been applied following ICES advice and the agreed proportional split (see Regulation 2017/127).
	The merging of the stock also meant that the reference points were no longer suitable. These were revised during the interbenchmark in 2016, which also corrected an error in ICES' computer code. ICES notes the following: Reference points have consequently been re-estimated based on the low level of recruitment observed since 2000, which is considered to be more representative of the current productivity of the stock. This has resulted in a



	large reduction of the FMSY reference point, from 0.37 to 0.19. Because of the larger 2014 year class, the stock is expected to increase from 2016 to 2017 to a size above MSYBtrigger. Despite this increase, the large downward revision of the F_{MSY} reference point to ensure sustainability in the long term results in reduced catch advice for 2017.
	In relation to the division of the TAC between areas, ICES notes that while quota uptake across the whole stock is usually ~70%, the full quota for 6a is usually taken. This is presumably where the concern about local depletion therefore lies. ICES advice for 2017 suggests that landings + discards for the whole stock should not exceed 39.46 kt, which based on the agreed split would imply landings + discards of not more than 3.75 kt in 6a. This does result in a decrease relative to 2015 (the most recent year for which landings and discard estimate are available – landings were 3.89 kt while discards were estimated at 1.35 kt (total 5.24 kt). In other words, the advice implies a reduction in catch relative to 2015 landings and therefore there is no evidence that the agreed split between areas is allowing over-exploitation in 6a.
Status of condition	The reduction in apparent stock status and associated TAC advice from ICES in 2016 is largely a function of changes to ICES model (re-estimate of reference points and correction of errors) rather than a material change in the state or dynamics of the stock. ICES predict that based on a larger 2014 year-class, biomass will be above Btrigger in 2017. An EU-Norway agreement has fixed the split between areas, and as noted above, there is no evidence that the division of the TAC between areas will drive local depletion in 6a; in fact, the TAC reduction appears to affect 6a more severely than 3a+4.
	11.1. Note: This is in agreement with the Year 4 audit for the DFPO Danish North Sea haddock fishery (Gaudian et al. 2017) with which this was a harmonised condition.
References	Council Regulation 2017/127: <u>http://eur-lex.europa.eu/legal-</u> <u>content/EN/TXT/PDF/?uri=CELEX:32017R0127&from=EN</u> (Gaudian et al. 2017) (ICES 2016c)

Table 11. Condition 2

	PI	Scoring guidepost	Score
PI and scores 2.3.1 The fishery meets national and international register for the protection of ETP species		The fishery meets national and international requirements for the protection of ETP species	75
Condition 2	The bycatch from the fishery should be restrained within a level which can be considered to be 'highly unlikely' to create unacceptable impacts on starry ray and common skate, and is not hindering the recovery of these stocks. This could be achieved with further analysis of the PET data, with actions targeted to reduce bycatch of these species to a minimum or by other appropriate methods.		
Milestones	Note: The milestones are not harmonized with the SFSAG saithe fishery because the fisheries are at different points in the assessment cycle. Years 3, 4 and 5: Evaluate species bycatch data in relation to management targets to ensure that there is an objective basis that the strategy will work and adjust strategy as appropriate. (Resulting Score Year 5: 80)		



Action Plan	Action plan for conditions 2, 3 and 4: Ensure data collection requirements are met under current PET observer programme. Also continue distribution of skate and ray identification cards, to member vessels and request interactions with starry ray and common skate to be logged so that the rate of interactions can be adequately assessed. On the basis of the recorded data, the fishery impact on those species will be assessed and appropriate management actions will be reviewed and implemented as required.
	Year 1: continue distribution of skate and ray identification cards and reporting instructions. Review data collection requirements to assess fishery impacts on common skate and starry ray and put in place additional data collection measures as required.
	Year 2: Data collection and provisional review of fishery impact
	Year 3: Data collection and assessment of fishery impact. Review of management options to reduce fishery impact on starry ray and common skate as required. Determine which management options can provide objective basis for confidence that the strategy – if required - will work.
	Year 4: Data collection and implementation of management strategy.
	Year 5: Data collection and final review of impacts and effectiveness management strategy.
	The skate and ray id cards are currently being revised, to make sure that are up-to-date in terms of species identification and names. Once this is finished, they will be available both in hard copy and online.
Progress Year 1	Data is collected on discards of skates and rays both via the general discard sampling programme (which continues to expand to cover a wider range of species) and through the PET forms. Data for 2016 are given above (Table 7, Table 8). The data on discards in this fishery continues to improve year on year.
Status of condition	The Year 1 milestone is met. The condition is on track.
References	Elena Balestri, SFF, pers. comm.

