

SITE SUMMARY DOCUMENT

Rathlin Proposed Marine Conservation Zone (MCZ)

Black guillemot (*Cepphus grylle*) ©jdoherty



Rathlin

Proposed MCZ

Rathlin Island is the northernmost point of Northern Ireland (Figure 1). The proposed MCZ (pMCZ) surrounds Rathlin Island with a large extension between the north of the Island and the North Channel encompassing an area of 92.62km². The proposed site overlaps other Marine Protected Areas (MPAs) namely the Special Area of Conservation (SAC) and the Special Protection Area (SPA).

The pMCZ supports the only known location of the broad scale habitat, Deep-sea bed (>200metres) in Northern Irish waters. This rare habitat can be associated with sensitive and vulnerable habitats such as the Cold water coral (*Lophelia*) reefs. Rathlin Island also supports a large population of breeding Black guillemot (*Cepphus grylle*) that nest within Rathlin's cliffs (Figures 2 and 3). 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 (Figure 4 and 5).

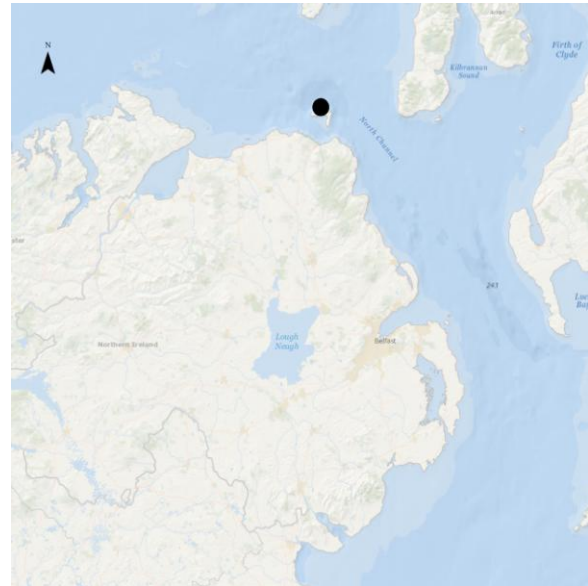


Figure 1 Location of Rathlin pMCZ

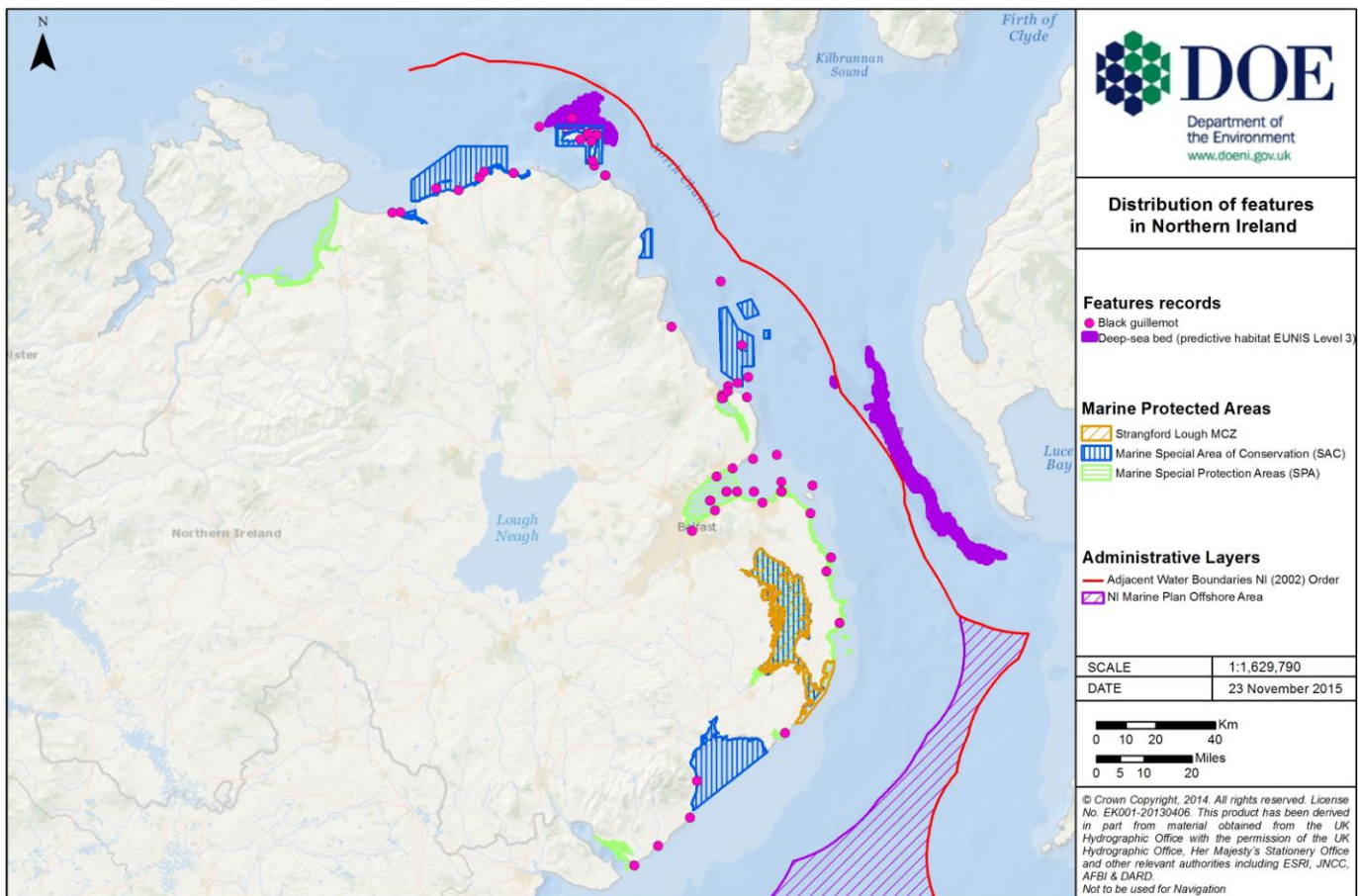


Figure 2 Distribution of Black guillemot and Deep-sea bed in Northern Ireland waters

Rathlin Proposed MCZ Features

Black guillemot

— Bird count transects

Deep-sea bed

■ Deep-sea bed (predictive habitat EUNIS Level 3)

★ Deep-sea bed (grabs)

— Deep-sea bed (tows)

Marine Protected Areas

▭ pMCZ boundary

▭ Rathlin Island Special Area of Conservation (SAC)

▭ Rathlin Island Special Protection Area (SPA)

Numbers in red refer to the Black guillemot adult counts in Spring 2013.

SCALE 1:80,000

DATE 23 November 2015

0 0.75 1.5 3 Km

0 0.5 1 2 Miles

© Crown Copyright, 2014. 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 Oceanwise Ltd, JNCC & NIEA.
Not to be used for Navigation.

