

SITE SUMMARY DOCUMENT

Rathlin Marine Conservation Zone (MCZ)

Black guillemot (*Cepphus grylle*) ©jdoherty



Department of
**Agriculture, Environment
and Rural Affairs**

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Rathlin MCZ

Rathlin Island is the northernmost point of Northern Ireland (Figure 1). The MCZ surrounds Rathlin Island with a large extension between the north of the Island and the North Channel. The MCZ encompasses an area of 90.57km². The site overlaps other Marine Protected Areas (MPAs): Rathlin Island Special Area of Conservation (SAC) and Rathlin Island Special Protection Area (SPA).

Rathlin MCZ has been designated for Deep-sea bed, Black guillemot and Geological/Geomorphological features.

The MCZ contains the only known location of the broad scale habitat, Deep-sea bed in Northern Irish waters. This habitat is particularly unique in Northern Ireland inshore waters due to the steep drop-off in depth (>200m), close proximity to land and a range of deep subtidal sands, mixed sediments and rock.

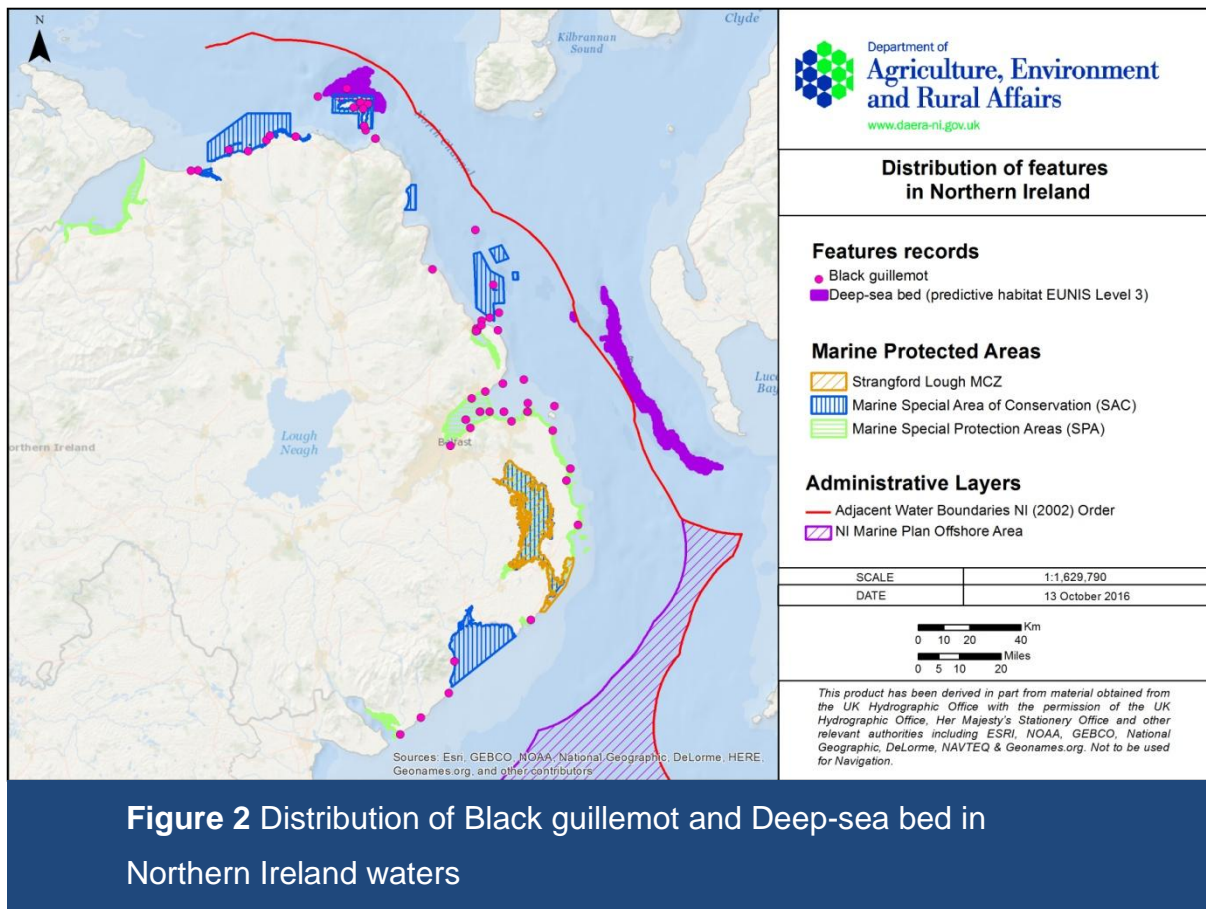
Rathlin Island also supports a large population of Black guillemots (*Cephus grylle*) that nest within the Island's cliffs.

