



**AP3-16/2020 Ballyness Bay, Co. Donegal
Appropriate Assessment Supplementary Report**

**Dr Ciar O'Toole, Technical Advisor to the Aquaculture Licences Appeals Board
22 March 2024**

Introduction

The Marine Institute on the behalf of the Department of Agriculture, Food and the Marine (DAFM) produced an Appropriate Assessment Report for Aquaculture Activity in Ballyness Bay in February 2019. The Aquaculture and Foreshore Division (AFMD) of the Department of Agriculture Food and the Marine (DAFM) produced an AA Conclusion Statement for Aquaculture Activity in Ballyness Bay in November 2019.

The Board's technical advisor found that the assessment did not consider all the factors necessary within the Ballyness Bay SAC, meaning there are outstanding questions which have not been resolved to the level required under the legislation. Also, the AA assessment had not considered the relevant SPA sites which could be potentially impacted by the proposed development as this assessment did not fully consider the foraging ranges of Special Protected Interest species.

Special Areas of Conservation are prime wildlife conservation areas in the country, considered to be important on a European as well as Irish level. The Habitats Directive lists certain habitats and species that must be protected within SACs. The proposed developments are in the Ballyness Bay SAC (Site Code: 001090) and Horn Head and Rinclevan SAC (Site Code: 000147), Gweedore Bay and Island SAC (Site Code: 001141) and Tory island Coast SAC (Site Code: 002259) are nearby (Figure 1).

Special Protected Areas are bird conservation areas in the country, also considered to be important on a national and European level. The Falcarragh to Meenlaragh SPA (Site Code: 004149) is a Special Protected Area and abuts the proposed Site area. Also nearby are the Inishbofin, Inishdooley and Inishbeg SPA (Site Code: 004083) and the Tory island SPA (Site Code: 004073) (Figure 1).

