



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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R1

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

Application details and summary of the assessment outcome				
<b>Name: Pelagia UK &amp; Ireland</b>				
<b>Address: Killybegs (Ireland), Grimsby (UK)</b>				
<b>Country: Ireland, United Kingdom</b>		<b>Zip:</b>		
<b>Tel. No.:</b>		<b>Fax. No.:</b>		
<b>Email address:</b>		<b>Applicant Code</b>		
<b>Key Contact:</b>		<b>Title:</b>		
Certification Body Details				
<b>Name of Certification Body:</b>		<b>SAI Global Ltd</b>		
<b>Assessor Name</b>	<b>Peer Reviewer</b>	<b>Assessment Days</b>	<b>Initial/Surveillance/Re-approval</b>	<b>Whole fish/ By-product</b>
Jim Daly	Conor Donnelly	0.5	SURV 1	By-product
<b>Assessment Period</b>	2019			



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Scope Details		
Management Authority (Country/State)	DAFM (Ire), MMO (UK), MS (Scotland), Fisheries Ministry (France)	
Main Species	Blue Mussel <i>Mytilus edulis</i>	
Stock:	UK, France and Ireland (EU waters)	
Fishery Location	UK, France and Ireland	
Gear Type(s)	Ropes, Bottom dredge	
Outcome of Assessment		
Overall Outcomes:	Outcome	Clause(s) failed
1 UK, France and Ireland	PASS	NONE
Peer Review Evaluation	APPROVE	
Recommendations	PASS	

Assessment Determination
<p>This assessment and decision covers product sourced for the client only from fisheries in the UK (Cornwall and Scotland (Shetland)); France and Ireland.</p> <p>If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in CITES appendices, it cannot be approved for use as IFFO RS raw material. Blue mussel does not appear as Endangered or Critically Endangered on the IUCN Red List, nor does it appear in the CITES appendices; therefore, Blue mussel is eligible for approval for use as IFFO RS raw material.</p> <p>A Public Certification Report (PCR) for Ireland’s rope grown blue mussel industry was provided to the MSC by SAI Global (July 2019). The fishery under assessment represents enhanced Catch and Grow (CAG) whereby individuals are caught in the wild and on-grown to desired sizes. Mussel spat is normally caught and on-grown within the same bay/estuary, enhancing what is already present. The SAI Global assessment team (July 2019) concluded that the rope grown mussel fishery should be certified according to MSC’s Principles and Criteria for Sustainable Fishing. The active dredging of seed mussel beds prior to relaying (bottom culture) is also subject to regulation.</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) rope mussel and bottom culture sectors had a combined 16,000 tonnes harvest. In France harvesting of wild stock by hand-raking and dredging is controlled; a number of different aquaculture techniques are also employed (including rope culture). Total figures for annual mussel production in France (National Shellfish Aquaculture Committee) estimate 55,000-58,000 tons harvested.</p> <p>A single stock forms part of this assessment. Removals by the fishery under assessment are considered by scientific authorities to be negligible; therefore, the stock <b>PASSES</b> Clauses C1.1 and C1.2.</p> <p>In order to be approved, each stock assessed must pass both Clause C1.1 and C1.2; therefore:</p> <p>1) Blue mussel is <b>APPROVED</b>; by the SAI Global assessment team for the production of fishmeal and fish oil under the IFFO-RS v 2.0 by-products standard.</p>

Peer Review Comments
Notes for On-site Auditor
<p>During on-site audits please ensure that products of aquaculture may be used as material for fish meal and fish oil only when:</p> <ul style="list-style-type: none"> <li>a) They show no clinical signs of disease on the day of receipt (EU 1774/2002).</li> <li>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.</li> <li>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).</li> </ul> <p>These are traceability and production issues which must be addressed if the material is to be IFFO RS approved.</p>