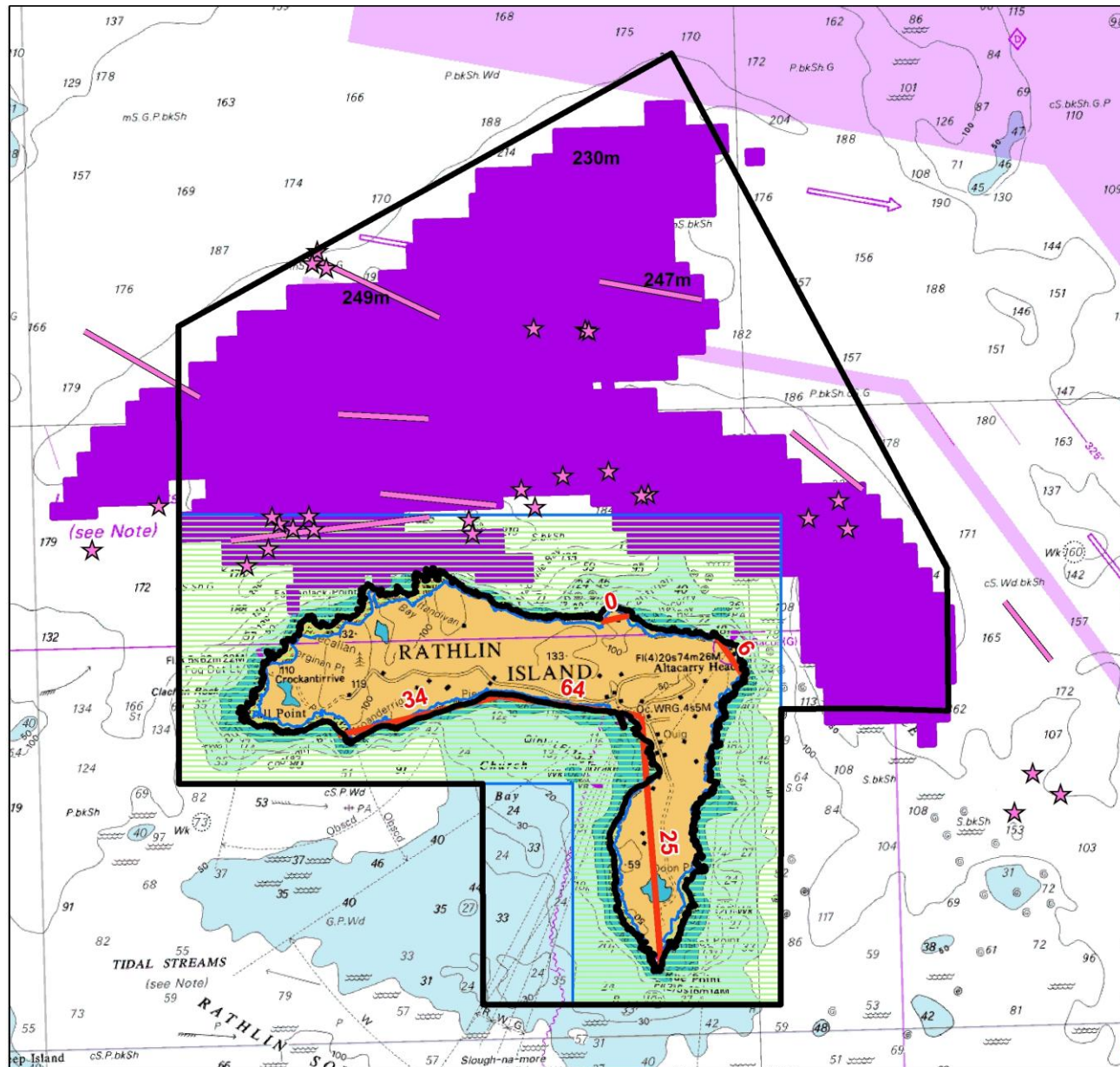


Figure 3 Location of the proposed boundary of Rathlin pMCZ

Location (Centroid): 55° 19.126' N - 6° 12.706' W

Area: 92.62 km²

Deep-sea bed and Geological Features

Predictive seabed habitat mapping (JNCC EU Seamap, 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.

Acoustic survey work carried out as part of the Joint Irish Bathymetric Survey (JIBS) in 2007 revealed a very complex and dynamic seabed including a shallow shelf dropping off sharply to over 200m to the north-west of the island and a previously uncharted submerged lagoon on the north east coast of the island. The combined heights of the submerged and terrestrial cliffs make them the third highest in the UK.

Strong tidal streams, stable temperatures and deep light penetration (>20m) contribute to Rathlin's rich underwater biodiversity.

The data sources are:

1. JNCC EU Seamap Habitats (2011) and JNCC EUNIS Level 3 Maps
2. UK Hydrographic Office Admiralty Chart including data from JIBS (2007) project
3. AFBI multibeam and seabed groundtruthing survey June 2014 and February 2015

