

Marine Stewardship Council (MSC) 3rd Surveillance Audit Report

Cornwall Sardine Fishery

On behalf of

Cornwall Sardine Management Association

Prepared by

Control Union Ltd

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QA

Role	Signature and date
Originator:	HJ 14 July 2020
Reviewer:	HE 15/07/2020
Approver:	CT 01/09/2020

Glossary

Acronym	Definition
AC	Advisory Council
CEFAS	Centre for Environment, Fisheries & Aquaculture Science
CFP	Common Fisheries Policy
CoC	Code of Conduct
CSHAS	Celtic Sea Herring Assessment Survey
CSMA	Cornish Sardine Management Association
CWT	Cornwall Wildlife Trust
DEFRA	Department of Environment, Fisheries & Rural Affairs
ETP	Endangered, Threatened and Protected (species)
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FCR	Fisheries Certification Requirements (MSC)
FSP	Fisheries Science Partnership
ICES	International Council for the Exploration of the Sea
IFCA	Inshore Fisheries Conservation Authority
IFCO	Inshore Fisheries and Conservation Authority Officers
IMO	International Maritime Organization
MCZ	Marine Conservation Zones
MMO	Marine Management Organisation
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
OTM	Midwater Trawl
PCR	Public Certification Report
PELTIC	Pelagic Ecosystem Survey in the Celtic Sea
PI	Performance Indicator
PS	Purse seine
PSA	Productivity Susceptibility Analysis
PELTIC	Pelagic Ecosystem Survey in the Celtic Sea
PI	Performance Indicator
PS	Purse seine
PSA	Productivity Susceptibility Analysis
RBF	Risk Based Framework
SAC	(UK) Special Areas of Conservation
SICA	Scale Intensity Consequence Analysis
SMRU	Sea Mammal Research Unit

Acronym	Definition
STECF	Scientific, Technical and Economic Committee for Fisheries
TAC	Total Allowable Catch
UKBP	(UK) Protected Species Bycatch Programme
WGHANSA	Working Group on Southern Horse Mackerel, Anchovy and Sardine (ICES)

1 Executive Summary

This is the report for the Year 3 surveillance audit of the Cornwall sardine fishery. The site visit for the 3rd surveillance audit took place remotely, with Team Leader and Principle 2 expert Hugh Jones and Principle 3 expert Sophie des Clers under the derogation for offsite audits in the wake of Covid-19 from the MSC. During the audit, CU UK reviewed with the client and stakeholders the latest available information on:

- Changes to the fishery and its management including those to management systems, regulations and relevant personnel assessments;
- Changes to the scientific base of information such as stock, observer data and catch compositions;
- Progress against the conditions associated with this fishery;
- Any developments or changes within the fishery impact may impact on traceability and the ability to segregate MSC from non-MSC products;
- Any other significant changes in the fishery.

The audit team found the client group had made significant progress on all but one condition. The one condition which had fallen behind its milestone (condition 4) was issued with a renewed milestone and a revised action plan was produced by the CSMA. On all other conditions, milestones were met with some evaluated as being ahead of target. Condition 6 (research plan) was closed and the relevant PI was rescored at this audit. Exploitation of the sardine stock remains within sustainable levels and the fishery has made good progress in documenting target species catches, supporting scientific research on the stock. A few vessels require improved data recording across Principle 2 components (bycatch species / slippage) for conditions to be closed ahead of reassessment in 2021.

Following this audit CU UK recommend that the Cornwall sardine fishery remain in MSC certification.

2 Report Details

2.1 Surveillance information

1	Fishery name	
	Cornwall Sardine Fishery	
2	Surveillance level and type	
	<p>Year 3 remote surveillance audit. This fishery is in its second cycle.</p> <p>This fishery is a level 6 fishery but following the MSC derogation (March – September 2020) in relation to covid-19 and referring to Part 2: Guidance to the Covid-19 derogation item 12 this audit is being conducted remotely.</p> <p>CU UK have determined that for this fishery a remote audit will not affect the ability of the team to assess the fishery. The rationale for this determination is that fishery catch data, management minutes, the latest scientific reports and other documented evidence (compliance documents etc) can be easily and transparently checked remotely. Information needed to verify progress towards conditions on Principle 1,2 and 3 can be gathered by electronic means and questions asked through the audit</p> <p>Year 3 Surveillance audit date</p> <p>The anniversary of the certificate of this fishery was the 2nd March 2020. Following the MSC covid 19 derogation the new certificate anniversary date is 2nd September 2020. Maintaining a surveillance schedule ahead of the anniversary date was decided because:</p> <ol style="list-style-type: none"> 1. The fishery closes for the season at approximately the end of the March. The audit timing in provides time for the fishery to finalise catch and landing information from the 2019-2020 season prior to the audit. 2. The new season will begin in July -August prior to the anniversary date 	
3	Surveillance number	
	1st Surveillance	
	2nd Surveillance	
	3rd Surveillance	x
	4th Surveillance	
	Other (expedited etc)	
4	Proposed team leader	
	Name	Dr Hugh Jones
	Areas of responsibility	Team Leader and Principle 2 assessor
	Competency criteria (Annex PC)	Dr Hugh Jones has a PhD in Ecotoxicology and strong background in marine research including publications and reports on ecotoxicology, environmental

		<p>risk assessments and fisheries research. Prior to joining CU UK, he was employed as a fisheries scientist in the development of an empirical harvest strategy for commercial abalone fisheries and fisheries assessments of estuarine bivalves. This included work on population metrics (recruitment, growth), harvest dynamics (catch rates, market selectivity), and the use of fine scale geospatial techniques as performance measures to assess stock sustainability.</p> <p>Hugh has published peer reviewed works on the trophic pathways of estuarine food webs and prey abundance in relation to environmental conditions. His work includes analysis of benthic abiotic and biotic attributes which determine the functional ecology of fish species. He has secured research funding for ecological studies of fish populations in relation to climate change, which consider the coupling between demersal and pelagic pathways. He has published research reports into the spatial variability of recruitment of commercially fished benthic species and its impact on community dynamics.</p> <p>Dr Jones has been a Principle 2 assessor for MSC certifications since 2016. Dr Jones has completed the required Fishery Team Leader MSC training modules for the V2.01 Fisheries Certification and V2.1 process requirements. Based on the above experience CU UK is confident that Dr Jones meets the 3-year competency requirement for Principle 2 experience.</p>
	Conflict of interest in relation to this fishery	No conflict of interest has been identified for this fishery
	On-site or off-site	Off site
	CV	CV available on request
5	Proposed team members	
	Name	Dr Sophie des Clers
	Areas of responsibility	Principle 3
	Competency criteria (Annex PC)	<p>Sophie is an independent expert in fisheries management and socioeconomics, as well as an honorary research fellow of University College London. She has been involved in a number of previous MSC assessments including UK Fisheries Ltd cod, haddock and saithe, Biscay sardine seine fishing, Normandy-Jersey lobster, Normandy whelks and, of course, Euronor/Comapêche cod and haddock. Sophie is an expert in fisheries management and legislation at a regional, national and international level with particular expertise in EU and Indian Ocean fisheries.</p> <p>It is proposed that Sophie would have primary responsibility for Principle 3. The qualifications listed above provide Sophie with the appropriate skills to meet competency criteria PC3.4. She has completed MSC training modules for V2.01 Fisheries Certification Requirements.</p>
	Conflict of interest in relation to this fishery	No conflict of interest has been identified for this fishery
	On-site or off-site	Off site
	CV	CV available on request

6	Audit/review time and location
	The site visit consisted of a series of offsite video conference calls beginning on the 30th June with the closing meeting on the 3rd July.
7	Assessment and review activities
	<p>During the audit, CU UK communicated with the client and any relevant stakeholders and used any available up to date information to assess and review;</p> <ul style="list-style-type: none"> • Progress against the eight conditions associated with this fishery was reviewed (PIs 2.3.3, 3.2.1, 3.2.2, 3.2.4, 1.2.1, 1.2.2, 2.2.3, 2.3.2). • Harmonization against the other fisheries certified on the MSC program • Any developments or changes within the fishery impact may impact on traceability and the ability to segregate MSC from non-MSC products; • Any other significant changes in the fishery. • Any changes to the fishery and its management including those to management systems, regulation and relevant personnel assessments; • Any changes to the scientific base of information such as stock;

3 Background

3.1 Version details

Table 1. Fisheries programme documents versions

Document	Version number
MSC Fisheries Certification Process	Version 2.1
MSC Fisheries Standard	Version 1.3
MSC General Certification Requirements	Version 2.4.1
MSC Reporting Template	Version 2.2

3.2 Unit(s) of Assessment (UoA)

CU UK confirms that the fishery under audit remains within in the scope of the MSC Fisheries Standard (7.4 of the MSC Fisheries Certification Process v2.1):

- The target species is not an amphibian, reptile, bird or mammal;
- The fishery does not use poisons or explosives;
- The fishery is not conducted under a controversial unilateral exemption to an international agreement;
- The client or client group does not include an entity that has been successfully prosecuted for a forced or child labour violation in the last 2 years;
- The fishery has in place a mechanism for resolving disputes, and disputes do not overwhelm the fishery;
- The fishery is not an enhanced fishery as per the MSC FCP 7.4.6; and
- The fishery is not an introduced species-based fishery as per the MSC FCP 7.4.7.

CU UK confirms that the client group has submitted the completed 'Certificate Holder Forced and Child Labour Policies, Practices and Measures Template'

The current Unit of Assessment (UoA) is given in Table 2.

Table 2. Unit(s) of Assessment (UoA)

Species	Sardine (<i>Sardina pilchardus</i>)
Stock	Sardine (<i>Sardina pilchardus</i>) in Subarea 7 (Southern Celtic Seas, and the English Channel)
Geographical range of fishery	Subarea 7e and f
Harvest method / gear	Ring nets (purse seine)
Client group	The Cornish Sea Fisheries Association, operating under laws of the United Kingdom and under the umbrella of the European Union.
Other eligible fishers	Cornish Sardine Management Association (CSMA)

3.3 Vessel list

Table 3. Vessel list 2019.

Vessel name	Home port	Operator		Vessel length (metres)	Port number
Pelagic Marksman	Newlyn	Stefan Glinski		14.96	SS774
Lyonesse	Newlyn	Sam Lamborne		11.99	PZ81
Galwad-y-Mor	Mevagissey	Peter Blamey		11.89	FH76
Resolute	Mevagissey	Mike Brokenshire	Oceanfish	9.34	BM33
Mayflower	Newlyn	Peter Buckland		14.0	PZ181
Asthore	Newlyn	Peter Bullock		13.92	PZ182
Charlotte Clare	Plymouth	Adrian Lester	Interfish	14.95	PH660
Rachel Ann	Plymouth	Richard Chamberlain		13.86	PH770
Nicola May	Plymouth	Jordan Kay		14.98	PZ660
Celtic Dawn	Mevagissey	John Hunkin		13.45	FY10
Serene Dawn	Newlyn	David Pascoe		11.86	PW156
Golden Harvest	Newlyn	Danny Downing		14.90	PZ63
Pride of Cornwall	Newlyn	Danny Downing		9.90	SS87
Vesta	Newlyn	Peter Bullock		14.95	PZ183

3.4 Principle 1

3.4.1 ICES Stock landings 2018

Landings by member states for 2018 are available from ICES and show official landings of 17,373 t from the stock area in 2018 with ICES landings totalling 10,412 t (ICES 2019a). ICES note that the landings statistics available to them are highly uncertain at present. The reported catches by country are variable over time and across ICES divisions, without explanation and because of the opportunistic nature of some of the fisheries, some of the bycatches of sardine may not be reported (Table 4). It is important to note also that the French catches from both statistical rectangles 25E5 and 25E4 in Subarea 7 are reallocated to the Subarea 8 stock by ICES on the basis of size structure (ICES 2017a). Nonetheless the UK remains the principal member state fishing the stock taking 10 times the tonnage compared the next closest member state (Netherlands in 2018). The UK recorded 78.2 % of all ICES landings in 2018 (ICES 2019a) (Table 4).

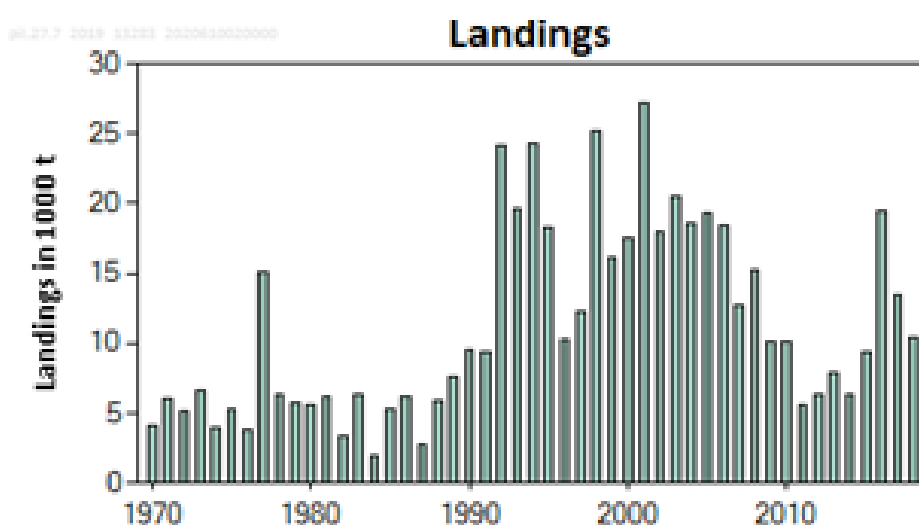


Figure 1. ICES landings for sardine in Subarea 7. Recreated from (ICES 2019a).

Table 4. Sardine in Subarea 7. History of reported landings; values are presented for each country participating in the fishery. All weights are in tonnes. Recreated from (ICES 2019a). UK average percentage over the period equal to 55.3 %

Year	FR	UK	NLD	IRE	GER	DEN	LIT	BEL	ESP	Total	UK %
2010	850	2,521	6,645	25	106	13	0	0	0	10,160	24.8
2011	508	3,604	513	983	22	3	0	0	0	5,633	64.0
2012	444	4,423	1,439	8	0	0	0	0	0	6,314	70.1
2013	1,768	3,722	1,804	236	214	40	0	0	0	7,784	47.8
2014	1,202	3,889	249	0	18	953	0	0	0	6,311	61.6
2015	1,040	4,293	1,137	380	1,551	1,011	1	0	0	9,413	45.6
2016	863	9,389	4,697	232	1,941	2,286	0	1	0	19,409	48.4
2017	726	7,623	1,349	140	1,095	2,459	0	0	0	13,392	56.9
2018	663	8,141	811	44	490	263	0	0	0	10,412	78.2

3.4.2 Stock advice and survey 2018 - 2019

ICES published advice on this stock in 2019 (ICES 2019a), but could not assess the stock and exploitation status relative to maximum sustainable yield (MSY) and precautionary approach (PA) reference points, because the reference points remain undefined (ICES 2019a). ICES note that the abundance index from a survey is under development. The survey in question is the annual PELTIC survey undertaken by CEFAS in the UK (CEFAS 2019) which is now in its 8th season. The complete survey series (eight years) covers Division 7.f and UK waters of Division 7.e (which comprise about one fourth of the total potential sardine habitat in Division 7.e) (Figure 2). Since 2017 its coverage has been expanded to the whole of Division 7.e and, from 2018 only, to Division 7.d. (Figure 2).

