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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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R1

Fishery Under Assessment	Blue Mussel (<i>Mytilus edulis</i>) UK & Ireland
Date	January 2019
Assessor	Jim Daly

Application details and summary of the assessment outcome				
Name: Pelagia UK & Ireland				
Address: Killybegs (Ireland), Grimsby (UK)				
Country: Ireland, United Kingdom		Zip:		
Tel. No.:		Fax. No.:		
Email address:		Applicant Code		
Key Contact:		Title:		
Certification Body Details				
Name of Certification Body:		SAI Global Ltd		
Assessor Name	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval	Whole fish/ By-product
Jim Daly	Virginia Polonio	0.5	Re-approval	By-product
Assessment Period	2018			



Scope Details	
Management Authority (Country/State)	DAFM (Ire), MMO (UK), MS (Scotland), Fisheries Ministry (France)
Main Species	Blue Mussel <i>Mytilus edulis</i>
Fishery Location	UK, France and Ireland (EU waters)
Gear Type(s)	Bottom dredge, hand-raking
Outcome of Assessment	
Overall Outcome	PASS
Clauses Failed	NONE
Peer Review Evaluation	APPROVE
Recommendation	PASS

Assessment Determination

This assessment and decision covers product sourced for the client only from fisheries in the UK (Cornwall); Scotland (Shetland); France and Ireland.

Blue mussels can be co-cultured with salmon in integrated aquaculture or naturally grown on or near salmon cages. There are MSC fisheries certified in Ireland, Northern Ireland (Bottom Culture) and in Shetland, Scotland (Rope Culture). To manage fisheries in these cases, appropriate assessments including studies of stocking density (wild seed mussel harvested) and carrying capacity are taken into account.

UK Inshore Fisheries Conservation Authorities (IFCAs) conduct stock assessments of blue mussels within their jurisdictions. An Advisory Body oversees the seed mussel fishery in Ireland (North and South). Seed mussel surveys (catch and grow fishery) are undertaken annually. For commercial reasons these stock assessments are not released to the public. In France one particular area of wild mussel stock (Barfleur, Normandy) produces between 5,000-9,000 tons annually. For other wild mussel beds located in the assessment area a greater level of scientific understanding is needed.

In the UK approximately 26,000t of blue mussels are produced annually, although it is not clear what proportion of these are from wild harvest. In Ireland (2016) bottom cultured and rope mussel sectors had a combined 16,000 tonnes harvest. The Irish Fisheries Board (BIM) note that increased seed settlement observed in recent years was likely to be reflected in the 2017 harvest. Total figures for annual mussel production in France (National Shellfish Aquaculture Committee) are estimated at 55,000-58,000 tonnes with approximately 50,000 tonnes derived from rope culture. The Competent Authority for seafood safety in France have delegated scientists from Ifremer to undertake shellfish and shellfish production area monitoring for water quality. Fishery removals are included in the stock assessment process. **For the areas specified in this report the species passes Clause C1.1.**

Removals from wild mussel beds are considered negligible by stakeholders as most of the adult stock comes from a wild seed mussel fishery that is harvested, re-laid and grown in designated aquaculture sites. **For the areas specified in this report the species passes Clause C1.2.**

IUCN have not yet assessed this species; Blue mussel is not listed by CITES on their current list of endangered species (accessed 30.01.19).

Blue mussel from the designated area only is approved by the assessment team for the production of fishmeal and fish oil under the IFFO-RS v 2.0 standard (by-products).

Peer Review Comments

Agree that the material sourced only from designated, managed areas (MSC certified fisheries in Shetland, Cornwall, Ireland and France) should also be IFFO-RS approved.

Notes for On-site Auditor

During on-site audits please ensure that products of aquaculture may be used as material for fish meal and fish oil only when:

- a) They show no clinical signs of disease on the day of receipt (EU 1774/2002).
- b) They shall not come from a farm which is subject to a prohibition for animal health reasons and shall not have been in contact with animals from such a farm.
- c) They shall be kept segregated and clearly labelled as marine ingredients of the species that they originate from including circumstances where they are mixed with other raw materials both before and post processing (EU 811/2003).

These are traceability and production issues which must be addressed if the material is to be IFFO-RS approved.

Note: This table should be completed for whole fish assessments only.

Species-Specific Results

Category	Species	% landings	Outcome (Pass/Fail)
Category A			A1
			A2
			A3
			A4
Category B			
Category C	Blue Mussel <i>Mytilus edulis</i>	N/A	PASS
Category D			

[List all Category A and B species. List approximate total % age of landings which are Category C and D species; these do not need to be individually named here]

HOW TO COMPLETE THIS ASSESSMENT REPORT

This assessment template uses a modular approach to assessing fisheries against the IFFO RS standard.

