

**Marine Stewardship Council (MSC) 3<sup>rd</sup> Surveillance Report**

**North Menai Strait mussel fishery**

**On Behalf of**

**Bangor Mussel Producers Ltd.**

**Prepared by**

**Control Union Pesca Ltd.**

**July 2019**

**Author:**

**C.M. Seip-Markensteijn**

Control Union Pesca Ltd.  
56 High Street, Lymington, Hampshire,  
SO41 9AH, United Kingdom  
Tel: 01590 613007 Fax: 01590 671573  
Email: [infopesca@controlunion.com](mailto:infopesca@controlunion.com)  
Website: [www.cupesca.com](http://www.cupesca.com)

**Project QA**

	Signature
Originator:	Cora Seip
Reviewer:	Kat Collinson
Approver:	Charlotte Todd

## Contents

Contents.....	3
Glossary.....	4
1 Report details.....	7
1.1 Surveillance information.....	7
1.2 Background.....	8
1.2.1 Principle 1.....	8
1.2.2 Principle 2.....	9
1.2.3 Principle 3.....	11
1.2.4 Traceability.....	12
1.3 Version details .....	13
2 Results.....	13
2.1 Surveillance results overview .....	13
2.1.1 Conditions and recommendations.....	13
2.1.2 Total Allowable Catch (TAC) and catch data .....	13
2.2 Principle level scores .....	14
3 Appendices.....	15
3.1 Evaluation processes and techniques.....	15
3.1.1 Site visits.....	15
3.1.2 Stakeholder participation.....	15
3.2 Harmonised fishery assessments .....	16
3.3 References .....	17
Appendix 1 .....	18

## Glossary

Acronym	Definition
AIS	Automatic Identification System
BIM	Bord Iascaigh Mhara (Ireland's Seafood Development Agency)
BMP	Bangor Mussel Producers Ltd
CAG	Catch and Grow
CCW	Countryside Council for Wales
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
EA	Environment Agency
EMS	European Marine Site
ETP	Endangered Threatened or Protected (species)
HRA	Habitat Regulations Assessment
IFCA	Inshore Fisheries Conservation Authority
IFG	Inshore Fisheries Group
ISPP	Irish Sea Portal Pilot
INNS	Invasive Non-Native Species
MEC	ME Certification Ltd
MMO	Marine Management Organisation
MOSS	Menai Offshore Subsurface Shellfish Systems
MSC	Marine Stewardship Council
MSFOMA	Menai Strait Fishery Order Management Association
NRW	Natural Resources Wales
NWIFCA	North Western Inshore Fisheries Conservation Authority
RBF	Risk-Based Framework
SAC	Special Area of Conservation
SPA	Special Protection Area
TAC	Total Allowable Catch
UoC	Unit of Certification
WFD	Water Framework Directive
WFD UKTAG	WFD United Kingdom Technical Advisory Group
WG	Welsh Government
WMFAG	Wales Marine Fisheries Advisory Group

## Executive summary

Unit of Certification (UoC):

Species and stock	European / blue mussel ( <i>Mytilus edulis</i> )
Geographical range	Seed fishery area: Morecambe Bay, Caernarfon Bay, River Dee, Conwy Bay (Cheshire / N. Wales) Mussel culture area: Menai Strait, north of the Swellies.
Method of capture	Mussel dredge
Management Systems	Wales: Welsh Government (WG), Natural Resources Wales (NRW) England: Northwestern IFCA (NWIFCA), Natural England Menai Strait Fishery Order Management Association (MSFOMA)
Client group	Bangor Mussel Producers Ltd. - Myti Mussels Ltd., Extramussel Ltd., Ogwen Mussel Ltd and Deep Dock Ltd. harvesting seed mussels from Morecambe Bay, Caernarfon Bay, River Dee and Conwy Bay by mussel dredge and relaying these onto culture plots (lays) in the Menai Strait.

The fishery was successfully recertified in May 2016. No new conditions were raised or old conditions re-opened. In 2017 the 1st annual surveillance audit for the re-certification was conducted offsite, whereas the 2nd annual surveillance audit was conducted on-site in Menai in June 2018. This year's 3rd surveillance audit took place on 3<sup>rd</sup> June 2018 and was conducted offsite by Cora Seip-Markensteijn.

