



MarinTrust Standard V2

By-product Fishery Assessment Report Template

MarinTrust Programme

Unit C, Printworks

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Mackerel (<i>Scomber scombrus</i>)
	Geographical area:	FAO Area 27 North East Atlantic
	Country of origin of the product:	Norway
	Stock:	Mackerel in ICES subareas 1-8 and 14, and division 9.a (Northeast Atlantic and adjacent waters)
Date	18 January 2022	
Report Code	BP001	
Assessor	Geraldine Criquet	
Country of origin of the product - PASS	Norway	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Name: Norway Seafood Federation			
Address:			
Country: Norway		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Geraldine Criquet	Conor Donnelly	0.5	Surveillance 2
Assessment Period	To January 2022		

Scope Details	
Main Species	Mackerel (<i>Scomber scombrus</i>)
Stock	Mackerel in ICES subareas 1-8 and 14, and division 9.a (Northeast Atlantic and adjacent waters)
Fishery Location	FAO Area 27 Northeast Atlantic Ocean
Management Authority (Country/ State)	European Union / Norway management authority
Gear Type(s)	Pelagic trawl, purse seine, and others
Peer Review Evaluation	Agree with recommendation
Recommendation	APPROVED

Table 2. Assessment Determination

Assessment Determination
<p>If any species is categorised as Endangered or Critically Endangered on IUCN’s Red List, or if it appears in the CITES appendices, it cannot be approved for use as Marin Trust raw material. Mackerel (<i>Scomber scombrus</i>) is neither listed as Endangered or Critically Endangered on IUCN’s Red List, nor listed in CITES appendices; therefore, mackerel is eligible for approval for use as Marin Trust by-product raw material.</p> <p>There is no long-term management strategy for Northeast Atlantic mackerel agreed by all parties involved in the mackerel fishery. Reference points are defined for the stock, therefore it was assessed under category C.</p> <p>Fishery removals are included in the stock assessment process, it PASSES Clause C1.1. The stock is considered, in its most recent stock assessment, to have a biomass above the limit reference point, it PASSES Clause C1.2.</p> <p>Therefore, mackerel in ICES subareas 1-8 and 14, and division 9.a (Northeast Atlantic and adjacent waters) is APPROVED for the production of fishmeal and fish oil under the current Marin Trust v 2.0 by-products.</p>
Fishery Assessment Peer Review Comments
<p>The stock is correctly assessed under category C. Catches are taken into account in the age-based stock assessment model and the most recent spawning-stock size index is above target and limit reference point. Therefore, mackerel in ICES subareas 1-8 and 14, and division 9.a (Northeast Atlantic and adjacent waters) should be approved for the production of fishmeal and fish oil under the current Marin Trust v 2.0 by-products.</p>
Notes for On-site Auditor

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 Redlist 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
Mackerel	<i>Scomber scombrus</i>	Mackerel in ICES subareas 1-8 and 14, and division 9.a (Northeast Atlantic and adjacent waters)	European Union / Norway	C	LC	No

¹ <https://www.iucnredlist.org/>

² <https://cites.org/eng/app/appendices.php>

CATEGORY C SPECIES

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

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		Mackerel (<i>Scomber scombrus</i>)
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. Yes
	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. Yes
		Clause outcome: PASS
<p>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.</p> <p>The stock assessment type is an age-based analytical model (SAM) that uses catches in the model and the forecast. Catches are presented in Figure 1.</p> <p>Therefore, fishery removals of the stock, including from the fishery under assessment, are included in the stock assessment process, it PASSES Clause C1.1</p>		
<div style="text-align: center;"> </div> <p>Figure 1. Mackerel in in ICES subareas 1-8 and 14, and division 9.a. Long-term trends in catches; the paler shaded catches prior to 2000 have been down-weighted in the assessment because of the considerable underreporting suspected to have taken place in this period.</p>		
<p>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.</p> <p>The spawning-stock size is above $MSY B_{trigger}$, B_{pa} and B_{lim} (Figure 2).</p> <p>Therefore, the stock is considered, in its most recent stock assessment, to have a biomass above the limit reference point, C1.2 is met.</p>		