Whole Fish

The process for completing the template for a **whole fish** assessment is as follows:

1. **ALL ASSESSMENTS:** Complete the Species Characterisation table, to determine which categories of species are present in the fishery.
2. **ALL ASSESSMENTS:** Complete clauses M1, M2, M3: Management.
3. **IF THERE ARE CATEGORY A SPECIES IN THE FISHERY:** Complete clauses A1, A2, A3, A4 for **each** Category A species.
4. **IF THERE ARE CATEGORY B SPECIES IN THE FISHERY:** Complete the Section B risk assessment for **each** Category B species.
5. **IF THERE ARE CATEGORY C SPECIES IN THE FISHERY:** Complete clause C1 for **each** Category C species.
6. **IF THERE ARE CATEGORY D SPECIES IN THE FISHERY:** Complete Section D.
7. **ALL ASSESSMENTS:** Complete clauses F1, F2, F3: Further Impacts.

A fishery must score a pass in **all applicable clauses** before approval may be recommended. To achieve a pass in a clause, the fishery/species must meet **all** of the minimum requirements.

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
Blue Mussel	<i>Mytilus edulis</i>	NE Europe	N/A	DAFM/MMO/MS/French Fisheries Ministry	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		Blue mussel (<i>Mytilus edulis</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:			PASS
<p>C1.1:</p> <p>The primary authorities with responsibility for implementing the Common Fisheries Policy (CFP) are the Department of Agriculture, Food and the Marine in Ireland (DAFM), the Marine Management Organisation (in cooperation with the Department for Environment, Food and Rural Affairs) in England and Wales (MMO), Marine Scotland (MS), a Directorate of the Scottish Government and the Ministère de la Pêche (France). The majority of species-specific regulation for mussels relates to water quality and food safety, and is aimed at ensuring a high quality of product rather than sustainability of mussel fisheries.</p> <p>While there are no quotas in place there are minimum landing sizes, which vary between 45-51mm in England, Wales and France. Catch-and-grow mussel fisheries in Ireland and the UK are subject to more stringent regulations including in some areas move on rules related to catch composition, minimum biomass of available seed prior to the commencement of fishing for seed and rules related to re-laying areas for on-growing. UK Inshore Fisheries Conservation Authorities (IFCAs) conduct stock assessments within their own jurisdictions.</p> <p>In Ireland a 'Bottom Grown Mussel Consultative Forum', an all-Ireland industry advisory body, has been formed. Seed mussel surveys (wild fisheries) are undertaken annually. There are MSC fisheries certified in Ireland and Northern Ireland (Bottom Culture) and Shetland, Scotland (Rope Culture). To manage fisheries in these cases, appropriate assessments including studies of stocking density (seed mussel) and carrying capacity are taken into account.</p> <p>In the UK approximately 26,000t of blue mussels are produced annually, although it is not clear what proportion of these are wild harvest. In Ireland (2016) bottom cultured and rope mussel sectors had a combined 16,000 tonnes harvest. BIM note that, in Ireland, increased blue mussel seed settlement observed in recent years was likely to be reflected in the 2017 harvest. While catch-and-grow mussel fisheries in Ireland and the UK are subject to regulations in selected areas, in other areas the level of scientific understanding to support assessments needs improving. The species is widely farmed.</p> <p>In France harvesting of wild stock by hand-raking and dredging is controlled; a number of different aquaculture techniques are also employed (including rope mussel culture). One particular area of wild stock (Barfleur, Normandy) produces 5,000-9,000 tons annually. Total figures for annual mussel production in France (National</p>			

Shellfish Aquaculture Committee) estimate 55,000-58,000 tons annually with approximately 50,000 tons from rope culture. The Competent Authority for seafood safety in France have delegated scientists from Ifremer to undertake shellfish and shellfish production area monitoring for water quality.

Fishery removals of the species in the fishery under assessment are included in the stock assessment process. Removals by the fishery under assessment (wild seed mussel stock) are controlled and are considered by scientific authorities to be negligible.

References:

- **R 1** Image of *Mytilus edulis* by Decleer, Misjel
<http://www.marinespecies.org/photogallery.php?album=1954&pic=34382>
- **R 2** About the Common Fisheries Policy http://ec.europa.eu/fisheries/cfp/index_en.htm
- **R 3** Marine Stewardship Council Track a Fishery <https://fisheries.msc.org/en/>
<http://www.seafish.org/rass/index.php/search-results/> accessed 29.01.19
- **R 4** Marine Management Organisation (About):
<https://www.gov.uk/government/organisations/marinemanagement-organisation>
- **R 5** 2017 BIM Annual Aquaculture Survey accessed 25.01.19
- **R 6** IUCN redlist: <http://www.iucnredlist.org/> ; <https://www.cites.org/eng/search/site/> www.cites.org accessed 24.01.19
- **R 7** IFREMER: (Institut français de recherche pour l'exploitation de la mer) <https://wwz.ifremer.fr/>
- **R 8** Comité national de la conchyliculture: <http://www.cnc-france.com/>

Standard clauses 1.3.2.2