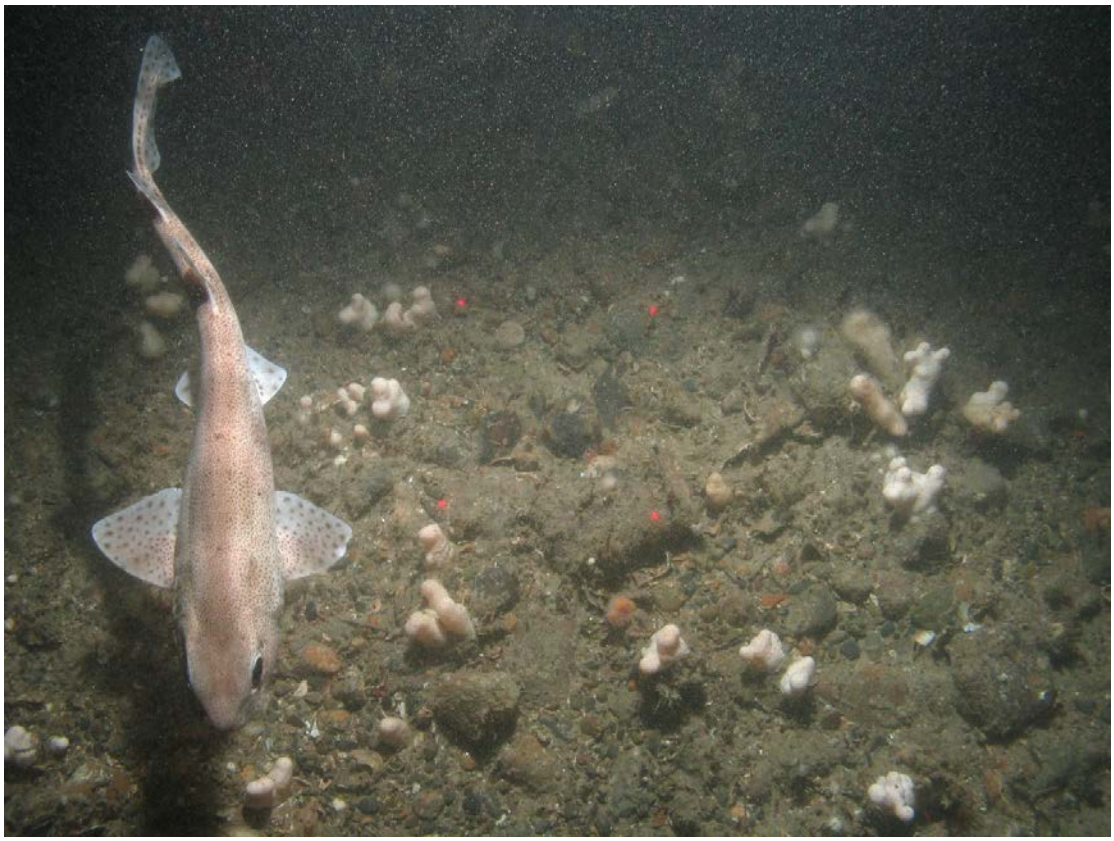
East of Haig Fras Marine Conservation Zone

Site Summary Document

Designated: November 2013



Dogfish with coarse sediments © JNCC & Cefas

Version 4.0

Background

The UK Government and the Devolved Administrations are committed to establishing an ecologically coherent network of Marine Protected Areas (**MPAs**) in the UK seas to meet international commitments and European obligations. The Marine and Coastal Access Act (2009) (as amended), Marine (Scotland) Act (2010) and Marine (Northern Ireland) Act (2013) place a requirement on the UK Governments to create a network of MPAs that will comprise existing sites (European Marine Sites, SSSIs and Ramsar sites) together with new national designations. The Marine and Coastal Access Act makes provision for the designation of Marine Conservation Zones (**MCZs**) in the UK Marine Area apart from Scottish and Northern Irish inshore waters[1]; MCZs will be called Marine Protected Areas in Scottish Offshore Waters. Together the network will protect the range and diversity of marine features found in UK waters (Section 123)[2].

The UK Government's Department of Food, Environment & Rural Affairs (Defra) commissioned the Joint Nature Conservation Committee (**JNCC**) and Natural England to identify and recommend MCZs in English nearshore waters, and UK offshore waters around England, Northern Ireland and Wales. Together with the existing MPAs, these recommended MCZs would enable the UK Government to meet its obligations towards achieving a MPA network.

JNCC and Natural England established four regional MCZ project groups[3] who worked with stakeholders (sea users, regulators and interest groups) to identify MCZs. In September 2011 the Regional MCZ Projects submitted their recommendations to JNCC and Natural England[4]. These recommendations were reviewed by an independent Science Advisory Panel, and then further assessed by JNCC and Natural England who provided their formal scientific advice to Defra in July 2012. Defra reviewed the scientific advice alongside socio-economic information and undertook a public consultation on the recommended MCZs between December 2012 and March 2013. Defra put forward 31 of the original 127 recommendations for potential designation. After reviewing the responses to the public consultation, Defra designated 27 MCZs in November 2013.

East of Haig Fras was recommended by the Finding Sanctuary Regional MCZ Project, and was one of the 31 sites proposed for designation as a MCZ in 2013. Following the public consultation, Defra confirmed its intention to progress the site and *East of Haig Fras* MCZ was designated in November 2013.

