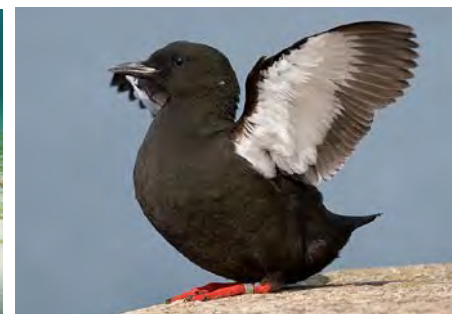


Report on
The creation of a Network of Conservation Sites
in the Northern Ireland Inshore Region



Progress towards establishing an ecologically coherent network of well managed Marine Protected Areas



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1. Background

This report has been prepared to satisfy the requirement under section 21 of the Marine Act (Northern Ireland) 2013, that the Department of Agriculture, Environment and Rural Affairs (the Department) lays a report in the Assembly setting out:

- Information on Marine Conservation Zones (MCZs) designated;
- The extent to which, in the opinion of the Department, the objective in section 20 to establish a network of conservation sites has been achieved; and
- Any further steps which are required in order to contribute to the achievement of that objective.

This is the first report and covers the period between September 2013 and December 2018.

2. Introduction to Marine Protected Area (MPA) networks

Well managed MPA networks are recognised internationally as one of the ways of protecting our marine environment and high-level commitments have been made accordingly. The United Nations (UN) Sustainable Development Goals (SDG) are the blueprint to achieving a better and more sustainable future for all, and specifically, SDG 14 relates to life below water and how the world's oceans are managed. There are 10 agreed targets for SDG 14 and the following can be directly linked to MPAs:

- By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans;
- By 2020, conserve at least 10% coastal and marine areas, consistent with national and international law and based on the best available scientific information.

The UN Convention on Biological Diversity (CBD) Strategic Plan for Biodiversity 2011-2020 is an overarching framework on biodiversity and one target of particular relevance is the Aichi Conservation Target 11 to conserve and protect 10% of coastal and marine areas through the establishment of a well-managed, ecologically

representative and well-connected system of protected areas. The CBD Strategy is delivered regionally through conventions such as the OSPAR Convention (Oslo-Paris Convention for the Protection of the Marine Environment of the North-East Atlantic) and through the European Commission via European Directives such as the Habitats Directive, the Wild Birds Directive, and the Marine Strategy Framework Directive (MSFD).

Under the OSPAR convention, the countries bordering the North-East Atlantic, including the UK, agreed to establish an ecologically coherent network of MPAs in the North-East Atlantic. The aim was to establish an MPA network in the OSPAR area by 2012 and ensure it was well-managed by 2016. It was also agreed that for any sites designated after 2010, management measures should be implemented within 5 years of designation. To support the achievement of this target, OSPAR published guidance documents for the development and management of the MPA network and these are referred to as the OSPAR Principles.

The five main OSPAR Principles guiding the process are:

- **Features:** Sites should represent the range of species, habitats and ecological processes in the area. The proportion of features included in the MPA network should be determined on a feature-by-feature basis, considering whether features that are in decline, at risk or particularly sensitive are of a higher priority and would benefit from a higher proportion being protected by MPAs.
- **Representativity:** To support the sustainable use, protection and conservation of marine biological diversity and ecosystems, areas which best represent the range of species, habitats and ecological processes should be designated.
- **Connectivity:** This may be approximated by ensuring the MPA network is well distributed in space and takes into account the linkages between marine ecosystems.
- **Resilience:** Adequate replication of habitats, species and ecological processes in separate MPAs in each biogeographic area is desirable where possible. The size of the site should be sufficient to maintain the integrity of the feature for which it is being selected.

- **Management:** MPAs should be managed to ensure the protection of the features for which they were selected and to support the functioning of an ecologically coherent network.

Linking MPAs together into an ecologically coherent network, supported by wider environmental management measures will achieve benefits more effectively than individual sites can alone. A well-designed network will include MPAs of different sizes, containing a range of habitats and species, with appropriate conservation objectives and management measures.

This means putting the emphasis on an ecosystem approach to management that maintains the health of the ecosystem alongside appropriate human uses of the marine environment for the benefit of current and future generations. This will contribute towards meeting Good Environmental Status required under the MSFD and achievement of the UK agreed vision for the marine environment of 'clean, healthy, safe, productive and biologically diverse oceans and seas'.

3. Northern Ireland MPA network

The seas around Northern Ireland have a wide variety of marine wildlife, and contain rich and varied habitats that support a diverse abundance of living organisms. As an island-based society, the sea has always had an important role to play, offering a source of recreation and a place of work to many. However, many of the habitats are subject to pressure from human activity and some are considered to be threatened and declining.

The Marine Act (Northern Ireland) 2013 was introduced to meet commitments that were made for the protection of the marine environment, and provided powers for the designation of MCZs. The aim of these designated areas is to help safeguard vulnerable or unique marine species and habitats of national importance in the Northern Ireland inshore region (marine area out to 12 nautical miles). They are designed to be flexible in terms of level of protection, boundaries etc., and have to take account of social and economic factors, in addition to environmental issues, relating to each site. Strangford Lough, which was initially designated as a Marine Nature Reserve, became the first MCZ in Northern Ireland upon enactment of the Marine Act in September 2013.

Section 20 of The Marine Act (Northern Ireland) 2013 also places a duty on the Department to create a network of conservation sites that together with MPAs designated by the other UK Administrations satisfy the following conditions:

- This network contributes to the conservation or improvement of the marine environment in the UK marine area;
- The features which are protected by the sites comprised in the network represent the range of features present in the UK marine area; and
- The network reflects the fact that the conservation of a feature may require the designation of more than one site.

In December 2012 the UK Administrations issued a Joint Administration's Statement outlining how the UK would contribute to an ecologically coherent MPA network in the North East Atlantic. It was agreed that each Administration would follow the OSPAR Principles in establishing their respective MPA networks and that a network of MPAs can be considered to be ecologically coherent if it satisfies the network design principles agreed by OSPAR. It was also agreed, in line with OSPAR guidance, that there was a strong scientific case for an assessment of the MPA network to be based on biogeographic regions, rather than administrative regions.

As required by Section 20(7) of The Marine Act (Northern Ireland) 2013, former Department of the Environment (DOE) Minister Mark H Durkan laid a statement¹ in the Assembly on 18 November 2013, which set out how the OSPAR Principles would be used as the basis for MCZ designation. This was followed by the publication of 'A Strategy for Marine Protected Areas in the Northern Ireland inshore region'² in November 2014. This Strategy set out the Department's approach to inshore marine nature conservation and how it intended to fulfil its commitment to establishing an ecologically coherent network of well-managed MPAs. A number of

¹ DOE (2013). Written Ministerial Statement - Creation of a Network of Marine Protected Areas: <http://www.niassembly.gov.uk/assembly-business/official-report/written-ministerial-statements-2011-2016/departement-of-the-environment--creation-of-a-network-of-marine-protected-areas/>

² DOE (2014). A Strategy for Marine Protected Areas in the Northern Ireland inshore region: <https://www.daera-ni.gov.uk/publications/strategy-marine-protected-areas-northern-ireland-inshore-region>

key milestones and targets were outlined in the strategy, including the designation of MCZs by December 2016.

