



RESPONSIBLE
SUPPLY

IFFO RS
Global Standard for Responsible Supply
of Marine Ingredients

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**Global Standard for
Responsible Supply
of Marine Ingredients
Fishery Assessment
Methodology and Template
Report V2.0**



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| | |
|---------------------------------|--|
| Fishery Under Assessment | Mackerel <i>Scomber scombrus</i> Northeast Atlantic and adjacent waters |
| Date | January 2020 |
| Assessor | Jim Daly |

| Application details and summary of the assessment outcome | | | | |
|--|----------------------|------------------------|---|-------------------------------|
| Name: Norway Seafood Federation (NSF) | | | | |
| Address: | | | | |
| Country: Norway | | Zip: | | |
| Tel. No.: | | Fax. No.: | | |
| Email address: | | Applicant Code: | | |
| Key Contact: | | Title: | | |
| Certification Body Details | | | | |
| Name of Certification Body: | | SAI Global Ltd | | |
| Assessor | Peer Reviewer | Assessment Days | Initial/Surveillance/Re-approval | Whole fish/ By-product |
| Jim Daly | Vito Romito | 0.5 | Initial | By-product |
| Assessment Period | 2020 | | | |

| Scope Details | | |
|---|---|-------------------------|
| Management Authority (Country/State) | EU/Norway | |
| Main Species | Mackerel <i>Scomber scombrus</i> | |
| Stock: | Subareas 1–8 and 14, Division 9.a (Northeast Atlantic and adjacent waters). | |
| Fishery Location | Northeast Atlantic | |
| Gear Type(s) | All compliant gears | |
| Outcome of Assessment | | |
| Overall Outcomes: | Outcome | Clause(s) failed |
| Mackerel (<i>Scomber scombrus</i>) | PASS | NONE |
| Peer Review Evaluation | AGREE | |
| Recommendations | APPROVE | |

Assessment Determination

If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in the CITES appendices, it cannot be approved for use as an IFFO RS raw material. Mackerel *Scomber scombrus* does not appear as Endangered or Critically Endangered on IUCN'S Red List, nor does it appear in CITES appendices; therefore, Mackerel *Scomber scombrus* is eligible for approval for use as IFFO RS raw material.

One stock forms part of this assessment:

- 1) **Subareas 1-8 and 14, Division 9.a (Northeast Atlantic and adjacent waters).**

Fishery removals of the stock is considered in the stock assessments so the stock **PASSES** Clause C1.1.

For Mackerel *Scomber scombrus* the most recent estimated spawning stock biomass (SSB) is above Blim and removals are not considered to be negligible therefore, the stock **PASSES** Clause C1.2.

In order to be approved, each stock assessed must pass both Clause C1.1 and C1.2; therefore:

- 1) Mackerel *Scomber scombrus* is **APPROVED**; by SAI Global assessors in the assessment area for the production of fishmeal and fish oil under IFFO RS v 2.0 by-products standard.

Peer Review Comments

Mackerel catch data, coded wire tagging data (1980-2006) and RFID tagging data (2014-2017) from three survey indices are included in the assessment. In 2019, ICES assess that Northeast Atlantic mackerel spawning stock size (4,186,496t) is above MSY Btrigger, Bpa, and Blim (1,990,000t).

The Peer Reviewer agrees that the stock assessed here be approved for the production of fishmeal and fish oil under IFFO RS v 2.0 by-products standard.

Notes for On-site Auditor

HOW TO COMPLETE THIS ASSESSMENT REPORT

By-products

The process for completing the template for **by-product raw material** is as follows:

1. **ALL ASSESSMENTS:** Complete the Species Characterisation table with the names of the by-product species and stocks under assessment. The ‘% landings’ column can be left empty; all by-products are considered as Category C and D.
2. **IF THERE ARE CATEGORY C BYPRODUCTS UNDER ASSESSMENT:** Complete clause C1 for **each** Category C by-product.
3. **IF THERE ARE CATEGORY D BYPRODUCTS UNDER ASSESSMENT:** Complete Section D.
4. **ALL OTHER SECTIONS CAN BE DELETED.** Clauses M1 - M3, F1 - F3, and Sections A and B do not need to be completed for a by-product assessment.

By-product approval is awarded on a species-by-species basis. Each by-product species scoring a pass under the appropriate section may be approved against the IFFO RS Standard.

SPECIES CATEGORISATION

The following table should be completed as fully as the available information permits. Any species representing more than 0.1% of the annual catch should be listed, along with an estimate of the proportion of the catch each species represents. The species should then be divided into Type 1 and Type 2 as follows:

- **Type 1 Species** can be considered the ‘target’ or ‘main’ species in the fishery. They make up the bulk of annual landings and are subjected to a detailed assessment.
- **Type 2 Species** can be considered the ‘bycatch’ or ‘minor’ species in the fishery. They make up a small proportion of the annual landings and are subjected to relatively high-level assessment.

Type 1 Species must represent 95% of the total annual catch. Type 2 Species may represent a maximum of 5% of the annual catch (see Appendix B).

Species which make up less than 0.1% of landings do not need to be listed (NOTE: ETP species are considered separately). The table should be extended if more space is needed. Discarded species should be included when known.