At the time of the re-certification in May 2016, the Client, Bangor Mussel Producers (BMP) Ltd., consisted of four companies, Extramussel Ltd., Deepdock Ltd., Myti Mussels Ltd. and Ogwen Mussel Ltd. In 2017 another company, Mon Shellfish Ltd., joined the Client group. The addition of the new company had no implications for the nature of the fishery and its sustainability.

Currently there are four vessels operating in the fishery. Three of the vessels – Mare Gratia (B932), Valente (BS8) and Lottie Holly (BS12) – were operating at the time of the re-certification in 2016, but since then a fourth vessel, Stil Ostrea (B98), has joined the fleet. All four vessels are based in Port Penrhyn. Mare Gratia and Valente fish only for seed mussel, whereas Lottie Holly and Stil Ostrea operate only within the Fishery Order area.

Since re-certification in 2016, the fishery continues to operate in the same areas and there have been no changes to the gear used in the fishery. Both the Welsh Government (WG) and the North Western IFCA insist on the use of approved dredge designs.

This fishery remains in conformity with the MSC scope requirements (FCP 7.4), no inseparable or practicably inseparable (IPI) stocks are caught in this fishery, and the fishery is not an Introduced Species Based Fishery as per the MSC FCP 7.4.7.

The fishery continues to be an enhanced bivalve fishery of the 'catch and grow' (CAG) type with translocation of seed mussels. As at the time of the re-certification, the fishery does not involve any 'hatch and catch' elements.

There have been no significant changes warranting a re-scoring of performance indicators. There have also been no material changes in the traceability system for this fishery.

The audit team confirms that this fishery continues to conform to the MSC Principles and Criteria for sustainable fishing. No new conditions or recommendations have been raised. No Performance Indicators have been re-scored. The surveillance plan has not been revised and remains at Level 3.

The audit team recommends that this fishery should remain certified.

## 1 Report details

### 1.1 Surveillance information

<b>1</b>	<b>Fishery name</b>	
	North Menai Strait Mussel Fishery	
<b>2</b>	<b>Surveillance level and type</b>	
	Level 3, off-site surveillance audit	
<b>3</b>	<b>Surveillance number</b>	
	1st Surveillance	
	2nd Surveillance	
	3rd Surveillance	X
	4th Surveillance	
	Other (expedited etc.)	
<b>4</b>	<b>Team leader</b>	
	Name	Cora Seip-Markensteijn
	Areas of Responsibility	Team-leader
	Competency Criteria (Annex PC)	<p>Cora meets the Fishery Team Leader criteria in Table PC1. She has a Master's degree in Biology from Leiden University, and has passed the online fishery team leader training.</p> <p>Previously, she worked for the Dutch Fish Product Board from 2007-2013 as Policy Officer, 'Nature and Spatial Planning'. Her work focused mainly on Natura 2000 procedures and shrimp and flatfish fisheries, and included the Marine Framework Directive. She was also shellfish Policy Officer and worked closely with the Dutch shellfish industry (mainly mussels, but also oysters, <i>Ensis</i>, and cockles). From 2013-2017 Cora has worked as an expert independent consultant to a broad cross-section of fishing organisations. Notable achievements include working on assessment of Dutch fisheries (both generic and specific) and their impacts, as well as</p>

		working as an advisor with regards to spatial planning, and nature conservation laws. Cora has completed MSC traceability training and RBF training in the past three years.
	Conflict of Interest	No conflict of interest has been identified.
	Onsite or Offsite	Offsite
<b>5</b>	<b>Audit/review time and location</b>	
	The off-site surveillance was scheduled for the 3rd June 2019.	
<b>6</b>	<b>Assessment and review activities</b>	
	<p>During the audit, CU Pesca has communicated with the client and any relevant stakeholders and use any available up to date information to assess and review;</p> <ul style="list-style-type: none"> <li>Any changes to the fishery and its management including those to management systems, regulation and relevant personnel assessments;</li> <li>Any changes to the scientific base of information such as stock;</li> <li>Any developments or changes within the fishery impact may impact on traceability and the ability to segregate MSC from non-MSC products;</li> <li>Any other significant changes in the fishery.</li> </ul>	

## 1.2 Background

### 1.2.1 Principle 1

The North Menai Strait mussel fishery is an enhanced 'catch and grow' fishery with translocation of mussels. The fishery consists of the collection of seed mussels by dredging from four separate sites – Morecambe Bay, Caernarfon Bay, the River Dee and Conwy Bay – and then relaying the mussels for on-growing on culture plots in the Menai Straits. The main areas of seed mussel collection are subject to winter storms, which wash away seed mussels. Along with high predation rates, particularly in milder winters, the beds are therefore considered to be ephemeral and collection and relaying of seed mussel effectively increases survival rates of mussels. The areas of operation, including seed mussel collection areas and the lays for on-growing mussels, are unchanged since the re-certification.

