MarinTrust Standard V2

By-product Fishery Assessment

Cod (*Gadus morhua*), FAO 27, ICES 4, 7.d and 3.a.20 (North Sea, Eastern English Channel and Skagerrak)

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Cod (*Gadus morhua*)
	Geographical area:	FAO 27 – Northeast Atlantic
	Country of origin of the product:	UK
	Stock:	ICES 4, 7.d and 3.a.20 (North Sea, Eastern English Channel and Skagerrak)
Date	July 2024	
Report Code	GBR37	
Assessor	Blanca Gonzalez	
Country of origin of the product - PASS	UK	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Lunar FPR Ltd			
Country: UK			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Blanca Gonzalez	Sam Peacock	0.5	Surveillance 1
Assessment Period	July 2024 – July 2025		

Scope Details	
Main Species	Cod (*Gadus morhua*)
Stock	ICES 4, 7.d and 3.a.20 (North Sea, Eastern English Channel and Skagerrak)
Fishery Location	FAO 27 – Northeast Atlantic
Management Authority (Country/ State)	EU and UK
Gear Type(s)	Demersal trawl, seines, gillnet, beam trawl, others
Outcome of Assessment	
Peer Review Evaluation	Agree with recommendation
Recommendation	PASS

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Table 2. Assessment Determination

Assessment Determination
Cod (*Gadus morhua*) was assessed as a category C species considering that it is a Vulnerable species by the IUCN, it is not in included in any CITES Appendixes, and the stock is managed using annual quotas relative to established reference points. Cod in ICES 4, 7.d and 3.a.20 (North Sea, Eastern English Channel and Skagerrak) is subject to annual stock assessment by ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). The last assessment was published in June 2024 using catches data in the model. For the first time the stock was divided in three substocks since they are reproductively isolated: Northwestern (6.a), Viking (4.a and 3.a.20) and Southern (4.b, 4.c and 7.d) for the assessment. All substocks fishing pressure is above F_{MSY} but below F_{pa} and F_{lim} . Spawning-stock size for the Viking and Northwestern substocks are above Msy $B_{trigger}$, B_{pa}, and B_{lim} , but in the Southern substock is below Msy $B_{trigger}$, B_{pa}, and B_{lim}. Despite the southern substock biomass is below the limit reference point, the three substocks are assessed jointly in a framework that explicitly models the individual dynamics of each substock, and an advice is given considering that the cod substocks in the Northern shelf mix and are caught together. ICES advice applies the MSY approach for the Southern substock and precautionary considerations to protect the Southern substock are also applied for the Northwestern and Viking substocks. ICES also states that catches by substocks should not be taken as area-specific advice, however, as a precautionary approach, and considering that Southern stock did not meet clause C1.2, Cod was assessed as category D species. In the Productivity-Susceptibility Analysis (PSA) cod was awarded an average productivity score of 1.71 and an average susceptibility score of 2, passing against Table D3, indicating that cod is not vulnerable to this fishery. The cod by-product meets the Marin Trust requirements and it should be remained approved for use as a raw material.
Fishery Assessment Peer Review Comments
The peer reviewer agrees that this cod stock should be assessed under Category C in the first instance. In a change since the previous MT assessment, this stock is now assessed as three sub-stocks. The assessor has correctly noted that two of the three substocks meet the Category C requirements, while the third – the Southern substock – is estimated to have an SSB below the limit reference point. The peer reviewer agrees that the correct course of action in this case is to conduct a Category D assessment for this substock. The assessor has completed the PSA correctly and the peer reviewer agrees that the assigned scores result in a PASS outcome on Table D3. For this reason, byproduct from all three substocks should remain approved for use as a raw material.
Notes for On-site Auditor
There are no concerns that requires attention from the on-site assessor

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Species Categorisation

NB: If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in CITES Appendix 1, it **cannot** be approved for use as an MarinTrust raw material.

IUCN Red list Category

By-product material from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for the following categories shall immediately fail the assessment;

- EXTINCT (E) AND EXTINCT IN THE WILD (EW)
- CRITICALLY ENDANGERED (CR) facing an extremely high risk of extinction in the wild.
- ENDANGERED (EN) facing a very high risk of extinction in the wild.

By-product material may be used from the following categories provided that all clauses in the MarinTrust standard are passed.