Table 12. Condition 3

	PI	Scoring issue/ scoring guidepost text	Score	
PI and scores	2.3.2	 PI 2.3.2 The fishery has in place precautionary management strategies designed to: Meet national and international requirements; Ensure the fishery does not pose a risk of serious harm to ETP species; Ensure the fishery does not hinder recovery of ETP species; and Minimise mortality of ETP species 	75	
Condition 3	There needs to be an objective basis for confidence that the strategy for reducing bycatch of starry ray and common skate from the fishery will work to reduce the bycatch to a level which can be considered to be 'highly unlikely' to create unacceptable impacts. This could be on the basis of an assessment of the stock trajectory (by ICES or other) or on the basis of an evaluation of trends in bycatch across the fleet, or by some other suitable method.			



	Note: The milestones are not harmonised with the SFSAG saithe fishery because the fisheries are at different points in the assessment cycle.
	Year 1: Ensure that data collection plan (condition 4) is sufficient to provide an objective basis for evaluating whether bycatch in this fishery leads to 'unacceptable' impacts (Score: 75)
Milestones	Year 2: Data collection (Score: 75)
	Year 3: Review options for management strategy for starry ray and common skate bycatch reduction (noting that it should provide an objective basis for confidence that it will work). (Score: 75)
	Year 4: Implement management strategy (Score: 75)
	Years 5: Demonstrate that there is an objective basis for confidence that the strategy for reducing bycatch of starry ray and common skate from the fishery will work to reduce the bycatch to a level which can be considered to be 'highly unlikely' to create unacceptable impacts. (Score: 80)
	Action plan for conditions 2, 3 and 4: Ensure data collection requirements are met under current PET observer programme. Also continue distribution of skate and ray identification cards, to member vessels and request interactions with starry ray and common skate to be logged so that the rate of interactions can be adequately assessed. On the basis of the recorded data, the fishery impact on those species will be assessed and appropriate management actions will be reviewed and implemented as required.
Action Plan	Year 1: continue distribution of skate and ray identification cards and reporting instructions. Review data collection requirements to assess fishery impacts on common skate and starry ray and put in place additional data collection measures as required.
	Year 2: Data collection and provisional review of fishery impact
	Year 3: Data collection and assessment of fishery impact. Review of management options to reduce fishery impact on starry ray and common skate as required. Determine which management options can provide objective basis for confidence that the strategy – if required - will work.
	Year 4: Data collection and implementation of management strategy.
	Year 5: Data collection and final review of impacts and effectiveness management strategy.



	See under Condition 2. The PET data is improved relative to previous years (208 trips in 2016), and provides useful information e.g. about the sex ratio and fate of discards (alive vs injured vs dead). The reporting of elasmobranchs in the standard discard data set, provides better data on elasmobranch discards and improves the representativeness of the elasmobranch catch in relation to target stocks.
Progress Year 1	It is important to note that interactions with ETP species are by their nature rare events, and therefore problematic in terms of scaling up to fleet level, without very high (unrealistic) levels of sampling. Nevertheless, the data sets available are sufficient to give a qualitative idea of the level of interactions, which given that the stock assessments for both species are also qualitative, is probably sufficient. Furthermore, the data are sufficient for analyses such as the identification of hotspots in time and space or similar, such as suggested by ICES (ICES 2015a; ICES 2015d).
Status of condition	The Year 1 milestone is met. The condition is on track.
References	(ICES 2015a; ICES 2015d)