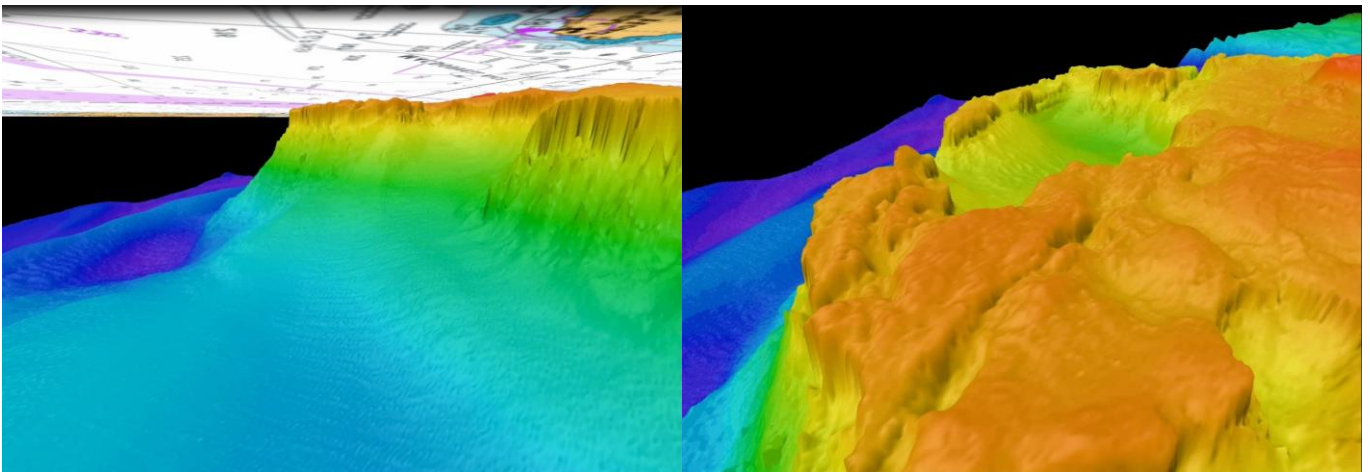


Figure 4 Left, seabed topography approaching the north east corner of Rathlin; Right, submerged lagoons modelled from acoustic data collected as part of the JIBS (2007) on the north east corner of Rathlin.