- VULNERABLE (VU) facing a high risk of extinction in the wild.
- NEAR THREATENED (NT) does not qualify for above now, but is close or is likely to qualify for, a threatened category in the near future.
- LEAST CONCERN (LC) Widespread and abundant.
- DATA DEFICIENT (DD) and NOT EVALUATED (NE)

Table 3 Species Categorisation Table

Common name	Latin name	Stock	Management	Category	IUCN Red List Category[1]	CITES Appendix 1[2]
Cod	*Gadus morhua*	ICES 4, 7.d and 3.a.20 (North Sea, Eastern English Channel and Skagerrak)	Yes	C	Vulnerable[3]	No

[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php
3 https://www.iucnredlist.org/species/8784/12931575

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CATEGORY C SPECIES

In a by-product assessment, Category C species are those which are subject to a species-specific management regime and are usually targeted species in fisheries for human consumption.

Clause C1 should be completed for each Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it should be assessed as a Category D species instead.

Species Name		**Cod (*Gadus morhua*)**	
C1	**Category C Stock Status - Minimum Requirements**		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	Pass
	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	Fail
		Clause outcome:	Fail

C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.

The clause is met considering that:

The cod in ICES 4, 7.d and 3.a.20 (North Sea, Eastern English Channel and Skagerrak) most recent assessment was published in June 2024 by The International Council for exploration of the Sea (ICES) Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). The assessment was carried out using an Age-based analytical assessment (SAM) that uses catches and surveys in the model and in the forecast. Thus, removals of the species are included in the stock assessment process (ICES 2024) (figure 1).

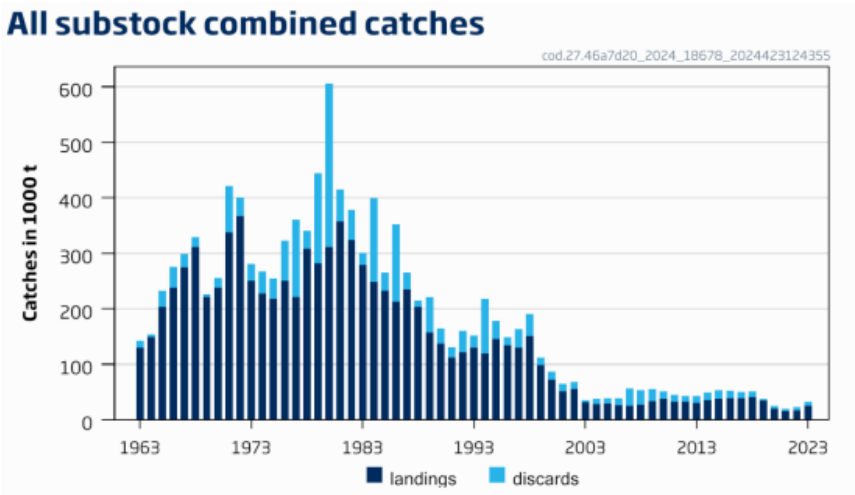

Figure 1. All substock combined catches in Subarea 4, divisions 6.a and 7.d, and Subdivision 20 (North Sea, West of Scotland, eastern English Channel, and Skagerrak) since 1991. (ICES 2024).

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C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.

The Clause is NOT met considering that:

The 2024 cod assessment indicates that fishing pressure on the three substock is above F_{MSY} but below F_{pa} and F_{lim} (figure 1). Spawning-stock size for the Viking and Northwestern substock is above Msy Bt_{rigger}, B_{pa}, and B_{lim} , but in the Southern substock is below MSY $B_{trigger}$, B_{pa}, and B_{lim} (figure 2) (ICES 2024).