Table 13. Condition 4

	PI	Scoring issue/ scoring guidepost text	Score		
PI and scores2.3.2PI 2.3.3 Relevant information is collected to support the management of fishery impacts on ETP species, including: • Information for the development of the management strategy; • Information to assess the effectiveness of the management strategy; and • Information to determine the outcome status of ETP species.		75			
Condition 3	There needs to be sufficient information available such that the impact of this fishery on common skate can be quantitatively estimated, and hence it can be determined whether the fishery may be a threat to the recovery of the common skate complex. This requires, as a minimum, a fleet-wide estimate of bycatch of common skate, as well as some basis by which population-level trends can be evaluated (noting that ICES considers that existing data are insufficient for this purpose).				
Milestones	Note: Th because Year 1 a Year 3: A threat to	te: The milestones are not harmonised with the SFSAG saithe fishery cause the fisheries are at different points in the assessment cycle. ar 1 and 2: data collection (Score: 75) ar 3: Analysis of bycatch data demonstrates that the fishery does not pose a eat to the recovery of the common skate complex (Score: 80)			



Action Plan	 Action plan for conditions 2, 3 and 4: Ensure data collection requirements are met under current PET observer programme. Also continue distribution of skate and ray identification cards, to member vessels and request interactions with starry ray and common skate to be logged so that the rate of interactions can be adequately assessed. On the basis of the recorded data, the fishery impact on those species will be assessed and appropriate management actions will be reviewed and implemented as required. Year 1: continue distribution of skate and ray identification cards and reporting instructions. Review data collection requirements to assess fishery impacts on common skate and starry ray and put in place additional data collection measures as required. Year 2: Data collection and provisional review of fishery impact Year 3: Data collection and assessment of fishery impact. Review of management options to reduce fishery impact on starry ray and common skate as required. Determine which management options can provide objective basis for confidence that the strategy – if required - will work. Year 4: Data collection and implementation of management strategy. Year 5: Data collection and final review of impacts and effectiveness management strategy.
Progress Year 1	See under Conditions 2 and 3
Status of condition	See Conditions 2 and 3 – the condition is on track
References	See Conditions 2 and 3

6. Principal level scores and summary

 Table 14. Principle Level Scores, revised scores from this surveillance in green.

Principle	Score
Principle 1 – Target Species	83.3
Principle 2 – Ecosystem	82.7
Principle 3 – Management System	93.6



Principle	Component	Weighting	PI number	Performance Indicator	Score
1	Outcome	0.5	1.1.1	Stock status	70
			1.1.2	Reference points	80
			1.1.3	Stock rebuilding	80
	Management	0.5	1.2.1	Harvest Strategy	95
			1.2.2	Harvest control rules and tools	80
			1.2.3	Information and monitoring	90
			1.2.4	Assessment of stock status	95
2	Retained	0.2	2.1.1	Outcome	85
	species		2.1.2	Management	85
			2.1.3	Information	80
	Bycatch	0.2	2.2.1	Outcome	80
	species		2.2.2	Management	80
			2.2.3	Information	80
	ETP species	0.2	2.3.1	Outcome	75
			2.3.2	Management	75
			2.3.3	Information	75
	Habitats	0.2	2.4.1	Outcome	80
			2.4.2	Management	85
			2.4.3	Information	80
	Ecosystem	0.2	2.5.1	Outcome	90
			2.5.2	Management	90
			2.5.3	Information	100
3	Governance	0.5	3.1.1	Legal and customary framework	85
	and Policy		3.1.2	Consultation, roles and responsibilities	100
			3.1.3	Long term objectives	100
			3.1.4	Incentives for sustainability	100
	Fishery-	0.5	3.2.1	Fishery specific objectives	90
	specific		3.2.2	Decision making processes	100
	system		3.2.3	Compliance and enforcement	95
			3.2.4	Research plan	90
			3.2.5	Management performance evaluation	80

Table 15. Summary of scores by PI, revised scores from this surveillance in green.