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

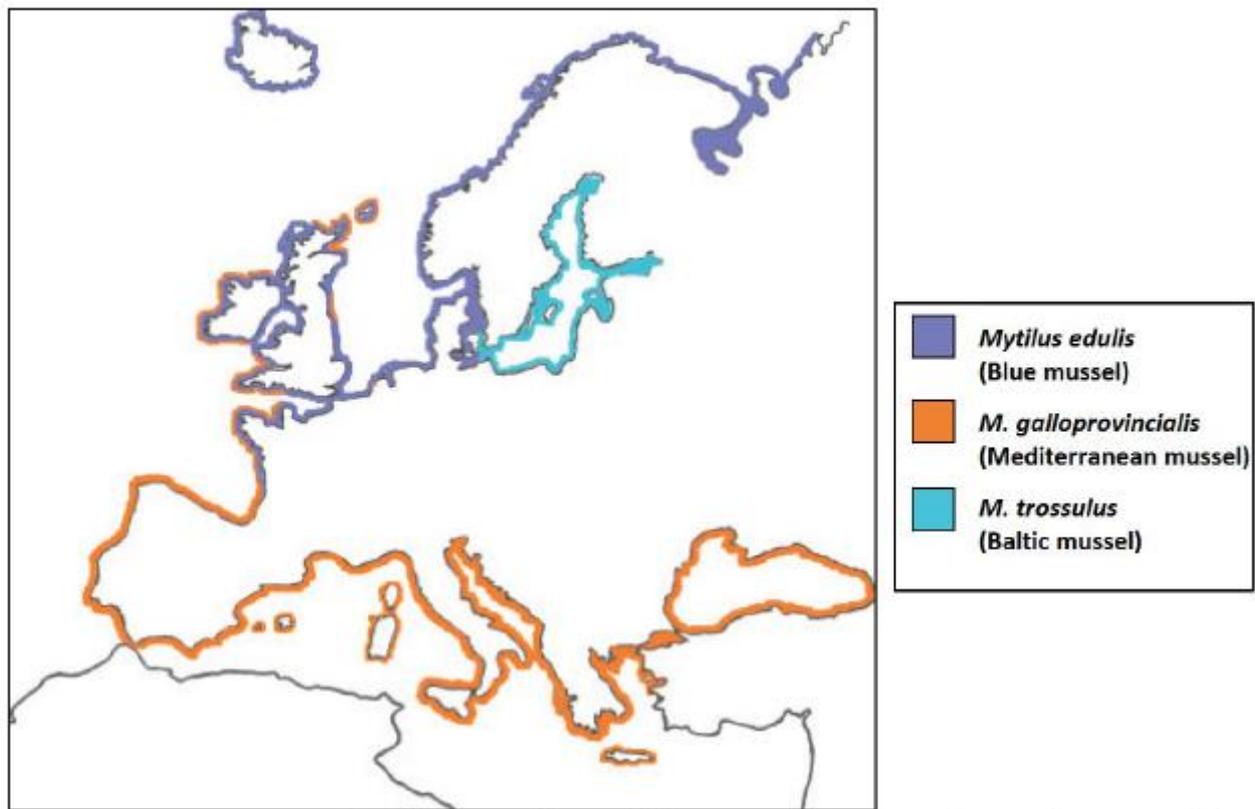
In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment. In a by-product assessment, 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	<b>Category C Stock Status - Minimum Requirements</b>		
	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.	<b>PASS</b>
	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.	<b>PASS</b>
<b>Clause outcome:</b>			<b>PASS</b>
<p><b>C1.1:</b></p> <p>In Catch and Grow (CAG) fisheries individuals are caught in the wild (either through passive settlement of mussel spat on lines and/or nets or through active dredging of seed mussel beds prior to relaying on inter-tidal beds) and on-grown to the desired size. For the rope mussel fishery gear in use consists of ropes (on which mussels are grown) suspended on anchored longlines that are in turn suspended from floats.</p> <p><b>Passive settlement:</b></p> <p>No biological reference points are calculated in the case where passive settlement of mussel spat occurs. Local populations are not affected and indeed may be enhanced during this process. When assessing fisheries for MSC Certification, assessors are required to determine whether or not the fishery negatively impacts parent stock including whether or not the fishery involves translocations (under MSC rules defined as the transfer of species to a production area outside the distribution of their natural range). Translocations of native species within their range may also pose risks to the genetic diversity of wild populations. In the rope grown fishery mussel spat is normally caught and on-grown within the same bay/estuary, enhancing what is already present. The SAI Global Assessment Team are confident that movements that would constitute Translocations as defined by MSC are not taking place in the Ireland rope grown mussel fishery assessed in July 2019.</p> <p><b>Active dredging:</b></p> <p>The active dredging of seed mussel beds prior to relaying is subject to regulation. UK Inshore Fisheries Conservation Authorities (IFCAs) conduct stock assessments within their jurisdictions. 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. For commercial reasons these stock assessments are not released to the public.</p> <p>Regulations in force include moving on rules related to catch composition, the establishment of a minimum biomass of available seed prior to the commencement of fishing and other rules related to re-laying areas for on-growing (bottom culture fisheries). While there are no quotas in place there are minimum landing sizes, which vary between 45-51mm in England, Wales and France.</p>			

**C1.2:**

Three species may be found in the Unit of Assessment (**R2**) namely *M. edulis* (blue mussel), *M. galloprovincialis* (Mediterranean mussel) and *M. trossulus* (foolish or Baltic mussel):



**Figure 1:** Approximate distributions of *M. edulis*, *M. galloprovincialis*, and *M. trossulus* in Europe **R3**

With enhanced (CAG) bivalve fisheries, management is not based on reference points or the concept of managing stock size. Instead management strategies and assessments are based on limiting the impact of farming activity on Natura 2000 sites. While information on biomass produced is gathered, this is not done for the purpose of assessing stock status and is not carried out on all production sites.

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. 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). Total figures for annual mussel production in France (National Shellfish Aquaculture Committee) estimate 55,000-58,000 tons harvested annually with approximately 50,000 tons from rope culture.

Through stock assessments (seed mussel beds) and the application of other conservation tools removals by the fishery under assessment are considered by scientific authorities to be negligible.

The species **PASSES** both Clause C1.1 and C1.2

**References:**

**R1** Image of *Mytilus edulis* by Decleer, Misjel

<http://www.marinespecies.org/photogallery.php?album=1954&pic=34382>

**R2** Marine Stewardship Council Full Assessment Public Certification Report For Ireland rope grown mussel SAI Global 209pp July 2019 <https://fisheries.msc.org/en/fisheries/ireland-rope-grown-mussel/@assessments>

**R3** Gosling, E. M. (ed.) 1992. The mussel, *Mytilus*: ecology, physiology, genetics and culture. Amsterdam: Elsevier Science Publications.

*Standard clauses 1.3.2.2*