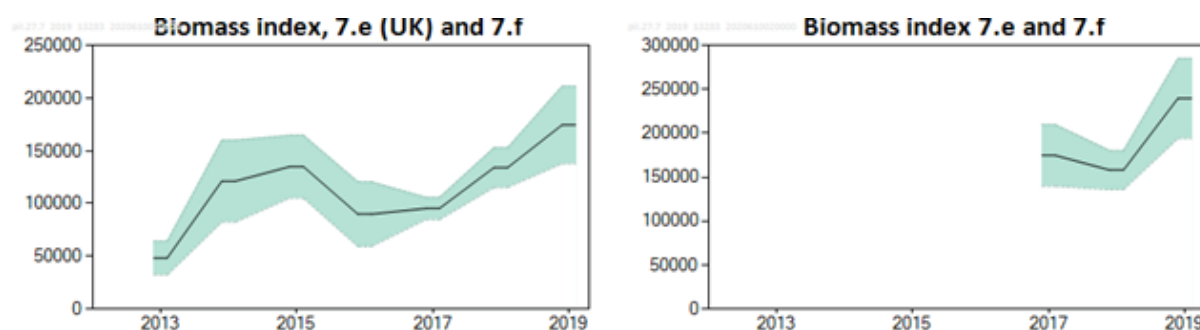


Figure 2. Sardine biomass indices (in tonnes) from the PELTIC survey (\pm Standard Deviation). Left panel: represents the area covering divisions 7.f and 7.e as a whole. Right panel: represents the area covering Divisions 7.f and UK waters of Division 7.e. Source ICES (2019a).

ICES advise that longer time-series and further analyses are required before the survey index can be used as a stock indicator suitable for their methods. In 2017 ICES (2017b) advised that catches in 2018-2019 should be reduced by 20 % relative to the 2014-2016 average (34,364 t based on ICES landings), based on an ICES category 5 decision rule for data deficient stocks. 2018 landings totalled 10,412 t (Table 4) - far beneath this advised level, although the assessment team note the caution ICES places on the landing figures. As reported in the Year 2 surveillance for this fishery (Jones et al. 2019) CEFAS (Carpi et al. (2019), suggested catches in 2018 could have been as high as 31,758t and still been under a proposed 20 % Harvest Rates (HR) control rule. Carpi et al. (2019) proposed new HR rules based on ICES simulation modelling of small pelagic species and a '1-over-2' rule in which advice is based on a comparison of the most recent index value with the 2 preceding values, combined with recent catch or landings data (ICES 2019b). Sardine in ICES area 7 has been selected for an ICES benchmark event in 2021, most likely February. It was one of only five stocks that were selected out of approximately 70 put forward for a benchmark which indicates the urgency and importance of this stock to ICES (Van der Kooij pers. Comm.).

At that benchmark, the PELTIC survey series as well as several proposals for HR control rules will be formally assessed and the most appropriate approach selected for future assessments. The 2019 PELTIC data showed again a marked increase in sardine (374,617 t) for the expanded area consistently sampled since 2017) (Van der Kooij pers. Comm.).

3.4.2.1 Harvest Strategy CSMA

All 15 members of the CSMA have met at least yearly (typically October and January) to examine overall fishery performance, get updates from CEFAS, and set vessel specific fishing quotas. All members have signed the CSMA Code of Conduct (CoC).

For the 2019-2020 season a Harvest Control vote by the CSMA was undertaken in July 2019 as part of the Annual General Meeting (AGM). This resulted in an agreed (9 in favour, 1 against, 1 no response) adoption of catch limits and pool system for the period 1st July 2019 to 31st December 2019. In the absence of catch limits for the stock for the season 2019 season but ICES advice recommending a total catch not exceeding 34,364 t across all fisheries the CSMA adopted the following approach to set a catch limit for the UoA. The CSMA used the 20 % Harvest Rates (HR) control rule proposed by CEFAS. The CSMA applied the following methodology to set a total CSMA catch limit and ensure it is precautionary:

- 20 % harvest rate of the estimated biomass (145,514 t) for the PELTIC 2018 survey year = 29,103 t.
- Calculate UK average catch percentage from 2010-2018 ICES data (Table 4) = 55.3%
- 55 % of 29,103 t gives a value of 16,007 t
- CSMA take 95 % UK catch so the CSMA used 95 % of 16,007 t = 15,206 t as the maximal catch for the fleet this is the start value from which the harvest control discussion at CSMA is derived.
- For 2019 the CSMA then agreed a catch limit of 10,048 t. This value was based on the basic agreement of a minimum of 400 t per vessel. With an uplift of 20 % for those vessels actively catching near their 2018 allocation. The 20 % uplift for active vessels is based around the CEFAS biomass estimate of 145,514 t in 2018 and its increase from ~80,000 t in 2017.
- Volume of catch available for each vessel from for the period 1st July 2019 to 31st December 2019 accounted for catches taken in the period January 2019 April 2019 (the tail end of the 2018-2019 season).
- The agreed total catch was to be reviewed in November 2019 to allow reallocation of unused catch back into the pool for all vessels who had not reached 75 % of their allocation.

3.4.3 CSMA and UK landings 2019

Information on UK landings is available provisionally for 2019. The CSMA landed 6,405 t of the catch limit of 10,048 t (63.7 %). This accounts for 92 % of UK landings according to MMO records in 2019 (UK national landings = 6,976 t) (MMO 2019).

3.4.4 Principle 1 overall conclusion

The stock continues to show strong signals of increase and there have been continued improvements in data recording in the fishery including the self-sampling program. Conditions related to the harvest strategy and harvest control rules remain on-target. 2021 will see a potential change in the stock classification with the ICES benchmark which may lead to stock management changes. These will also be affected by the UK's withdrawal from the EU. Overall, at present there is no reason to rescore any of the Performance Indicators under Principle 1.

3.5 Principle 2

3.5.1 Bycatch

3.5.1.1 Catch Composition

The fishery continues to be a clean target species dominated fishery. Records of landed catch composition from the UoA are available from the CSMA logbooks, processor records (Table 5), and MMO record. Sardine remains the dominant catch and all other species were less than 5 % of the landed weight in 2018 – 2019 (Table 5). Within the PCR (Cieri et al. 2017) herring (*Clupea harengus*) and anchovy (*Engraulis encrasicolus*) were considered ‘main’ on a precautionary basis, in that in individual years the landing of these species may exceed 5 % but over a time period of 5 years they average < 5 % (Cieri et al. 2017). As of 2019-2020 there is no evidence of these species exceeding 5 % in the past 5 years but as a precaution there appears no reason to amend the classification (Table 5).

Table 5. Bycatch small pelagic species landing in tonnes and MSC classification under Principle 2. Source CSMA logbooks.

	Sardines	Anchovy	Sprats	Herring	Mackerel	Scad	Total
2019-20	6,386.0	72.0	1.0	0	30.7	108.8	6,598.5
%	96.8	1.1	0.0	0.0	0.5	1.6	
2018-19	6,649.2	289.0	0.0	0.0	33.4	2.0	6,979.5
%	95.3	4.1	0.0	0.0	0.5	0.0	
2017-18	6,675.0	32.2	10.2	8.9	61.5	4.0	6,791.7
%	98.3	0.5	0.1	0.1	0.9	0.1	
2016-17	6,740.5	139.0	0.0	0.4	7.6	8.9	6,896.4
%	97.7	2.0	0.0	0.0	0.1	0.1	
2015-16	4,662.8	20.4	2.8	239.5	44.5	0.4	4,970.4
%	93.8	0.4	0.1	4.8	0.9	0.0	
2014-15	3,670.9	366.0	64.3	245.8	28.9	3.6	4,379.5
%	83.8	8.4	1.5	5.6	0.7	0.1	
MSC classification	Target	Main	Minor	Main	Minor	Minor	

3.5.1.2 Herring and Anchovy

For neither of these species is there an updated assessment from that reported in year 2 surveillance of this fishery (Jones et al. 2019).

3.5.1.3 Minor species

In addition to the small pelagic species listed in Table 5, some minor additional species are landed by the fishery as bycatch. In 2019 these species were cuttlefish (5 Kg), john dory (28 kg), plaice (3 kg), whiting (51 kg) and ray (2 kg).

There was some evidence of occasional catches of Eastern stock Atlantic bluefin tuna (*Thunnus thynnus*) from the fishery in 2019 -2020. Potentially the result of improved the tuna's stock status (ICCAT 2017) in the past decade. These catches appear in the vessel logbooks and must be released alive if possible under ICCAT regulations as the UK has no quota for these species. In response to the reports of occasional catches the MMO officer provided clarity to CMSA by email in July 2019 of what needed to occur if these tuna are captured (Daisy May pers comm). To CSMA *'If you catch Blue Fin Tuna as bycatch, release if alive, if dead inform MMO office, MMO will arrange for BFT to be disposed of via Exeter University or by other means into non-human food chain. Any other actions may constitute an offence being commissioned.'* These steps were repeated to the CAB via telephone interview with Daisy as part of this audit (Section 6.1.1).

The fishery observer program (described in section 3.5.2 below) highlighted that the commercial catch was overwhelmingly of sardine, with a small retained bycatch of horse mackerel or "scad" (*Trachurus trachurus*) in one haul. A small amount of bass (*Dicentrarchus labrax*) was also bycaught in one haul but was discarded as ring nets are not an authorised gear for retaining bass under current bass management measures (Article 10 point 1 (EU 2019)).

3.5.1.4 Slippage

Slippage of catch by the UoA is discussed at length in the PCR (Cieri et al. 2017) which considered the practice under discarding as per the MSC CR v1.3. Slippage continues to occur within the fishery as a method of reducing unwanted catch, while reducing mortality rates. Slippage has qualitatively been reduced in recent years by increased use of shared catches, where one vessel calls in a second ring-netting vessel to pump from their net when they have too many sardines. This is permitted in this fishery and is encouraged in the CSMA Code of Conduct. There have been no reports of mass stranding of slipped fish for the past season (MMO, Daisy May pers. comm.) which offers qualitative evidence that the measures implemented are being effective.

Seven of the fleet's 12 vessels report slipped sardine catch in 2019-2020 estimated at 317 t total with a further 4 t discarded. The latter corresponds to an incident where the vessel found itself too close to shore in poor weather and had to abandon its net. The net was later recovered. In total, slippage represented 4.6 % of the total catch and remains similar to 2018-2019 percentages (Jones et al. 2019).

Table 6. Slippage estimates and percentage contributions for 2019. Source: CSMA logbooks.

SLIPPED COMPOSITION (t) & %			
HERRING		0	0.0
BASS		0.5	0.1
SCAD		70.274	17.0
SPRAT		0	0.0
MAC		0	0.0
W/BAIT		20.5	5.0
SARDINE		321.05	77.9
TOTAL		412.3	

In a meeting held by the CSMA in February 2020 there is evidence of discussion of alternative measures to help with reducing slippage these are:

- Best to release fish before brailing of pumping begins.
- Trying to release fish early in process
- Setting up a committee to review incidents
- Possible sanctions for vessels not abiding by CoC

Gear modifications were also discussed

- Reduce net floatation
- V-cut bunt end making easier to spill fish
- Reducing net length
- Multicoloured bunts to mark fish volumes
- Possible use of cameras onboard for monitoring

All skippers have indicated they would be willing to adopt the installation of cameras.

3.5.2 ETP

In 2018 a routine observer program run by Sea Mammal Research Unit (SMRU) sampling began for the UoA after initial discussions were held with the CSMA and with the subsequent agreement of the Bycatch Monitoring Program (BMP) steering group. The purpose of this sampling is to independently quantify protected or sensitive species interactions with CSMA fishing vessels during the course of their normal fishing operations. The skippers and owners of all vessels in the CSMA pre-agreed to carry bycatch observers whenever asked and the fishery is sampled using a port based stratified random vessel selection procedure wherever possible with target days (20 days per annum) spread across the fisheries duration.

In 2019, 14 days observations were made across 4 months (40 % of months fished) and 6 vessels (50 % of vessels active in 2019) (SMRU 2019). The data for 2019 shows a single herring gull (*Larus argentatus*) was recorded as bycaught and was dead on retrieval to the vessel. No other protected species bycatch was recorded.

The 2019 SMRU report (SMRU 2019) reports that sampling efforts in 2020 will resume in the fishery again when vessels begin ring netting because of social distancing requirements (COVID -19) bycatch observers are currently not undertaking any at-sea data collection. This situation is being reviewed regularly but data collection under the program will not resume until it is considered legal and safe for observers and skippers/crews of vessels.

ETP data is also available from logbooks which have specified areas for recording birds, seals and dolphin interactions. These areas do not specify species but the adjacent comment area is used in this regard. In all but two of the active CSMA logbooks for 2019 this data appears to be diligently recorded. In 2019 ETP interactions for the fleet from the logbooks are shown in Table 7. All cetacean interactions relate to common dolphin (*Delphinus delphis*). All bird interactions are with herring gull (*Larus argentatus*). The species of seal is unrecorded but assumed to be a grey seal (*Halichoerus grypus*). The thresher shark species is unknown but most likely *Alopias vulpinus* and listed as ETP due to prohibition to land this species or retain onboard under EU law 2019/124 (EU 2019).

Dolphin interactions are similar to 2018 ($n = 6$), whilst herring gull interactions are lower (2018 = 53) due to a single event of 28 caught in 2018. Thresher shark and seal interactions are too rare to consider any trend.

Table 7. ETP data from the CSMA logbooks.

Species	Caught	Fate and condition	Observed
Cetaceans	5	5 released alive	19
Birds	36	32 released alive 1 dead 2 unknown	1
Thresher shark	1	1 unknown	N/A
Seal	2	2 alive	1

In February 2020 an interaction with three dolphins with a CSMA member vessel was recorded on camera from the shore by members of the public. The vessel was able to release the dolphins by dipping headlines. MMO investigated the event and found no wrong doing (D. May pers. comm.) In response to this and other interactions, the CSMA developed a specific chapter to its Code of Conduct has been with direct input from the SMRU. The Code is designed to ensure that any cetacean interactions that might occur in the fishery are dealt with safely and promptly, and with minimal effect on animals, to minimise any risk of mortality or injury. In addition vessel skippers and owners have agreed to fit cameras to all vessels for the start of the 2020 – 21 season.