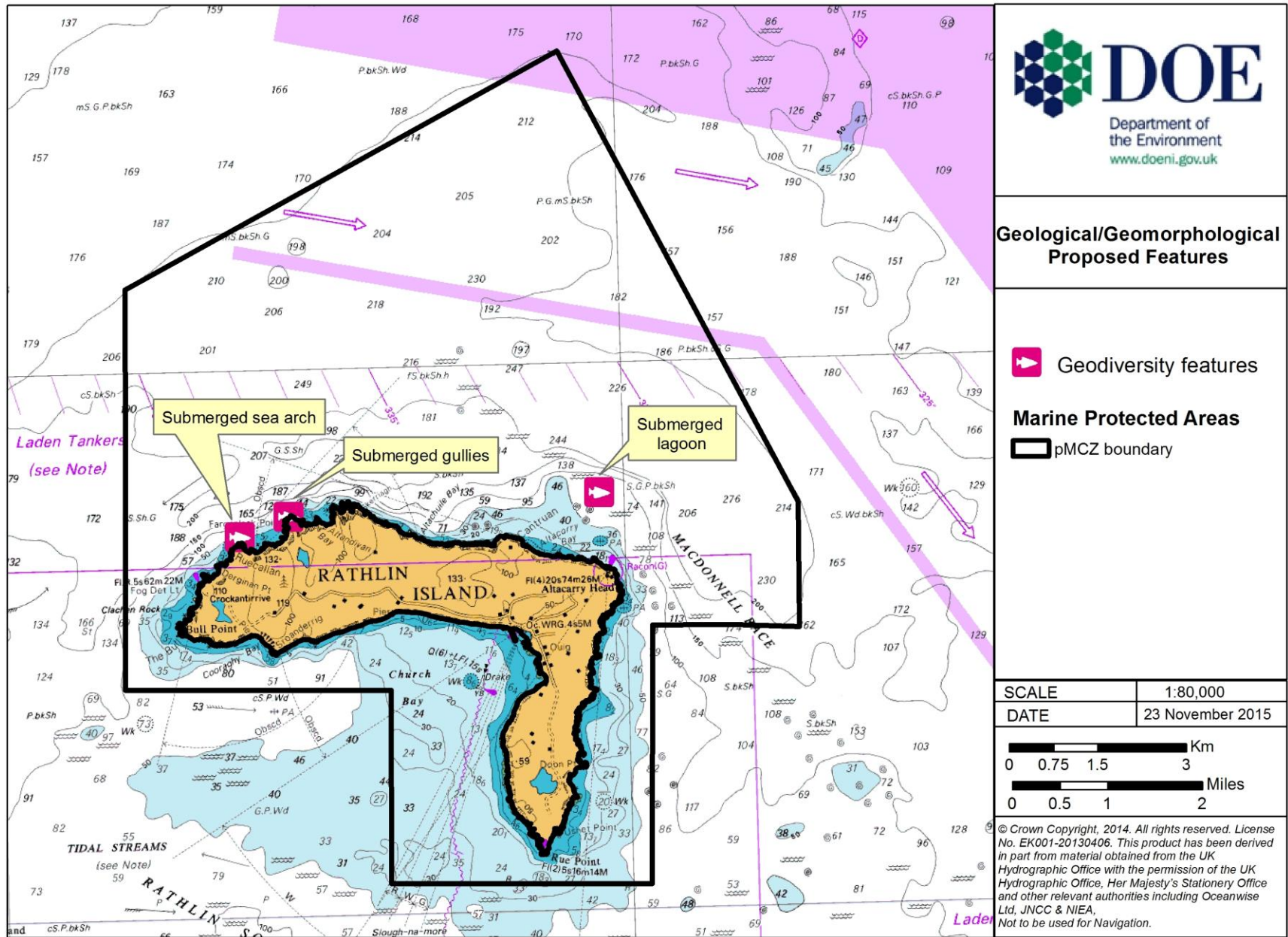


Figure 5 Geological/geomorphological features in Rathlin pMCZ

The uniqueness of the Deep-sea bed habitat in Northern Ireland warrants its inclusion as a pMCZ feature. In addition, fishing representatives have suggested there is little or no mobile gear fishing within the northern pMCZ extension to the existing SAC boundary, indicating the seabed may be in a near natural or undisturbed condition.

The Deep-sea bed area is also utilised by local chartered angling boats who target skate. However the Department were unable to source data to support inclusion of skate as a feature within the pMCZ at this stage.

Black guillemot

The waters between Bull Island and Church Bay have been proposed as they support a large population of breeding Black guillemot. The sea-bed in this area comprises a mosaic of well-mixed medium sand, muddy gravel, sand and coarse shell interspersed with occasional boulders and cobbles.

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

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 these birds. Black guillemots are pursuing divers that typically feed close inshore where the seabed is rocky with dense kelp stands. The main prey species includes butterfish (*Pholis gunnellus*) and blennies.



Figure 6 Sea cliffs on Rathlin Island where breeding seabirds nest



Left, archway; middle, Black guillemot (*Cephus grylle*) in winter plumage; right, Subtidal cliff with Soft coral turf

Proposed MCZ Features

Habitats:

- Deep-sea bed

Species:

- Black guillemot (*Cephus grylle*)

Geological/ Geomorphological:

- Features indicating past change in relative sea level (Submerged lagoons and sea arches)

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 pMCZ to prevent damage to the Deep-sea bed habitat.

Black guillemot is currently on the following conservation lists:

- IUCN Red List - Least Concern.
- Birds of Conservation Concern in Ireland – Amber List.

