# MarinTrust Standard V2

# By-product Fishery Assessment

## *Horse mackerel in the Northeast Atlantic*

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# Table 1 Application details and summary of the assessment outcome

| Fishery Under Assessment | Species: | Horse Mackerel (*Trachurus trachurus*) |
|---|---|---|
| | Geographical area: | Northeast Atlantic |
| | Country of origin of the product: | UK & Ireland |
| | Stock: | ICES Subarea 8 and Divisions 2a, 4a, 5b, 6a, 7a-c and 7e-k |
| Date | | November 2022 |
| Report Code | | GBR25 |
| Assessor | | Sam Peacock |
| Country of origin of the product - PASS | | UK & Ireland |
| Country of origin of the product - FAIL | | NONE |

| Application details and summary of the assessment outcome | | | |
|---|---|---|---|
| Company Name(s): Pelagia | | | |
| Country: UK & Ireland | | | |
| Email address: geraldine.fox@pelagia.com | | Applicant Code: | |
| Certification Body Details | | | |
| Name of Certification Body: | | LRQA | |
| Assessor | Peer Reviewer | Assessment Days | Initial/Surveillance/ Re-approval |
| Sam Peacock | Kate Morris | 0.2 | Re-approval |
| Assessment Period | | November 2022 – November 2023 | |

| Scope Details | |
|---|---|
| Main Species | Horse Mackerel (*Trachurus trachurus*) |
| Stock | ICES Subarea 8 and Divisions 2a, 4a, 5b, 6a, 7a-c and 7e-k |
| Fishery Location | Northeast Atlantic |
| Management Authority (Country/ State) | UK & EU |
| Gear Type(s) | Pelagic trawls, purse seines |
| Outcome of Assessment | |
| Peer Review Evaluation | Pass |
| Recommendation | Maintain approval |

# Table 2. Assessment Determination

| Assessment Determination |
|---|
| Horse mackerel has been categorised by the IUCN as Vulnerable and does not appear in the CITES appendices. In the Northeast Atlantic it is managed relative to established reference points using an annual quota, and therefore was initially assessed under Category C.

Horse mackerel in the Northeast Atlantic is subject to annual stock assessment by ICES. The most recent assessment was conducted in 2022 and utilised all catch data. The assessment concluded that horse mackerel biomass was below the limit reference point and ICES recommended that catches in 2023 should be zero. As the byproduct did not meet the requirements of Category C, as per the MT byproduct assessment guidance it was subsequently assessed under Category D.

Under Category D, horse mackerel was awarded a Productivity score of 1.43 and a Susceptibility score of 3, leading to a rating of Pass on Table D3. For this reason the byproduct should remain approved for use as a raw material in MarinTrust-Certified products. |

| Fishery Assessment Peer Review Comments |
|---|
| The by-product fishery under assessment here is Horse Mackerel (*Trachurus trachurus*) fishery is pursued by UK and Irish vessels in FAO fishing area 27, ICES Subarea 8 and Divisions 2a, 4a, 5b, 6a, 7a-c and 7e-k. Horse Mackerel is managed by the EU in EU waters under the Common Fisheries Policy and the UK Fisheries Act in UK waters. For this Marin Trust assessment, Horse Mackerel stock is scored as a category D species.
All species scoring tables have been completed by the auditor with sufficient evidence presented to support their final determination.
The peer review supports the auditor's recommendation to Pass both stocks of the fishery under the Marin Trust IFFO RS v2.0 by-fishery standard for the production of fishmeal and fish oil. |

| 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 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] |
|---|---|---|---|---|---|---|
| Horse mackerel | *Trachurus trachurus* | ICES Subarea 8 and Divisions 2a, 4a, 5b, 6a, 7a-c and 7e-k | Yes | C | Vulnerable[3] | No |