The assessment team contacted Cornwall IFCA to understand the legal requirements for cetacean interaction with the fishery. The assessment team were informed that there isn't any legal requirement for ring-net fishermen to inform Cornwall IFCA about any wildlife incident. The IFCA officer noted that in working closely with the CSMA, IFCA officers "have established that when an incident occurs it is very helpful for fishermen to let us know as soon as practicable, either directly or via the CSMA. In recent times this quick provision of wildlife incident information from fishermen/CSMA has worked well for us to understand the circumstances and allowed us to assess whether it was a significant matter. It is the MMO who have responsibilities for marine incidents covered under the Wildlife and Countryside Act and the Seals Act and we will immediately share relevant information with the MMO so that it can consider taking any necessary action."

3.5.3 Logbook compliance

Overall logbook compliance is good, but ETP recording is missing/incomplete for five vessels and slipping/discards not recorded in three vessels. CSMA intend to go back to the skippers and try to ensure that the logbooks are completed in the future. Data officer and CSMA chair try to offer support and attend a trip on the vessel to try and educate the younger skippers (Pride of Cornwall). There is no current log of these action post review. However, a data officer review is included in the AGM meeting reports and renewed guidance has been issued to skippers (appendix 4.4) Moving forward the independent committee would be required to look at this.

Table 8. Logbook compliance summary for 2019. Dark Green = complete, Light Green = partially complete missing some zero's etc, Red = Missing / no entries.

	LOCATION	DEPTH	NON-SARDINE PELAGIC RETAINED	NON-PELAGIC RETAINED	SLIPPINGS	DISCARDS	NUMBER OF HAULS	SEATIME HRS	ETP RECORDING
ASTHORE									
CHARLOTTE CLARE									
GALWAD Y MOR									
GOLDEN HARVEST									
LYONESSE									
MAYFLOWER									
PELAGIC MARKSMAN									
PRIDE OF CORNWALL									
RACHEL ANNE									
RESOLUTE									
SERENE DAWN									
VESTA									

3.5.4 Principle 2 overall conclusion

There have been significant improvements in data recording in the fishery in relation to ETP and bycatch information in 2019 and these are reflected in that conditions related to these components are on-target. The addition of onboard scientific observers in 2018 - 2019 is also noted as strong improvement for the fishery. There remains a minor issue of record keeping for a minority of vessels in regard to ETP and bycatch data. Overall, there is no reason to rescore any of the fishery components under Principle 2.

3.6 Principle 3

3.6.1 Latest developments

3.6.1.1 National legislation

The UK introduced the Fisheries Bill in January 2020 which delivers a common framework to replace the Common Fisheries Policy (CFP) when the UK leaves the EU at the end of the Transition Period, in December 2020. The Bill has been introduced as a result of the Brexit vote and allows the UK to control who may fish in UK waters, and on what terms, for the first time since 1973. The Bill was introduced in the House of Lords for its first reading on 29 January 2020 and after its third reading, to the House of Commons on 2 July, with these readings somewhat delayed by the Covid-19 outbreak¹. The Bill presently includes the following explicit objectives:

- sustainability objective,
- precautionary objective (including that “exploitation of marine stocks restores and maintains populations of harvested species above biomass levels capable of producing maximum sustainable yield. »),
- ecosystem objective,
- scientific evidence objective,
- bycatch objective,
- equal access objective,
- national benefit objective, and
- climate change objective.

Importantly for the sardine stock, the Bill will also recognise that some fish stocks are ‘shared stocks’ with other coastal states’ waters. For these stocks, negotiation with other coastal states (the EU) is crucial for sustainable outcomes. The negotiations on rights to access UK waters and allocation of quotas remain under debate as part of the overall Brexit negotiations.

Fisheries management plans will be published based on the new Bill by the relevant fisheries policy authorities (DEFRA and MMO) once the Bill is enacted.

3.6.1.2 Progress towards fishery-specific objectives and decision-making processes

The CSMA, membership includes all ring-netters in the fishery and all processors who buy sardines from them. The CSMA slightly amended the previous Code of Conduct (CoC) for the 2019-2020 season to include that “*the relevant authorities will be informed of any slippage or discards that may result in a possible stranding’s event*”. The CoC is complemented by a more detailed Slippage Policy, and from 2020, by a Research Plan (Appendix 4.2 and 4.3).

The IFCA, which has a statutory duty to manage fisheries within its district, reserves the possibility to manage the fishery further through specific legislation (bylaw). However, its officers have supported the development and review of the CSMA Code of Conduct, as a means to provide appropriate

¹ <https://services.parliament.uk/bills/2019-21/fisheries.html>

management for ring-net fisheries within the Cornwall IFCA district to achieve fishery-specific objectives.

CEFAS, MMO and IFCA continue to support the CSMA in providing timely scientific advice adapted to the stock definition for the fishery which changed in 2017, this is evidenced in the progress in the proposed new fishery-specific HR and the CSMA HCRs adopted by the UoA (e.g. vessel catch limits) for 2019.

A list of all meetings undertaken by the CSMA were presented to the CAB as part of this audit. This list shows dates, locations and reason for each meeting. Agendas and minutes from the Annual General Meeting, the Harvest Control Rule meetings and within year meetings to discuss new membership and on-board cameras were provided to the CAB for this audit.

The AGM meeting minutes (4th July 2019) (CSMA 2019) shows discussion and proposal for the development of the HCR for the fishery which was subsequently voted on by CSMA members and applied for the 2019-2020 season. It also shows that the Code of Conduct (Appendix 4.1) for the following season was agreed by members and input from external stakeholders (IFCA and MMO).

The meeting notes from 9th January 2020 (CSMA 2020d) show the process of evaluation / vote and conclusion to allowing new membership to the CSMA. The new application was rejected on the grounds of the CSMA constitution being limited to 15 vessels. Contained in this report is recognition that there is a need for clear and transparent process for membership in the future. The document also records that the 2020 catch limit would be maintained at 10,483 t (as agreed in 2019) until the end of the current season, with review at the 2020 AGM.

The minutes of meetings between the Cornish handliners and the CSMA on the 7th February 2020 (CSMA 2020b) shows the two Associations discussed the concerns of the handliners regarding mackerel and the CSMA vessels operating in St Ives Bay. A suite of potential solutions were discussed and there was agreed actions consisting of:

1. Establishing a 'WhatsApp group' for effective communication between Associations and members.
2. CSMA to have on-board video cameras installed for the next season.
3. Agreement that more responsible communication is need when issues are raised and not to use of social media in the first instance.

Further a CSMA meeting in February 2020 (CSMA 2020c), the CSMA agreed to:

- fit camera's to all vessels for the start of the 2020 – 21 season to provide evidence of activities onboard
- Set up a review panel with independent individuals to assess infringements against the code of conduct

Finally, the CSMA has drafted a code of conduct for fish meal which has not yet been signed by all processors. This dictates that the CSMA will not actively purchase and process the target stock for the fish meal or fish oil market and that it will be maintained as directed fishery for principally human consumption. Trimmings from processing can be used for fish meal / oil under this agreement (Figure 3).

CSMA Code of Conduct – Fish Meal Policy

Processor Name as a member of the Cornish Sardine Management Association commit to not actively purchasing or processing Cornish Sardine based on targeted fishing directed for fish meal or fish oil. The intention being that Processor Name will aim to maximise the value of Cornish Sardines based on human consumption and pet food markets. Utilising trimmings for production of Fish meal and fish oil is however considered appropriate operations. Any position resulting in a situation considered as force majeure shall be reported by the processor to the CSMA in writing within 24 hours.

Signed _____

Figure 3. Example code of conduct for fish meal / oil for CSMA members. Source: CSMA

The CSMA is planning to develop a fishery-specific management plan (Richard Caslake, pers. comm.), to bring existing CSMA policies together and include explicit long and short-term objectives based on scientific advice and consistent with achieving the outcomes expressed by MSC indicators for Principle 1 (with support from Cefas and ICES (from stock assessment due in 2021)) and Principle 2 (with support from IFCA and SMRU) and with best management practice corresponding to MSC Principle 3 indicators (with support from MMO and IFCA).

3.6.1.3 Compliance

Both IFCA and MMO Enforcement Officers have informed the team that there continues to be no major enforcement concerns regarding this fishery in their district (see Appendix 6.1.1 and 6.1.3).

The MMO representative sits on CSMA meetings to explain and discuss any potential problems. One such problem regarded the catch (or bycatch if the catch is slipped alive) of mackerel, horse mackerel, herring and sprat, which may sometimes be included within ring-net catches. The ‘Mackerel Box’ encompasses the whole of the district and was designed to restrict mackerel catches to 15 % for certain fishing methods, including by ringnet and purse seining vessels (see re-certification report Cieri et al. (2017)) Commission Regulation (EC) 850/98 (IFCA 2019). The pelagic landing obligation allows vessels to retain all the mackerel in their catches when they pursue a pelagic species subject to quota being available.

The only compliance issues applied to the fishery in 2019 -2020 are 1st step ‘verbal warnings’ to vessel masters regarding:

- accurate recording of mackerel in elogs and landing declarations. Processors have also been reminded of need for accurate reporting on mackerel. The mackerel box rules and regulations still apply to the fishery and catches of mackerel must be below 15 %. MMO observations at landing qualitatively show that mackerel catches of more than 50 kg remain rare.
- Any targeting of tuna is not permitted and any catches of Atlantic bluefin tuna which cannot be released alive (via dipping headlines) must be landed according to ICCAT regulations. MMO recognize this could be a significant issue given vessel stability and gear used but that best endeavours to do so must be applied.

The CSMA Code of Conduct and associated documents are signed voluntarily by all CSMA members as part of their efforts to uphold the fishery’s MSC certification. Specific issues, such as information

reporting, are dealt internally, with advice and on-board demonstration provided to the younger skippers concerned.

CSMA skippers have agreed to take on-board scientific observers since 2018, and the fitting of on-board camera was agreed in 2019 to improve the reporting of ETP species and other bycatch interactions. The MMO confirmed that, for both the slippage and the interaction with dolphins events mentioned above, the vessels concerned promptly informed the relevant authorities. In the future, it is proposed that camera footage from individual vessels would be kept for 7 days and be looked at by an independent review panel led by the IFCA in the case of an incident.

3.6.2 Principle 3 overall conclusion

There have been a few significant changes to account for in this audit. Of the three conditions related to this Principle, one has been closed, one is considered on target and one is considered behind target. These are all reviewed in Section 4.2. A revised Client Action Plan for the condition on PI 3.2.1 - Short and long-term objectives is provided below in Section 4.3. Overall, the fishery has made good progress on record keeping and provision of how decisions are made. There remain some issues regarding a limit number of vessels completing logbooks, but the CSMA have a system which is attempting to deal with this through education of new skippers.

3.7 Traceability

There are no major changes to the traceability as detailed in the PCR.

All vessels remain landing to ports of Newlyn, Mevagissey and Plymouth and fish are directly landed at the processor facilities. There have been no changes to the point-of-sale within the certified fishery and there is no change to the point where Chain of Custody (CoC) is required.

There has been one change to the CSMA member list: one vessel (the “Hannah Jack”) has been sold and is no longer listed under the client group, however, the operator still remains in the CSMA and has another vessel, therefore, their details have not been removed from the vessel list. Please see Table 3 for the updated vessel list.

There have been no changes with regards to the Landing Obligation that may impact traceability of the target species covered in the UoA.

Logbook compliance is discussed in Section 3.5.3. As part of the traceability requirements for this certified fishery, the location where fish is required as part of the logbook (Cieri et al. 2017). Generally logbook compliance is considered to be good for the target species although two vessel appear to be missing target location. Section 3.5.3 and Appendix 4.4 show the remedial action taken by CSMA to address this.

There is uncertainty regarding changes to fishery operations after the EU-Exit process is completed. Since several regulations have been transposed into UK law, there is some acknowledgment that data collection processes and reporting are unlikely to change in the fishery. However, in the time of writing this report, the extent of changes to factors involving traceability – including trade, point-of-sale, processing facilities – is not yet known. Potential changes will be investigated in future audits.

4 Results

4.1 Surveillance results overview

4.1.1 Total Allowable Catch (TAC) and Catch Data

TAC is not applicable to this stock. Catch data for UoA 1 are shown in Table 9.

Table 9. Catch Data (t).

Total green weight catch by UoC	Year (most recent)	2019-20	Amount	6,386.0
	Year (second most recent)	2018-19	Amount	6,649.2

4.1.2 Summary of conditions

Table 10. Summary of conditions.

Condition number	Condition	PI	Status	PI original score	PI revised score
1	See condition 7	1.2.1	Closed (Year 1)	70	70 (revised stock status meant condition was invalid. New condition raised (7))
2	See condition 8	1.2.2	Closed (Year 1)	60	60 (revised stock status meant condition was invalid. New condition raised (8))
3	Record and analyse any cetacean, pinniped (seal) or seabird mortalities (specifically black-backed gulls (<i>Larus fuscus</i> , <i>Larus marinus</i>); herring gulls (<i>Larus argentatus</i>) & fulmars (<i>Fulmarus glacialis</i>)) within CSMA log-sheets.	2.3.3	Open	65	Not Revised
4	Implement specific short and long-term management objectives which are explicitly defined within the fishery management system	3.2.1	Open	60	Not Revised
5	The precautionary approach must be clearly and explicitly incorporated into the decision-making process. This is closely linked to the development of a Harvest Control Rule under PI 1.2.2. That Harvest Control Rule must be explicitly incorporated into the decision-making process.	3.2.2	Open	75	Not Revised
6	There shall be a research plan in place that provides the management system with a	3.2.4	Closed	70	80

Condition number	Condition	PI	Status	PI original score	PI revised score
	strategic approach to research and reliable and timely information, sufficient to achieve the objectives consistent with Principles 1 and 2.				
7	By the 4th surveillance audit there should be clear evidence that the harvest strategy is responsive to the state of the stock and elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points.	1.2.1	Open	70	Not Revised
8	By the 4th Surveillance audit well-defined HCRs should be in place which reduce exploitation rate as limit reference points are approached. These need to take into account the main uncertainties and be appropriate for the control of exploitation rates	1.2.2	Open	60	Not Revised
9	Information from logbooks must be sufficient to estimate outcome status of bycatch species with respect to biologically based limits and to support a partial strategy for management	2.2.3	Open	65	Not Revised
10	See Condition 3. Record and analyse any cetacean, pinniped (seal) or seabird mortalities within CSMA log-sheets.	2.3.2	Open	75	Not Revised