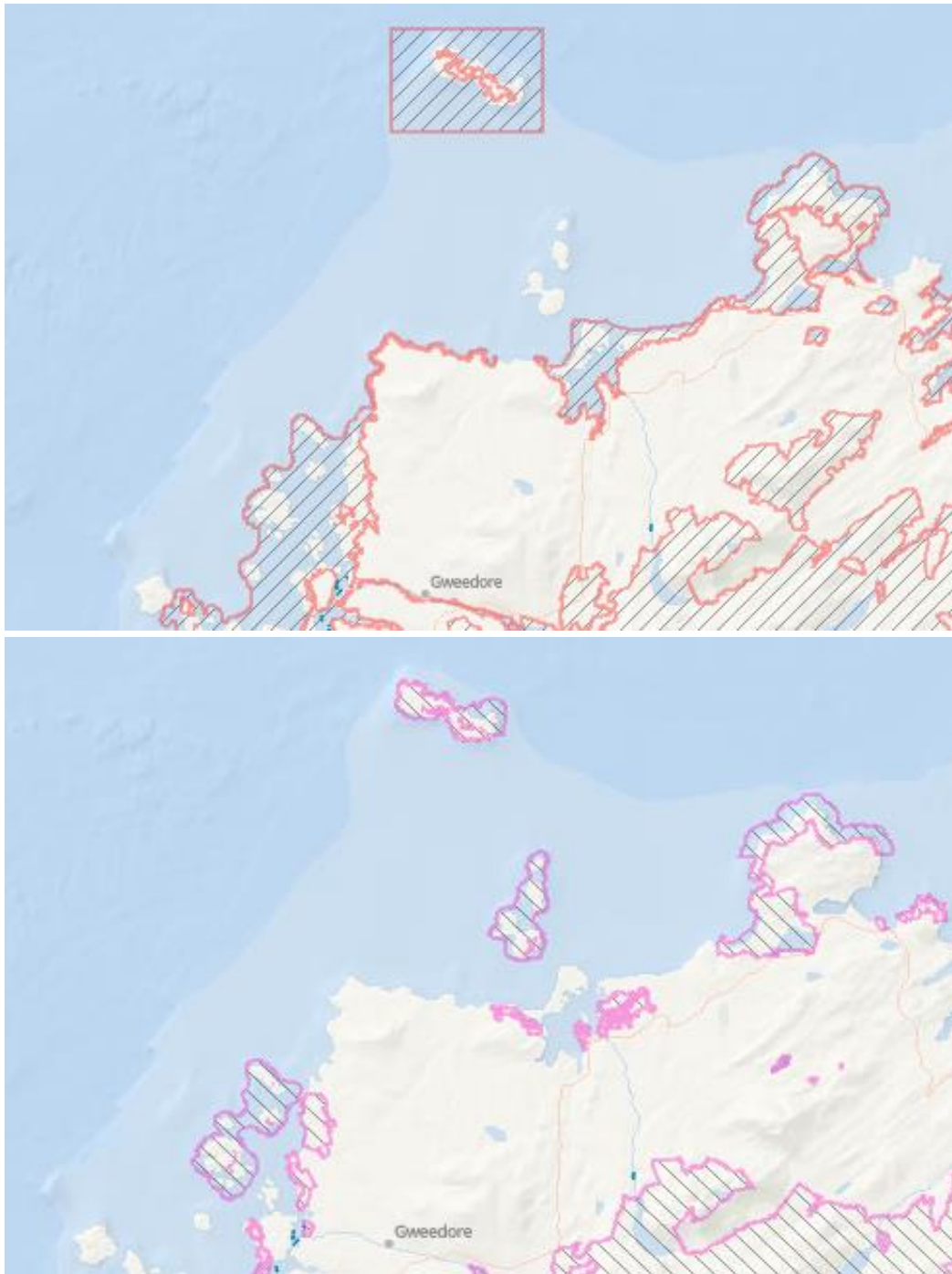


Figure 1 showing SACs (red) and SPAs (pink) in the area directly surrounding Ballyness Bay, taken from EPA Maps.

ALAB Technical Advisor assessment

On review of the Marine Institute’s AA report of February 2019, the ALAB technical advisor found additional information was required in a number of areas as outlined above to complete the Appropriate Assessment. A notice was sent to the Marine Institute on 24 March 2023 (Appendix 1) requesting additional information including:

- 1) an assessment of potential impacts on those SCI species of SPAs in the region whose feeding range overlaps with Ballyness Bay or whose SPA area adjoins the proposed project and access routes.
- 2) an assessment of seal species using Ballyness Bay and potential for disturbance due to the proposed project on protected grey seal populations.
- 3) an assessment of in combination impacts, to include an assessment of the existing salmonid fishery and the other proposed aquaculture projects within the Bay.
- 4) an assessment of the implications of any changes in the area since 2019, and any further information, to ensure that the assessment of the potential impacts of the project is up to date.

This data was not forthcoming from the Marine Institute. A notice was then sent to all applicants notifying them for the need for a supplemental Natura Impact Statement to be carried out. This notice was issued on 4 August 2023. The notice requested the same information as was requested from the Marine Institute (Appendix 2). The NIS report was received by ALAB on 22 January 2024, prepared by Aquafact on behalf of three of the applicants.

Additional information/Clarification required

On receipt and assessment of the NIS report, it was found that some areas still required further details be provided, which this supplemental AA report now attempts to remedy. Those areas related to points 1 and 2 as raised in the notice issued to the applicants which were partially answered. While ALAB's technical advisor accepts the Marine Institute AA report of February 2019 and the Aquafact NIS of January 2024, and the majority of issues are dealt with in both these documents, the following points need some further clarification to meet the standards set down by the legislation and relevant case law, to complete the Appropriate Assessment Stage 2.