Northern Ireland has five types of MPAs:

- Special Areas of Conservation (SACs) designated under the Habitats Directive;
- Special Protection Areas (SPAs) classified under the Wild Birds Directive;
- Areas of Special Scientific Interest (ASSIs) designated under The Environment (Northern Ireland) Order 2002 – for nationally important habitats and species;
- Ramsar sites designated under the Convention on Wetlands of International Importance 1971 – for wetlands of international importance; and
- MCZs designated under the Marine Act (Northern Ireland) 2013.

4. MCZ Designation Programme 2013 - 2018

In response to new MCZ powers, the Department published the 'Guidance on selection and designation of Marine Conservation Zones in the Northern Ireland Inshore Region'³ in 2014. This set out the process that the Department follows and how the OSPAR principles are to be applied to establish an ecologically coherent network of well-managed MPAs.

Using this guidance, the Department began developing potential sites for MCZ designation based on sound scientific evidence and with the involvement of stakeholders from all marine sectors including angling, fishing, renewable energy, ports and harbours, and environmental groups.

Following extensive survey work and stakeholder engagement, the Department published a consultation⁴ in December 2015 seeking views on proposals for MCZs in the Northern Ireland inshore region.

Sites at Rathlin, Waterfoot, Outer Belfast Lough and Carlingford Lough were subsequently designated as MCZs in December 2016⁵. A summary of the MCZs designated in 2016 is provided below.

³ DOE (2014). Guidance on selection and designation of Marine Conservation Zones in the Northern Ireland Inshore Region: <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/marine-report-guidance-on-selection-designation-of-mczs-in-ni-inshore-region-2014.PDF>

⁴ DAERA (2016). MCZ Consultation: <https://www.daera-ni.gov.uk/consultations/marine-conservation-zones-consultation>

⁵ DAERA (2016). MCZ webpage: <https://www.daera-ni.gov.uk/articles/marine-conservation-zones>

There were also two Areas of Search (AoS) for potential MCZs at Outer Ards and The Maidens. These areas were considered for Biogenic reef and Common skate respectively, but in 2016 it was considered that there was insufficient evidence for designation. These areas have remained as AoS and the Department has continued to gather evidence to support possible future designations (See Figure 1).

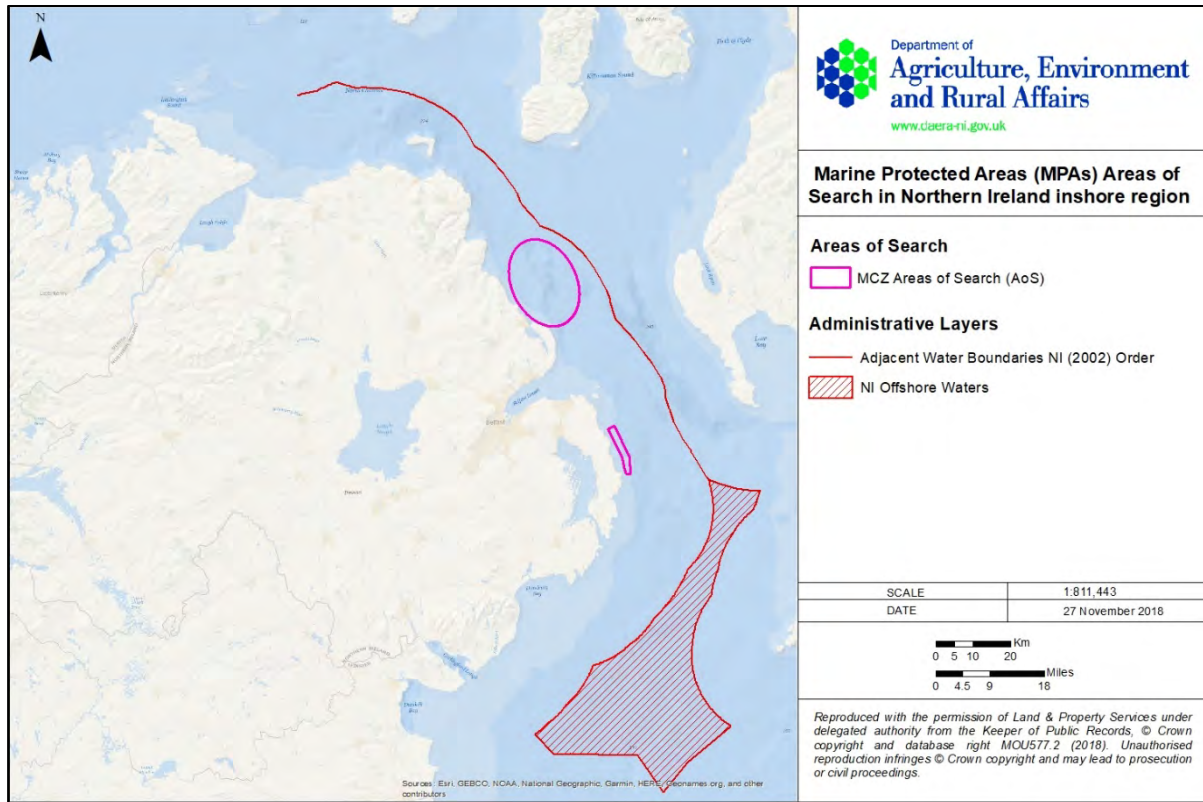
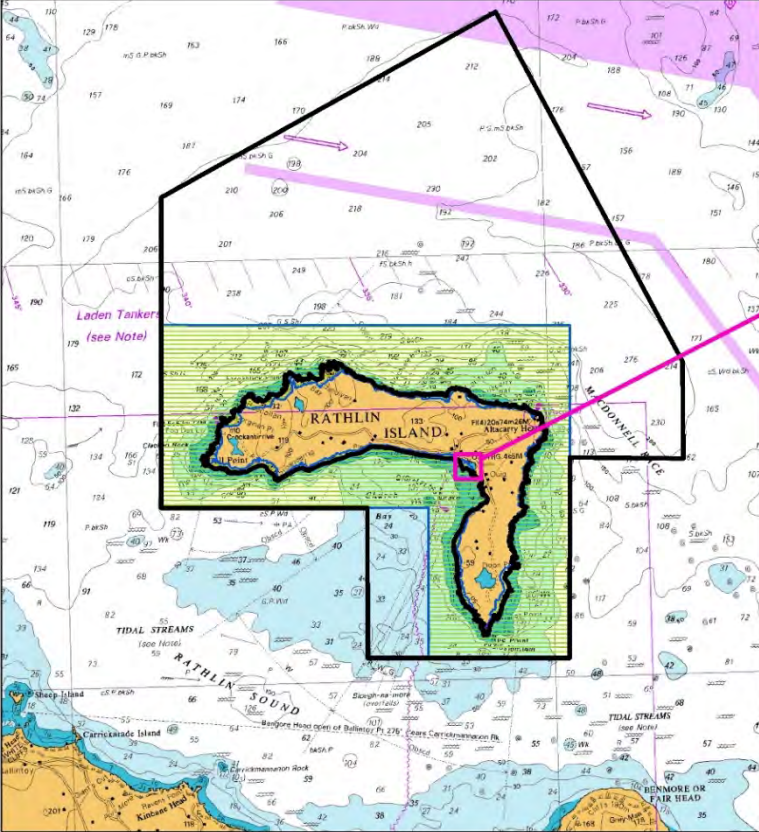