4.1.3 Recommendations

none

4.2 Conditions

Table 11. Condition 3

Performance Indicator & Score	PI number	Scoring guidepost text	Score
	2.3.3a	A: Sufficient information is available to allow fishery related mortality and the impact of fishing to be quantitatively estimated for ETP species.	65
Original Condition	Record and analyse any pinniped (seal) or seabird mortalities (specifically black-backed gulls (<i>Larus fuscus</i> , <i>Larus marinus</i>); herring gulls (<i>Larus argentatus</i>) & fulmars (<i>Fulmarus glacialis</i>)) within CSMA log-sheets.		
Original Milestones	<p>By 1st annual surveillance audit amend CSMA log-sheets so that pinniped and ETP seabird mortalities can be recorded;</p> <p>By 4th annual surveillance audit analyse data to assess any trends in mortality (if any mortality has been observed)</p>		
Revised Condition	Record and analyse any cetacean, pinniped (seal) or seabird mortalities (specifically black-backed gulls (<i>Larus fuscus</i> , <i>Larus marinus</i>); herring gulls (<i>Larus argentatus</i>) & fulmars (<i>Fulmarus glacialis</i>)) within CSMA log-sheets.		
Revised Milestones	<p>By 2nd annual audit, ensure that the CSMA logbooks are being fully completed by all members for ETP species.</p> <p>By 4th annual surveillance audit analyse data to assess any trends in mortality (if any mortality has been observed)</p>		
Revised Client action plan	<p>Year 1: CSMA logbooks will be amended by the association secretary and distributed to all fishing members. Modified logbooks will facilitate recording of any pinniped and/or seabird interactions. The membership will be made aware that any seabird mortalities should be recorded as bycatch with details recorded in the comments section of the logbook. This will be demonstrated to the CAB at the first surveillance audit through submission of all vessels logbook data. Members will be made aware that failure to submit fully detailed logbooks will result in sardines caught being unable to be sold as MSC certified. Logbooks will be assessed mid-season (December) to ensure compliance. Score 70</p> <p>Below is the revised CAP:</p> <p>Year 2: The membership will be made aware that any ETP mortalities should be recorded as bycatch with details recorded in the correct section of the logbook. This will be demonstrated to the CAB through submission of all vessels logbook data. Members will be made aware that failure to submit fully detailed logbooks will result in sardines caught being unable to be sold as MSC certified. Logbooks will be assessed mid-season (December) to ensure compliance.</p>		

	<p>CSMA will contact SMRU and request observers for the fishery. The CSMA will investigate the development of a phone/computer app as an option to automate the logbook submission.</p> <p>Score 75</p> <p>Year 3: The CSMA will present the results of the observer programme.</p> <p>ETP interaction data from logbooks will be assessed annually and results highlighted within the management report. Mortality issues will be addressed, if required, through modifications to fishing practices and the use of mitigating measures such as bird scarers or escape panels. Score 75</p> <p>Year 4: Monitoring will identify issues which can then be addressed by association members. Annual reports on the incidence of general bycatch and on ETP species will be prepared and made available to the certifier in order to be analysed in the annual audits. This is to determine if the information on bycatch is sufficient to determine the risk posed by the fishery and therefore support a strategy to manage impacts on ETP species. Score 80</p>
Progress on Condition Year 1	<p>The client has completed the revisions to the logbook required for the milestones so that there is a dedicated section for recording ETP interactions by group (cetacean, seal, and bird) (see appendix 5). However, there is not evidence that the logbooks are being correctly filled out for this section. The original CAP implied this would be completed by year 3 and the team considers that although this is not a directed milestone for year 1 its importance should not be overlooked and therefore an additional milestone for year 2 has been added to address this.</p>
Progress on Condition Year 2	<p>Logbook revisions to include seabird / seal and dolphin catches were made for the 2018/19 season (appendix 5.1) and the sample of logbooks examined by the assessment team were all complete in terms of ETP catches including 'zero' where required. In addition as detailed in the year 2 audit report the CSMA have taken independent observers in 2018 with the results of these providing verification of the low ETP encounter rate and which species are encountered (herring gull). At the site visit the CSMA explained that the phone / computer app had been developed (the assessment team were shown the relevant emails) but that at present the CSMA didn't wish to develop this further.</p> <p>With the addition of 2018 logbook data, observer report and previous information about the fishery, the team considered whether this condition could be closed out at this surveillance audit. However, given that the observer data only had 13 trips in 2018 and didn't include those vessels operating in the east (Plymouth etc) the team felt that an additional year of data was required.</p>
Progress on Condition Year 3	<p>Logbook revisions made in previous years continued in the 2019-2020 season with dedicated columns for seabirds, seals and dolphin interactions. CU sampled the logbooks from the season and found overall good compliance with completing this section including zeros where no interaction was apparent, although a few vessels did not always complete this logbook area (Table 8). CU do note that this section of the logbook doesn't include specification by species in the logbooks and therefore addresses the issue at species group level. However, skippers are asked when interactions occur to enter this information in the comments section of the logbooks. Further, observer</p>

	<p>records do identify the species involved and provide quantitative evidence of interaction by species.</p> <p>For cetacean interaction an incident of capture and release of three individuals in February 2020 by one of the UoA vessels has prompted the development of a Cetacean Interaction Policy document in conjunction with the Sea Mammal Research Unit (SMRU). This policy will be in place for the 2020-2021 season. The measures include:</p> <p>Prior to deployment of net conduct visual observations to check for cetacean activity in the are and if observed close to the vessel either delay deployment or move to another area to reduce risk of interaction.</p> <p>If cetaceans are found in the net after deployment, the skipper and crew must prioritise the release of the animals at the earliest safe opportunity by following the agreed protocols for that vessel e.g. stop hauling, lower the headline.</p> <p>Details of all interactions with cetaceans that result in animals being within the net will be recorded in the vessel logbook and made available to SMRU.</p> <p>Management reviews in 2020 has included agreement for camera monitoring for the 2020 – 21 season.</p> <p>Regarding camera fitting this has already begun on vessels ahead of the season and the intent is for IFCA to review the camera placement and ensure it captures the deck area and brail / pump area of the vessel. An independent panel for reviewing such incidents is being arranged, but is not yet in place. In addition to this fleet wide camera installation the CSMA have requested funding through the CEFAS I360 fund for artificial Intelligence REM system which allows capture of audio from the vessel of crew engagement as well as video footage. Finally, one vessel in the fleet currently carries an REM an camera, but the footage is not systematically reviewed. This is trial project with MMO.</p> <p>Further gear modifications also discussed at the management review are primarily driven by slippage needs they will also be beneficial in ETP interaction events.</p> <ul style="list-style-type: none"> •Reduce net floatation • V-cut bunt end making easier to spill fish • Reducing net length •Multicoloured bunts to mark fish volumes
Status of condition	On target.

Table 12. Condition 4.

Performance Indicator & Score	PI number	Scoring guidepost text	Score
	3.2.1	A: Short and long-term objectives, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system.	60
Rationale	<p>There are objectives, which are broadly consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, and implicit within the fishery's management system in the European Union and National policy. However, there are no explicitly defined and specific short and long-term management objectives for the purse seine sardine fishery. There is no specific management plan for the ICES area under assessment.</p> <p>This was a condition in the original assessment and closed out during the first surveillance. The first surveillance audit report states that formal objectives were agreed but documented evidence was not available. This was also the case during the reassessment and therefore re-raised as a condition (https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-east-atlantic/cornwall-sardine/assessment-downloads/20120514_SR.pdf).</p>		
Condition	Implement specific short and long-term management objectives which are explicitly defined within the fishery management system		
Milestones	<p>By the third surveillance audit, short and long term objectives for the sardine fishery, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, need to be explicitly included in the management of the fishery. Score: 80</p> <p>Revised milestone following this audit following 7.28.16.1.b.i of FCP2.1 (see status below for explanation:</p> <p>By the fourth surveillance audit, short and long-term objectives for the sardine fishery, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, need to be explicitly included in the management of the fishery. Score: 80.</p>		
Client action plan	<p>Short term objectives:</p> <p>Maintain catches within the CSMA sardine fishery in line with ICES assessment & modify, when necessary the harvest control rules as agreed by the working group set up with the Spanish and French fisheries. Monitor catches through the use of vessel logbooks and processor returns.</p> <p>Long term objectives will be developed through a number of initiatives:</p> <p>Work with other fisheries, to develop a long-term management plan for the sardine fishery in Areas VII/VIII.</p> <p>Improve scientific understanding of the stock through a combined commitment to engage with stock assessment studies.</p> <p>Work towards maximum sustainable yield for the area VII/VIII sardine.</p>		

	<p>Discuss the CSMA long-term aims with regard to fleet size, maximum length of boats, daily catch limits and a possible defined season start and end point with our fishery partners.</p> <p>Maintain 100% membership of the CSMA of all vessels and processors within the Cornish sardine ring net fishery</p> <p>By the Third surveillance audit short and long term management objectives, once agreed will be signed off by the relevant fisheries representative on behalf of their membership and made available to the CAB.</p> <p>Annual reports on the incidence of general bycatch and on ETP species will be prepared and made available to the certifier in order to be analysed in the annual audits to determine if the information on bycatch is sufficient to determine the risk posed by the fishery.</p> <p>In order to achieve those objectives a Code of Conduct for members of the CSMA for sustainable fishing practices will be maintained aiming at minimising the impacts on the ecosystem components such as bycatch species or ETP species.</p>
Consultation on condition	Some consultation may be needed with the Inshore Fisheries and Conservation Authorities (IFCA) and the Marine Management Organisation (MMO)
Progress on Condition Year 1	The CSMA has worked with both IFCA and MMO officers and, on the basis of a questionnaire to its members and the public, has issued a new Code of Conduct for the CSMA ring-net fishery that took effect in 2017-18.
Progress on Condition Year 2	<p>CEFAS has proposed a revised scientific advice for sardine in Subarea 7 (Carpi et al. 2019), aiming to obtain a revised ICES benchmark from ICES by 2020. Work with other fisheries, to develop a long-term management plan for the sardine fishery in Areas VII may be delayed until the Brexit process comes to a conclusion, however the UoA provided evidence of email conversations with the other fisheries in 2018.</p> <p>In the meantime, the CSMA has worked with both IFCA and MMO officers to update its Code of Conduct for the CSMA ring-net fishery for the season 2018-19 (CSMA 2018), which includes a pledge of members to abide by all management measures, in order to reduce the fishery's impacts as per MSC Principle 1 and Principle 2 indicators.</p> <p>An agreement with the SMRU exists since 2018 that guarantees scientific on board observations and an annual report on potential impacts on ETPs from the fishery (SMRU 2018).</p>
Progress on Condition Year 3	<p>A long-term management plan for the Area VII stock remains unlikely until Brexit fisheries negotiations are finalised. Continued Brexit negotiations in 2020 are preventing further discussion with other Member States who have sporadically targeted sardine in the past. Until there is a clear idea of EU access to UK waters and the terms of that access any further agreement between fisheries is on hold.</p> <p>The milestone at Year 3 for this condition was set under the previous stock definition when ICES guidance was available. The revised benchmark from ICES is now confirmed for 2021, the results of which will be used by CEFAS to advise the CSMA on long and short-term fishery-specific objectives for the targeted sardine stock (Principle 1) in 2021</p>

	<p>to be signed off by its membership. Until then, the CSMA is committed to a control of the fleet fishing capacity, as was illustrated it turning down a new membership application at the end of 2019 (G. Caslake, pers. Comm. and CSMA (2020d)).</p> <p>Regarding the fishery's impacts on ETP and bycatch species (Principle 2), the long and short-term objectives remain to minimise the fishery's impacts. The CSMA fishery's actions to improve recording are ongoing, but improvements are still needed for all vessels to complete the relevant logbook sections. The CSMA has issued Guidance on logbooks to its membership following the site visit (Appendix 4.4).</p> <p>Although there have been significant improvements in some areas within the fishery there are still no CSMA fishery-specific explicit short and long term objectives consistent with the MSC's Principles 1 and 2.</p>
Status of condition	<p>This condition is considered behind target. As per 7.28.16.1.b.i of the MSC FCP2.1 the CAB provides the fishery with a revised milestone for year 4:</p> <p>By the fourth surveillance audit, short and long-term objectives for the sardine fishery, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, need to be explicitly included in the management of the fishery. Score: 80.</p> <p>The Revised action plan for the client is provided in section 0.</p>

Table 13. Condition 5

Performance Indicator & Score	PI number	Scoring guidepost text	Score
	3.2.2	A: There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.	75
Rationale	<p>A decision-making process is established by CSMA. All issues regarding the fishery are discussed at annual meetings, and decisions taken and disseminated; however this does not result in measures and strategies to achieve the fishery-specific objectives. The only measure imposed to members so far is a limitation of the quantity of sardines landed per 24 hours. The proposed limitation to 20 boats in the ring netting fleet has not been accepted by MMO.</p> <p>This condition was raised during initial certification, and closed at the year 3 surveillance as the French condition for the same PI was also closed (https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-east-atlantic/cornwall-sardine/assessment-downloads/20130820_SR_SAR031.pdf)</p>		
Condition	<p>The precautionary approach must be clearly and explicitly incorporated into the decision-making process. This is closely linked to the development of a Harvest Control Rule under PI 1.2.2. That Harvest Control Rule must be explicitly incorporated into the decision-making process.</p>		
Milestones	<p>The change in stock definition and consequent re-scoring of Principle 1 indicators means that the definition of HCRs required under PI1.2.2 may not be available until the 4th Surveillance audit.</p> <p>NOTE: the milestone for this condition is set one year later than fixed in the reassessment in 2017.</p> <p>Year 3: the fishery must demonstrate there are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.</p> <p>Year 4 and at re-certification (Year 5): The fishery must demonstrate there are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives, including responsive HCRs. Score: 80</p>		
Client action plan	<p>Year 1: As outlined in the action plan for 1.2.1a working group will be set up to develop a coherent harvest control strategy between with the other fisheries operating in Subarea 7. This will form the bases for the long-term management of the fishery. Protocols will be put in place by the CSMA to assess catches against the ICES advice and make the appropriate harvest control changes as necessary. Any harvest control changes will be recorded and logbooks assessed to ensure compliance. Introduction of a mid-season review meeting at the end of the calendar year will allow members to assess how catch levels are progressing, with relation to the ICES assessment, and whether management measure need to be taken. CSMA members will continue with the annual end of season meetings in April, to fully appraise the fishery's progress against the ICES advice. Results of these meetings & logbook records will be made available to the CAB.</p>		

	<p>Year 2 onwards: A decision making process will be defined as part of the CSMA Code of Conduct and adopted as part of the associations working practices this will be signed off by members.</p> <p>Association meetings will be minuted to include actions and modifications to Harvest Control Strategy. Minutes of meetings will be made available to the CAB. All of our decision-making process with regards to management plan will be done in consultation with the IFCA and the MMO. Consultations with key stakeholders and reviews of up-to-date advice will allow any decisions to be made using the best available information and take into account wider issues than just this fishery during the decision-making process for necessary changes.</p>
Consultation on condition	Some consultation may be needed with the Inshore Fisheries and Conservation Authorities (IFCA) and the Marine Management Organisation (MMO)
Progress on Condition Year 1	<p>CEFAS has confirmed that they have had access to the CSMA logbook data, and that future assessments should provide the basis for the decision-making on a new harvest strategy. Presently, ICES' new stock definition in 2017 means that there currently are no analytic assessments or reference points for this "new" stock. (category 5). However, the CSMA has already made substantial progress to include decision-making processes to control fishing effort (max. number of vessels, max weekly catch per vessel) in its revised Code of Conduct</p>
Progress on Condition Year 2	<p>CEFAS has access to the CSMA logbook data, which have been used to in a new stock assessments that should provide the basis for the decision-making on a new harvest strategy. On the basis, of several and now regular scientific cruises CEFAS recommends that ICES upgrades the newly defined stock from category 5 to category 3.</p> <p>CSMA has renewed its pledge to abide by all management measures and decision-making processes to control fishing effort (max. number of vessels, max weekly catch per vessel) in its revised Code of Conduct.</p>
Progress on Condition Year 3	<p>Decision making processes are recorded in CSMA minutes (CSMA 2020a; CSMA 2020b; CSMA 2019; CSMA 2020d; CSMA 2020c) and in fishery-specific documents that form part of the CSMA Code of Conduct. Decisions are informed by the best available scientific advice from CEFAS (annual stock survey results) and from SMRU (annual Bycatch monitoring and CSMA Slippage Policy cetacean 2020 Appendix 4.3). Signature of the 2020 CoC updates may be delayed until it is safe for meetings to be convened, but actions are on target.</p>
Status of condition	On Target

Table 14. Condition 6.