Mussel production from the Fishery Order was 3455 tonnes in 2018/19, which is an increase compared to last year, when the overall production stagnated at 1200 tonnes. The 2018/19 production is still a decline from reported production figures in 2016/17 and 2015/16, which were 4940 and 5300 tonnes respectively. Prior to 2015/16, mussel production was much higher than the last four years (Gascoigne et al., 2016). The very low production in the last years continues to reflect the current low availability of seed mussels across all four seed mussel areas.

In 2018/19 seed was only collected from Caernarfon Bay (550 tonnes) and the River Dee (250 tonnes, handpicked – sized for relaying), based on the mussel stock surveys carried out in 2018. The results from these surveys are outlined in the 2<sup>nd</sup> year surveillance report (Addison, 2018).

For comparison, in 2017/18 seed mussels were only collected from the Dee Estuary. No seed was relayed from Morecambe Bay, Caernarfon Bar and Conwy Bay.

In conclusion, there has been very little successful settlement of seed mussels in the four areas within the Unit of Certification (UoC), which had previously been shown to be reliable sources of seed over the last 20 years. Morecambe



Bay in particular was previously a very reliable source of seed mussels, but settlements have been very poor in the last three to four years. However, historical scientific reports from the old North Western and North Wales Sea Fisheries Committee (the forerunner of the North Western Inshore Fisheries Conservation Authority- NWIFCA) suggest that in the 1980s and 1990s, good settlement of seed mussel was the exception rather than the rule.

As previously discussed at the year 2 surveillance audit (Addison, 2018), research continues at Bangor University and Bord Iascaigh Mhara (BIM) in Ireland through the Irish Sea Portal Pilot (ISPP). One of the objectives of the ISPP is to develop a clearer understanding of the dynamics that drive mussel larvae dispersal and seed settlement at the pan-Irish Sea scale. The project includes modelling of shellfish larvae movement, monitoring of shellfish larvae to determine spawning patterns, and deployment of seed collectors and assessment of the resilience of seed.

The development of a web portal is also a key aspect of the ISPP. The aim of the portal is to provide a tool for the bottom mussel industry to get the information that is relevant to them. The portal will focus on information such as weather, tides, biotoxin data, safety and historic seed distributions in a straightforward, user friendly interface. The portal will draw information from a wide range of sources including the Marine Institute, SFPA, BIM, seafood markets and government agencies on both sides of the Irish Sea as well as project-specific case study data.

In addition, BMP members are sponsoring PhD studentships at Bangor University. Further to the modelling work as outlined in the year 2 audit (Addison, 2017) on larvae dispersal, a new PhD student has started work to design, build and test an agent-based model to predict both the dynamics of an intertidal bivalve population and a non-breeding coastal bird population in response to commercial bivalve harvest, with a focus on interactions with eider ducks and oystercatchers. A third PhD student focusses on the valuation of ecosystem good and services provided by cultivated shellfish.

### 1.2.2 Principle 2

The re-certification report noted that as there had been no change in the seed collection methods since the initial assessment, and there had been no changes in effects on habitats and ecosystems (Gascoigne et al, 2016). Changes to retained or bycatch species are considered unlikely and to be at such low levels as to have no conceivable impact on populations of those species, and the client confirmed at both this 3<sup>rd</sup> surveillance audit and previous surveillance audits (Addison, 2018; Addison, 2017) that there had been no change to retained or bycatch species since re-certification. Green crab (*Carcinus maenas*) and starfish (*Asteria rubens*) are the main bycatch, both of which are predators of mussels. Given the limited amount of mussel seed fishing undertaken in the last two to three years, year-on-year comparisons are difficult to make. The quantities of green crab in Caernarfon are historically different from those evident in Morecambe. The only seed bed harvested in 2018 by vessel (using dredge) was located on an area with some tidal velocity, which might act as a deterrent to predators like shore crab and other predatory species. Some were seen during the fishing operation, and the seed itself was clean (no barnacles or tube worms were attached).