- 1) an assessment of potential impacts on those SCI species of SPAs in the region whose feeding range overlaps with Ballyness Bay or whose SPA area adjoins the proposed project and access routes.**

While the Stage one screening assessment that accompanied this NIS looked in some detail at the possible range of marine mammals from SACs and considered them in their assessment, the assessment for SCI species in SPAs was limited to a 15km range, which does not fulfil the source-pathway-receptor method as recommended by the OPR guidelines (2021), given the potential feeding range of SCI species in some SPAs located at a greater distance. The MI AA

report (2019) was also lacking in this area. An extended Stage 1 screening assessment is provided in Table 1 below:

Additional Special Protected Area	SCI Species with the potential to be affected due to foraging range and coastal habitat use
Illancrone and Inishkeeragh SPA	Common Tern (Sterna hirundo) [A193] Arctic Tern (Sterna paradisaea) [A194] Little Tern (Sterna albifrons) [A195]
Roaninish SPA	Herring Gull (Larus argentatus) [A184]
Lough Swilly SPA	Black-headed Gull (Chroicocephalus ridibundus) [A179] Common Gull (Larus canus) [A182] Sandwich Tern (Sterna sandvicensis) [A191] Common Tern (Sterna hirundo) [A193]
Lough Foyle SPA	Black-headed Gull (Chroicocephalus ridibundus) [A179] Common Gull (Larus canus) [A182] Herring Gull (Larus argentatus) [A184]

1.2 Describe any likely direct, indirect, or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:

<ul style="list-style-type: none"> Size and scale 	<p>SCI Species – Birds</p> <p>The size and scale of the proposed developments are unlikely to have any negative impacts on any of the SCI species listed. Potential impacts on these species are discussed further in the Sections below.</p> <p>Potential in-combination impacts relate to the neighbouring aquaculture activity, recreational use of the bay by walkers and salmon angling at low tide in the east of the Bay.</p>
<ul style="list-style-type: none"> Land-take 	Not relevant here
<ul style="list-style-type: none"> Distance from the Natura 2000 site or key features of the site 	There is considered to be the possibility of overlap in foraging and migration areas for the species identified.

<ul style="list-style-type: none"> • Resource requirements 	<p>Cultured bivalves (mussels and oysters) are filter feeders and they feed upon suspended particulate matter. They selectively ingest phytoplankton and other organic material (e.g., small zooplankton and bacteria) and dispose of inorganic and larger organic matter in pseudofaeces, which is excreted into the water column. Typically, the faecal and pseudofaecal pellets will fall to the sea floor and may cause localised organic enrichment and/or sedimentation. The level of enrichment is a function of, <i>inter alia</i>, water depth current speed, density of culture, the quantity of suspended particulate matter in the water column, or a combination of these. The build-up of excess organic matter beyond the footprint of the sites is not considered likely.</p> <p>The proposed bivalve shellfish production activities will not use any resources or are predicted to have a negative impact on any resources, required by the qualifying interests within the Natura 2000 site or nearby Natura 2000 sites under consideration.</p>
<ul style="list-style-type: none"> • Emissions (disposal to land, water or air): 	<p>The only emissions arising from the bivalve production are faeces and pseudofaeces, which are excreted into the water column. Typically, the faecal and pseudofaecal pellets will fall to the sea floor and there is no direct or indirect impact on the qualifying interests within the Natura 2000 sites under consideration.</p> <p>Activities associated with the oyster and clam culture proposed would include regular tractor trips to the trestles to maintain them. These site visits would increase slightly the level of noise in the system. The risk of pollution from exhaust or a spill would be increased by virtue of the vehicles operating in the system. Any accidental oil spills / pollution events associated with bivalve production activities within Ballyness Bay are likely to be minor in nature, have a localised impact only and will not have any direct or indirect impact on the qualifying interests of the Natura 2000 sites it is in or near to.</p>
<ul style="list-style-type: none"> • Excavation requirements 	<p>There are no excavation or similar activities associated with the aquaculture activity</p>
<ul style="list-style-type: none"> • Transportation requirements 	<p>Access routes to the aquaculture site spatially overlap with the Ballyness Bay SAC, and this is discussed further in the Aquafact NIS report and the Marine Institute AA report.</p>
<ul style="list-style-type: none"> • Duration of construction, operation, decommissioning etc 	<p>During set up and decommissioning there will be some temporary non-significant small-scale disturbance due to increased activity and the deployment of trestles This is not of a level to be considered significant to any of the qualifying interests under consideration.</p>
<ul style="list-style-type: none"> • Other 	<p>None</p>
<p>1.8 Describe any likely changes to the site arising as a result of:</p>	
<ul style="list-style-type: none"> • reduction of habitat area 	<p>There is small habitat area loss within the Natura 2000 site arising from the oyster production activities that has been considered under “Size and Scale” above and is not considered to have a negative impact on any of the SCI species under consideration.</p>