Figure 1 Current Areas of Search (AoS) in the Northern Ireland inshore region

4.1. Rathlin MCZ

Table 1 Rathlin MCZ summary table

Size	90.592 Km ² . See Figure 2.
 <div data-bbox="991 450 1372 1279"> <p>Department of Agriculture, Environment and Rural Affairs www.daera-ni.gov.uk</p> <p>Rathlin MCZ boundary</p> <p>Marine Protected Areas</p> <ul style="list-style-type: none"> MCZ boundary Marine SAC and SPA <p>B RATHLIN HARBOUR</p> <p>SCALE 1:91,971 DATE 08 December 2016</p> <p>0 1.75 3.5 7 Km 0 1 2 4 Miles</p> <p><small>© Crown Copyright, 2016. All rights reserved. License No. EK001-20130406. This product has been derived in part from material obtained from the UK Hydrographic Office with the permission of the UK Hydrographic Office, Her Majesty's Stationery Office and other relevant authorities including Esri, GEBCO, NOAA, National Geographic, DeLorme, NAVTEQ, Geonames.org, Oceanwise Ltd, DAERA and JNCC. Not to be used for Navigation.</small></p> </div>	
Description	<p>Rathlin MCZ has been designated for Deep-sea bed, Black guillemot and Geological and Geomorphological features indicating past change in relative sea level (see Figure 3).</p> <p>The MCZ contains the only known location of the broad scale habitat, Deep-sea bed in Northern Irish waters. This habitat is unique in the Northern Ireland inshore region due to the steep drop-off in depth (>200m), close proximity to land and a range of deep subtidal sands, mixed sediments and rock.</p> <p>Rathlin Island also supports a large population of Black guillemots (<i>Cephus grylle</i>) that nest within the Island's cliffs. Although Black guillemots have a widespread distribution throughout Northern Ireland there is a significant breeding and nesting population within Rathlin Island. Their reproductive success here may be related to the highly productive waters and rich feeding grounds within the MCZ.</p>

	A range of subtidal Geological and Geomorphological features have also been recorded along the north coast of the Island including a submerged coastline, underwater caves, sea arches and lagoons. These are important indicators of global sea-level change.
Conservation Objectives	Deep-sea bed habitat is maintained in favourable condition. Black guillemot (<i>Cepphus grylle</i>) is restored to favourable condition. Geological and Geomorphological: features indicating past change in relative sea level are maintained in favourable condition.
Further information	Conservation Objectives and Potential Management Options Rathlin MCZ



Figure 3 Black guillemot (*Cepphus grylle*) (left) and Sea-arch (right) in Rathlin MCZ

4.2. Waterfoot MCZ

Table 2 Waterfoot MCZ summary table

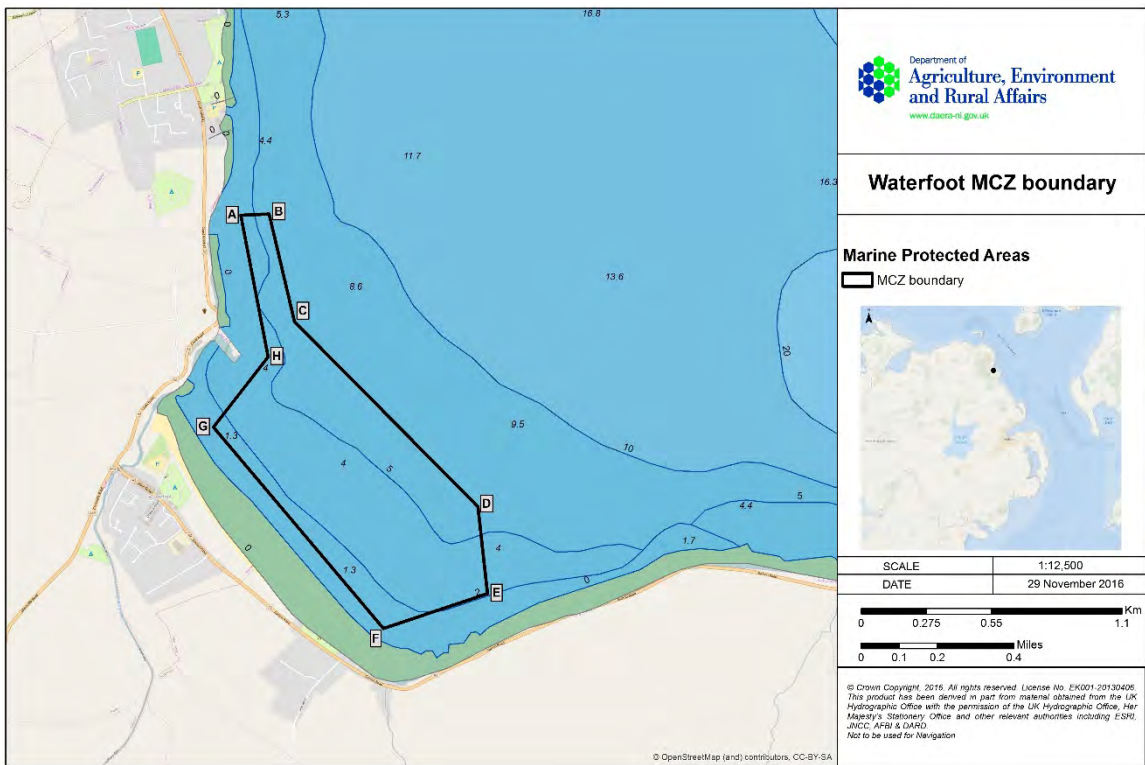
Size	0.811 Km ² . See Figure 4.
 <p>The figure is a map of the Waterfoot Marine Conservation Zone (MCZ) boundary. The map shows a coastal area with depth contours ranging from 0 to 16.3 meters. A black boundary line is drawn around a specific area, with points labeled A through H. The map includes a legend for Marine Protected Areas, a scale bar (1:12,500), a date (29 November 2016), and a small inset map of the region. The map is credited to OpenStreetMap (and) contributors, CC-BY-SA.</p>	
Description	Waterfoot MCZ has been designated for Seagrass (<i>Zostera marina</i>) bed on Subtidal (sublittoral) sand (see Figure 5). Although Seagrass density is declining in UK waters, the subtidal bed in the MCZ may be the largest example in Northern Ireland and is considered to be in good condition.
Conservation Objectives	Seagrass (<i>Zostera marina</i>) bed on Subtidal (sublittoral) sand is maintained in favourable condition
Further information	Conservation Objectives and Potential Management Options Waterfoot MCZ