An area in Morecambe Bay – on the Falklands Skear had substantial settlement of mussel spat, and the area was closely monitored over a period of four months. No starfish were present in the area in early June 2018, and there was much hope that this area would see substantial growth in the mussel seed population mass. However, the survey in July 2018 showed that the area had been completely devastated by starfish.

There was a formal study of bycatch by Dr Michael Ehrhardt of Molecular Biology and Ecology Solutions Ltd. in 2010, which concluded that the total bycatch was well below 5% of the total catch in Morecambe Bay and Caernarfon Bay (Ehrhardt, 2010), which means they aren't 'main' species in the MSC context. Informal figures on bycatch continue to be collected annually.

Fishing practices remain the same since re-certification. All potential seed areas are within the boundaries of European Marine Sites (EMS) and as such require either a Habitat Regulation Assessment (HRA, also called an Appropriate Assessment (AA) to be undertaken prior to any activity. No new EMS have been designated since the previous audit in 2018 (Addison, 2018). The cultivation area lies within the boundary of the Menai Strait & Conwy SAC, and is adjacent to the Traeth Lafan SPA, the Puffin Island SPA and the Liverpool Bay SPA. The North Anglesey Marine SAC (for harbour porpoise, *Phocoena phocoena*) was confirmed in 2018, but there is no overlap of this SAC with the fishery. Also, during the re-certification process the assessment team expressed confidence that “any effects on harbour porpoise from the fishery operations are likely to be undetectable, well within any limits for their protection and are, in any case negligible.” (Gascoigne et al., 2016) In summary, there are no identified or predicted adverse interactions of the fishery on proposed SACs/SPAs.

The likelihood of significant effect on the features for which the EMS are designated is considered before a licence under the Menai Strait East Fishery order is granted. The renewal of the Menai Strait East Fishery Order is being prepared (due in 2022) and a document has been prepared specifically to inform a Habitats Regulations Assessment (HRA) to accompany this renewal.

The impact on both habitats and ETP species has been considered. The ‘Document to inform a Habitats Regulation assessment for the renewal of the Menai Strait East Fishery Order’ (2019, and references therein) states the following:

“Research (Beadman et al. 2004) and monitoring has been carried out in the area surrounding the Fishery Order to identify if there are or have been any impacts on the mudflats and sandflats from the mussel industry. This research and monitoring has shown that there is no adverse effect on the intertidal mudflats of the SAC. Beadman et al. (2004) state that the effects of a monoculture mussel bed were localised (0-10m) and not detectable at larger scales (10-100m)...

The hydrodynamic regime will not be altered by the issuing of the leases as the area is currently used as an operational mussel aquaculture business and there is no planned change to the existing operational densities or areas and monitoring by Bangor University on the existing mussel beds has shown that there is no adverse effect on the hydrodynamics of the water flow in the area of the existing mussel beds...

There will be no loss of mudflat and sandbank feature as the mussels will not be laid outside of the current fishery order area also there will be no adverse effect on the filter feeding species within the mudflat and sandflat feature as there will be no adverse effect on the food supply to the filter feeders by the mussel fishery... There will be no loss to the Large shallow inlet and bay feature or to the component habitats of the feature as the mussels will not be laid outside of the current fishery order area also there will be no adverse effect on the filter feeding species within the Large shallow inlet and bay feature as there will be no impact on the food supply to the filter feeders or typical species of the feature by the mussel fishery.”

In this document, special attention is given to ETP species that might rely upon the seed mussel resources e.g. eider ducks (*Somateria mollissima*), common scoters (*Melanitta nigra*), oystercatchers (*Haemaopus ostralegus*) and knots (*Calidris* spp.). Therefore, the mussels removed are over 45mm in size and all smaller mussels are left on the lays to grow on. This therefore ensures that there will be ample amount of shellfish left in the area for the birds if required during extreme weather when they may seek shelter within the Menai Strait. It should be noted that the fishery brings in seed mussel to the area and therefore increases the amount of food available locally. There will be no loss of food to fish eating birds within the Assemblage from the mussel fishery (Document to inform a Habitats Regulation assessment for the renewal of the Menai Strait East Fishery Order’, 2019). This is also judged cumulatively with other shellfish fisheries that may influence food availability for birds (mainly the local cockle fisheries).