<ul style="list-style-type: none"> • disturbance to key species 	There is no evidence in the literature to suggest that oyster culture will negatively impact the SCI species under consideration.
1.9 Describe any likely impacts on the Natura 2000 site as a whole in terms of:	
1.10 Provide indicators of significance as a result of the identification of effects set out above in terms of:	
<ul style="list-style-type: none"> • loss 	None identified
<ul style="list-style-type: none"> • fragmentation 	None identified
<ul style="list-style-type: none"> • disruption 	None identified
<ul style="list-style-type: none"> • disturbance 	None identified
<ul style="list-style-type: none"> • change to key elements of the site (e.g., water quality etc) 	None identified
1.11 Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	<p>None identified;</p> <p>The proposed development is considered not to pose a negative risk to the continuing favourable conservation condition of SCI species in the SPAs identified.</p>

Overall, it is found that none of the Special Conservation Interest Species assessed here will be significantly negatively impacted by the proposed developments.

2) an assessment of seal species using Ballyness Bay and potential for disturbance due to the proposed project on protected grey seal populations.

Grey Seals and Harbour Seals, as Annex II, species were assessed in the Aquafact NIS as being at risk of potential direct effects of species disturbance and potential indirect effects of pest and disease risk. The technical advisor agrees with the assessment made in relation to potential disturbance of these species regarding the known haul out site in Ballyness Bay and the advice to recommend a minimum buffer of 200m between the known haul out sites and proposed aquaculture developments, as well as separation by a tidal channel. The 200m buffer distance between aquaculture and seal species has been recommended previously by the Marine Institute and also utilised previously by ALAB in determinations.

However, the technical advisor considers the 1 km squares marked in Figure 2.7 of the NIS report (reproduced below) to be somewhat misleading as it covers both terrestrial areas and tidal channels which cannot be used by seals as haul out areas and is more confident of the data represented by the 100m squares. These data points also represent the areas used by seals as a haul out area during the technical advisors own site visit.