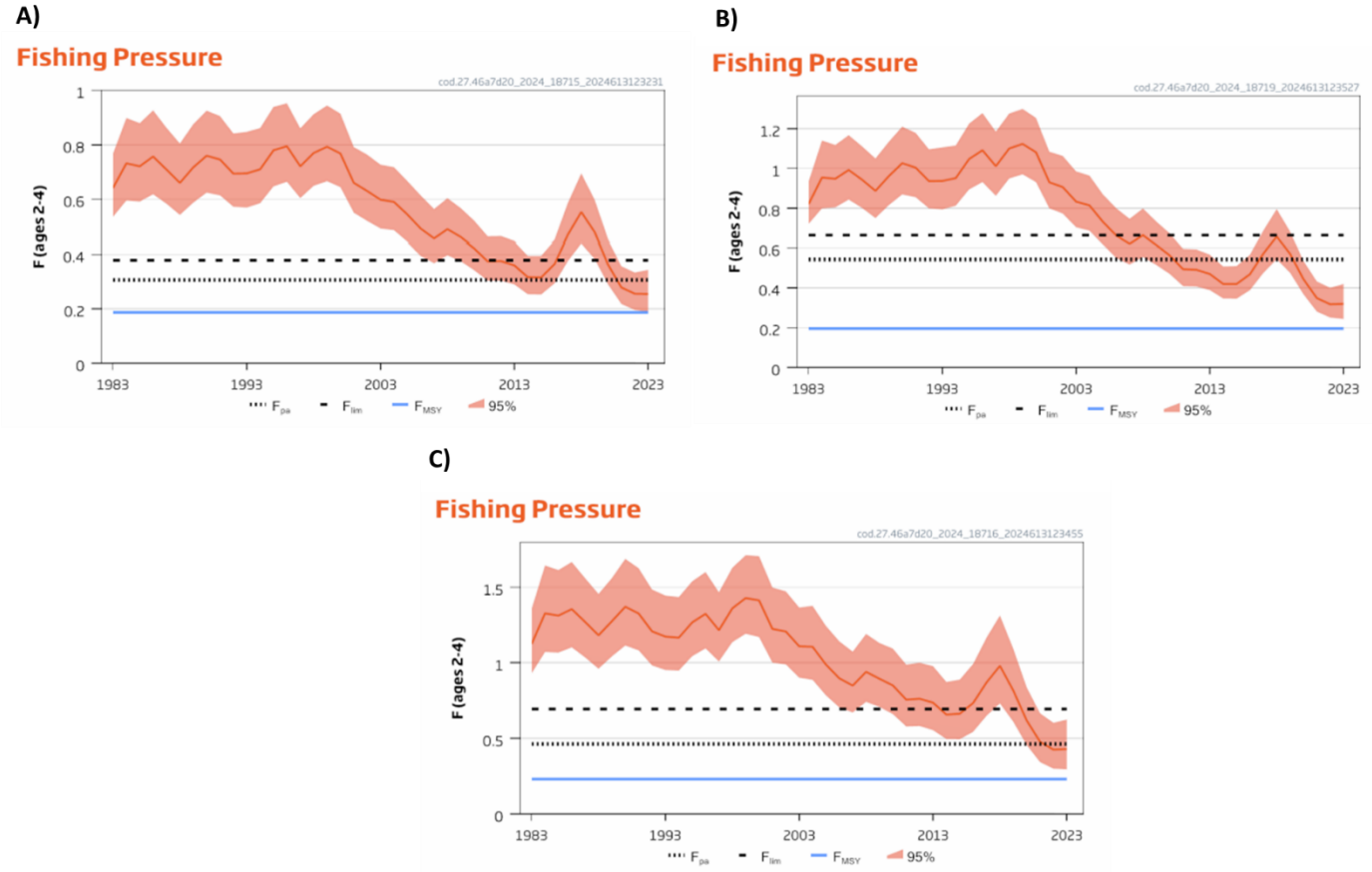

Figure 1. Cod in A) Viking substock, B) Northwestern substock, and C) Southern substock fishing pressure is above F_{MSY} but below F_{pa} and F_{lim} (ICES 2024).