As a result of the Water Framework Directive (WFD), the estuaries are regularly monitored. The data gathered under the WFD monitoring is also used for the HRA. The WFD transitional and coastal waters (TraC) monitoring, a tool developed by the WFD United Kingdom Technical Advisory Group (WFD-UKTAG), is used to produce classifications for individual elements and an overall ecological status for the water bodies.

The receptors monitored in light of the WFD are:

- Hydromorphology;
- Biology – habitats (e.g. benthic invertebrates);
- Biology – fish;
- Water quality;
- Protected areas.

### 1.2.3 Principle 3

In Wales, the fishery is managed by the Welsh Government (WG) and Natural Resources Wales (NRW), an amalgamation of three former agencies - Countryside Council for Wales, (CCW), Environment Agency (EA) and the Forestry Commission. Within Wales, the authorities and the Client collaborate on surveys, and the fishery is moving towards co-management, through the Menai Straits Fishery Order Management Association (MSFOMA). In 2018, the membership of MSFOMA has expanded to include industry representatives from Beaumaris and Bangor Mussel Producers. Decision-making remains with the WG, stakeholder involvement is formally recognised through the Wales Marine Fisheries Advisory Group (WMFAG), and three new regional Inshore Fisheries Groups (IFGs) were established in 2012, although the IFGs were operationally suspended in 2016. BMP Ltd. regularly attended the North Regional Inshore Fisheries Group.

In England, the fishery is managed by the NWIFCA and Natural England. The IFCA has a Technical, Science and Byelaw Sub-Committee which will make proposals on changes to regulations to be ratified by the full IFCA committee. Within NWIFCA, stakeholder involvement is facilitated through the Bivalve Mollusc Working Group which includes seed dredgers, hand-pickers, Natural England, NGOs and IFCA representatives. The Working Group discusses issues relevant to the mussel fishery, in particular the IFCA policy of limiting access to seed mussel collections to a fixed number of vessels.

The relaying of the seed mussels on the private 'lays' is granted under the Menai Strait East Fishery Order which expires in 2022. As described under Principle 2, the application for a new Fishery order (2022-2035) is underway, with the Document to inform a Habitats Regulation assessment for the renewal of the Menai Strait East Fishery Order already produced.

As described at the year 2 surveillance audit (Addison, 2018), the management regime is now regulated under a specific dredge permit byelaw (NW-IFCA, 2017). This has actually tightened regulation and given the NWIFCA more powers to ensure sustainability and protection of features within Marine Protected Areas – particularly EMS designated for both habitats and bird species.

Since the introduction of this byelaw in 2017 no dredge permits have been issued due to lack of stock. This is caused by natural occurrences such as sand covering the cobble and boulder skears to which the mussels attach, and is an effect of the dynamic environment, shifting sandbanks and channels of Morecambe Bay and the other estuaries.

The procedures that need to be followed prior to any vessels from the North Menai Fishery area being granted access to mussel seed areas, remain as before: areas with sufficient mussel seed must be identified (through industry surveys), the relevant bodies must then be informed, and the processes of securing relevant permissions are undertaken (including the provision of an HRA, informed by pre-existing information, on-site observations, and any new information). The byelaw outlines the requirements, ie:

- specified time period for permit validity
- fee payable
- returns required
- fully functioning AIS
- notification prior to commencement of fishing
- flexible permit conditions which give powers to specify fishing spatially, temporally, tidally, by species, gear type and/ or design, gear limitation, maximum number of permits issued and total allowable catch.

After these steps, the vessels apply for the authorisation to harvest. Prior to any such application, NRW are informed of prospective movement of mussel seed, which will be checked against the requirements of the Code of Good Practice for Mussel Seed Movements (Bangor Mussel Producers Ltd., 2008).

There have been no changes in personnel or organisational changes within the Client Group since the re-certification. The Welsh Marine and Fisheries Action Group (WMFAG) continues to convene and provides a useful forum to share understanding and communications.