Performance Indicator & Score	PI number	Scoring guidepost text	Score
	3.2.4	A: A research plan provides the management system with a strategic approach to research and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2.	70
Rationale	Some research is undertaken to achieve the objectives consistent with MSC's Principles 1 and 2, but not on a regular basis. An assessment of pelagic fish resources in the Celtic Sea and western English Channel, covering also the sardine stock in the area, funded by the European Fisheries Fund, has been carried out by CEFAS between 2010 and 2012. The project POSEIDON, also delivered by CEFAS, started in 2012 and will end in 2017. This project shall answer the question "What is the status of pelagic species in UK waters and how can they best be managed sustainably?" This will without a doubt increase the knowledge on the sardine stock, but it cannot substitute a research plan that will provide for a sampling programme as requested by WGHANSA. This condition was originally raised during the initial certification and closed at the Year 3 surveillance as the ICES work programme for this stock was considered to be a suitable research plan. The research project is now completed.		
Condition	There shall be a research plan in place that provides the management system with a strategic approach to research and reliable and timely information, sufficient to achieve the objectives consistent with Principles 1 and 2.		
Milestones	By the third surveillance audit, the fishery must present a comprehensive research plan that provides the management system with a coherent and strategic approach to research across P1, P2 and P3, and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2. Score: 80		
Client action plan	<p>Year 1: CSMA members will continue to work closely with CEFAS and offer our full support for research projects aiming to better define and understand the VII/VIII sardine stock. CEFAS will be invited to attend the CSMA meetings and assist in the development of an ongoing research plan for sardines. CSMA members will support fisheries research applications for the sustainable management of sardines.</p> <p>Year 2: CSMA members will work closely with the French and Spanish fisheries through the working group to develop an integrated research plan and working in conjunction on relevant research projects. Support will be on-going for the Atlansar project on its re-submission, and CSMA members will fully engage with project partners. The CSMA will incorporate the most up to date scientific information into our management plan as a means of achieving maximum sustainable yield within the fishery.</p> <p>Year 3: An integrated research plan will be developed in association with the French and Spanish fisheries and their respective fisheries research institutions. The results of which will be made available to the CAB.</p>		

	<p>The CSMA will make all efforts to engage with fisheries research into area VII sardine stocks, and will assist in movement from a precautionary management approach towards a full stock assessment basis. We will consult directly with CEFAS when reviewing our harvest control strategy.</p>
Consultation on condition	<p>Some consultation may be needed with the Inshore Fisheries and Conservation Authorities (IFCA) and the Marine Management Organisation (MMO)</p>
Progress on Condition Year 1	<p>The March 2017 ICES benchmark workshop (ICES 2017a) decided to assess the sardine population as two separate stocks in Subareas 7 and 8. As a result, CEFAS has offered its full support to better define and understand the sardine stock in ICES subarea 7.</p> <p>For Principle 1: The PELTIC survey has been extended to the entire Channel (Carpi & Kooij 2018) and should now be a permanent part of the UK DCF. A project on the genetics of small pelagic species has also been initiated.</p> <p>CEFAS has made presentations to CSMA meetings and is developing a research plan for sardines.</p> <p>For Principle 2: The 2017 CSMA Code of Conduct (CSMA 2017), developed with the technical support from the IFCA, includes the provision to record interactions with cetaceans and seabirds on their logbooks, and to “undertake research and data collection to improve scientific and technical knowledge”.</p>
Progress on Condition Year 2	<p>For Principle 1: CEFAS has published an in-depth analysis of the information available, a research plan and initiated a biological sampling programme and proposed a revised scientific advice for Sardine in Subarea 7 (Carpi et al. 2019).</p> <p>For Principle 2: The 2018-2019 CSMA Code of Conduct (CSMA 2018), developed with the technical support from the IFCA, includes the provision to record interactions with cetaceans and seabirds on their logbooks, and to “undertake research and data collection to improve scientific and technical knowledge”. The new CEFAS biological sampling programme of small pelagics species from the fishery’s landings will complement the vessels’ self-sampling and improve knowledge on the potential impacts on primary and secondary species. The CSMA collaboration with the SMRU on behalf of the UK Protected Species Bycatch Programme (UKBP) has been now been officialised with the UKBP Steering Group and aims to ensure 20 days on-board observation per year (SMRU 2018).</p> <p>All research programmes and activities are presented and discussed at CSMA meetings.</p>
Progress on Condition Year 3	<p>For Principle 1: CEFAS has continued their research and monitoring of the stock through the annual PELTIC survey. The self-sampling research program by CSMA vessels has continued through 2019-2020 (4th year) and CEFAS presented a report on the initial findings (CEFAS 2020). ICES scientific advice for Sardine in Subarea 7 has recognised the data collection efforts, but was not able to incorporate them into the 2019 advice (ICES 2019b). As reported in the year 2 surveillance (Carpi et al. 2019) and in communications with CEFAS for this audit (section 6.1.2), the stock has been selected for an ICES benchmark in 2021, which will incorporate the PELTIC survey time series, and assess several HR control rules to determine the most appropriate approach for future stock</p>

	<p>assessments. Additional information from the self-sampling programme and ongoing development of an app to enable the industry to record catch info digitally will also be examined.</p> <p>For Principle 2: The 2019-2020 CSMA Code of Conduct, continues to include the provision to record interactions with cetaceans and seabirds on their logbooks, and to “undertake research and data collection to improve scientific and technical knowledge”. The CSMA collaboration with the SMRU on behalf of the UK Protected Species Bycatch Programme (UKBP) has been now been officialised with the UKBP Steering Group and aims to ensure 20 days on-board observation per year (SMRU 2018).</p> <p>All research programmes and activities are presented and discussed at CSMA meetings where Cefas presents and discuss progress of the stock assessment and their analyses of self-sampling data collected at vessel level.</p> <p>In 2020, the CSMA has brought together into a short formal document, the various research initiatives concerning Principles 1 and 2, as well as Principle 3 (regarding the use of onboard video cameras to facilitate reporting of interactions with ETP and bycatch) (Appendix 4.2). This constitutes a Research Plan that provides the management system with a strategic approach to research and reliable and timely information sufficient to achieve the objectives consistent with MSC’s Principles 1 and 2. Progress with the condition is on target, this condition may be closed.</p>
Status of condition	Closed On Target

Table 15. Condition 7

Performance Indicator & Score	PI number	Scoring guidepost text	Score
	1.2.1a	1.2.1a - The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points	70
Condition	By the 4th surveillance audit there should be clear evidence that the harvest strategy is responsive to the state of the stock and elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points.		
Milestones	<p>Year 2: By the 2nd annual audit there is documented evidence that the Cornish sardine fishery has taken steps to support the development of a comprehensive harvest strategy by adopting an agreement as outlined in Condition 8 (PI 1.2.2).</p> <p>Year 3: By the 3rd annual audit, the CSMA fishery shall demonstrate catches of sardine in Subarea 7 by CSMA members are in line with the ICES advice and that reductions taken (if applicable) are adhered to by all CSMA members as outlined in Condition 8 (PI 1.2.2).</p> <p>Year 4: By the 4th annual audit, the fishery shall continue to demonstrate that the harvest strategy is responsive to the state of the stock and the policy changes agreed in 2018 (See condition 8 (PI 1.2.2) below) have been formally accepted by the relevant managers, with clear evidence of the implementation of the agreed harvest control rules.</p>		
Client action plan	<p>Year 2:</p> <p>All CSMA members will sign up to the revised 2018 Code of Conduct prior to the commencement of the season.</p> <p>The CSMA membership will assess the current ICES and other Subarea 7 specific stock information to support the development of a responsive harvest strategy.</p> <p>Latest Subarea 7 stock information will be assessed against current catch levels as part of in season review meetings (October & January).</p> <p>Catch levels will be monitored on a monthly basis with monthly processing figures submitted by CSMA processor members.</p> <p>CSMA will discuss options to implement a responsive harvest strategy through the Code of Conduct. Any modifications to harvest strategy will be documented and included in a revised Code of Conduct signed off by all members.</p> <p>Anticipated score 75.</p> <p>Year 3:</p> <p>The CSMA will demonstrate through the submission of fully completed logbooks that catches are in line with scientific assessment of Subarea 7 stocks. This information will</p>		

	<p>be shared with other Sardine fisheries in Subarea 7 and support sought from those fisheries for the harvest strategy. The harvest strategy will be included in the CSMA Code of Conduct and contain elements which are responsive to stock advice.</p> <p>Year 4:</p> <p>The CSMA membership will monitor the latest scientific assessment of Subarea 7 Sardine stocks and review harvest strategy in response to modifications in assessment. The CSMA code of conduct will include a responsive harvest strategy and will be signed off by all CSMA members.</p> <p>Score 80</p>
Progress on Condition Year 2	<p>The Client has made acceptable progress in regard to this condition.</p> <p>All 15 members have adopted the 2018 and 2019 CoC, which stipulates members to support CEFAS as they examine possible HCRs and HS with ICES. Such support has included making data available to CEFAS from their logbooks, as well as carrying at-sea observers when requested. Further, members have encouraged CEFAS to bring their findings and recommendation on an HCR to ICES for review and adoption. In the interim CSMA and its members have adopted their own strategy, within their CoC, to keep removals in line with scientific advice as provided by ICES. As ICES advice is not yet available for 2019, CSMA has used advice provided by CEFAS until new ICES advice is given.</p> <p>The Client, through their CoC, have agreed to monitor both the fishery's within year performance and the latest ICES advice. They have also pledged to make adjustments, as needed, to reduce harvest. These adjustments, if necessary, will be conducted during their January or October meetings. Until official ICES advice is given, members have also adopted a conservative individual vessel quotas which, when summed, are less than the HR of 20 % as proposed by CEFAS as a sustainable rate of exploitation (Carpi et al. 2019).</p> <p>The Client has engaged with fishery management personnel in the UK, as well as industry members in other subarea 7 sardine fisheries, to begin the process of harvest strategy development as evidenced by email traffic and official letters.</p> <p>Given the information presented progress on this condition is on target.</p>
Progress on Condition Year 3	<p>The Client has made acceptable progress in regard to this condition.</p> <p>As detailed in section 3.4.2 CSMA members agreed through an HCR vote to apply a catch limit of 10,048 t for 2019 which was distributed through the members based on the previous year catches plus an uplift of 20 % based on the PELTIC survey estimates for 2019 (CEFAS 2019). The CSMA maintained monthly catch emails during 2019 which detailed the year to date landings to all members to allow evaluation against the catch total. CSMA initiated a pooling of uncaught 'quota' in December making this available to other members based on the agreed HCR vote from the start of the season. The CSMA total landings for 2019 was 6,405 t of the catch limit of 10,048 t (63.7 %). In 2017 ICES (2017b) advised that catches in 2018-2019 should be reduced by 20 % relative to the 2014-2016 average (= 34,364 t based on ICES landings), based on an ICES category 5 decision rule for data deficient stocks. The UK, with CSMA accounting for ~95 % of the UK catch, remains the principal Member State fishing the stock taking 10 times the tonnage compared the next closest Member State (Netherlands in 2018. The UK recorded 78.2 % of all ICES landings in 2018 (ICES 2019a) with an average of 55 % over</p>

	<p>the past 9 years. As reported in Section 0 of this report landings by Member States for 2018 are available from ICES and show official landings of 17,373 t from the stock area in 2018 with ICES landings totalling 10,412 t (ICES 2019a). These 2018 ICES landings of 10,412 t (Table 4) are some way beneath this advised level, although it's noted the caution ICES places on the landing figures. Notwithstanding this the total of ICES landings of 10,412 t and the official landings of 17,373 t remain 50 % of the ICES advice for this year (34,364 t based on ICES landings). This provides clear evidence that catches are inline with ICES advice</p> <p>For 2019, ICES catches are not yet available. The CSMA catches of 6,405 t in 2019 conservatively could account for 55 % of the ICES landings (on the 9 year average). Based on this figure and track records across Member States in the past decade it is highly unlikely that the ICES advised landing for 2019 of 34,364 t will be approached, suggesting again that catches were within ICES advice for 2019.</p> <p>For 2020 there is no ICES advice on landings (ICES 2019b), and therefore the principal harvest control tool of the harvest strategy for the stock and the CSMA will be the catch limit set by CSMA at the Annual General Meeting in July 2020.</p> <p>Other key elements of the harvest strategy have continued to be updated and developed through 2019 are: stock status, monitoring and stock assessment.</p> <p>CEFAS has continued to monitor of the stock through the PELTIC survey and stock index for 2019 shows improvement from previous estimates see section 3.4.2 (ICES 2019b; CEFAS 2019). The self-sampling research program conducted by CSMA has continued through 2019-2020 (4th year) and CEFAS have presented a report on the initial findings (CEFAS 2020). The stock has been selected for an ICES benchmark event in 2021 and at that benchmark, the PELTIC survey series as well as several proposals for HR control rules will be formally assessed and the most appropriate approach selected for future assessments.</p>
Status of condition	On Target

Table 16. Condition 8

Performance Indicator & Score	PI number	Scoring guidepost text	Score
	1.2.2a	1.2.2a - 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	60
Condition	By the 4th surveillance audit well-defined HCRs should be in place which reduce exploitation rate as limit reference points are approached. These need to take into account the main uncertainties and be appropriate for the control of exploitation rates		
Milestones	Year 2: By the 2nd annual audit the fishery should provide evidence that an agreement is being adopted by the CSMA to reduce harvest in line with ICES advice to stock status. CSMA should continue to participate actively in scientific works to help better understand the dynamics of the sardine stock together with CEFAS scientists and how		