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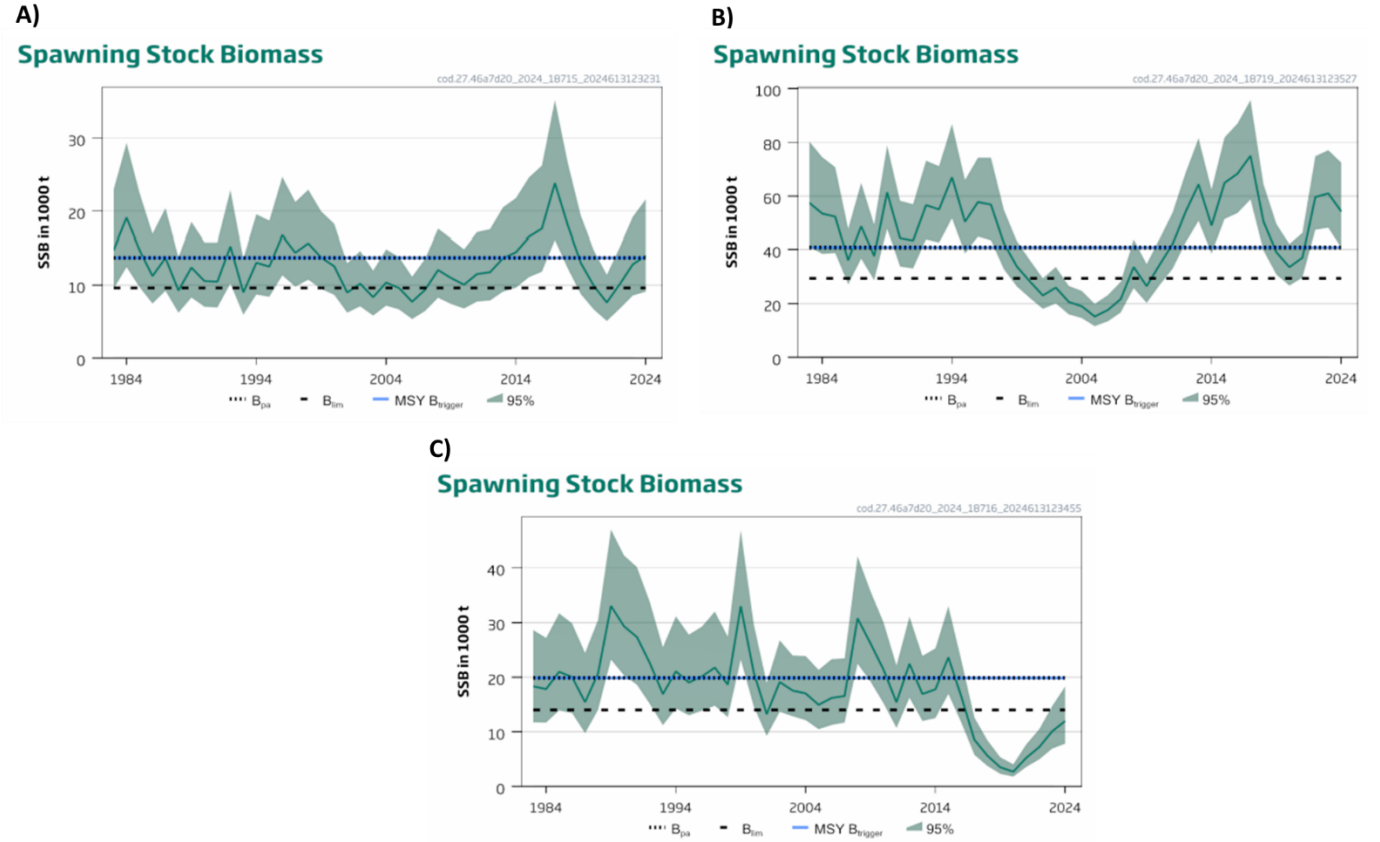

Figure 2. Spawning-stock size for Cod in A) Viking and B) Northwestern substocks above MSY Bt_{rigger}, B_{pa}, and B_{lim} , and C) Southern substock below MSY $B_{trigger}$, B_{pa}, and B_{lim} (ICES 2024).

References

ICES (2024). Cod (Gadus morhua) in Subarea 4, divisions 6.a and 7.d, and Subdivision 20 (North Sea, West of Scotland, eastern English Channel and Skagerrak). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019219.v1

Links	
MarinTrust Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01

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CATEGORY D SPECIES

Category D species are those which are not subject to a species-specific management regime. In the case of mixed trawl fisheries, Category D species may make up the majority of landings. The comparative lack of scientific information on the status of the population of the species means that a risk-assessment style approach must be taken.

D1	**Species Name**	**Cod (*Gadus morhua*)**

Productivity Attribute	Value	Score
Average age at maturity (years)	3.6[1]	1
Average maximum age (years)	16.9[1]	2
Fecundity (eggs/spawning)	285,000-9,100,000[1]	1
Average maximum size (cm)	200[1]	2
Average size at maturity (cm)	55[1]	2
Reproductive strategy	Broadcast spawner[1]	1
Mean trophic level	4.1[1]	3
	Average Productivity Score	**1.71**
Susceptibility Attribute	**Value**	**Score**
Availability (area overlap)	<10% [1,2]	1
Encounterability (the position of the stock/species within the water column relative to the fishing gear)	High overlap with fishing gear [3]	3
Selectivity of gear type	Individuals < size at maturity are rarely caught [3]	1
Post-capture mortality	Retained [3]	3
	Average Susceptibility Score	**2**
	PSA Risk Rating (From Table D3)	**PASS**
	Compliance rating	**PASS**

Further justification for susceptibility scoring (where relevant)

For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision

Availability: Cod distributes in North Atlantic and Arctic: Ungava Bay in Canada along the North American coast to Cape Hatteras; North Carolina in the western Atlantic. East and west coast of Greenland; around Iceland; from Barents Sea including the region around Bear Island along the European coast to Bay of Biscay[1,] and the ICES 4, 7.d and 3.a.20 (North Sea, Eastern English Channel and Skagerrak only overlaps with less than 10% of the species distribution (figure 1).