There is a strong enforcement presence in the fishery and the Client reports that their vessels are regularly boarded and inspected by NWIFCA and the WG. In addition, all vessels must have a functioning Automatic Identification System (AIS) on board at all times. If the system fails, then the vessel must stop fishing. No company or vessel covered by the extent of the MSC certificate has been subject to any warnings, convictions or fines. There have been no reports of non-compliance since the re-certification. This has been confirmed by both NWIFCA and the WG (see e.g. Appendix 1).

#### **1.2.4 Traceability**

There have been no changes in the traceability systems in the fishery since the re-certification. All mussels dispatched from the North Menai Fishery are accompanied by the shellfish movement document (under the requirements of EC Reg. 853/2004) and all documents issues include a reference to the MSC certificate for the North Menai Mussel Fishery. Most mussels are exported to the European mainland, mainly France and The Netherlands. The departure of the UK from the EU (Brexit) will likely have some sort of impact on the fishery's export to these regions, but to what extent was unknown at time of writing. One of the possible consequences is that when the UK leaves the EU, it becomes a third country, and so are no longer considered to be immediately compliant with single-market requirements. The only way to export live bivalve mussels to the EU as a third country would be if the product meets end-product standards or is produced in Grade A-standard waters. Currently, the Menai Strait is classified as Grade B. Although Brexit can have possible impacts on available markets for the fishery, and may change the way movement of shellfish is documented, the overall impact on traceability is thought to be low.

Control Union Pesca determines that mussels collected by the Client Group in Morecambe Bay, Caernarfon Bar, River Dee and Conwy Bay, and which are then relayed and harvested in the North Menai Straits, remain eligible to enter into further certified chains of custody. Separate chain of custody certification is required after the intended change of ownership, which is onward sale through BMP Ltd as live and bagged mussels. Full details on the fishery's traceability can be found in the Public Certification Report (Gascoigne et al., 2016).

In view of recent declines in mussel settlement in the four seed mussel areas within the UoC, the Client is investigating alternative sources of seed mussels outside the UoC, mainly by utilising offshore rope collectors for the provision of (a portion of) mussel seed. This is trialled in the MOSSS-project (Menai Offshore Subsurface Shellfish Systems), which builds on the developments made in offshore mussel culture and has a wider objective to assess the potential for culture of other shellfish species, locations for offshore shellfish culture and potential for expansion in other offshore areas around North Wales.

Seed mussels from these alternative sources would not be certified and any such future harvesting and relaying of seed mussels from outside the UoC would have significant implications for traceability within the fishery in the future.

### 1.3 Version details

Table 1. Fisheries programme documents versions	
Document	Version number
MSC Fisheries Certification Process	Version 2.1
MSC Fisheries Standard	Version 1.3
MSC General Certification Requirements	Version 2.4
MSC Surveillance Reporting Template	Version 2.01

## 2 Results

### 2.1 Surveillance results overview

#### 2.1.1 Conditions and recommendations

All conditions raised during the initial certification have been closed, and following re-certification of the fishery in 2016, there were no new conditions raised.

The team made one non-binding recommendation under PI 3.2.4, which was to include as many of the research papers supported by the fishery as possible on the BMP Ltd. website, as a convenient source of information for stakeholders, as well as to showcase the fishery's history of support for and involvement in scientific research.

After no progress on this by the 1<sup>st</sup> and 2<sup>nd</sup> surveillance audit, the Client agreed to review the options for making research papers more available, including publishing them on the website of the Menai Strait Fishery Order Management Association (MSFOMA) – [www.msfoma.org.uk](http://www.msfoma.org.uk). At this 3<sup>rd</sup> surveillance audit, the Client reported that some papers and references are placed on the Menai Strait Fishery Order Management Association webpage and are linked to on the relevant twitter feed @MSFOMA1.

#### 2.1.2 Total Allowable Catch (TAC) and catch data

TAC	2018/19	No TAC
UoA share of TAC	2018/19	No TAC
UoA share of total TAC	2018/19	No TAC
Total green weight catch by UoC	2018/19	3455 tonnes
	2017/18	1200 tonnes

<b>Total seed mussels harvested</b>	2018/19	800 tonnes*
	2017/18	109 tonnes** (Dee Estuary only)

\* Of the in total 800 tonnes harvested mussel seed, 250 tonnes were hand-picked in the River Dee. However, they come from one of the four seed mussel sites in the UoC and were relayed on the Fishery Order lays, and so are included in this table.