Figure 4 Waterfoot MCZ boundary



Figure 5 Subtidal (sublittoral) seagrass (*Zostera marina*) bed (left) and associated Snakelocks anemone (*Anemonia viridis*) in Waterfoot MCZ (right)

4.3. Outer Belfast Lough MCZ

Table 3 Outer Belfast Lough MCZ summary table

Size	2.508 Km ² . See Figure 6.
Figure 6 Outer Belfast Lough MCZ boundary	
Description	The MCZ has been designated due to the presence of a well-established population of Ocean quahog (<i>Arctica islandica</i>) that

	lives buried in the Subtidal (sublittoral) sand habitat (see Figure 7). Although distributed throughout Northern Ireland, Ocean quahog is present in a dense aggregation in Outer Belfast Lough; it is thought that the species has continuous recruitment and high population numbers in the area. However, Ocean quahog is highly vulnerable to human pressures and damaged individuals show slow population recovery.
Conservation Objectives	Subtidal (sublittoral) sand is restored to favourable condition. Ocean quahog (<i>Arctica islandica</i>) is restored to favourable condition.
Further information	Conservation Objectives and Potential Management Options Outer Belfast Lough MCZ



Figure 7 Ocean quahog (*Arctica islandica*) shell (left) and siphons of Ocean quahog buried in the Subtidal (sublittoral) sand (right)

4.4. Carlingford Lough MCZ

Table 4 Carlingford Lough MCZ summary table

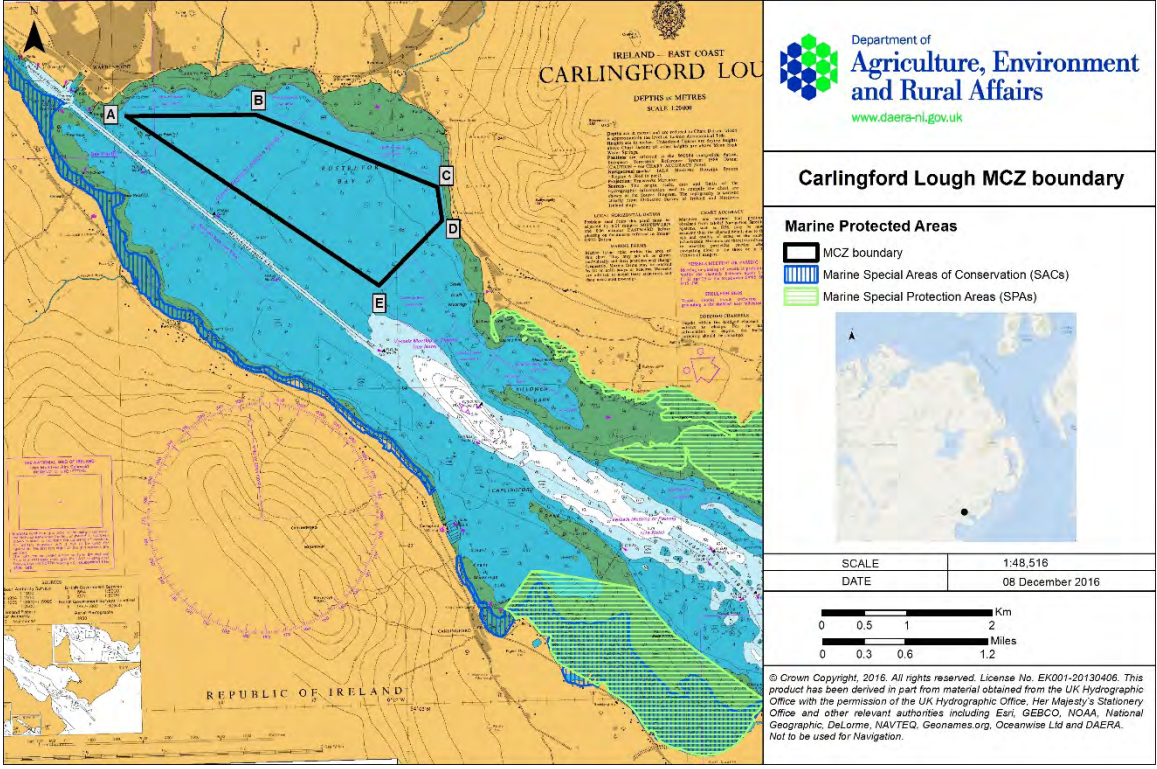
Size	3.231 Km ² . See Figure 8.
 <p>The figure is a detailed nautical chart of Carlingford Lough, Ireland, showing the Marine Protected Area (MCZ) boundary. The lough is outlined in black and labeled with points A through E. The map includes depth contours, bathymetry, and various marine features. A legend on the right identifies the MCZ boundary (black line), Marine Special Areas of Conservation (SACs) (blue hatched area), and Marine Special Protection Areas (SPAs) (green hatched area). A scale bar shows 0 to 2 kilometers and 0 to 1.2 miles. The date is 08 December 2016. The map is titled 'IRELAND - EAST COAST CARLINGFORD LOUGH DEPTHS in METRES SCALE 1:25000'. A small inset map shows the location of Carlingford Lough on the east coast of Ireland.</p>	
<p>Figure 8 Carlingford Lough MCZ boundary</p>	
Description	<p>The MCZ has been designated as it supports the habitat <i>Philine aperta</i> (White lobe shell) and <i>Virgularia mirabilis</i> (Sea-pen) in soft stable infralittoral mud (see Figure 9). This habitat is only present in Carlingford Lough, although individual records of <i>Philine aperta</i> and <i>Virgularia mirabilis</i> occur throughout Northern Ireland. <i>Philine aperta</i> and <i>Virgularia mirabilis</i> occur in high densities within the MCZ and this habitat is thought to be a temporal variant of other sublittoral cohesive mud and sandy mud communities.</p>
Conservation Objectives	<p><i>Philine aperta</i> and <i>Virgularia mirabilis</i> in soft stable infralittoral mud is maintained in favourable condition.</p>
Further information	<p>Conservation Objectives and Potential Management Options Carlingford Lough MCZ</p>



Figure 9 High densities of Sea-pen (*Virgularia mirabilis*) (left) and White lobe shell (*Philine aperta*) (right) in the Subtidal (sublittoral) mud of Carlingford Lough MCZ

5. Management of activities in MCZs

The majority of activities that take place at sea are subject to some form of control through a range of regulatory regimes, which are the responsibility of both the Department and other public authorities. Sections 22 and 23 of the Marine Act (Northern Ireland) 2013 place duties on all public authorities in exercising their functions, and making decisions that could impact on MCZs. This means that such decisions must be made in line with the conservation objectives for each site and any advice on management prepared by the Department.