Although Black guillemots have a widespread distribution throughout Northern Ireland (Figure 2) there is a significant breeding and nesting population within Rathlin Island (Figure 3). Their reproductive success here may be related to the highly productive waters and rich feeding grounds within the MCZ.

A range of subtidal geological and geomorphological features have also been recorded (Figure 4) 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.



Figure 1 Location of Rathlin MCZ



Deep-sea bed

Predictive seabed habitat mapping (JNCC EU Seemap, 2011) shows that Rathlin Island is surrounded by a wide range of rocky and sandy habitats with Deep-sea bed habitat (depth ranging from 200-260m) to the north of Rathlin. Surveys carried out in 2014 and 2015 identified areas of deep mobile sediment interspersed with stony reef and other areas of cobbles and boulders.

The uniqueness of the Deep-sea bed habitat in Northern Ireland warrants its inclusion as a MCZ feature. In addition, due to the strong tidal currents and exposed nature of the site, it is thought mobile gear fishing does not regularly occur within the northern MCZ extension to the existing SAC boundary. This suggests that the seabed may be in a near natural or undisturbed condition.

Black guillemot

The waters between Bull Point and Church Bay have been designated as they support a large population of breeding Black guillemot. The sea-bed in this area comprises a mosaic of well-mixed medium sediment, muddy gravel, sand and

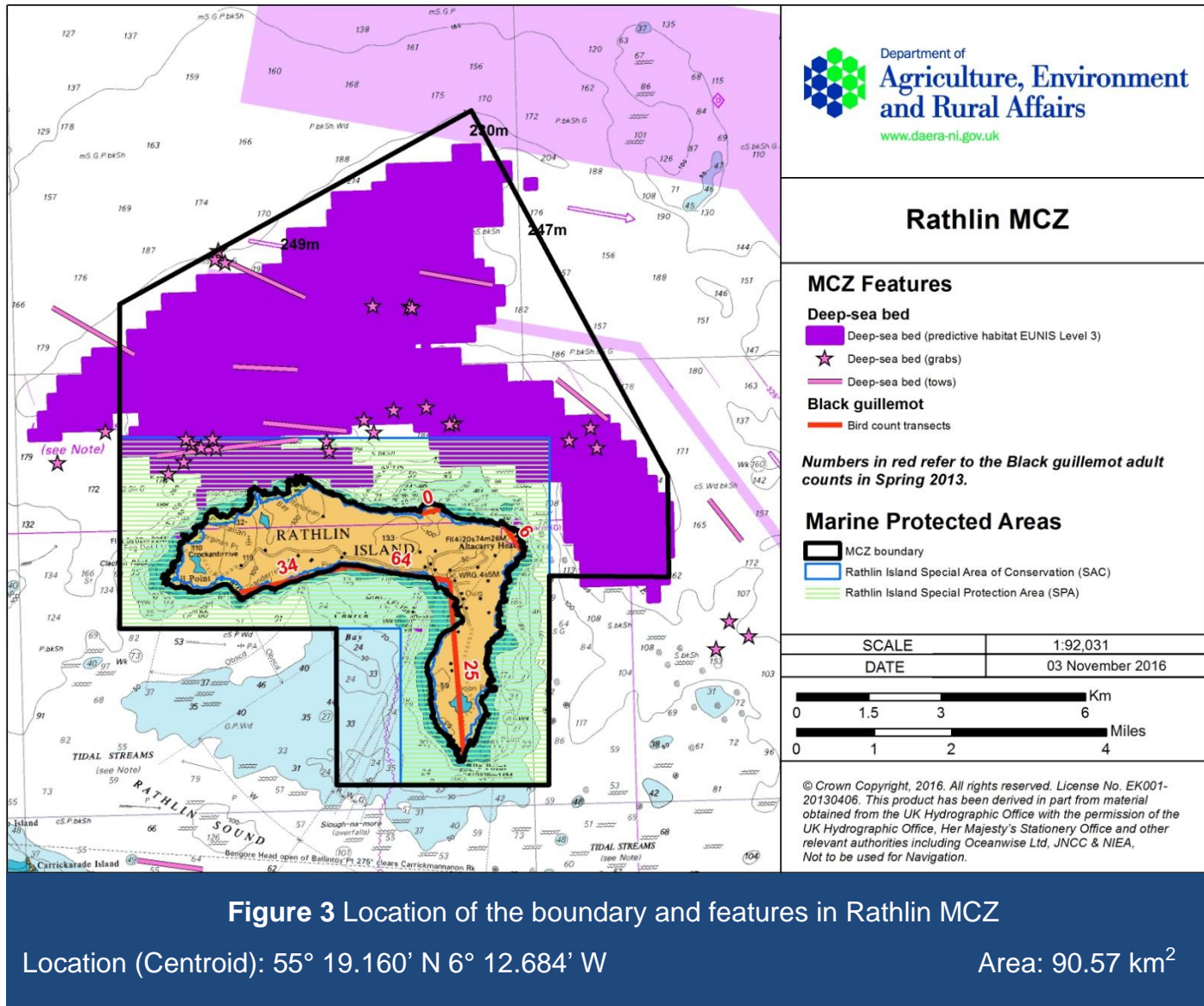
coarse shell, interspersed with occasional boulders and cobbles.