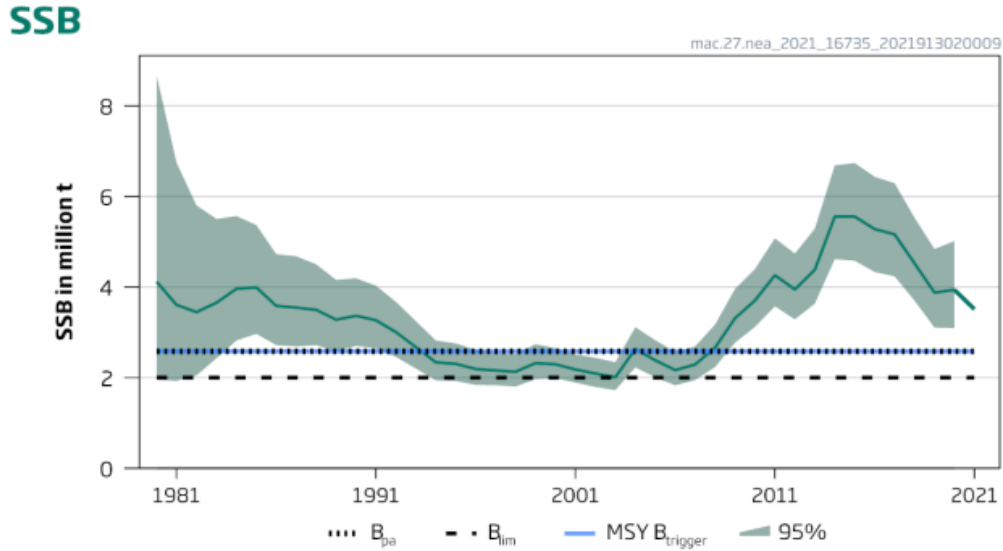


Figure 2. Mackerel in in ICES subareas 1-8 and 14, and division 9.a. Spawning stock biomass.

References

ICES. 2021. Mackerel (*Scomber scombrus*) in subareas 1-8 and 14 and division 9.a (the Northeast Atlantic and adjacent waters). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, mac.27.nea. <https://doi.org/10.17895/ices.advice.7789>. <https://www.ices.dk/sites/pub/Publication%20Reports/Advice/2021/2021/mac.27.nea.pdf>

Collette, B., Fernandes, P. & Heessen, H. 2015. *Scomber scombrus*. The IUCN Red List of Threatened Species 2015: e.T170354A18207463. Accessed on 18 January 2022. <https://www.iucnredlist.org/species/170354/18207463>

Links

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

CATEGORY D SPECIES

Category D species are those which make up less than 5% of landings and 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		
	Productivity Attribute		Value
	Average age at maturity (years)		
	Average maximum age (years)		
	Fecundity (eggs/spawning)		
	Average maximum size (cm)		
	Average size at maturity (cm)		
	Reproductive strategy		
	Mean trophic level		
	Average Productivity Score		
	Susceptibility Attribute		Value
	Overlap of adult species range with fishery		
	Distribution		
	Habitat		
	Depth range		
	Selectivity		
	Post-capture mortality		
	Average Susceptibility Score		
	PSA Risk Rating (From Table D3)		
	Compliance rating		
<i>Standard clauses 1.3.2.2</i>			

Table D2 - Productivity / Susceptibility attributes and scores.

Productivity attributes	Low productivity/ High risk	Medium productivity/ Medium risk	High productivity/ Low risk
	Score 3	Score 2	Score 1
Average age at maturity (years)	>4	2 to 4	<2
Average maximum age (years)	>30	10 to 30	<10
Fecundity (eggs/spawning)	<1 000	1 000 to 10 000	>10 000
Average maximum size (cm)	>150	60 to 150	<60
Average size at maturity (cm)	>150	30 to 150	<30
Reproductive strategy	Live bearer, mouth brooder or significant parental investment	Demersal spawner "berried"	Broadcast spawner
Mean trophic level	>3.25	2.5–3.25	<2.5

Susceptibility attributes		High susceptibility/ High risk	Medium susceptibility/ Medium risk	Low susceptibility/ Low risk
		Score 3	Score 2	Score 1
Availability	1) Overlap of adult species range with fishery	>50% of stock occurs in the area fished	Between 25% and 50% of the stock occurs in the area fished	<25% of stock occurs in the area fished
	2) Distribution	Only in the country/ fishery	Limited range in the region	Throughout region/ global distribution
Encounterability	1) Habitat	Habitat preference of species make it highly likely to encounter trawl gear (e.g. demersal, muddy/sandy bottom)	Habitat preference of species make it moderately likely to encounter trawl gear (e.g. rocky bottom/reefs)	Depth or distribution of species make it unlikely to encounter trawl gear (e.g. epi-pelagic or meso-pelagic)
	2) Depth range	High overlap with trawl fishing gear (20 to 60 m depth)	Medium overlap with trawl fishing gear (10 to 20 m depth)	Low overlap with trawl fishing gear (0 to 10 m, >70 m depth)
Selectivity		Species >2 times mesh size or up to 4 m length	Species 1 to 2 times mesh size or 4 to 5 m length	Species <mesh size or >5 m length
Post capture mortality		Most dead or retained Trawl tow >3 hours	Alive after net hauled Trawl tow 0.5 to 3 hours	Released alive Trawl tow <0.5 hours

Note: Availability 2 is only used when there is no information for Availability 1; the most conservative score between Encounterability 1 and 2 is used.

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