As part of the designation process the Department undertook a risk of damage assessment for each MCZ and recommended management actions were included in the designation documents. These recommendations are based on sensitivity and vulnerability assessments of the protected features using the Marine Evidence based Sensitivity Assessment (MarESA) and full guidance on the development of management options is available on the Department's website⁶.

There are three levels of management for consideration:

- **Management is introduced to remove or avoid pressures:** Activities are prohibited within the MCZ. This may be introduced through voluntary or regulatory mechanisms. This management measure is considered when the vulnerability is moderate or high.
- **Management is introduced to reduce or limit pressures:** Activities are allowed within the MCZ but this is subject to certain additional management measures (e.g. modification of methodologies used, effort limitation, seasonal activity, etc.). These may include measures that are already in place, for example, those that manage effort, gear restrictions, etc. as well as additional measures that could be introduced through voluntary or regulatory

⁶ DAERA (2017). Marine Conservation Zones in the Northern Ireland inshore region. Guidance on the Development of Conservation Objectives and Potential Management Options: <https://www.daera-ni.gov.uk/sites/default/files/publications/daera/MCZ%20Guidance%20on%20the%20Development%20of%20Conservation%20Objectives%20and%20Potential%20Management%20Options%20-%20Version%204.0%20-%20Web.2.pdf>

mechanisms. This management measure is considered when the vulnerability is low.

- **No additional management is required:** No restrictions in place other than general regulations (quotas, technical measures, etc.) that are not site-specific.

Full details of the management recommendations for each site are provided on the Departmental website, in the Conservation Objectives and Potential Management Options documents (see links in previous section). These recommendations form the basis of the advice that is provided by conservation advisors within the Department’s Marine and Fisheries Division when they are consulted about activities that could impact on MCZs. The activities that are prohibited or restricted in each MCZ are summarised below.

5.1. Rathlin MCZ

Table 5 Management recommendations for Rathlin MCZ

Activity	Management recommendations
Extraction of living resources: Fishing – dredging and demersal trawling	Management measures are recommended to remove or avoid pressures associated with dredging and demersal trawling in areas where they are likely to impact the MCZ features.
Transport: Shipping – general at sea (mooring, anchorage & vessel movements)	Management measures are recommended to remove or avoid pressures associated with shipping – general at sea where they are likely to impact Black guillemot. Anchoring in emergency situations will not be restricted.
Recreation and leisure: Recreational activities – SCUBA Diving, sailing, windsurfing, kayaking/canoeing, bird watching, recreational fishing	Management measures are recommended to remove or avoid pressures associated with recreation and leisure activities (anchoring and mooring) where they are likely to impact Black guillemot. Anchoring in emergency situations will not be restricted.

Predation from mammalian predators	Management measures are recommended to remove or avoid predators where they are likely to impact breeding Black guillemots. This is being taken forward as part of the Rathlin Island European Marine Site Management Scheme.
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5.2. Waterfoot MCZ

Table 6 Management recommendations for Waterfoot MCZ

Activity	Management recommendations
Extraction of living resources: Fishing – dredging Fishing – traps (creeling/potting)	Management measures are recommended to remove or avoid pressures associated with scallop dredging within the MCZ. Management measures are recommended to remove or avoid pressures associated with fishing with traps (creels and pots) within the MCZ.
Transport: Shipping – general at sea (mooring, anchorage & vessel movements)	Management measures are recommended to remove or avoid pressures associated with shipping – general at sea (anchoring and mooring) where these are likely to impact the MCZ. Anchoring in emergency situations will not be restricted.
Recreation and leisure: Recreational activities – SCUBA Diving, sailing, windsurfing, kayaking/canoeing, bird watching, recreational fishing	Management measures are recommended to remove or avoid pressures associated with recreation and leisure (anchoring and mooring) where they are likely to impact the MCZ feature. Anchoring in emergency situations will not be restricted.

5.3. Outer Belfast Lough MCZ

Table 7 Management recommendations for Outer Belfast Lough MCZ

Activity	Management recommendations
Extraction of living resources: Fishing – dredging and demersal trawling Fishing – traps	Management measures are recommended to remove or avoid pressures associated with dredging and demersal trawling where they are likely to impact the MCZ features. Management measures are recommended to reduce or limit pressures associated with traps (pot/creel) where they are likely to impact the MCZ features.
Transport: Shipping – general at sea (mooring, anchorage & vessel movements)	Management measures are recommended to remove or avoid pressures associated with shipping - general at sea (anchoring and mooring) where they are likely to impact the MCZ features. Anchoring in emergency situations will not be restricted.

5.4. Carlingford Lough MCZ

Table 8 Management recommendations for Carlingford Lough MCZ

Activity	Management recommendations
Extraction of living resources: Fishing – demersal trawling Fishing – traps (creeling/potting)	Management measures are recommended to remove or avoid pressures associated with demersal trawling where this is likely to impact the MCZ features. Management measures are recommended to reduce or limit pressures associated with fishing with traps (pots/creels) within the MCZ.

<p>Transport:</p> <p>Shipping – general at sea (mooring, anchorage & vessel movements)</p>	<p>Management measures are recommended to remove or avoid pressures associated with shipping - general at sea (anchoring and mooring) where they are likely to impact the MCZ feature.</p> <p>Anchoring in emergency situations will not be restricted.</p>
<p>Recreation and leisure:</p> <p>Recreational activities – SCUBA Diving, sailing, windsurfing, kayaking/canoeing, bird watching, recreational fishing</p>	<p>Management measures are recommended to reduce or limit pressures associated with recreation and leisure activities (anchoring and mooring) where they are likely to impact the MCZ feature.</p> <p>Anchoring in emergency situations will not be restricted.</p>

6. Progress towards achievement of Conservation Objectives

Since designation in December 2016, the MCZs have been subsumed into the Department's MPA monitoring and management programme and they are subject to regular site integrity monitoring and surveillance. Detailed condition assessments are completed on a 6-year cycle and therefore it is not yet possible to state whether the conservation objectives have been achieved.

OSPAR recommends that management plans are in place within 5 years of designation. An MPA with a management plan in place, and the necessary management measures being implemented, will be considered to be under favourable management and making progress towards the achievement of its conservation objectives. The Department's focus is now on the development of management plans and their implementation. Increasing the MPAs under favourable management will contribute towards an improving trend for the biodiversity indicator of the draft Programme for Government Outcome 2 (We live and work sustainably – protecting the environment) ⁷.

When the MCZs were designated, the Minister Michelle McIlveen committed the Department to working with the fishing industry to develop the necessary fisheries management measures. The Department has commenced the development of these measures and is engaging with the industry through the Inshore Fisheries Partnership group.

The Department aims to have management measures in place for the existing MPA network by 2021. The management plans for MCZ will mostly be developed through the Interreg Va funded Marine Protected Area Management and Monitoring (MarPAMM) project. This project is led by the Agri-Food and Biosciences Institute (AFBI), and together with a consortium of partners it will develop management plans for MPAs in Northern Ireland, Scotland and Republic of Ireland.