Small numbers of Black guillemot occur along the Northern Irish coast; however, Rathlin Island is an important breeding site for the species. Their reproductive success here is related to the highly productive waters and rich feeding grounds of the pMCZ.

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

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

Marine Historic Environment

Rathlin Island has a rich marine cultural heritage inclusive of wrecks of vessels as well as a wide range of artefacts, structures and deposits. These heritage assets (some dating back to 7000 years ago) have a cultural value and significance, worthy of sustainable management and conservation. While Rathlin Island has no formally designated subtidal archaeological sites it does have a number of historically important wrecks.

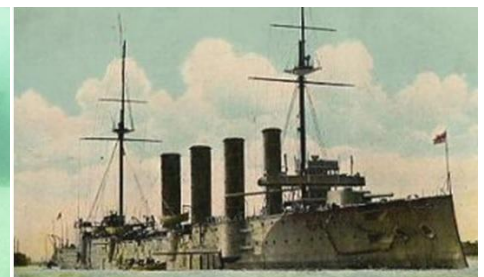


Figure 7 and 8 HMS Drake. Courtesy: Wessex Archaeology & http://www.battleships-cruisers.co.uk/hms_drake.htm

Further Information

For further information on selection of Marine Conservation Zones (MCZs) in the Northern Ireland Inshore Region please contact:

MarineDivision.InfoRequests@doeni.gov.uk

Additional information on 'Rathlin pMCZ' 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
- Conservation Objectives and potential Management Options for Rathlin proposed Marine Conservation Zone (pMCZ)
- Assessment against the Selection Guidelines for Rathlin proposed Marine Conservation Zone (pMCZ)
- Data Confidence Assessment for Rathlin proposed Marine Conservation Zone (pMCZ)

All documents are available from our website:

www.doeni.gov.uk



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





Department of
the Environment
www.doeni.gov.uk

Department of the Environment
Marine Division
2nd Floor
Klondyke Building
Gasworks Business Park
Belfast BT2 7JA

Telephone: 028 90569262

Email:
MarineDivision.InfoRequests@doeni.gov.uk

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