7. Harmonisation

The fishery has a harmonised condition (Condition 1, on PI 1.2.2) imposed during the Year 4 audit of the previous certification cycle in harmonisation with the Danish fishery. The Danish condition was closed at their Year 4 audit (Acoura, 2017) and Condition 1 on this fishery has likewise been closed. The fisheries therefore remain harmonised. Merging of the SFSAG saithe and haddock fisheries will take place in the current expedited assessment of the SFSAG haddock certificate. Harmonisation with SFSAG cod and the Joint demersal fisheries in the North Sea and adjacent waters certificates is ongoing.

Table 16. Harmonised fisheries.

Fishery name	ICES areas	Date certified	Status	САВ
SFSAG saithe	IV and VIb	October 2013	Re-certified	MEC
DFPO Denmark North Sea & Skagerrak haddock	IV and IIIa	August 2012	Certified	ACOURA
SFSAG cod	IVa and IVb	-	In assessment	MEC
Joint demersal fisheries in the North Sea and adjacent waters	IIIa IV and VIId		In assessment	MEC

8. Traceability

Remains unchanged from original certification and is provided below for reference.

Traceability Factor	Description of risk factor if present. Where applicable, a description of relevant mitigation measures or traceability systems (this can include the role of existing regulatory or fishery management controls)
Potential for non-certified gear/s to be used within the fishery	The Unit of Assessment (UoA) for this fishery has specifically included all gears used by the vessels under assessment. The risk of a non- certified gear being used is therefore extremely low.
Potential for vessels from the UoC to fish outside the UoC or in different geographical areas (on the same trips or different trips)	There is a possibility of the vessels from the UoC fishing outside the UoC on the same trip. As fish come onboard, they are graded and placed into open labelled boxes. The boxes are labelled onboard with species, weight and date of capture. The date and position of catch would link with the e-log to show where a vessel was fishing; this gives a high degree of security where vessels may fish different management zones in the same fishing trip. The separate labeled boxes provides physical separation of catch on their way to port.
Potential for vessels outside of the UoC or client group fishing the same stock	Vessels from outside the UoC are likely to fish for the same stock but will not be covered by this assessment. To avoid the risk of vessels landing haddock from outside the UoC as MSC (i.e. vessels not associated with this assessment) an up to date list of vessels is maintained by the SFSAG on their website



	(<u>http://scottishfsag.org/images/banners/vessel%20list%20061015f.pdf</u>). This list can then be used by companies with MSC CoC to ensure product is originating from a vessel covered by this assessment.
Risks of mixing between certified and non-certified catch during storage, transport, or handling activities (including transport at sea and on land, points of landing, and sales at auction)	One risk of mixing is between haddock and other similar species (such as cod). All vessels maintain catch separately by species (meaning physical identification of species on land is still possible as product has not been filleted (for example). The risk of mixing on-board the vessels during storage or handling is seen as low.
Risks of mixing between certified and non-certified catch during processing activities (at-sea and/or before subsequent Chain of Custody)	As described above, only basic processing (gutting) is completed on board the vessel and all fish is landed 'whole'. The risk of mixing between certified and non-certified product during processing is seen to be low.
Risks of mixing between certified and non-certified catch during transhipment	No transhipment occurs within this fishery and so the risk is seen as minimal.
Any other risks of substitution between fish from the UoC (certified catch) and fish from outside this unit (non-certified catch) before subsequent Chain of Custody is required	No other risks have been identified. Product is landed directly and chain of custody will be required from the first change of ownership (either directly on landing or through the auction system). When product is sold in the auction it is sold by vessel and by species (and is backed up by logbook data). Risk of mixing of certified and non- certified product here is therefore minimal.