	<p>this will be implemented. Finally, CSMA should make contact with other fleets targeting sardine and sharing effort information.</p> <p>Year 3: By the 3rd annual audit (March 2020) the fishery should provide documented evidence that the CSMA has taken steps to support the development of a well-defined HCR, by implementing the points outlined for Year 2.</p> <p>Year 4 and at re-certification (Year 5): The fishery shall demonstrate that the harvest control rules agreed and implemented are consistent with a harvest strategy which is responsive to the state of the stock.</p>
Client action plan	<p>Year 2</p> <p>All CSMA members will sign up to the Code of Conduct prior to the commencement of the season. CSMA catch levels will be monitored through the submission of processor landings information on a monthly basis.</p> <p>The CSMA membership will convene fishery meetings of all members in October and early January, inviting relevant IFCA/MMO/CEFAS representatives to review the current catch levels against current stock assessment advice and new information from the ICES workshop on small pelagics (WGHANSA) from summer 2018.</p> <p>In the event that catch levels are drawing close to limits from the best available advice on the stock, CSMA will discuss options on how to limit catches through the Code of Conduct. These may include daily limits, limited days per month and season closure.</p> <p>At the end of the 2018-2019 season the CSMA will review fishery performance for the whole of year against current stock information. The CSMA will review the options discussed at the fishery review meetings to limit effort in line with best available stock advice and will build these elements into the Code of Conduct in order that catches are responsive to stock status.</p> <p>The CSMA will review the Production and Marketing plans of the 3 relevant Producer Organisations (CFPO, SWFPO, Interfish and PO) of which the majority of vessels are members, bringing the harvest strategy for Cornish sardines in line to maximise the profitability of available catches.</p> <p>CSMA will continue with an open dialogue with fisheries managers (IFCA/MMO) to support best management of the Sardine fishery.</p> <p>All CSMA members will actively engage with CEFAS on the fisheries science project and agree to collect length frequency samples and weight information through the season. These data will be made freely available to assist ongoing stock assessment.</p> <p>CSMA members will also agree to taking independent fisheries observers to sea when appropriate.</p> <p>The CSMA anticipate that the additional efforts of the fleet to collect fishery dependent data alongside the PELTIC survey will result in the sardine stock in Subarea 7 being re-categorised by ICES from Cat 5 to a higher level.</p> <p>The CSMA will make contact with other fishery stakeholders in relation to advice and sharing fisheries information. Possible funding streams will be investigated to finance liaison between the key fishery stakeholders.</p>

	<p>Anticipated score 65.</p> <p>Year 3:</p> <p>The CSMA will review fishery performance throughout the season as per Year 2 and assess the responsiveness of the Code of Conduct to the stock advice.</p> <p>At the end of season 2019-2020 CSMA will review catch levels against stock information at the end of season meeting.</p> <p>The CSMA will amend the Code of Conduct to limit effort in line with best available stock advice so that catches are responsive to any changes in stock status. This information will be made freely available to the CAB and other fisheries will be encouraged to adopt the strategy.</p> <p>The CSMA will investigate options for having the Code of Conduct reviewed externally.</p> <p>The CSMA will demonstrate evidence of contact and discussions with other fisheries targeting the sardine stock in regard to harvest levels.</p> <p>Anticipated score 75.</p> <p>Year 4</p> <p>The CSMA will demonstrate that catches are within sustainable harvest limits and management measures are responsive to changes in stock assessment via an updated code of conduct which all members adhere to.</p> <p>CSMA together with CEFAS assistance will demonstrate that the HCRs in place are capable of reducing stock exploitation rate.</p> <p>Anticipated score 80.</p>
<p>Progress on Condition Year 2</p>	<p>At the Second Year Audit the Client has made good progress on this condition. All 15 members have met at least yearly (typically October and January) to examine overall fishery performance, get updates from CEFAS, and set vessel specific fishing quotas. All members have signed the CoC (reference 2018 & 2019 CoC, appendix 5.3 and 5.5) for both 2018 and 2019. Individualized vessel catch limits were enacted through the CoC for the July-Dec season of 2018 totalling 8,303 tonnes. Of this amount, only 5,643 tonnes or 68 % had been utilized; but did require some (3) UoC vessels to end fishing when their individual quotas were reached. Total UK catch for 2018 was ~8,000 t.</p> <p>UoC vessels plus other states landings totalled 17,396 tonnes for sub-area 7. While this is higher than the amount suggested by ICES (2017b), it is in line with the new more detailed information and analysis provided by CEFAS (Carpi et al. 2019). ICES (2017b) advised that catches should be reduced by 20 % from the 2014-2016 average, but this advice was based on an ICES category 5 decision rule for data deficient stocks (previous years catches (2014-2016) and applies to that a negative 20 % precautionary buffer. The more recently CEFAS (Carpi et al. (2019) based on survey and catch data, has suggested catches in 2018 could have been as high as 31,758 t and still been under the 20 % HR proposed control rule. CEFAS have proposed HR rules based on ICES simulation modelling of small pelagic species and a '1-over-2' rule in which the advice is based on a comparison of the most recent index value with the 2 preceding values, combined with recent catch or landings data (ICES 2019b). CEFAS is in the process of having its methodology review by ICES for sardine, which is anticipated to happen later this year</p>

	<p>or early in 2020 and if approved could aid in setting realistic removals using HR and the PELTIC survey.</p> <p>For 2019 all 15 members have agreed through the 2019 CoC to set vessels quotas totalling 10,000 tonnes (2019 CoC Appendix 5.5); well within the proposed 31,758 tonnes using a 20 % HRC if catches and share of catches by all fisheries from 2018 to 2019 are kept constant. CSMA take on average > 50 % of the total catch once the French catches are portioned to subarea 8. CSMA have additionally agreed to monitor fishery performance of non-UoC fisheries, and the scientific advice from either ICES or CEFAS and adjust as appropriate to keep in line with stock status and advice; and avoid overfishing the resource.</p> <p>Additionally, UoC vessels have supported CEFAS sample collection and at-sea observation efforts by collecting samples, carrying observers, and filling out logbooks as required. They have engaged with both fishery managers and other fisheries on sardines in an effort to increase awareness and to sustainably manage removals (reference letter Robert Goodwill provided to the assessment team). A long-term management plan for the sardine fishery in Areas 7 may be delayed until the Brexit process concludes. However, progress has still been made by the Client as evidenced by emails presented during the surveillance process.</p> <p>Given this progress, this condition is deemed ahead of target as all of Year 2 and some of Year 3 goals have already been met.</p>
Progress on Condition Year 3	<p>Steps taken by the CSMA to develop a well-defined HCR include:</p> <ol style="list-style-type: none"> 1. CSMA members agreed HCR vote to apply a catch limit of 10,048 t for 2019. 2. This catch limit was devised as per Section 3.4.2.1 of this report and was evaluated against ICES catch advice and used the latest information from CEFAS survey data to ensure it was precautionary. 3. The CSMA maintained monthly catch emails during 2019 which detailed the year to date landings to all members to allow evaluation against the catch total. 4. CSMA initiated a pooling of uncaught 'quota' in December making this available to other members based on the agreed HCR vote from the start of the season. <p>The HCR vote took place after the Code of Conduct was issued and was agreed via email. The Code of Conduct does not currently specify the terms of the HCR or how the decision will be undertaken and this is one line of evidence that still requires to be addressed. It does specify that CSMA member will not exceed any HCRs put in place however (appendix 4.1). Details of the proposed HCRs for the 2019-2020 were outlined in the minutes from the AGM in 2019 and email evidence of the vote and agreement following the meeting were provided to the CAB as part of this audit. This provides evidence that a CSMA is in place and responsive to the stock, but not yet well-defined.</p> <p>Continued Brexit negotiations in 2020 are preventing further discussion with other Member State fisheries who have sporadically targeted sardine in the past. Until there is a clear idea of EU access to UK waters and the terms of that access any further agreement between fisheries is on hold.</p> <p>No external review of the HCR has yet been undertaken, but with the stock undergoing ICES benchmark in 2021, CEFAS (Section 6.1.2) have indicated that HCR evaluation and discussions will take place then.</p>

Status of condition

Ahead of Target for some actions, on-target overall.

Table 17. Condition 9

Performance Indicator & Score	PI number	Scoring guidepost text	Score
	2.2.3	<p>2.2.3b - Information is adequate to support a partial strategy to manage main bycatch species.</p> <p>2.2.3c - Information is adequate to support a partial strategy to manage main bycatch species.</p> <p>2.2.3d - 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>	65
Condition	Information from logbooks must be sufficient to estimate outcome status of bycatch species with respect to biologically based limits and to support a partial strategy for management		
Milestones	<p>By 2nd annual audit, ensure that the CSMA logbooks are being fully completed by all members for discard and slippage.</p> <p>By 3rd annual audit implement a new independent observer programme.</p> <p>By 4th annual surveillance audit analyse data to assess any trends in slippage and discards</p>		
Client action plan	<p>2nd annual audit: The CSMA membership will be made aware that any discards and slippage should be recorded as bycatch with details recorded in the correct section of the logbook. This will be demonstrated to the CAB through submission of all vessels' logbook data. Members will be made aware that failure to submit fully detailed logbooks will result in sardines caught being unable to be sold as MSC certified. Logbooks will be assessed mid-season (December) to ensure compliance.</p> <p>CSMA will contact SMRU and request observers for the fishery.</p> <p>3rd annual audit The CSMA will present the results of the observer programme.</p> <p>Discard data from logbooks will be assessed annually and results highlighted within the management report. Issues will be addressed, if required, through modifications to fishing practices.</p> <p>4th annual audit: Monitoring will identify issues which can then be addressed by association members. Annual reports on the incidence of general bycatch will be prepared and made available to the certifier in order to be analysed in the annual audits. This will allow the SMRU to decide if the information on bycatch is sufficient to determine the risk posed by the fishery and therefore support a strategy to manage impacts on discards.</p>		
Progress on Condition Year 2	Logbook revisions were made for the 2018/19 and the sample of logbooks examined by the assessment team were all complete in terms of slippage and discarded catches including 'zero' where required. In addition as detailed in the year 2 audit report the		

	<p>CSMA have taken independent observers in 2018. The observer report recorded bycatch information and found that on 4 of the 15 hauls small bycatches of mackerel (estimated at 1 – 5 % of catch) were present. No other bycatches were reported.</p> <p>With the addition of 2018 logbook data, observer report and previous information about the fishery, the team considered whether this condition could be closed out at this surveillance audit. However, given that the observer data only had 13 trips in 2018 and didn't include those vessels operating in the east (Plymouth etc.) the team felt that an additional year of data was required for assurance.</p>
Progress on Condition Year 3	<p>The SMRU report (the fishery independent observer programme) has been presented providing details of the observer programme and the interaction levels for the season. This meets the milestone requirement.</p> <p>Logbook revisions made in Year 2 have been continued in 2019 (year 3). Compliance overall is good but three vessels appear not record slippage and discards, reducing the adequacy of the information base (Table 8). Corrective actions from the CSMA have been put in place to address this (see section 3.5.3 and Appendix 4.4). Discard data from logbooks has been assessed with results highlighted within a summary spreadsheet (reproduced in section 3.5.1.4).</p>
Status of condition	On target

Table 18. Condition 10

Performance Indicator & Score	PI number	Scoring guidepost text	Score
	2.3.2c	2.3.2c - There is evidence that the strategy is being implemented successfully.	75
Condition	<p>See Condition 3.</p> <p>Record and analyse any cetacean, pinniped (seal) or seabird mortalities within CSMA logsheets.</p>		
Milestones	<p>As per condition 3</p> <p>By 2nd annual audit, ensure that the CSMA logbooks are being fully completed by all members for ETP species.</p> <p>By 3rd annual audit implement a new independent observer programme.</p> <p>By 4th annual surveillance audit analyse data to assess any trends in mortality (if any mortality has been observed)</p>		
Client action plan	<p>Year 2: The membership will be made aware that any ETP mortalities must be recorded as bycatch with details recorded in the correct section of the logbook. This will be demonstrated to the CAB through submission of all vessels logbook data. Members will be made aware that failure to submit fully detailed logbooks will result in sardines caught being unable to be sold as MSC certified. Logbooks will be assessed mid-season (December) to ensure compliance.</p> <p>CSMA will contact SMRU and request observers for the fishery.</p> <p>Year 3: The CSMA will present the results of the observer programme for verification against self-reporting data.</p> <p>ETP interaction data from logbooks will be assessed annually and results highlighted within the management report. Mortality issues will be addressed, if required, through modifications to fishing practices and the use of mitigating measures such as bird scarers or changes in operating procedures.</p>		

	<p>Year 4: Monitoring will identify issues which can then be addressed by association members. Annual reports on the incidence of general bycatch and on ETP species will be prepared and made available to the certifier in order to be analysed in the annual audits. This is to determine if the information on bycatch is sufficient to determine the risk posed by the fishery and therefore support a strategy to manage impacts on ETP species.</p>
Progress on Condition Year 2	<p>Logbook revisions to include seabird / seal and dolphin catches were made for the 2018/19 season (appendix 5.1) and the sample of logbooks examined by the assessment team were all complete in terms of ETP catches including 'zero' where required. In addition as detailed in the year 2 audit report the CSMA have taken independent observers in 2018 with the results of these providing verification of the low ETP encounter rate and which species are encountered (herring gull). At the site visit the CSMA explained that the phone / computer app had been developed (the assessment team were shown the relevant emails) but that at present the CSMA didn't wish to develop this further.</p> <p>With the addition of 2018 logbook data, observer report and previous information about the fishery, the team considered whether this condition could be closed out at this surveillance audit. However, given that the observer data only had 13 trips in 2018 and didn't include those vessels operating in the east (Plymouth etc) the team felt that an additional year of data was required.</p>
Progress on Condition Year 3	<p>Logbook revisions made in Year 2 have been continued in 2019 (year 3). Compliance overall is good but three vessels appear not record slippage and discards, reducing the adequacy of the information base. Corrective actions from the CSMA have been put in place to address this (see section 3.5.3 and Appendix 4.4). The SMRU report (the fishery independent observer programme) has been presented providing details of the observer programme and the interaction levels for the season. This meets the milestone requirement.</p> <p>Discard data from logbooks has been assessed with results highlighted within a summary spreadsheet (reproduced in section 0).</p>
Status of condition	On Target

4.3 Client action plan

Revised action plan for condition, related to PI 3.2.1 - Short and long-term objectives, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system.

Performance indicator 3.2.1 Short term & long term objectives for CSMA management of the Sardine fishery

(a) Short and long-term objectives, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system.

As it becomes more formalised, the fishery's management system aims to:

- Contribute to the achievement of the objectives of the common fisheries policy listed in Article 2 of Regulation (EU) No 1380/2013, in particular by applying the precautionary approach to fisheries management, and aiming to ensure that exploitation restores and maintains populations of harvested species above levels which can produce MSY.
- Contribute to the elimination of discards, by avoiding and reducing, as far as possible, unwanted catches.
- Ensure that negative impacts of fishing activities on the marine ecosystem are minimised. It shall be coherent with Union environmental legislation, in particular with the objective of achieving good environmental status by 2020 as set out in Article 1(1) of Directive 2008/56/EC and Annex I descriptor 3 contained in Annex I and contribute to achievement of the objectives set out in Articles 4 and 5 of Directive 2009/147/EC and Articles 6 and 12 of Directive 92/43/EEC, in particular to minimise the negative impact of fishing activities on vulnerable habitats and protected species.