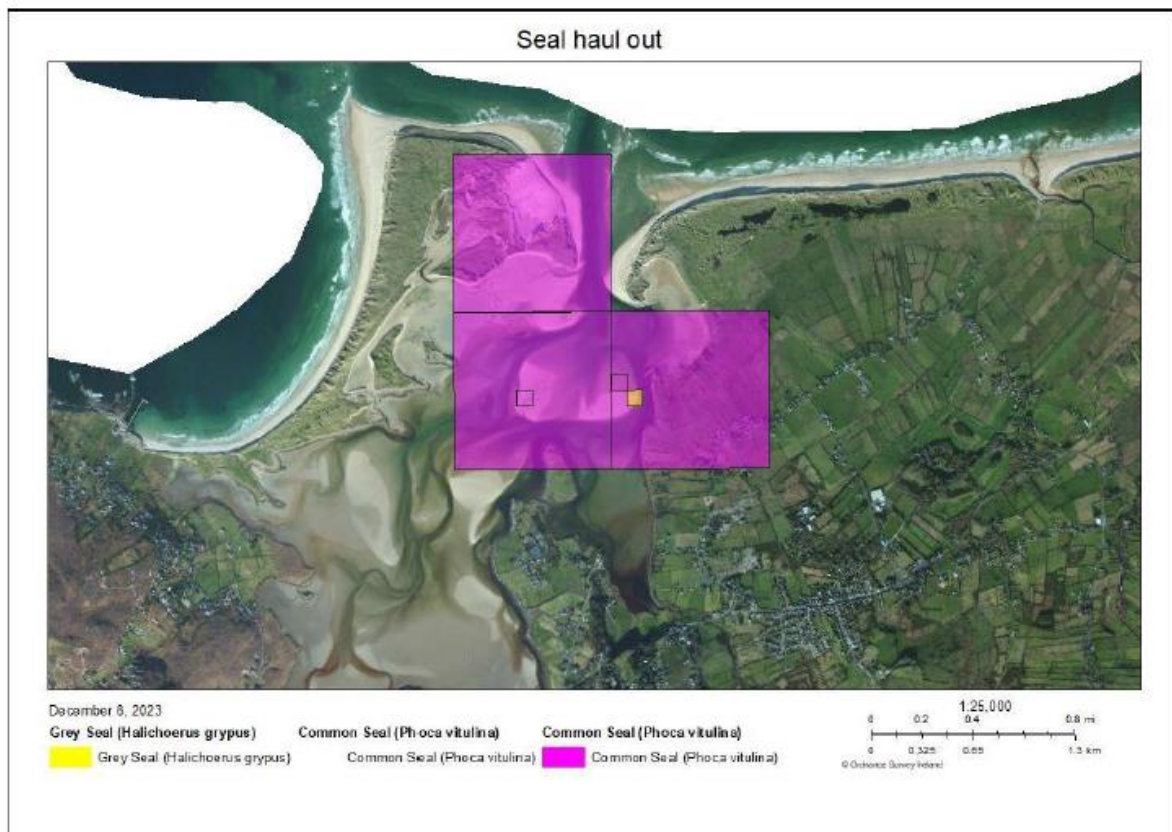


Figure 2-7: Seal haul out site and sighted species.

ALAB Technical Advisor’s Conclusion and Assessment of Suggested Mitigations

Generally, the Technical advisor agrees with the recommendations made in the Marine Institutes AA report (Appendix 1) and DAFM’s Appropriate Assessment Conclusion Statement but feels a more conservative approach is required regarding seal disturbance than is recommended here.

The technical advisor also Agrees with the recommendations and mitigations put forward in the Aquafact report, although not all of these may be possible, or rely on other agencies for implementation e.g. regarding the set-up of a CLAMS organisation in the Bay.

Following an assessment of the available reports and the additional information assessed in this report, the technical advisor is of the opinion that, once the recommendations and

mitigations listed in Appendix 1 are implemented (excluding the CLAMS proposal, although this would also be beneficial), that the proposed developments would not have a significant negative impact on any of the conservation objectives or qualifying interest species of any of the SACs or SPAs assessed.

Summary Conclusions – Marine Institute AA Report, 2019

The 2019 Marine Institute AA report found that, in summary:

- **There are risks to coastal habitat [2130] features if the activities proposed are licenced in full.** More specifically, the risk arises from the additional traffic likely to occur on existing tracks as a result of the need to access the sites. It is recommended that the views those with specific engineering expertise be sought in order to identify erosion prevention measures that might be put in place to mitigate the risks identified. Alternatively, the re-routing of access routes to avoid overlap with habitat feature 2130 might be considered.
- Annex 1 habitat (1140) Mudflats and sandflats not covered by seawater at low tide. It was found that it is unlikely that the activities proposed will reduce the overall extent of permanent habitat within this habitat, the area is likely to remain stable.
- That the community type, Mobile sand community complex is such that there are likely to be locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations. It is recommended, prior to making a decision to licence, that these areas be clearly identified with the Bay.
- **In relation to interactions between aquaculture operations and seal use of the site, the risk of disturbance cannot be discounted.** It is important to note that the site, to date, has had very little aquaculture operations and therefore, the seals will have little opportunity to habituate to the activities. Also of note, where there is no specific barrier to access (e.g. tidal channel), the seals are more likely to be disturbed. Based upon local observations it appears that the seals are faithful to this one identified haul out location. Therefore, careful consideration should be given to licencing the site which shares the sandbank with the observed seal haul out.

Summary Conclusions – DAFM AA Conclusion Statement, 2019

The DAFM AA Conclusion Statement found that:

- Based upon the scale of spatial overlap of proposed intertidal aquaculture activities (including access route activity) and the relatively high tolerance levels of the habitats and associated species, the general conclusion is that proposed intertidal culture activities are non-disturbing to the Qualifying Interests 1130 and 1140 and their constituent community types.
- Notwithstanding the conclusions noted in relation to Annex 1 habitat 1140, it should be noted that the nature of the community type, Mobile sand community complex is such that there are likely to be locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations.
- The report highlights the overlap of access routes with the habitat - Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] which does appear to present a risk

of erosion and habitat degradation. Specifically, the risk arises from the additional traffic likely to occur on existing tracks as a result of the need to access the sites.