9. Conclusion

There have been no significant unforeseen changes to the fishery management system, regulations and scientific information (Brexit having had so far only minor effects). Condition 1 is closed (harmonised with the Danish fishery). The audit team concluded that progress with all remaining conditions is on target.

In accordance with Certification Requirements v1.3, one condition was closed (condition 1) and three remain on target. PI 2.2.1 and PI 2.2.2 were amended based on new information (presence of dab) but no score change was required. On this basis Principle 1 final score has been revised while Principle 2 and 3 remain the same as at certification and implies a default level 6 surveillance level with annual on-site surveillance audits.

This fishery's overall progress is therefore considered to be **on target**. On the basis of the above, the Scottish Fisheries Sustainable Accreditation Group (SFSAG) North Sea haddock fishery **should retain** its MSC certification for another year.



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11. Appendix

11.1 Rescoring of PI 1.2.2

Table 17. Rescoring of PI 1.2.2 based on new evidence.

PI 1.2.2		There are well defined and effective harvest control rules in place			
SI		SG 60	SG 80	SG 100	
а	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	See PCR			
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	See PCR	·		



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 (previously N)	Ν			
	Justification	that these have controlled exploitation rates. Fishing mortality has decreased since the introduction of the management plan and has been below FMP and FMSY since 2008. Landings have been consistent with the agreed TAC under the management plan. SIc meets SG60. SG80 was previously scored 'not met' because of the following concern:					
		SG80 was previously scored 'not met' because of the following concern: TACs are split among stock subareas to avoid potential local depletion. This has been done for the North Sea + Skagerrat component since implementation of the LTMP. The addition of the West of Scotland component to the management unit require that a portion of the TAC be allocated to this subarea as well. For 2015 and 2016, TACs were split amongst the three stock are based upon the historical average catch shares outlined in the EU-Norway negotiations (ICES, 2015b). This has added uncertainty to the management of fishing mortality in each area and thus to the overall effectiveness of the HCR. The TAC should be allocated amongst areas based upon the relative fishable biomass in each area, taking into account some estimate of the minimum acceptable biomass in each area. The current allocation process based upon catch opens the possibility of a suboptimal distribution of fishing mortality amongst areas such that the overall stock FMP is not achieved. This effect is likely subtle, given the relative size of the stock components (West of Scotland about 10% of the total) and current exploitation rates. Further exploration of the appropriate areal split of the TAC in support of a new Northern Shelf haddock management plan is required, which may include estimation of area-specific fishing mortality and biomass. This is to ensure both that the achievement of the plan's overall objectives is not adversely affected by the areal TAC allocation process and that local depleti does not occur. Therefore, until further evidence through these explorations is available, it is not possible to state that the curree tools are clearly effective in controlling exploitation levels to achieve objectives. SIc does not meet SG80. In other words, the main concern which led to the imposition of the harmonised condition was that tools used to implement the HCR were not robust; specifically, that the lack of agreement on the division of the TAC between area					