\*\* The 109 tonnes of Dee Estuary mussels were similarly not harvested by the Client's vessels but were collected by hand-gatherers.

## 2.2 Principle level scores

**Table 3. Summary of Performance Indicator level scores**

<b>Principle of the Fisheries Standard</b>	<b>UoA</b>
Principle 1 – Stock status	85.8
Principle 2 – Minimising environmental impacts	89.2
Principle 3 – Effective management	87.8

There have been no changes to the Principle Level or individual Performance Indicator (PI) scores following this surveillance audit.

## **3 Appendices**

### **3.1 Evaluation processes and techniques**

#### **3.1.1 Site visits**

Stakeholders were informed of the scheduled audit, its time and location and the proposed audit team on 2<sup>nd</sup> May 2019. No comments or requests for interviews were received. The audit was carried out remotely, and no site visit took place. A phone call with the client (Mr. James Wilson) took place on the 3<sup>rd</sup> June 2019 to discuss the fishery, and written documentation for the audit.

#### **3.1.2 Stakeholder participation**

The CAB received no formal stakeholder input for this surveillance audit. Upon request, the NWIFCA and the WG confirmed their enforcement presence in the fishery and the fact that there have been no reports of non-compliance since the re-certification (see e.g. Appendix 1).

### 3.2 Harmonised fishery assessments

Table 3 below provides details of all of the mussel (*Mytilus edulis*) fisheries that are currently certified or are in assessment against the MSC Standard and if any harmonisation was completed in association with this fishery. A description of the logic for the decisions on these harmonisation decisions is provided in the discussion below the table.

Table 2. Overlapping fisheries		
Fishery name	Certification status and date	Performance Indicators to harmonise
DFPO Limfjord mussel and cockle fishery (subsuming the Vilsund Blue a/s Limfjord mussel & cockle dredge fishery)	Certified	None
Exmouth mussels (now withdrawn)	Certified	None
DFPO Inner Danish Waters blue shell mussel*	Certified	None
Ireland Bottom Grown Mussel ( <i>Mytilus edulis</i> ) fishery	Certified	None
Northern Ireland Bottom Grown Mussel ( <i>Mytilus edulis</i> ) fishery	Certified	None
Limfjord blue shell mussel (rope grown)	Certified	None
Germany Lower Saxony mussel dredge and mussel culture	Certified	None
Mussel translocation into the Oosterschelde	Certified	None
Netherlands blue shell mussel	Certified	None
Netherlands suspended culture mussel	Certified	None
Shetland & Scottish Mainland Rope Grown mussel Enhanced fishery	Certified	None
SSPO Swedish West Coast Rope Grown Mussel	Certified	None
Schleswig-Holstein blue shell mussel	Certified	None
Scanfjord Swedish Rope Grown mussels	Certified	None

\* The DFPO Inner Danish waters blue shell mussel fishery certification supersedes the previous three certifications covered by the Isefjord and East Jutland Danish blue shell mussel fishery, Seafood Romo East Jutland and Isefjord blue shell mussel dredge fishery and Vilsund Blue East Jutland blue shell mussel dredge fishery.

**Principle 1 Harmonisation:** With reference to the above table, a number of other mussel fisheries are certified MSC, but none have the same seed sources, so none require to be harmonised under P1.

**Principle 2 Harmonisation:** With reference to the above table, no currently certified or fisheries in assessment use the same lays as this fishery so none are required to be harmonised under P2.



**Principle 3 Harmonisation:** With reference to the above table, no currently certified or fisheries in assessment are under the same jurisdiction (Wales) so none are required to be harmonised under P3.

No harmonisation was therefore completed for this fishery.

### 3.3 References

Addison, J., 2017. Marine Stewardship Council (MSC) Year 1 Annual Surveillance Audit Report North Menai Strait Mussel Fishery MEC-F-017. On behalf of Bangor Mussel Producers Ltd. 13 pp.

Addison, J., 2018. Marine Stewardship Council (MSC) Year 2 Annual Surveillance Audit Report North Menai Strait Mussel Fishery MEC-F-017. On behalf of Bangor Mussel Producers. Prepared by Control Union Pesca

Bangor Mussel Producers Ltd. 2008. Code of Good Practice for seed mussel movements. Bangor Mussel Producers Association.