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[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php
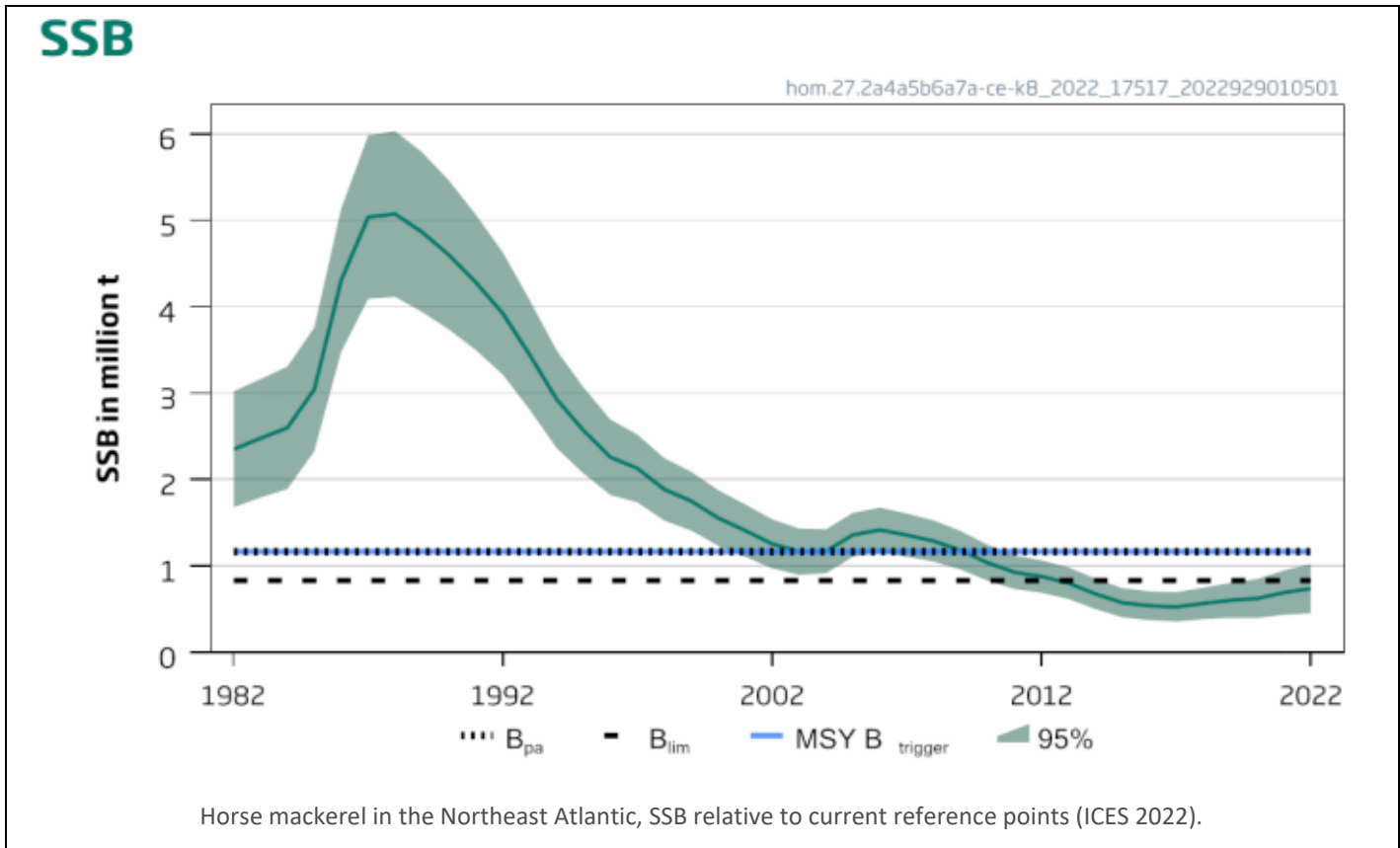[3] https://www.iucnredlist.org/species/198647/43157137

# 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 | | Horse mackerel | |
|---|---|---|---|
| **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**.

Horse mackerel in the Northeast Atlantic is subject to an annual stock assessment by the ICES Working Group on Widely Distributed Stocks (WGWIDE). The most recent assessment was carried out in 2022 and used a length- and age-based analytical assessment which utilised international commercial catch, length, and age data, three survey indices, a combined recruitment index, and considered discard data (ICES 2022). There is no indication in the ICES catch advice that the information required to conduct the assessment is incomplete. C1.1 is met.

**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 2022 catch advice provides an indication of stock status relative to formally established reference points. The target reference points MSY $B_{trigger}$ and $B_{pa}$ are defined as 1,168,272t. The limit reference point $B_{lim}$ is set at 834,480t. The stock assessment outcomes included a projection for SSB in 2023 of 754,163t, below the limit reference point. Additionally, the advice states that "spawning-stock size is below MSY $B_{trigger}$, $B_{pa}$, and $B_{lim}$" (ICES 2022). The stock does not meet the requirements of C1.2, and as per the MT byproduct assessment guidance should be assessed under Category D.

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**SSB**

hom.27.2a4a5b6a7a-ce-k8_2022_17517_2022929010501

Horse mackerel in the Northeast Atlantic, SSB relative to current reference points (ICES 2022).