	Reference points have consequently been re-estimated based on the low level of recruitment observed since 2000, which is considered to be more representative of the current productivity of the stock. This has resulted in a large reduction of the FMSY reference point, from 0.37 to 0.19. Because of the larger 2014 year class, the stock is expected to increase from 2016 to 2017 to a size above MSYBtrigger. Despite this increase, the large downward revision of the FMSY reference point to ensure sustainability in the long term results in reduced catch advice for 2017. In relation to the division of the TAC between areas, ICES notes that while quota uptake across the whole stock is usually ~70%, the full quota for 6a is usually taken. This is presumably where the concern about local depletion therefore lies. ICES advice for 2017 suggests that landings + discards for the whole stock should not exceed 39.46 kt, which based on the agreed split would imply landings + discards of not more than 3.75 kt in 6a. This results in a decrease relative to 2015 (the most recent year for which landings and discard estimate are available) – landings were 3.89 kt while discards were estimated at 1.35 kt (total 5.24 kt); the advice therefore implies a reduction in catch relative to 2015 of 29% in 6a. Conversely, it implies a reduction for subarea 4 of <10%, based on 2015 landings (same calculation). In other words, there is no evidence that the agreed split between areas is allowing over-exploitation in 6a.				
	In conclusion, the reduction in apparent stock status and associated TAC advice from ICES in 2016 is largely a function of changes to ICES model (re-estimate of reference points and correction of errors) rather than a material change in the state or dynamics of the stock. ICES predict that based on a larger 2014 year-class, biomass will be above Btrigger in 2017. An EU-Norway agreement has fixed the proportional split of the TAC between areas, and as noted above, there is no evidence that the division of the TAC between areas will drive local depletion in 6a; in fact, the TAC reduction appears to affect 6a more severely than 3a+4. On this basis, relative to the previous scoring: i) the stock assessment is corrected, ii) the reference points are re-estimated, iii) a suitable management framework applied to estimate the TAC (i.e. the MSY framework instead of the out-of-date management plan); iv) the TAC is applied as advised; and v) a suitable and precautionary split of the TAC between areas is agreed and applied. The tools to implement the HCR are therefore appropriate and effective in achieving precautionary exploitation rates in both 3a+4 and 6a. SG80 is therefore met.				
(New) References EU Regulation 2017/127; (ICES 2016c; ICES 2016j)					
OVERALL PERFORMANCE INDICATOR SCORE 80		80			
CONDITION NUMBER		CLOSE	D		
PI 1.2.2 There are well defined and e			harvest control rules in place		
SI SG 60 SG 80 SG 100		SG 100			



а	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	See PCR				
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	See PCR				
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 (previously N)	Ν		
	Justification	TACs on landings are the primary tool used to control exploitation rates and there is good evidence from the stock assessment that these have controlled exploitation rates. Fishing mortality has decreased since the introduction of the management plan and has been below F _{MP} and F _{MSY} since 2008. Landings have been consistent with the agreed TAC under the management plan. SIc meets SG60.				



	TACs are split among stock subareas to avoid potential local depletion. This has been done for the North Sea + Skagerrat component since implementation of the LTMP. The addition of the West of Scotland component to the management unit requires that a portion of the TAC be allocated to this subarea as well. For 2015 and 2016, TACs were split amongst the three stock areas based upon the historical average catch shares outlined in the EU-Norway negotiations (ICES, 2015b). This has added uncertainty to the management of fishing mortality in each area and thus to the overall effectiveness of the HCR. The TAC should be allocated amongst areas based upon the relative fishable biomass in each area, taking into account some estimate of the minimum acceptable biomass in each area. The current allocation process based upon catch opens the possibility of a suboptimal distribution of fishing mortality amongst areas such that the overall stock F _{MP} is not achieved. This effect is likely subtle, given the relative size of the stock components (West of Scotland about 10% of the total) and current exploitation rates. Further exploration of the appropriate areal split of the TAC in support of a new Northern Shelf haddock management plan is required, which may include estimation of area-specific fishing mortality and biomass. This is to ensure both that the achievement of the plan's overall objectives is not adversely affected by the areal TAC allocation process and that local depletion
	does not occur. Therefore, until further evidence through these explorations is available, it is not possible to state that the current tools are clearly effective in controlling exploitation levels to achieve objectives. SIc does not meet SG80.
	implement the HCR were not robust; specifically, that the lack of agreement on the division of the TAC between areas (3a+4 vs. 6a) might lead to local depletion. The EU-Norway agreement now fixes the proportion of the TAC to be taken in each area: 90.5% in 3a and 4, and 9.5% in 6a. For 2017 the TACs have been applied following ICES advice and the agreed proportional split (see Regulation 2017/127).
	The merging of the stock also meant that the reference points were no longer suitable. These were revised during the interbenchmark in 2016, which also corrected an error in ICES' computer code. ICES notes the following:
	Reference points have consequently been re-estimated based on the low level of recruitment observed since 2000, which is considered to be more representative of the current productivity of the stock. This has resulted in a large reduction of the FMSY reference point, from 0.37 to 0.19. Because of the larger 2014 year class, the stock is expected to increase from 2016 to 2017 to a size above MSYBtrigger. Despite this increase, the large downward revision of the F_{MSY} reference point to ensure sustainability in the long term results in reduced catch advice for 2017.
	In relation to the division of the TAC between areas, ICES notes that while quota uptake across the whole stock is usually ~70%, the full quota for 6a is usually taken. This is presumably where the concern about local depletion therefore lies. ICES advice for 2017 suggests that landings + discards for the whole stock should not exceed 39.46 kt, which based on the agreed split would imply landings + discards of not more than 3.75 kt in 6a. This results in a decrease relative to 2015 (the most recent year for which landings and discard estimate are available) – landings were 3.89 kt while discards were estimated at 1.35 kt (total 5.24 kt); the advice therefore implies a reduction in catch relative to 2015 of 29% in 6a. Conversely, it implies a reduction for subarea