⁷ Programme for Government - Outcomes delivery plan 2018-2019:
<https://www.executiveoffice-ni.gov.uk/sites/default/files/publications/execoffice/outcomes-delivery-plan-2018-19.pdf>

7. Progress towards establishing an ecologically coherent network of well managed MPAs

To inform the preparation of this report, the Department commissioned the Joint Nature Conservation Committee (JNCC) to assess the progress that has been made towards meeting the objectives set out in Section 20 of the Marine Act (Northern Ireland) 2013.

This assessment was made against the OSPAR Principles, the commitments made in the Joint Administration's Statement, and the following criteria:

- Each MPA feature of conservation interest in Northern Ireland should be represented in the MPA network;
- Broad-scale habitat features should be protected (replicated) in at least two MPAs;
- Northern Ireland's Priority Marine Features (PMF) and proposed MCZ (pMCZ) habitat, species and Geological and Geomorphological features should be replicated in at least two MPAs;
- A minimum of 10% of the known area of each subtidal broad-scale habitat should be protected in MPAs; and
- MPAs should be well connected with sites affording protection to the same broad habitat type no further than 80km apart from each other.

JNCC assessed the progress of the MPA network in the Northern Ireland inshore region specifically, but also the contribution of Northern Ireland's MPAs to the broader UK MPA network within the two biogeographic regions adjoining Northern Ireland: the Irish Sea region and Minches & Western Scotland region.

7.1. MPA network in the Northern Ireland inshore region

The current MPA network in the Northern Ireland inshore region, which includes the 4 MCZs designated in December 2016, the North Channel Site of Community Importance (SCI) designated for Harbour porpoise in January 2017, together with sites previously designated, totals 48 MPAs, occupying 38% of the inshore region (See Figure 10 and Annex A – List of MPAs in the Northern Ireland inshore region).

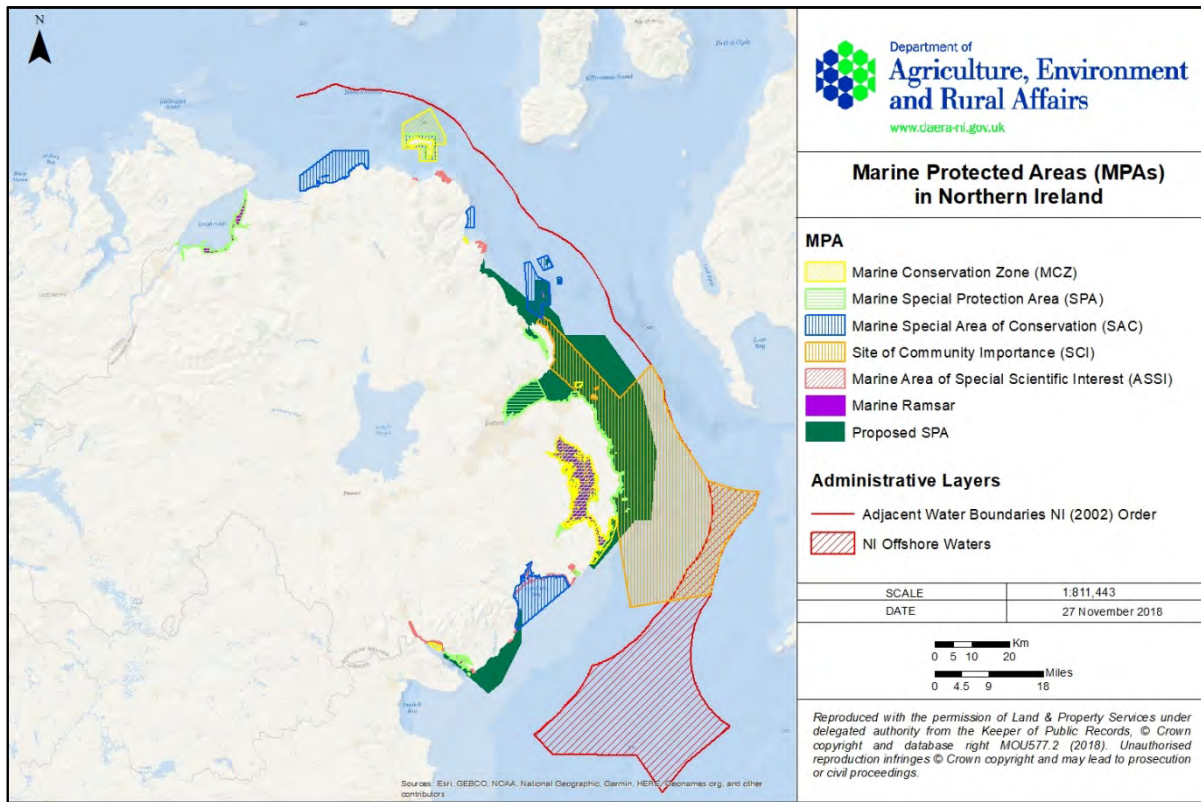


Figure 10 MPAs in Northern Ireland

The JNCC report⁸ concluded that the MPA network in the Northern Ireland inshore region is very close to reaching the objective of establishing an ecologically coherent network in Northern Ireland.

The majority of MPA features of conservation interest are already represented and replicated in the MPA network. Only a small number of features do not meet the range of benchmarks set by the network criteria and these shortfalls typically relate to replication or the amount of habitat afforded protection, rather than to representation in the MPA network.

⁸ JNCC (2018). Assessing progress towards an ecologically coherent network of Marine Protected Areas in the Northern Ireland inshore region: <https://www.daera-ni.gov.uk/publications/assessing-progress-towards-ecologically-coherent-network-marine-protected-areas-northern-ireland>

The status of the Northern Ireland MPA network and its remaining gaps are as follows:

- Within the Northern Ireland inshore region all broad-scale habitats are represented with the majority replicated in multiple MPAs; there are only a few gaps remaining in relation to the area of these habitats afforded protection in MPAs.
- There are a small number of gaps in the protection afforded to PMF/pMCZ habitats that could be addressed to ensure that MPAs sufficiently represent and replicate these features in the Northern Ireland inshore region.
- All PMF/pMCZ species are protected at least once in the existing MPA network, but 19 replication gaps were identified that could potentially be addressed in the Northern Ireland inshore region.
- Two of the six pMCZ Geological and Geomorphological features are represented and replicated. Representativity and replication gaps were identified for the four other features, but further research is needed to understand the occurrence of two of these features in the Northern Ireland inshore region.
- Broad habitat types in the Northern Ireland MPA network are well connected.

The gaps for the Northern Ireland inshore region are summarised in Table 9 below.