The Church Bay area is used primarily for loafing and display activities, particularly in relation to breeding behaviour. Productive waters in the area create feeding hotspots for fish, which in turn support the bird population. Black guillemots are pursuit divers that typically feed close inshore where the seabed is rocky with dense kelp stands preying mainly on butterfish and blennies.

The nesting site for Black guillemot is located on the cliffs of Rathlin Island and they are afforded indirect protection through the SAC (Annex I Habitat is Vegetated sea cliffs) and SPA (Annex II breeding seabird population which also nest on the cliffs) designations.

Sea cliffs on Rathlin Island where breeding seabirds nest





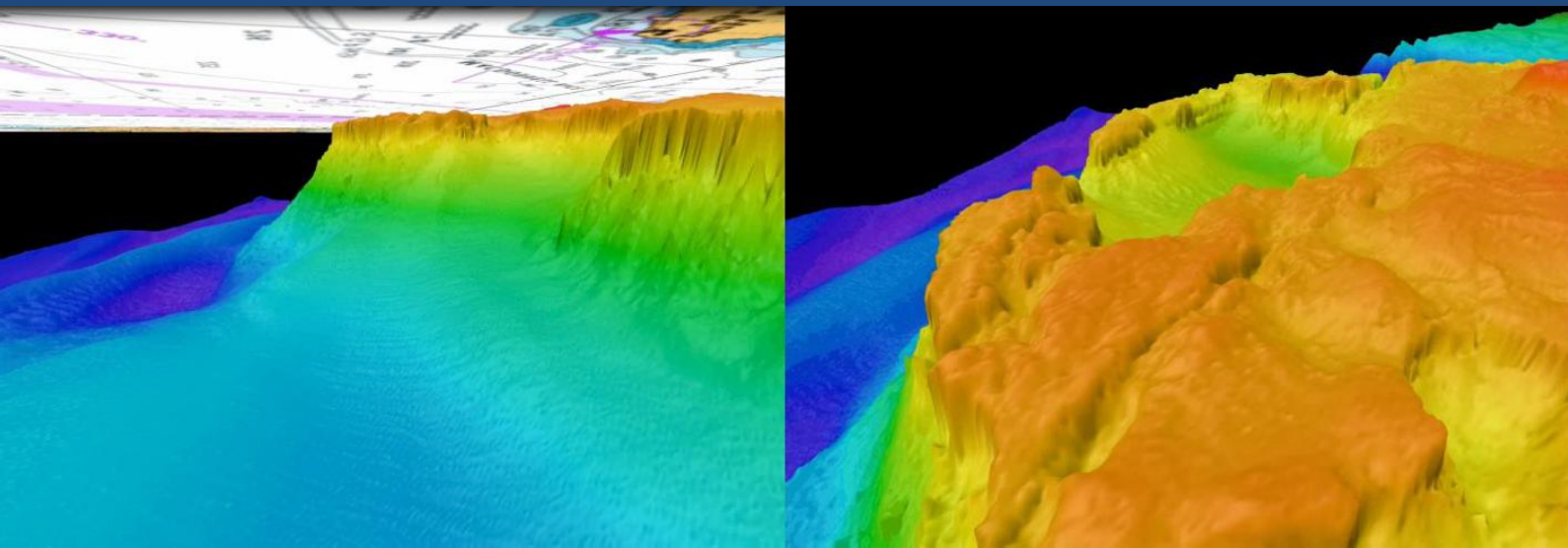
Black guillemot is currently on the following conservation lists:

1. International Union for Conservation of Nature (IUCN) Red List - Least Concern.
2. Birds of Conservation Concern in Ireland – Amber List.

Geological Features

Acoustic survey work carried out as part of the Joint Irish Bathymetric Survey (JIBS) in 2008 provided previously uncharted seabed features indicating global sea-level change. This was associated with the retreat of the last ice sheet 20,000 years ago and includes a submerged lagoon on the north east coast of the island and a shallow shelf dropping off sharply to over 200m to the north west of the island. The combined heights of the submerged and terrestrial cliffs make them the third highest in the UK. Submerged cliffs, gullies, arches and caves were recorded in different dive surveys (from 1984 to 2013, Figure 4).

Left, sea bed topography approaching the north east corner of Rathlin; Right, submerged lagoon modelled from acoustic data collected as part of the JIBS (2007) on the north east corner of Rathlin.



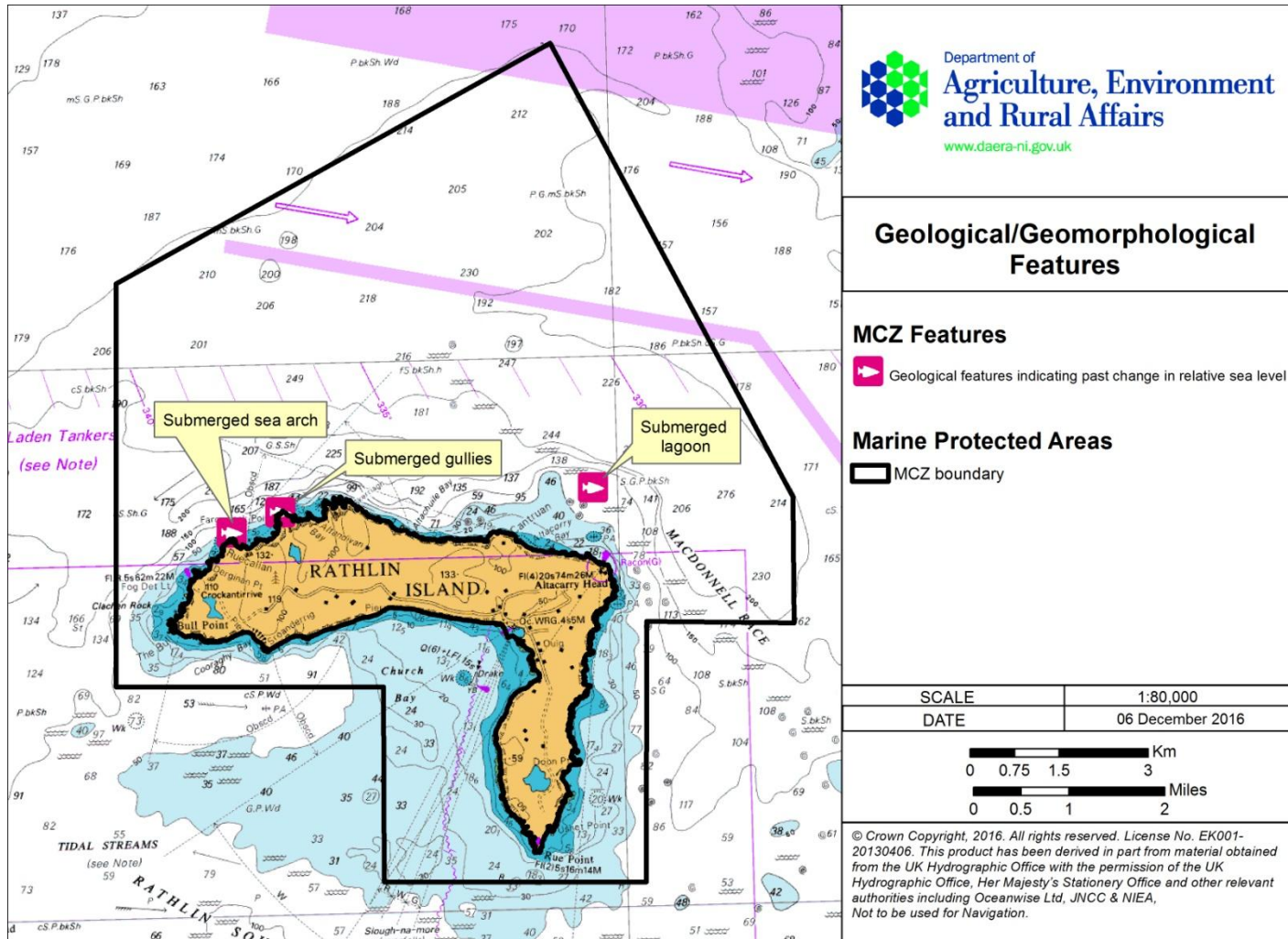


Figure 4 Geological/Geomorphological features in Rathlin MCZ



Left, Archway; Middle, Black guillemot (*Cepphus grylle*) in winter plumage; Right, Subtidal cliff with Soft coral turf

MCZ Features

Habitat:

- Deep-sea bed

Species:

- Black guillemot (*Cepphus grylle*)

Geological/ Geomorphological:

- Features indicating past change in relative sea level

Records of Deep-sea bed and Geological/ Geomorphological features range from 1984 to 2015. The data sources include:

- NI Sublittoral Survey (NISS) (1984 and 1985)
- Sublittoral Survey NI (SSNI) (2006, 2009 and 2011)
- Seasearch Northern Ireland Rathlin surveys (2005, 2012 and 2013)
- JNCC EU SeaMap Habitats (2014)
- JNCC UK SeaMap EUNIS Level 3 Maps (2010)
- UK Hydrographic Office Admiralty Chart including data from JIBS (2008) project
- AFBI multibeam and seabed groundtruthing survey June 2014 and February 2015

Records of Black guillemot range from 1981 to 2013. The data sources include:

- JNCC Northern Ireland Birds records (1981-2010)
- Seabird Colony Register – NIEA/JNCC (2000)
- NIEA Rathlin Island Survey (2013)
- Tystie Survey (1987-2009)

Management options in the network