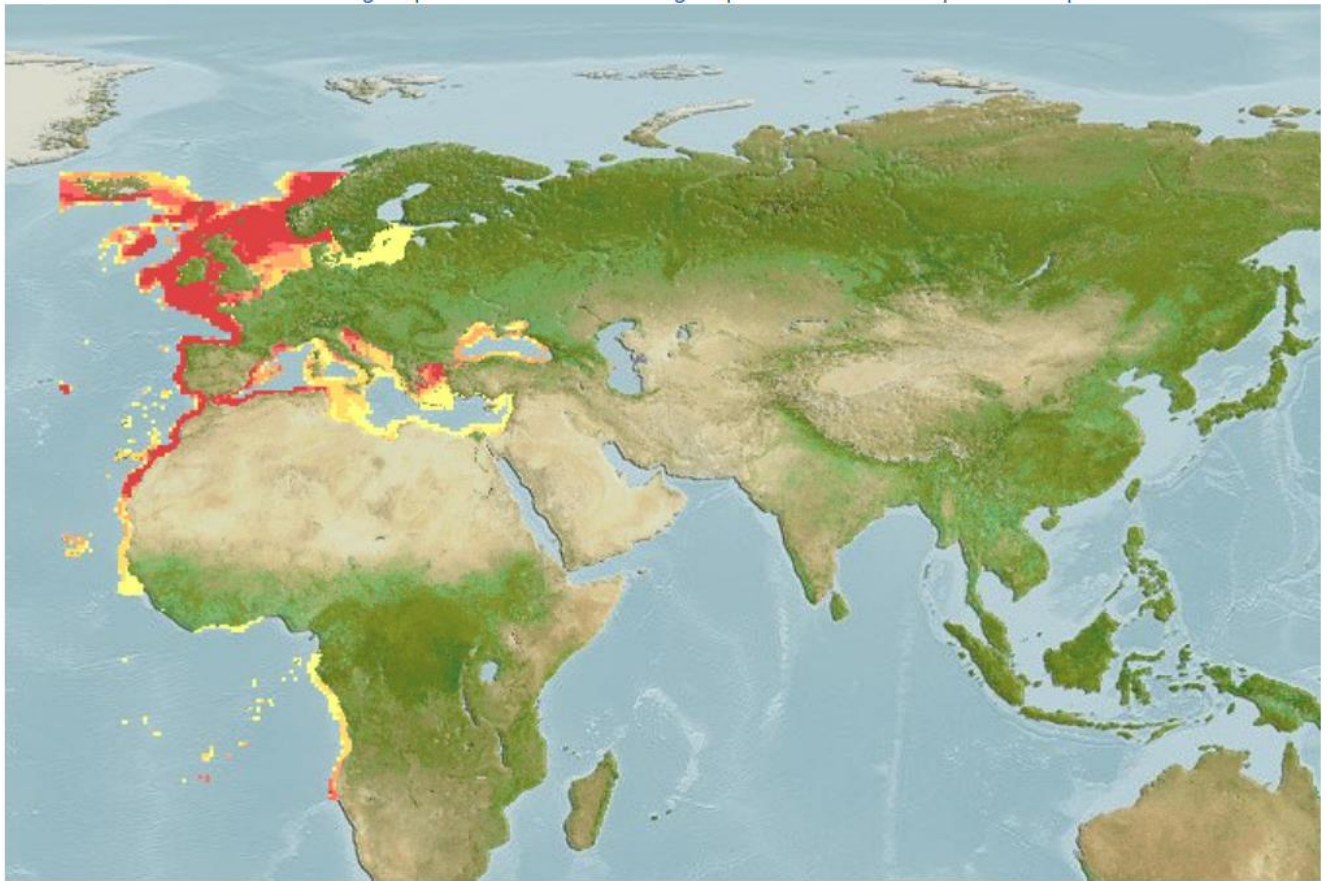| References |  |
|---|---|
| ICES (2022). Horse mackerel (*Trachurus trachurus*) in Subarea 8 and divisions 2.a, 4.a, 5.b, 6.a, 7.a-c,e–k (the Northeast Atlantic). In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, hom.27.2a4a5b6a7a-ce-k8. https://doi.org/10.17895/ices.advice.19772383 | |

| 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 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 | | Horse mackerel | |
|---|---|---|---|---|
| | **Productivity Attribute** | | **Value** | **Score** |
| | Average age at maturity (years) | | 4.5 years | 1 |
| | Average maximum age (years) | | 19 years | 2 |
| | Fecundity (eggs/spawning) | | 96,943 | 1 |
| | Average maximum size (cm) | | 70cm | 1 |
| | Average size at maturity (cm) | | 27cm | 1 |
| | Reproductive strategy | | Broadcast spawner | 1 |
| | Mean trophic level | | 3.7 | 3 |
| | | | **Average Productivity Score** | **1.43** |
| | **Susceptibility Attribute** | | **Value** | **Score** |
| | Availability (area overlap) | | >30% | 3 |
| | Encounterability (the position of the stock/species within the water column relative to the fishing gear) | | Targeted | 3 |
| | Selectivity of gear type | | Retained | 3 |
| | Post-capture mortality | | Retained | 3 |
| | | | **Average Susceptibility Score** | **3** |
| | | | **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* | | | |

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Horse mackerel distribution, computer generated. From Fishbase, https://www.fishbase.se/summary/Trachurus-trachurus.html

**References**

Fishbase, Atlantic horse mackerel.  https://www.fishbase.se/summary/Trachurus-trachurus.html

*Standard clauses 1.3.2.2*

# 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 | a Individuals < size at maturity are regularly caught. | a Individuals < size at maturity are frequently caught |
| | b Individuals < size at maturity can escape or avoid gear. | b Individuals < half the size at maturity can escape or avoid gear. | 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 |