Table 9 Gaps for the Northern Ireland inshore region

Feature assessed	MPA network gap in the Northern Ireland inshore region
Broad-scale habitat	
Moderate energy circalittoral rock	Adequacy (4.2% already protected)
Low energy circalittoral rock	Replication and adequacy (0.5% already protected)
Sublittoral coarse sediment	Adequacy (0.5% already protected)
Sublittoral mud	Adequacy (4.3% already protected)

Feature assessed	MPA network gap in the Northern Ireland inshore region
PMF/pMCZ habitat	
Blue mussel beds (subtidal)	Replication
Brittlestar beds	Replication
Estuarine rocky habitats	Replication
Horse mussel (<i>Modiolus modiolus</i>) beds	Replication
Mud habitats in deep water	Replication
Native oyster (<i>Ostrea edulis</i>) beds	Representativity and replication
PMF/pMCZ species	
<i>Arctica islandica</i>	Replication
<i>Asterina phylactica</i>	Replication
<i>Atractophora hypnoides</i>	Replication
<i>Caryophyllia inornata</i>	Replication
<i>Cephus grylle</i>	Replication
<i>Cestopagurus timidus</i>	Replication
<i>Chlamys varia</i>	Replication
<i>Crenella decussata</i>	Replication
<i>Diazona violacea</i>	Replication
<i>Dipturus batis</i>	Replication
<i>Eubranchus doriae</i>	Replication
<i>Leptosynapta bergensis</i>	Replication
<i>Palinurus elephas</i>	Replication
<i>Paracucumaria hyndmani</i>	Replication
<i>Sabellaria alveolata</i>	Replication
<i>Solaster endeca</i>	Replication
<i>Stelletta grubii</i>	Replication
<i>Stryphnus ponderosus</i>	Replication
<i>Tonicella marmorea</i>	Replication
pMCZ Geological and Geomorphological features	
Glacial process features	Representativity and replication
Marine process features	Representativity and replication
Mass movement features	Further research required
Seawards extension features	Further research required

7.2. Contribution to the MPA network in the Irish Sea region and Minches & Western Scotland region

MPAs in the Northern Ireland inshore region contribute to the wider MPA network in the Irish Sea region and Minches & Western Scotland region (See Figure 11). The JNCC assessment concluded that at the biogeographic scale, some gaps remain in the wider MPA network for the area of broad-scale habitats protected, and the representativity and replication of several PMF/pMCZ habitats and species in MPAs. The JNCC report identifies that further protection of broad-scale habitats or PMF/pMCZ habitats and species in the Northern Ireland inshore region could reduce the gaps in the representativity, replication and adequacy of some features at the wider biogeographic scale and full details of these gaps are available in the report.

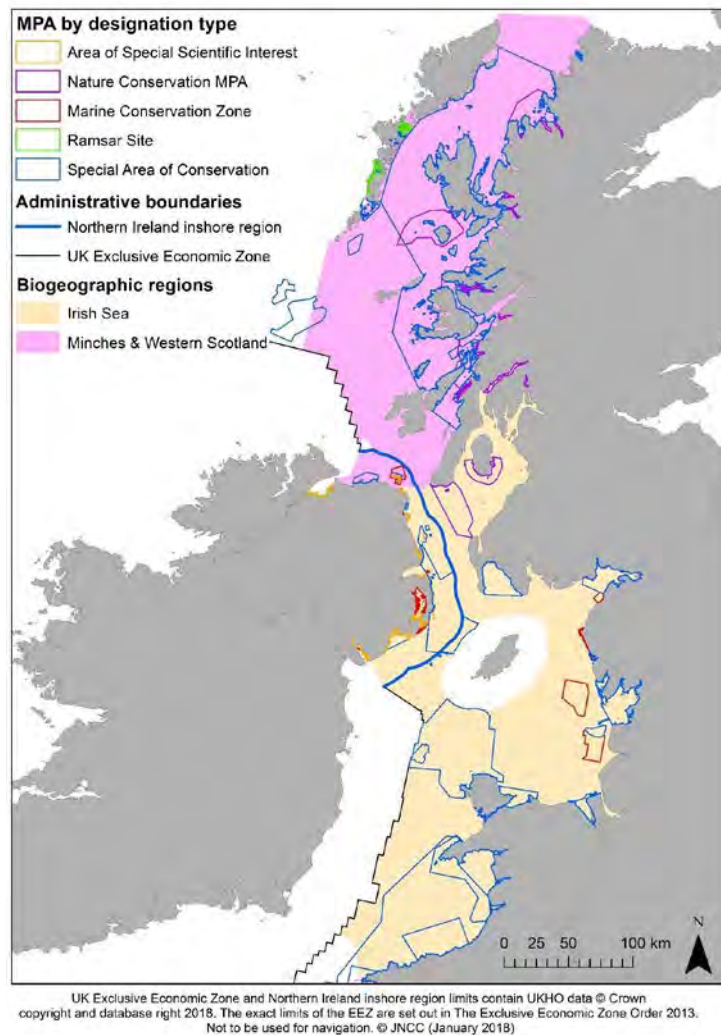


Figure 11 MPAs included in the MPA network assessment in the Irish Sea and Minches & Western Scotland biogeographic regions (JNCC, 2018).

Table 10 and Table 11 provide a summary of the broad-scale habitats and priority marine features for which gaps were identified in both the Northern Ireland inshore region and in the wider biogeographic regions. Any future designations that may be made to fill these identified gaps in the Northern Ireland inshore region will also contribute towards achieving the target of having ecologically coherent MPA networks at the biogeographic scale.

Table 10 Subtidal broad-scale habitats with gaps in the Northern Ireland inshore region and their corresponding status at the wider biogeographic scale.

Subtidal broad-scale habitat with a gap in the Northern Ireland inshore region	% protected in Northern Ireland inshore region	% protected in the Irish Sea region	% protected in the Minches & Western Scotland region
Moderate energy circalittoral rock	4.2	5.2	No gap
Low energy circalittoral rock	0.5	0.5	No gap
Sublittoral coarse sediment	0.5	6.2	1.2

Table 11 Northern Ireland PMF and proposed MCZ (pMCZ) habitats and species with gaps in the Northern Ireland inshore region, and their corresponding status in the wider biogeographic region(s)

PMF/pMCZ habitat or species feature with a gap in the Northern Ireland inshore region	Gap in Northern Ireland inshore region	Gap in the Irish Sea region	Gap in the Minches & Western Scotland region
PMF/pMCZ habitat			
Native oyster (<i>Ostrea edulis</i>) beds	Y	N	Y
PMF/pMCZ species			
Black guillemot (<i>Cephus grille</i>)	Y	Y	N
Common skate (<i>Dipturus batis</i>)	Y	Y	Y
Spiny lobster (<i>Palinurus elephas</i>)	Y	N	Y
Hyndmans's Sea cucumber (<i>Paracucumaria hyndmani</i>)	Y	Y	N

8. Further steps towards achieving the objective of an ecologically coherent network of well managed MPAs

It can therefore be concluded that the MPA network in the Northern Ireland inshore region is very close to reaching the objective of establishing an ecologically coherent network in Northern Ireland. As discussed in the earlier sections, only a small number of features do not meet the range of benchmarks set by the network criteria and these shortfalls typically relate to replication or the amount of habitat afforded protection, rather than to representation in the MPA network.