Management options may include the introduction of speed restrictions for marine vessels to prevent collisions with Black guillemot and prohibiting the use of mobile fishing gear within the MCZ to prevent damage to the Deep-sea bed habitat.

The boundary for the MCZ was based on the existing designations to ensure site integrity was captured; the southern lines follow the SAC/SPA boundary, while the northern and eastern lines extend beyond this to encompass the Deep-sea bed habitat. The boundary around the Church Bay area was expanded from the SAC/SPA boundary to include approximately 84% of sheltered waters that lie within 2km of the Island. This fulfils requirements for Black guillemot feeding, loafing and breeding displays.

Marine Historic Environment

Rathlin Island has no formally designated subtidal archaeological sites; however, it does have a number of historically important wrecks. The Department will have regard to any historic assets that lie within the MCZ boundary and these may be afforded incidental protection through management measures implemented for MCZ features.

Left, wreck of HMS Drake, *in situ* in Church Bay; Right, HMS Drake, Courtesy: Wessex Archaeology



Further Information

Further information on Rathlin MCZ and the MCZ process includes:

- Guidance on selection and designation of Marine Conservation Zones (MCZs) in the Northern Ireland Inshore Region
- Justification report for selection of proposed Marine Conservation Zones (pMCZ) features
- Guidance on the development of Conservation Objectives and potential Management Options
- Rathlin Marine Conservation Zone (MCZ) Conservation Objectives and potential Management Options
- Assessment against the Selection Guidelines for Rathlin Marine Conservation Zone
- Data Confidence Assessment for Rathlin Marine Conservation Zone (MCZ)

All documents are available from our website:

www.daera-ni.gov.uk/publications

www.daera-ni.gov.uk/articles/marine-protected-areas

Black guillemot (*Cepphus grylle*) showing typical breeding season colours





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Photos represent Priority Marine Features found throughout the Northern Ireland Inshore Region

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