		 4 of <10%, based on 2015 landings (same calculation). In other words, there is no evidence that the agreed split between areas is allowing over-exploitation in 6a. In conclusion, the reduction in apparent stock status and associated TAC advice from ICES in 2016 is largely a function of changes to ICES model (re-estimate of reference points and correction of errors) rather than a material change in the state or dynamics of the stock. ICES predict that based on a larger 2014 year-class, biomass will be above Btrigger in 2017. An EU-Norway agreement has fixed the proportional split of the TAC between areas, and as noted above, there is no evidence that the division of the TAC between areas will drive local depletion in 6a; in fact, the TAC reduction appears to affect 6a more severely than 3a+4. On this basis, relative to the previous scoring: i) the stock assessment is corrected, ii) the reference points are reestimated, iii) a suitable management framework applied to estimate the TAC (i.e. the MSY framework instead of the out-of-date management plan); iv) the TAC is applied as advised; and v) a suitable and precautionary split of the TAC between areas is agreed and applied. The tools to implement the HCR are therefore appropriate and effective in achieving precautionary exploitation rates in both 3a+4 and 6a. SG80 is therefore met. 	
(New) References EU Regulation 2017/127; (ICES 2016c; ICES 2016j)		EU Regulation 2017/127; (ICES 2016c; ICES 2016j)	
OVERALL PERFORMANCE INDICATOR SCORE		NCE INDICATOR SCORE	80
CONDITION NUMBER			CLOSED



11.2 Rescoring of PI 2.2.1

Table 18. Rescoring of PI 2.2.1 for dab.

PI 2.2.1		The fishery does not pose a risk of serious or irreversible harm to the bycatch species or species groups and does not hinder recovery of depleted bycatch species or species groups			
Scoring Issue		SG 60	SG 80	SG 100	
а	Guide post	Main bycatch species are likely to be within biologically based limits (if not, go to scoring issue b below).	Main bycatch species are highly likely to be within biologically based limits (if not, go to scoring issue b below).	There is a high degree of certainty that bycatch species are within biologically based limits.	
	Met?	Y	Y	Ν	
	Justifi cation	ICES provide advice based on a survey index, which has been fluctuating without trend for the last few decades; dab is known to be very abundant in the North Sea. For 2016/17 they recommend an increase in the TAC of 20% which is the maximum permitted under the agreed framework for data-deficient stocks. On this basis, the team concluded that this stock is highly likely to be above biologically-based limits, in the sense of being above the point of any impairment of recruitment. Since no quantitative limits are defined, however, it is hard to argue for a 'high degree of certainty. SG80 is met but SG100 is not met.			
b	Guide post	If main bycatch species are outside biologically based limits there are mitigation measures in place that are expected to ensure that the fishery does not hinder recovery and rebuilding.	If main bycatch species are outside biologically based limits there is a partial strategy of demonstrably effective mitigation measures in place such that the fishery does not hinder recovery and rebuilding.		
	Met?	Y	Y		
	Justifi cation	Dab are considered to be within biologically stock.	based limits and therefore SG 80 is met, there	e is an agreed framework for managing this	
C	Guide post	If the status is poorly known there are measures or practices in place that are expected to result in the fishery not causing the bycatch species to be outside biologically based limits or hindering recovery.			
	Met?	Y			