- In relation to interactions between aquaculture operations and seal use of the site, the risk of disturbance cannot be discounted. The Bay, to date, has had very little aquaculture operations and therefore, the seals will have had little opportunity to habituate to the activities. Also of note, where there is no specific barrier to access (e.g. tidal channel), the seals are more likely to be disturbed.

The Conclusion Statement then went on to recommend the Mitigation measures below but found overall that the proposed developments (as licenced by the Minister in 2020) were not likely to significantly and adversely impact the integrity of Ballyness Bay SAC.

Mitigation Measures:

- Sites T12/441B and T12/441C which were originally assessed as oyster and clam cultivation are now being processed as oyster cultivation only sites.
- On the basis of the Appropriate Assessment findings only Triploid seed will be licensed for use in the Bay.
- Source of seed and changes to source of seed to be approved by the Department of Agriculture, Food and the Marine in advance.
- Due to the proximity of the site and the fact that there is no specific barrier to access e.g. tidal channel between it and the Seal Haul out area it is proposed to not licence site T12-508A applied for on the same sand bank.
- Proposed sites where there is proximity to seal sites will be reduced where possible or not licensed to maintain a buffer between the aquaculture sites and the seal areas.
- To avoid the overlap of proposed access routes with Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]. A new access route which was assessed in the AA and referenced in the draft conclusion statement will be implemented in relation to any sites to be licensed on the west side of the Bay, that had proposed routes which overlapped with the grey dunes habitat.
- Locations where the sediments are extremely mobile (and soft) thus making them unsuitable for aquaculture operations will be excluded from licensing.
- A Licence condition requiring strict adherence to the identified access routes over intertidal and nearshore habitat in order to minimise species/habitat disturbance will be included.
- A Licence condition requiring full implementation of the measures set out in the draft Marine Aquaculture Code of Practice prepared by Invasive Species Ireland (e.g. <http://invasivespeciesireland.com/cops/aquaculture>).
- The movement of stock in and out of the Ballyness Bay SAC should adhere to relevant fish health legislation.

- The use of updated and enhanced Aquaculture and Foreshore Licences containing terms and conditions which reflect the environmental protection required under EU and National law.

Summary conclusions – Aquafact NIS, 2024

The Aquafact NIS recommends some mitigation measures for the avoidance of impacts to European sites from their assessment, listed below. It finds that once these mitigation measures are adhered to, all sites, as licenced by the Minister in 2020 are suitable for development and will not cause significant negative impacts in terms of habitat disturbance, species disturbance, organic enrichment, current alteration, disease risk or introduction of non-native species.

The mitigations recommended are:

1. Best practice measures are to be adhered to during primary activities such as husbandry and harvesting and ancillary servicing activities to minimise any impact to the habitats screened in due to potential impacts, Mudflats and sandflats not covered by seawater at low tide (1140) and Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130).
2. Use of the suggested alternative route coming from the south of the site that avoids contact with the Fixed dune that is already degraded, and any extra pressures would be detrimental.
3. A strict 200m distance buffer to be adhered to between any aquaculture activities and any seal species present in the bay.
4. Avoidance of activities during early morning/evening hours to minimise chance of contact with otter.
5. It is strongly advised as a best practice measure to ensure consistency with aquaculture activities such as no deviations from the access route to the sites so that local fauna can acclimatise to the operations.
6. Regular maintenance of the sites to ensure no heavy build-up of organic material where possible is recommended.
7. Compilation of a bio-security plan, screening all introduced stock prior to transferring to on growing site and also good animal husbandry.
8. Use of the CLAMS (Co-ordinated Local Aquaculture Management Systems) process for the creation and application of invasive species management and control strategies.
9. The sole use of triploid oysters in the sites cultivating *C. gigas* is recommended as this reduces the risk of reproduction of the non-native species within the environment.