At a biogeographic scale, some gaps remain in the wider MPA network for the area of broad-scale habitats protected, and the representativity and replication of several PMF/pMCZ habitats and species in MPAs. Further protection of broad-scale habitats or PMF/pMCZ habitats and species in the Northern Ireland inshore region could contribute towards filling gaps at the biogeographic scale.

While any decisions about future designations will be reserved for an incoming Minister, in accordance with existing commitments and as part of its ongoing monitoring programmes, the Department will continue to gather evidence that could inform future designations.

Since the Northern Ireland Priority Marine Feature list was agreed in 2014, there have been a number of additions to the OSPAR Threatened and Declining Species list. The PMF list will therefore need to be reviewed before commencing any future designation programme.

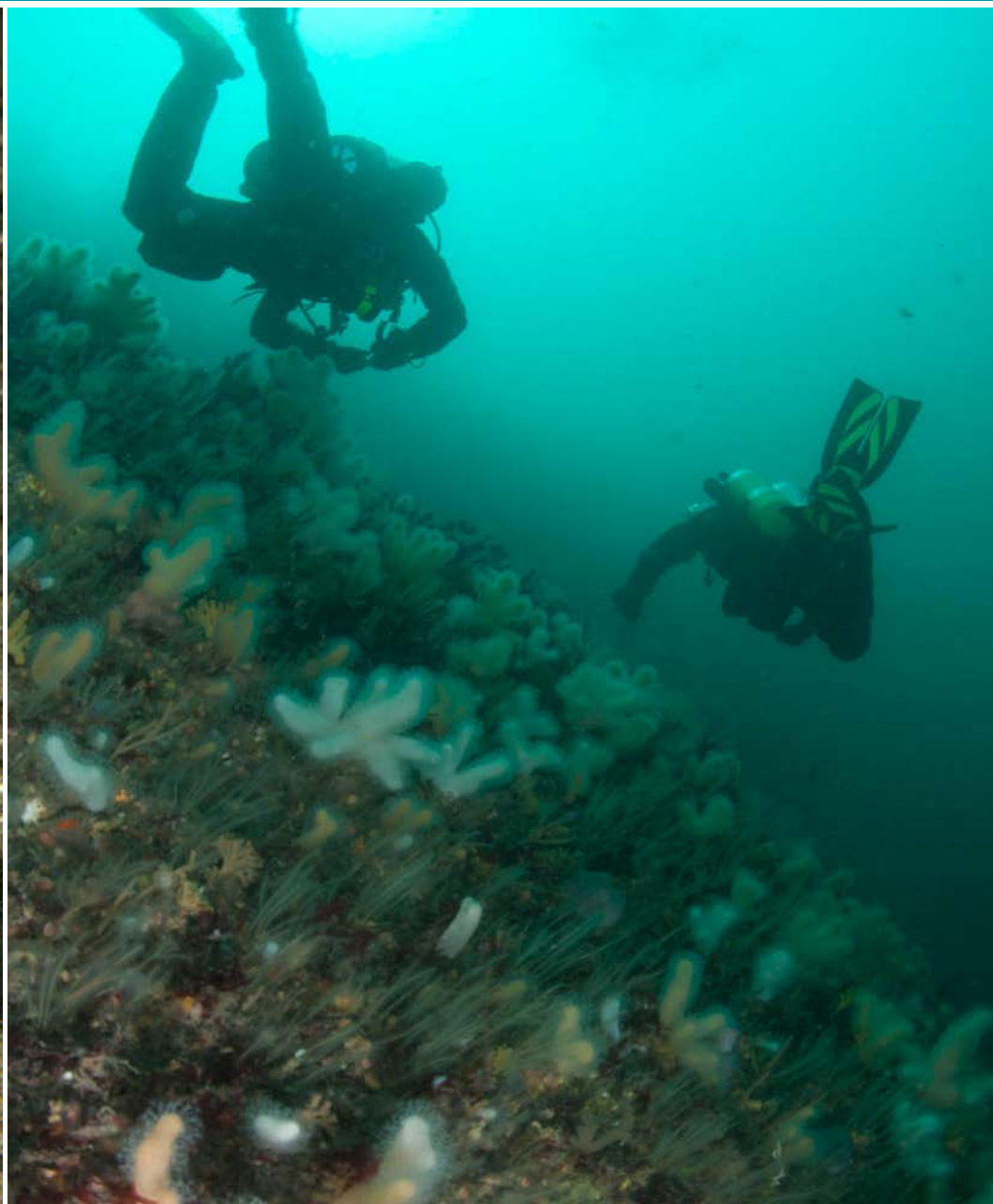
As outlined in Outcome 2 of the draft Programme for Government, the Department will also continue to focus on the development of management plans for existing MPAs and implementation of the necessary management measures within 5 years of designation.

Annex A – List of MPAs in the Northern Ireland inshore region

Site name	Designation type	Site area (km ²)
Murlough	SAC	119.0203
Strangford Lough	SAC	153.9854
Rathlin Island	SAC	33.4462
Red Bay	SAC	9.6554
Skerries and Causeway	SAC	108.62
The Maidens	SAC	74.6136
North Channel	SCI	1603.67
Rathlin Island	SPA	33.4462
Lough Foyle	SPA	22.0436
Larne Lough	SPA	3.9594
Belfast Lough	SPA	4.3214
Strangford Lough	SPA	155.8079
Carlingford Lough	SPA	8.2712
Killough Bay	SPA	1.333
Outer Ards	SPA	14.1041
Belfast Lough Open Water	SPA	55.9299
Lough Foyle	Ramsar	22.0436
Belfast Lough	Ramsar	3.9594
Carlingford Lough	Ramsar	8.2712
Killough Bay	Ramsar	1.333
Larne Lough	Ramsar	3.9594
Outer Ards	Ramsar	14.1041
Strangford Lough	Ramsar	155.8079
Strangford Lough	MCZ	164.8921

Outer Belfast Lough	MCZ	2.507768
Rathlin	MCZ	90.592342
Waterfoot	MCZ	0.81132
Carlingford Lough	MCZ	3.231178
Ballymacormick Point	ASSI	0.39
Carlingford Lough	ASSI	11.05
Castle Point	ASSI	0.0854
Killough Bay and Strand Lough	ASSI	1.7591
Larne Lough	ASSI	3.98
Lough Foyle	ASSI	20.0598
Murlough	ASSI	14.55
Fair Head and Murlough Bay	ASSI	2.5126
Galboly	ASSI	1.9278
Mournes Coast	ASSI	0.8466
Outer Ards	ASSI	12.4082
Rathlin Island Coast	ASSI	2.57
Samuel's Port	ASSI	0.1365
St John's Point	ASSI	0.8458
Strangford Lough Part 1	ASSI	15.5
Strangford Lough Part 2	ASSI	7
Strangford Lough Part 3	ASSI	18.6
The Gobbins	ASSI	0.2759
The Maidens	ASSI	0.0606
Tyrella and Minerstown	ASSI	2.7208

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