	Justifi	Status is not poorly known therefore SG60 is met.			
	cation				
References		PETS bycatch recording data provided by Marine Scotland Science			
		Report on discards of the main commercial species, provided by Marine Scotland Science (ICES 2015b)			
OVER	OVERALL PERFORMANCE INDICATOR SCORE: 80 (no change)				
CONE	CONDITION NUMBER (if relevant): None				

11.3 Rescoring of PI 2.2.2

Table 19. Rescoring of PI 2.2.2 based on addition of dab

PI 2.2.2		There is a strategy in place for managing bycatch that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to bycatch populations			
Scoring Issue		SG 60	SG 80	SG 100	
а	Guide post	There are measures in place, if necessary, that are expected to maintain the main bycatch species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding.	There is a partial strategy in place, if necessary, that is expected to maintain the main bycatch species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding.	There is a strategy in place for managing and minimizing bycatch.	
Met?		Y	Y	Ν	
	Justifi	In relation to dab there is a strategy is place which appears to be maintaining the stock above biologically-based limits (see PI 2.2.1);			
	cation	ICES evaluate likely stock status based on an agreed framework (for data-deficient stocks), a TAC is then set based on ICES advice.			
		I here are precautionary elements built into the partial strategy but with discards estimated at >90% there is some uncertainty in the estimated total catch. SG80 is met but SG100 is not met			
b	Guide	The measures are considered likely to	There is some objective basis for	me objective basis for Testing supports high confidence that the	
	post	work, based on plausible argument (e.g.	confidence that the partial strategy will	strategy will work, based on information	
		general experience, theory or comparison with similar fisheries/species).	work, based on some information directly about the fishery and/or species involved.	directly about the fishery and/or species involved.	



	Met?	Y	Y	N	
Justifi There is an objective basis for confidence that the ICES recommend that an increase in the total catch is possible for				or 2017 based on an	
	cation increase in survey indices. However, since the analysis is only semi-quantitative (see PI 2.2.1) it is not possible to say that				say that 'testing
		supports high confidence'. SG80 is met but SG100 is not met.			
С	Guide		There is some evidence that the partial	I here is clear evidence	that the strategy is
	post		strategy is being implemented successfully.	being implemented such	cessfully.
	Met?		Y	N	
	Justifi	The team noted that there is evidence that the partial strategy up till now has been implemented successfully. Gear restrictions are			
cation enforced by Marine Scotland Compliance, who do not report any issues with illegal gear in this fishery. Real-tir				this fishery. Real-time cl	osed areas are in
place (see Marine Scotland website). It is clear that over the last few years, these measures have worked to reduce discards s				e discards significantly	
	in this fishery.				
d	Guido	SG 100 will be met as and when the landing	the landings obligation is fully implemented.		
u	Guide			achieving its overall objective	
	posi				001110.
	Met?			N	
Justifi Because the team concluded that there is not yet a full 'strategy' in this fishery (although the pa			e partial strategy is very strong), this is not		
	cation	fully met.			
References		Information on real-time closures available here: <u>http://www.gov.scot/Topics/marine/Sea-Fisheries/management/restrictions/closed</u> Bycatch data provided by Marine Scotland Science (ICES 2015b)			
OVER	OVERALL PERFORMANCE INDICATOR SCORE: 80 No change				
CONDITION NUMBER (if relevant):				None	