For the short term, the fishery will aim to:

- Maintain catches within the CSMA sardine fishery in line with ICES assessment or best available scientific advice on the sardine biomass.
- Modify CSMA members catches, when necessary, based on harvest controls set according to a sustainable harvest rate method defined by ICES, including a precautionary buffer, and close the fishery at the point where the pre-set catch control limit is set to ensure that the Area VII sardine biomass fluctuates around its MSY estimate.
- Interactions with bycatch and ETP species and other ecosystem impacts are to be minimised through the adoption of best practices developed in conjunction with organisations such as MMO, eNGO's, SMRU & Cefas and RSPB. sAnnual monitoring and evaluation reports to be produced.

4.4 Rescoring Performance Indicators

Evaluation table 1 - PI 3.2.4 Research Plan quoted from Cieri, M. et al. 2017, obsolete text crossed out, updated text in blue)

PI 3.2.4		The fishery has a research plan that addresses the information needs of management		
Scoring Issue		SG 60	SG 80	SG 100
a	Guided post	Research is undertaken, as required, to achieve the objectives consistent with MSC's Principles 1 and 2.	A research plan provides the management system with a strategic approach to research and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2.	A comprehensive research plan provides the management system with a coherent and strategic approach to research across P1, P2 and P3, and reliable and timely information sufficient to achieve the objectives consistent with MSC's Principles 1 and 2.
	Met?	Y	Y N	N
	Justification	<p>Some research is undertaken to achieve the objectives consistent with MSC's Principles 1 and 2, but not on a regular basis. For Principle 1, an assessment of pelagic fish resources in the Celtic Sea and western English Channel, covering also the sardine stock in the area, funded by the European Fisheries Fund, has been carried out by CEFAS between 2010 and 2012. The project POSEIDON, also delivered by CEFAS, started in 2012 and will end in 2017. This project shall answer the question "What is the status of pelagic species in UK waters and how can they best be managed sustainably?" This will without a doubt increase the knowledge on the sardine stock, but it cannot substitute a research plan that will be provided for a sampling programme as requested by WGHANSA.</p> <p>The annual PELTIC survey initiated in 2017 series now provides a time series long enough for the ICES Benchmark of the Area 7 sardine stock to take place in 2021 (ICES, 2020). For Principle 2, research and data collection activities rely on the partnership with SMRU, who monitor and study interactions with all ETP species, including marine mammals and birds. CSMA vessels routinely take scientific observers on board, SG60 is met.</p> <p>The CSMA has put together a Research Plan that cover all three Principles, with a strong emphasis on generating research partnerships and regular and timely data collection that can feed into ICES WGHANSA through Cefas (Principle 1) and into SMRU (Principle 2), SG80 is met. The Research Plan also covers the P3-relevant aspects regarding difficulties of data reporting such as species identification for ETP species and bycatch, with planned video cameras on board each vessel, in partnership with the MMO and IFCA. However, this has not been signed off yet. SG100 is not met.</p>		
b	Guided post	Research results are available to interested parties.	Research results are disseminated to all interested parties in a timely fashion.	Research plan and results are disseminated to all interested parties in a timely fashion and are widely and publicly available.

	Met?	Y	Y	N
	Justification	The research results of the projects mentioned before are distributed to all interested parties in a timely fashion. SG80 is met. As the results are not widely and publicly available, SG100 is not met.		
References		DEFRA, 2012; Roel et al., 2012; CSMA Research Plan (Appendix 4.2). ICES. 2020. Working Group on Southern Horse Mackerel, Anchovy and Sardine (WGHANSA). Draft report. ICES Scientific Reports. 2:41. 513 pp. http://doi.org/10.17895/ices.pub.5977. Publication of the full report is expected end of 2020.		
OVERALL PERFORMANCE INDICATOR SCORE:				80 70
CONDITION NUMBER:				6

4.5 Principle level scores

Table 19. Principle level scores

Principle	Score
Principle 1 – Target Species	80.0
Principle 2 – Ecosystem Impacts	81.0
Principle 3 – Management System	88.3

Table 20. Performance Indicator scores

Principle	Component	Wt	Performance Indicator (PI)		Wt	Score
One	Outcome	0.5	1.1.1	Stock status	0.50 / 0.33	95
			1.1.2	Reference points	0.5 / 0.33	80
			1.1.3	Stock rebuilding	0.33	NA
	Management	0.5	1.2.1	Harvest strategy	0.25	70
			1.2.2	Harvest control rules & tools	0.25	60
			1.2.3	Information & monitoring	0.25	80
			1.2.4	Assessment of stock status	0.25	80
Two	Retained species	0.2	2.1.1	Outcome	0.33	80
			2.1.2	Management strategy	0.33	80
			2.1.3	Information/Monitoring	0.33	80
	Bycatch species	0.2	2.2.1	Outcome	0.33	80
			2.2.2	Management strategy	0.33	80
			2.2.3	Information/Monitoring	0.33	60
	ETP species	0.2	2.3.1	Outcome	0.33	80
			2.3.2	Management strategy	0.33	75
			2.3.3	Information strategy	0.33	65
	Habitats	0.2	2.4.1	Outcome	0.33	100
			2.4.2	Management strategy	0.33	90
			2.4.3	Information	0.33	85
	Eco-system	0.2	2.5.1	Outcome	0.33	100
			2.5.2	Management	0.33	80
			2.5.3	Information	0.33	80
Three	Governance and policy	0.5	3.1.1	Legal &/or customary framework	0.25	100
			3.1.2	Consultation, roles & responsibilities	0.25	100
			3.1.3	Long term objectives	0.25	100
			3.1.4	Incentives for sustainable fishing	0.25	90
	Fishery specific management system	0.5	3.2.1	Fishery specific objectives	0.20	60
			3.2.2	Decision making processes	0.20	75
			3.2.3	Compliance & enforcement	0.20	100

Principle	Component	Wt	Performance Indicator (PI)		Wt	Score
			3.2.4	Research plan	0.20	70 80
			3.2.5	Management performance evaluation	0.20	80

5 References

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6 Appendices

Appendix 1 Evaluation processes and techniques

Appendix 1.1 Site visits

The site visit for the 3rd surveillance audit took place remotely following the MSC derogation on Covid 19 and associated guidance (<https://mscportal.force.com/interpret/s/article/Covid-19-pandemic-derogation-March-2020>). The site visit consisted of a series of video conference calls beginning on the 30th June with the closing meeting on the 3rd July.

During the audit, CU reviewed with the client and stakeholders in attendance the latest available information on:

- Any changes to the fishery and its management including those to management systems, regulations and relevant personnel assessments;
- Any changes to the scientific base of information such as stock, observer data and catch compositions;
- Progress against the conditions associated with this fishery;
- Any developments or changes within the fishery impact may impact on traceability and the ability to segregate MSC from non-MSC products;
- Any other significant changes in the fishery.

Appendix 1.2 Stakeholder participation

The following persons were contacted as part of the audit.

Table 21. Stakeholders contacted.

Name	Association
S. Cadman	Cornwall Inshore Conservation and Fisheries Authority (CIFCA)
D. May	Marine Management Organisation (MMO)
R. Caslake	Chair CSMA
D. Curtis	Save our Seabass
J. Van der Kooij	CEFAS
Andrew Pascoe	SWHFA

Appendix 2 Stakeholder Input

6.1.1 Verbal summary, interview with Colin 'Daisy' May 09/06/2020 and 30/06/2020 by telephone.

Position: Principal Marine Officer South West Team with the MMO.

- The fishery remains a well-managed compliant fishery in the past two years.
- There have been no serious enforcement issues in that period.
- The only sanctions applied to the fishery are 1st step 'verbal warnings' to vessel masters regarding:
 - accurate recording of mackerel in elogs and landing declarations. Processors have also been reminded of need for accurate reporting on mackerel. The mackerel box rules and regulations still apply to the fishery and catches of mackerel must be below 15%. MMO observations at landing qualitatively show that mackerel catches of more than 50 kg remain rare.
 - Any targeting of tuna is not permitted and any catches of Atlantic bluefin tuna which cannot be released alive (via dipping head lines) must be landed according to ICCAT regulations. MMO recognize this can be a significant issue given vessel stability and gear used but that best endeavors to do so must be applied. If the tuna is dead and bringing onboard is not possible the vessel should take a photo of the fish and record lat and long of interaction before forwarding the information to the MMO.
- MMO provided clarity on the need for 'catch certificates' for the export of sardines from processors to EU countries and needs of export licences.
- There have been no reported incidences of mass mortality beach wash ups from the UoA in the past year suggestive of a more considered approach by the fleet to the scale of their catches and the policies of sharing catches implemented via the code of conduct. The only incident of mass mortality noted was due to a fouled propeller and the skipper being required to abandon his net to save the vessel. The Maritime and Coastguard Agency (MCA) were notified of a potential maritime hazard and the Cornwall IFCA and MMO were also notified of a potential mass mortality event. The fisher returned to the beach within the week and retrieved the net once weather conditions allowed.
- One incident of cetacean interaction (3 individuals) was recorded off Mevagissey in February 2020 and recorded by onlookers. MMO followed up on the incident and confirmed that the vessel, one of the more technologically advanced in the fleet was able to stop activity lower headline and release the animals unharmed. [The event is recorded in the vessel logbook see section 3.5.2].
- MMO have been operating a 'small mesh sampling' program in 2019-20 which will continue in the next season. This a sub-sampling program of the fleet catches to verify catch composition and provide assurance of record keeping. The program records species,

weights, photos and fish measurements, no report or analysis is available on this to date. This is additional to the CEFAS self-sampling program.

- During COVID-19 MMO work has focused on electronic monitoring and access programs. The fishery season timing means little fishing has been occurring in the spring months anyway. Officers will be back dock-side as from June with social distancing inspections to be undertaken.

6.1.2 Summary from Jeroen Van der Kooij 10 June 2020.

General comments	Evidence or references	CAB response to stakeholder input	CAB Response Code
<p>Hi Hugh,</p> <p>Just very briefly – I called the below number and left a message – thought I'd strike the iron while its hot.</p> <p>In short, Sardine in ICES area 7 has been selected for an ICES benchmark event in 2021, most likely February. It was one of only 5 stocks that were selected out of approximately 70 put forward for a benchmark which indicates the urgency and importance of this stock to ICES.</p> <p>At that benchmark, the PELTIC survey series as well as several proposals for HR control rules will be formally assessed and the most appropriate approach selected for future assessments. The 2019 PELTIC data (report attached) showed again a marked increase in sardine (374,617 t) for the expanded area consistently sampled since 2017).</p> <p>Additional information that may be of use is that the self-sampling programme is continuing for the 4th year with an additional development that we are likely to be testing an app which would enable the industry to record catch info digitally.</p> <p>Hope this is of some use – I did get a message for the MSC but had not responded due to other COVID related pressures. In addition, I am awaiting Defra's response about our (my) involvement in this MSC. I know there are no issues with answering questions and providing data</p>	(CEFAS 2019)	Thank you Jeroen, this information will be incorporated into the audit report	Accepted (no score change)

General comments	Evidence or references	CAB response to stakeholder input	CAB Response Code
<p>where we have them but I am not sure whether we are supposed to take an active role in these meetings. Will confirm once I have feedback.</p> <p>Happy to provide any further info if required.</p> <p>Hope you are well</p> <p>Thanks</p> <p>Jeroen</p>			

6.1.3 Summary from Simon Cadman – Cornwall IFCA 11 June 2020.

General comments	Evidence or references	CAB response to stakeholder input	CAB Response Code
<p>Hi Hugh</p> <p>Thanks for getting in touch re the latest CSMA annual audit. With regards to the last 12 months of ring-netting, there aren't any concerns or comments that Cornwall IFCA would like to express at this time. Unfortunately, due to the Covid 19 meltdown situation we find ourselves in and the work that matter has generated, the 2020-21 enforcement plan has not yet been completed. I believe it is safe to say that when it is done, the enforcement risks for ring-netting will not be significantly amended, if at all. We haven't made any new byelaws that directly affect ring-net fishing activity and, at this time, have no plans to do so.</p>	(CEFAS 2019)	Thank you Simon, this information will be incorporated into the audit report	Accepted (no score change)

General comments	Evidence or references	CAB response to stakeholder input	CAB Response Code
<p>I hope this is a sufficient update for your audit, but do let me know if you need any other info that may assist your report.</p> <p>Best regards</p> <p>Simon</p>			
<p>Morning Hugh</p> <p>There isn't a legal requirement for ring-net fishermen to inform Cornwall IFCA about any wildlife incident, but as I work closely with the CSMA, I have established that when one occurs it is very helpful for fishermen to let us know as soon as practicable, either directly or via the CSMA. That way, we are quickly aware of the situation, can advise if necessary and hopefully don't get notified for the first time by the public or media with often sparse or inaccurate details. In recent times this quick provision of wildlife incident information from fishermen/CSMA has worked well for us to understand the circumstances and allowed us to assess whether it was a significant matter. It is the MMO who have responsibilities for marine incidents covered under the Wildlife and Countryside Act and the Seals Act and we will immediately share relevant information with the MMO so that it can consider taking any necessary action.</p> <p>Best regards</p> <p>Simon</p>	N/A	<p>Initiated by Team Leader and Principle 2 assessor seeking clarity on the legal need for the reporting of non-fatal marine mammal interactions. Information included in the relevant section of the report.</p>	Accepted (no score change)

6.1.4 Summary from David Curtis (Save our Seabass) 29th – 30th June 2020.

Performance Indicator	Detail of stakeholder input	Objective evidence or references should be provided in support of any claims or claimed errors of fact.	If suitable, please provide a suggested score change based on your input and evidence - Optional	The CAB shall respond in this column.	The CAB shall assign a response code to each row completed by the stakeholder.
Principle 2 - Minimising environmental impacts	I am concerned that this fishery is being carried out without due regard to its negative impact on other species and fisheries, including mackerel, bass and dolphins.	<p>I recently received a report from a Cornish commercial fishermen that: "The ring-net operation out of Newlyn is industrial fishing on a large scale, with cetaceans being impacted; beaches covered in dumped dead fish, often because it is the wrong species and is discarded." "The operation as a whole brings a large amount of money into Newlyn and appears to be totally unregulated, including the widespread transshipping, in terms of recording, of bass. Undersized bass will presumably be discarded dead. As far as I am aware this has been ignored by CIFCA." NB It is illegal to tranship bass in order to take advantage of other vessels bass catch limits. "In terms of the handline fishery - Mounts Bay has been rendered pretty much dead - probably by the activities of the ring netters. The upset and destruction of the shoals of pilchard etc providing bass feed has destroyed the Runnelstone bass fishery."</p> <p>Cornwall live reported a story in February 2020 of ring netters netting dolphin. https://www.cornwalllive.com/news/cornwall-news/fury-after-video-shows-boat-3808436</p> <p>I have also heard reports (Cornish Mackerel Fishermen Facebook Page 30 January 2020) of an incident in St Ives in 2020 where a ring netting boat caught mackerel by mistake, damaging the mackerel fishery for handliners.</p>	None provided	The CAB responses are in italics below to each comment raised by David Curtis	

By email on 29 June 2020, Mr Curtis advised: "I also received this comment over the weekend from a commercial fisherman. "the Newlyn ring net fleet catch bass that are then landed under the names of several punts in Newlyn with bass permits, some of which rarely go to sea - illegal anyway under MMO rules. Presumably sorted and undersized fish dumped." The fisherman says that Simon Cadman, enforcement officer for Cornwall IFCA has acknowledged the problem."