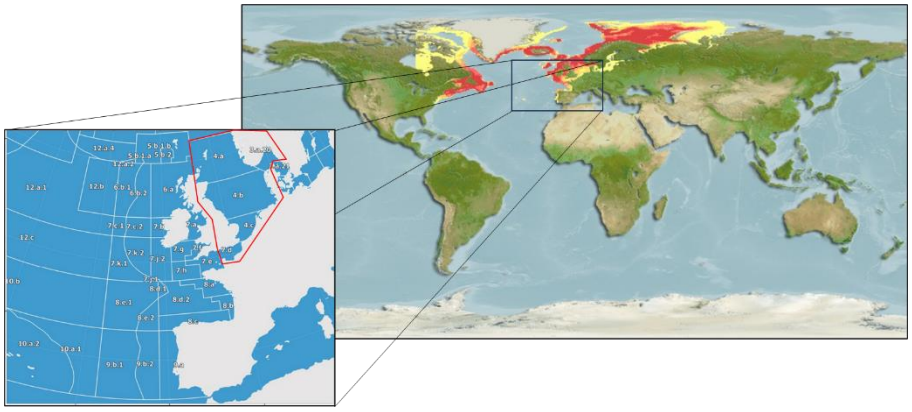

Figure 1. Cod distribution [1] and in red square the ICES 3.a, 4 and 7.d regions under assessment [2].

Encounterability: Cod is a target species [3].

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	Selectivity of gear type: below minimum size cod landings had been registered since 2017, but last three years this landing represents less than 0.012% of the total catch [3].

References

1 https://www.fishbase.se/summary/Gadus-morhua.html

2 https://www.fao.org/fishery/en/area/fao:27/en

3 ICES (2024). Cod (Gadus morhua) in Subarea 4, divisions 6.a and 7.d, and Subdivision 20 (North Sea, West of Scotland, eastern English Channel and Skagerrak). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019219.v1

Standard clauses 1.3.2.2

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Table D2 - Productivity / Susceptibility attributes and scores.

Productivity attributes	High productivity (Low risk, score = 1)	Medium productivity (medium risk, score = 2)	Low productivity (high risk, score = 3)
Average age at maturity	<5 years	5-15 years	>15 years
Average maximum age	<10 years	10-25 years	>25 years
Fecundity	>20,000 eggs per year	100-20,000 eggs per year	<100 eggs per year
Average maximum size	<100 cm	100-300 cm	>300 cm
Average size at maturity	<40 cm	40-200 cm	>200 cm
Reproductive strategy	Broadcast spawner	Demersal egg layer	Live bearer
Mean Trophic Level	<2.75	2.75-3.25	>3.25

Susceptibility attributes	Low susceptibility (Low risk, score = 1)	Medium susceptibility (medium risk, score = 2)	High susceptibility (high risk, score = 3)
Areal overlap (availability) Overlap of the fishing effort with the species range	<10% overlap	10-30% overlap	>30% overlap
Encounterability The position of the stock/species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear	Low overlap with fishing gear (low encounterability).	Medium overlap with fishing gear.	High overlap with fishing gear (high encounterability). Default score for target species
Selectivity of gear type Potential of the gear to retain species	a Individuals < size at maturity are rarely caught b Individuals < size at maturity can escape or avoid gear.	a Individuals < size at maturity are regularly caught. b Individuals < half the size at maturity can escape or avoid gear.	a Individuals < size at maturity are frequently caught b Individuals < half the size at maturity are retained by gear.
Post-capture mortality (PCM) The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival	Evidence of majority released post-capture and survival.	Evidence of some released post-capture and survival.	Retained species or majority dead when released.

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D3		Average Susceptibility Score		
		1 - 1.75	1.76 - 2.24	2.25 - 3
Average Productivity Score	1 - 1.75	PASS	PASS	PASS
	1.76 - 2.24	PASS	PASS	TABLE D4
	2.25 - 3	PASS	TABLE D4	TABLE D4

D4	Species Name	
	Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements	
	D4.1	The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.
	D4.2	There is no substantial evidence that the fishery has a significant negative impact on the species.
Outcome:		

Evidence

D4.1: The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.

D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.

References

Links	
MarinTrust Standard clause	1.3.2.2, 4.1.4
FAO CCRF	7.5.1
GSSI	D.5.01

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