The ‘stock’ column should be used to differentiate when there are multiple biological or management stocks of one species captured by the fishery. The ‘management’ column should be used to indicate whether there is an adequate management regime specifically aimed at the individual species/stock. In some cases, it will be immediately clear whether there is a species-specific management regime in place (for example, if there is an annual TAC). In less clear circumstances, the rule of thumb should be that if the species meets the minimum requirements of clauses A1-A4, an adequate species-specific management regime is in place.

NOTE: If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in the CITES appendices, it **cannot** be approved for use as an IFFO RS raw material. This applied to whole fish as well as by-products.

TYPE 1 SPECIES (Representing 95% of the catch or more)

Category A: Species-specific management regime in place.

Category B: No species-specific management regime in place.

TYPE 2 SPECIES (Representing 5% OF THE CATCH OR LESS)

Category C: Species-specific management regime in place.

Category D: No species-specific management regime in place.

| Common name | Latin name | Stock | % of landings | Management | Category |
|-------------|-------------------------|---|---------------|------------|----------|
| Mackerel | <i>Scomber scombrus</i> | Subareas 1-8 and 14, Division 9.a (Northeast Atlantic and adjacent waters). | N/A | EU/Norway | C |

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. 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. A Category C species does not meet the minimum requirements of clause C1 should be re-assessed as a Category D species.

| 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. | 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. | PASS |
| Clause outcome: | | | See above |
| <p>C1.1 Evidence</p> <p>This assessment covers mackerel harvested from Subareas 1-8 and 14, Division 9.a Figure 1:</p> | | | |
| <p>Figure 1 Sub-areas, Divisions of FAO fishing areas, including mackerel assessment area R1</p> <p>https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/fishing_areas_en.pdf</p> | | | |

Catch data, coded wire tagging data (1980-2006) and RFID tagging data (2014-2017) from three survey indices are included in the assessment (**R3**):

- SSB index from the triennial egg survey (1992-2016)
- Abundance indices from the IBTS survey (combined Q1 and Q4; age 0, 1998-2017)
- IESSNS survey (ages 3-11, 2010, 2012-2018).

Catches prior to 2000 are given a very low weight in the assessment. Natural mortality (0.15 for all ages and years) is based on tagging studies from the early 1980s. The stock was benchmarked in 2017 by the ICES Working group on Widely Distributed Stocks; all biological reference points were evaluated and updated as was also the case during an April 2019 interbenchmarking when tagging data was also reviewed (**R3**).

C1.2

Evidence

Spawning-stock biomass (SSB) is estimated to have increased in the late 2000s, reaching a maximum in 2014. It has declined since but has remained above MSY Btrigger since 2008 (**Figure 2**):

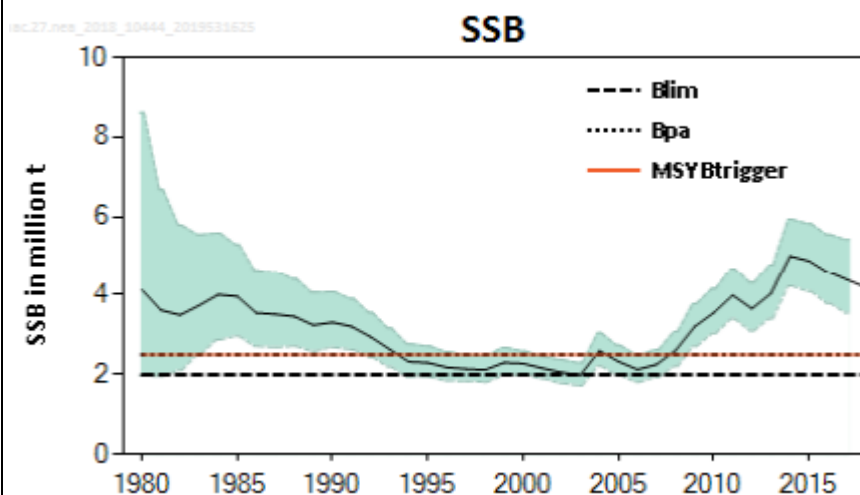


Figure 2: Mackerel in Subareas 1–8 and 14, Division 9.a. Confidence intervals (95%) are included **R3**

ICES assess that spawning stock size (4,186,496t) is above MSY Btrigger, Bpa, and Blim (1,990,000t) (**Figure 2**). The assessment procedure was modified during an interbenchmarking process in April 2019 (**R4**).

References

R1 Sub-areas, Divisions of FAO fishing areas, including mackerel assessment area

https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/fishing_areas_en.pdf

R2 IUCN Red List (accessed 09.01.20): Mackerel *S. scombrus*

<https://www.iucnredlist.org/species/170354/6764313>

R3 ICES advice (updated May 2019) Mackerel (*Scomber scombrus*) in subareas 1-8 and 14, and in Division 9.a (Northeast Atlantic and adjacent waters)

http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2019/Special_Requests/no.2019.09.pdf

R4 ICES. 2019. Inter benchmark Workshop on the assessment of northeast Atlantic mackerel (IBPNEA Mac). ICES Scientific Reports, 1:5. 71 pp.

<http://doi.org/10.17895/ices.pub.4985>.

Standard clauses 1.3.2.2