Video conferencing audit with Mr Curtis

Mr Curtis cited the follow specific instances of concern regarding the fishery.

1. The dolphin interaction report as recorded and presented in the media in Feb 2020 - <https://www.cornwalllive.com/news/cornwall-news/fury-after-video-shows-boat-3808436> . Mr Curtis wanted to know if the ring netter had known of the dolphin's location and whether they knew they were encircling the dolphins? As he understood it, the vessel operator had claimed they were able to lower the nets and let the dolphins go unharmed. But other commercial fishermen had claimed the dolphins were likely to have suffered harm. He believed there may have been an MMO report on the incident. The assessment team noted they would follow up with the MMO meeting to be held as part of this audit.
2. An incident shared on social media of dead sardines at Halzepron resultant of a lost net and slipped catch which was then beached.
 - *The assessment team had questioned the CSMA chair on this incident in the previous meeting (30th June 2020) and heard that the skipper had chosen to discard is net after fouling his propeller, ripping the net and being drawn towards the surf-line. In ditching the net the skipper was able to regain control of the vessel and return to port. The catch was spilled from the net with some mortality which was then evidenced on the beach. In returning to port the Maritime and Coastguard Agency (MCA) were notified of a potential maritime hazard and the Cornwall IFCA and MMO were notified (this was later confirmed by C. May MMO 30th June 2020) of a potential mass mortality event. The fisher returned to the beach within the week and retrieved the net. It would appear that all reporting requirements for an incident of this nature were adequately addressed by the skipper and therefore no further action was warranted by either MMO or other agency.*
 -
3. An incident of three (later confirmed by MMO of four) ringnetters fishing and slipping mixed catches of mackerel and sardine in St Ives Bay from January 2020. Mr Curtis noted the dissatisfaction of local handliners to the incident and that the incident killed a lot of fish and dispersed the shoals. The dispersement of shoals may have been the result of the sonar used. There is concern that there is conflict between commercial fishers and that the ringnetting activity is damaging the fishing of the handliners.
 - *The assessment team noted they had emailed the vice-chair of the handliners association to seek their views on the incident, but no submission was received. The assessment team informed Mr Curtis we had set of minutes from a joint CSMA and handliner association meeting in February and would also check the details of the MMO meeting between the associations in Jan 2020 with the MMO officer as part of the audit. The MMO confirmed a meeting was held between the handline association and the CSMA following the incident at the MMO Hayle offices. The MMO pointed out that the vessels had no contravened any law in fishing within St Ives Bay or in slipping fish of mixed catch provided that the catch was slipped in accordance with the derogation and CSMA slippage policy. The MMO meeting and subsequent associations meeting (7th February 2020) appear to have provided a route forward for the two sets of operators. Actions from the CSMA include the provision of camera gear on vessels for the 2020-2021 season [this is underway] as a method of evidencing vessel activities.*

4. Concern as per the table above that bass caught as bycatch by ringnet vessels (not licenced to catch bass) is being transhipped to small vessels with bass entitlements for landing. There was no first-hand evidence available. The assessment team noted they had contacted the IFCA and were awaiting a response but would follow up with the MMO meeting to be held as part of the audit.
 - *MMO confirmed that the targeting of bass by ringnets was not permitted as this gear type is not licenced for this species. Transshipment from a ringnet to another vessel with bass entitlement is also not permitted. The MMO had had no one had come forward to press these claims and not received any physical or factual evidence of the activities as described above. As such they remained unsubstantiated rumours.*
5. Has the ecosystem impact of removing quantities of sardines from inshore bays been properly considered? For example, in the US striped bass are believed to have suffered nutritionally as a result of a commercial Menhaden fishery. Seabass, whilst migratory, often return to the same places, so could potentially be vulnerable to the removal of sardines in bays.
 - *The assessment team is unaware of any such studies considering bass nutrition deficiency resultant of sardine removal by the CSMA. Broadly, sardine removals by the CSMA account for <10 % of the available sardine stock which extends throughout ICES subarea 7. Sardines are migratory and not known to show site fidelity. On this basis removal of sardines one an area is not likely to result in local depletion as other schools of the stock will replenish the area soon after. Though the assessment team is not fully familiar with the striped bass example in the US the scale of the industrial fishing for menhaden there (525,600 t) and the potential food web impacts is not comparable to that of this fishery (10 t). Ecosystem impacts of the menhaden MSC fishery can be reviewed in here <https://fisheries.msc.org/en/fisheries/u.s.-gulf-of-mexico-menhaden-purse-seine/@@view>*
6. Do the fishery operators maintain their own log of incidents that is available for review by the audit team?
 - *Logbook records of bycatch and ETP interactions are maintained by the CSMA and shown in section 0. Maritime incidents (lost net) are recorded by the MCA and MMO maintain an officer log of incidents related to activities which fall under their regulations.*
- More generally there were concerns that the IFCA:
 - Committee is dominated by MMO Appointees with commercial fishing interests or backgrounds
 - was not acting on incidents reported to them by the public. This could either be because they are not acting, or because they are not communicating effectively how they are using the incident reports.
 - has said it does not keep a record of all report from the public – this would seriously undermine the ability of the IFCA to carry out risk-based enforcement.

- *The assessment team understand that the primary enforcement role for the UoA falls under the remit of the MMO, with information shared with the Cornwall IFCA and joint operations acted as needed. Cornwall IFCA annual plans, enforcement reports and committee meetings are available online <https://www.cornwall-ifca.gov.uk/Publications>. Cornwall IFCA report incidents and enforcement activities via a public facing webpage <https://www.cornwall-ifca.gov.uk/enforcement-activities> which also details enforcement strategy, information on regulations and by laws and offers the chance to clarify aspects of the legislation.*

Appendix 3 Revised Surveillance Program

Table 22. Fishery surveillance programme

Surveillance level	Year 1	Year 2	Year 3	Year 4
6	Already completed	Already completed	off-site	On-site

Table 23. Timing of surveillance audit

Year	Anniversary date of certificate	Proposed date of surveillance audit	Rationale
3	Sept 2021	June 2021	1. The fishery closes for the season at approximately the end of the March. A June audit provides time for the fishery to finalise catch and landing information from the season prior to the audit.

Table 24. Surveillance level rationale

Year	Surveillance activity	Number of auditors	Rationale
4	On-site audit	3 auditors on site	This audit will be the Year 4 and reassessment combined audit and therefore with open conditions all auditors will be onsite for the surveillance.

Appendix 4 Client Documents

Appendix 4.1 – Code of Conduct

Cornish Sardine Management Association Code of Conduct – 2019 20

- Members will operate in a responsible manner so as to ensure effective conservation and management of sardine stocks.
- Members will ensure that their fishing vessels and equipment, as well as all fisheries activities, allow for safe and healthy working conditions, meet agreed standards adopted by relevant safety organisations and ensure crew are adequately trained.
- Members will promote the maintenance of the quality, diversity and availability of fishery resources in sufficient quantities for present and future generations and agree to abide by the following fishing effort control measures; which will be reviewed on an annual basis:
 - CSMA membership will be limited to a total of 15 vessels. *(Fish landed by tow vessels deployed by CSMA members will be deemed to come from the catching vessel and recorded on the catching vessel's log sheet).*
 - CSMA member's vessels will not exceed an overall length of 15 metres.
 - CSMA members will not deploy ring nets having a headline length which exceeds 450 metres.
 - CSMA members will not exceed any harvest control measures put in place
- Members shall endeavour to ensure their fishing activities prevent overfishing and excess fishing capacity and not lead to more fish being caught than can be safely carried by the available vessels. Skippers shall communicate with nearby vessels at every opportunity to manage larger catches. In the event of an excessive catch which cannot be shared with another vessel, fish in the net should be released alive at the earliest possible point in the fishing operation.
-
- Members will abide by the CSMA slippage policy when prosecuting the fishery to minimise unwanted catches of pelagic species
- Members shall thoroughly and accurately complete their CSMA logbooks in a timely manner and submit them for collation annually, before the AGM. Cetacean and seabird interactions will be recorded in logbooks whenever applicable.
- Members will undertake research and data collection in order to improve scientific and technical knowledge of sardine fisheries, including their interaction with the ecosystem.
- The harvesting, handling, processing and distribution of fish and fishery products should be carried out in a manner which will maintain the nutritional value, quality and safety of the products, reduce waste and minimise negative impacts on the environment.
- Members agree to co-operate in order to prevent disputes. All disputes relating to fishing activities and practices should be resolved in a timely, peaceful and co-operative manner, in accordance with the CSMA Code of Conduct. The Code of Conduct and management measures will be reviewed on an annual basis.

CSMA vessel owner & skipper members agree to abide by this Code of Conduct. CSMA processor members agree to only purchase Cornish ring net caught sardines from CSMA member vessels abiding by the Code of Conduct.

Vessel/Processor name: _____ Signature: _____

Appendix 4.2 – Research Plan

Cornish Sardine Management Association Research Plan 2020

MSC Principle 1

- CSMA will continue to support CEFAS through their ongoing Fisheries Science Partnership (FSP) and the annual the PELTIC survey series which forms the principle survey for the ICES Benchmark of the stock in 2021. This benchmark will also lead to proposals for HR control rules and will be formally assessed and the most appropriate approach selected for future assessments.
- Members will undertake research and data collection in order to improve scientific and technical knowledge of sardine fisheries including collecting length frequencies of Sardine catches on a weekly basis throughout the season. This research program is run in conjunction with the Fisheries Science Partnership through CEFAS. The data will be presented to the ICES Working Group on Southern Horse Mackerel, Anchovy and Sardine (WGHANSA) for evaluation as part of the stock assessment for the Sardine Area 7 stock.
- Members shall thoroughly and accurately complete their CSMA logbooks in a timely manner and submit them for collation annually. These logbooks shall contain landing and slippage information so that understanding of complete catches is available for the authorities.
- CSMA will accommodate the needs of the MMO small mesh sample program which ensures compliance of the fishery with authority monitoring requirements.
- Members will actively engage with science initiatives where appropriate and support research to improve Area VII Sardine assessment

MSC Principle 2

- Members shall thoroughly and accurately complete their CSMA logbooks in a timely manner and submit them for collation annually. These logbooks will accurately record cetacean, seal and seabird interactions whenever they occur in the dedicated recording area. The results will be compiled annually and made available to SMRU as partner organisation.
- All CSMA members agree to take observers from the SMRU unit as required. SMRU will produce an annual report of the observed trips detailing bycatch and ETP species interactions.

MSC Principle 3

- Members will agree to fit video cameras to document any ETP interaction where possible. Members will report any bycatch interaction, at species level, on their wheelhouse log sheets.

Appendix 4.3 – Slippage Policy

CSMA Slippage Policy

The CSMA's policy is to return non target species with the best survivability possible. Members will endeavour to release any shoals of non target species as early as possible within the net hauling process to achieve higher survivability chances. Based on the legislation of the Common Fisheries Policy (see below) and of other similar fishing operations elsewhere in Europe Herring should be released at the latest when 80% of the net is aboard and Mackerel at or before 90%. Visible markers will be attached to all nets at 80 and 90% to denote net closure. Due to our target species, the sardine, being a non pressure stock we are not bound by the landing obligation but members will minimise unnecessary damage to all stocks where possible.

In order to ascertain survival rates for slipped species sampling will be carried out by members when appropriate to estimate species composition, fish size and quantity. Slippage composition and quantity will be recorded on vessel logbooks.

As specified in the CFP Basic Regulation (1380/2013) and the Delegated Acts for the North Sea (C(2014)7558) and North Western Waters (C(2014)7549) certain exemptions and provisions have been created.

High Survivability: Exemption from the Landing Obligation has been permitted for species which scientific evidence demonstrates high survival rates.

The Delegated Acts permit catches of mackerel and herring in the purse seine fisheries to be exempt from the landing obligation **only** when the following conditions are met:

- The catch is released before 80% closure of the purse seine in fisheries for mackerel and 90% closure of the purse seine in fisheries for herring. If the school consists of a mixture of both species before 80% closure of the purse seine. After these points, release of the catch is prohibited;
- In Areas VIa and VIb, the purse seine gear is fitted with visible buoys clearly marking the limits set out above;
- The surrounded school of fish is sampled before its release to estimate species composition, the fish size composition and the quantity;
- The vessel and purse seine gear is equipped with electronic recording and documenting system.

www.gov.scot/Resource/0046/00467409.docx The Landing Obligation – Guidance for the *Scottish* Pelagic Industry

Cetacean by catch

<https://www.bmis-bycatch.org/mitigation-techniques/backdown-procedure-and-medina-panel>

Appendix 4.4 – Logbook guidance July 2020

Logbook Guidance July 2020

Few points picked up by our MSC Auditors and Spike about logbooks

- Enter the **LAT/LON** where you've shot
- Record **FISH DEPTH** in **METRES**
- **BYCATCH** Column – this is for **landed** catch not listed in the previous pelagic columns. So squid, whiting, soles etc., **TOTAL WEIGHT** of these fish landed would go in here.
- Put the **BYCATCH** Species name in the **COMMENTS** column, i.e for 5kg in **BYCATCH**, in **COMMENTS** write 'bycatch = 3kg cod, 2kg' whiting.
- Record **SLIPPED** (for fish released alive) or **DISCARDED** (for dead fish). Note in the comments what species has been **slipped** or **discarded** (Sardines, Mackerel, Herring etc) If it's a **MIX of FISH** record your best estimate of what you think it is in the **COMMENTS**.
- No text in the any of the columns except **COMMENTS BOX**. Put as much info as you want in the **COMMENTS**.
- **ALWAYS** record bird/dolphin/tuna/Seals catches live or dead and all slipping discard events – looks weird if you don't when compared with skippers that do record it.
- Record bird/dolphin/tuna/Seals bycatch or interaction by species i.e Common Dolphin, Porpoise, herring gull, black back gull etc in **COMMENTS** too. **Take a photo** if you do not know the species.
- Where you have nothing to record please put a **ZERO**