Document to inform a Habitats Regulation assessment for the renewal of the Menai Strait East Fishery Order, 2019

Ehrhardt M. 2010. Bycatch assessment of the blue mussel (*Mytilus edulis*) seed harvest operation of Bangor Mussel Producers Ltd. on Caernarfon Bar and in Morecambe Bay in the year 2010. Molecular Biology and Ecology Solutions.

Environment (Wales) Act 2016. <http://gov.wales/topics/environmentcountryside/consmanagement/natural-resources-management/environment-act/?lang=en>

Gascoigne, J., M. Doggett, 2016. Marine Stewardship Council (MSC) Reduced Re-Assessment Public Certification Report (PCR) North Menai Strait mussel fishery On behalf of Bangor Mussel Producers Ltd. Prepared by ME Certification Ltd

NW-IFCA, 2017. Restrictions on the Use of a Dredge Byelaw 2017

#### Websites:

ISSP project, Bangor University: <http://ispp.bangor.ac.uk/>

Menai Strait Fishery Order Management Association (MSFOMA). [www.msfoma.org.uk](http://www.msfoma.org.uk)

Menai Offshore Subsurface Shellfish Systems (MOSSS): <http://shellfishcentre.bangor.ac.uk/>

NWIFCA: [www.nw-ifca.gov.uk/mussel-fisheries/](http://www.nw-ifca.gov.uk/mussel-fisheries/)

WFD: [www.naturalresources.wales/about-us/what-we-do/water/improving-water-quality/?lang=en](http://www.naturalresources.wales/about-us/what-we-do/water/improving-water-quality/?lang=en)

## Appendix 1

Thu 18/07/2019 11:07

Mandy Knott <M.Knott@nw-ifca.gov.uk>

RE: surveillance audit North Menai Strait mussel fishery - control and enforcement (2914-stakeholder)

Hello Cora

Many thanks for your email.

Regarding the fishing of wild seed mussel from Morecambe Bay and other parts of the NWIFCA District which may contribute to stock re-laid into the Menai Strait mussel fisheries – the text within your email is not quite correct as the management regime has changed and is now regulated under a specific dredge permit byelaw. This has actually tightened regulation and given the NWIFCA more powers to ensure sustainability and protection of features within MPAs – particularly EMS designated for both habitats and bird species. See page 18 in the attached NWIFCA Byelaws booklet. You'll see that dredging for exploitation of sea fisheries resources is prohibited unless permitted under the byelaw.

Since the introduction of this byelaw no dredge permits have been issued due to lack of stock. This is caused by natural occurrences such as sand covering the cobble and boulder skears to which the mussel recruits, and is an effect of the dynamic environment, shifting sandbanks and channels of Morecambe Bay and the other estuaries.

The regulation within the byelaw when the situation changes and ground is revealed to allow mussel settlement again is outlined within the byelaw, ie:

- specified time period for permit validity
- fee payable
- returns required
- fully functioning AIS
- notification prior to commencement of fishing
- flexible permit conditions which give powers to specify fishing spatially, temporally, tidally, by species, gear type and/ or design, gear limitation, maximum number of permits issued and total allowable catch.

NWIFCA enforcement officers carry out inspections and boardings during any boat fishery and assist CEFAS in fish health inspections for any mussel being exported. I would therefore agree that the wild seed mussel harvested from within the NWIFCA District is comprehensively enforced and compliance from Menai Strait Mussel Producers has been good.

In addition all seed mussel fisheries undergo a full HRA prior to fishing being permitted and they are only permitted should the evidence obtained from NWIFCA survey and inspection on the ground show that the mussel is likely to be lost – through instability of ground caused by build-up of mussel mud and likelihood of scour, or through influx of large numbers of predatory starfish. Dredging is only permitted when sufficient mussel mud is present to prevent any impact of gear on the underlying cobble and boulder substrate.

Subject to all of the above, I am of the opinion that wild harvested seed mussel is fully sustainable. I am happy to provide further information should you require it.

Kind regards  
Mandy

Mandy Knott  
Senior Scientist  
North Western Inshore Fisheries and Conservation Authority  
1 Preston Street  
Carnforth  
LA5 9BY  
Tel: 01524 727970  
[www.nw-ifca.gov.uk](http://www.nw-ifca.gov.uk)