Purpose of Document

The present document provides information about *East of Haig Fras* MCZ, including basic information on its location, the site main characteristics and a description of the features protected under Section 117 of the Marine and Coastal Access Act 2009 (as amended)[5].

The scientific information provided in this document was used by Defra to designate the MCZ[6], for the purpose of conserving marine flora or fauna, marine habitats or types of marine habitat, and features of geological or geomorphological interest. This document does not provide *advice* on conservation management. JNCC will separately issue formal conservation advice to meet its obligation under Section 127 of the Marine and Coastal Management Act 2009 (as amended)[7].

[1] The Marine (Scotland) Act and Marine (Northern Ireland) Act make provision for Marine Protected Areas in Scottish inshore waters and Marine Conservation Zones in Northern Irish inshore waters.
[2] http://www.legislation.gov.uk/ukpga/2009/23/section/123
[3] MCZ regional project information: http://jncc.defra.gov.uk/page-2409
[4] MCZ regional project recommendations: http://jncc.defra.gov.uk/page-6228
[5] Section 117 Marine & Coastal Access Act 2009: http://www.legislation.gov.uk
[6] Designation order: https://www.gov.uk/government/publications
[7] Section 127 Marine & Coastal Access Act 2009: http://www.legislation.gov.uk/ukpga/2009/23/2010-01-12

Version Control

Version	Date	Amendments made	Author(s)
V1.0	22/07/2013	Creation of document for East of Haig Fras MCZ	NT
V2.0	16/09/2013	Draft version submitted to JNCC MPA Sub Group for independent review	OP
V3.0	14/10/2013	Final draft version	NT
V4.0	08/11/2013	Final published version	NT

This document is available for download from JNCC's website at: jncc.defra.gov.uk

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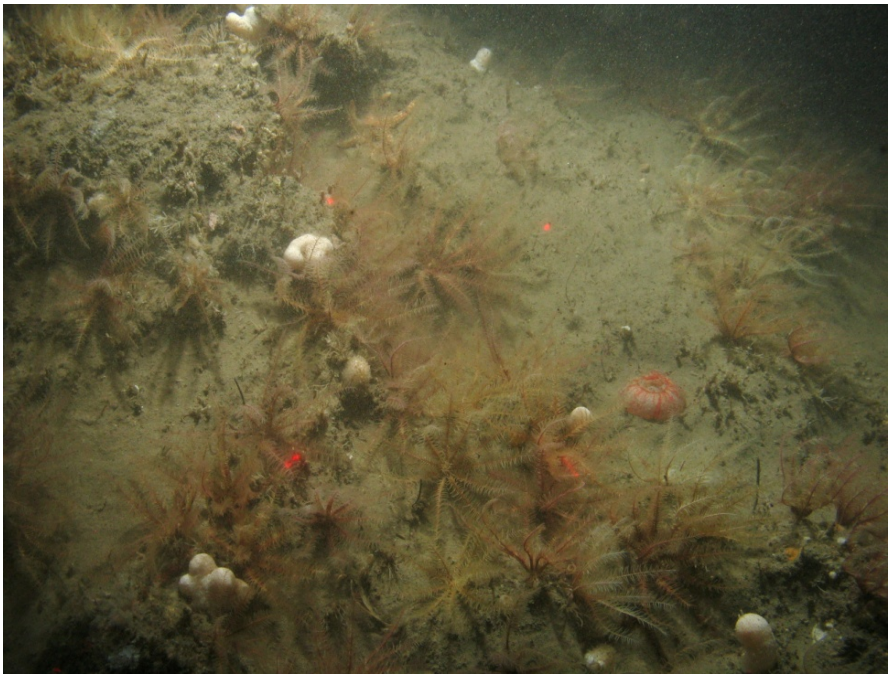


Burrowing megafauna on sandy substrate © JNCC & Cefas

East of Haig Fras MCZ: Site Summary Document

1. Site name

East of Haig Fras MCZ

2. Site location

The coordinates for the site boundary are based on the WGS84 Datum:

A	B	C	D
50° 35' 19"N, 6° 47' 43"W	50° 35' 19"N, 6° 30' 47"W	50° 24' 32"N, 6° 30' 47"W	50° 24' 31"N, 6° 47' 39"W

East of Haig Fras MCZ is located in UK offshore waters of the Celtic Sea between the UK and the Republic of Ireland. The south-east corner of the site is approximately 67km from the Land's End peninsula, south-west England. The site covers an area of approximately 400 km^2 (calculated in ETRS89 LAEA) (see Map 1).

3. Site boundary

Finding Sanctuary Regional MCZ Project[8] recommended East of Haig Fras MCZ, which was then assessed by the Statutory Nature Conservation Bodies (**SNCB**s) and subject to public consultation by Defra, between December 2012 and March 2013. The final site boundary is the same as that originally recommended by Finding Sanctuary.

It is important to note that the boundary depicts the MCZ designation itself. Any future management measures that may be required to deliver the conservation objectives will be determined by the appropriate Public Authorities in consultation with JNCC, and may have different delimitations within the MCZ site boundary

4. Site bathymetry

Min depth: 50m, Max depth: 100m (approximately) below chart datum. The site lies on the continental shelf where the site bathymetry ranges between 50m and 100m below sea level. Small areas in the western end of the site dip below 100m in depth.

5. Biogeographic region

JNCC regional sea: Western Channel & Celtic Sea. OSPAR Region III: Celtic Waters

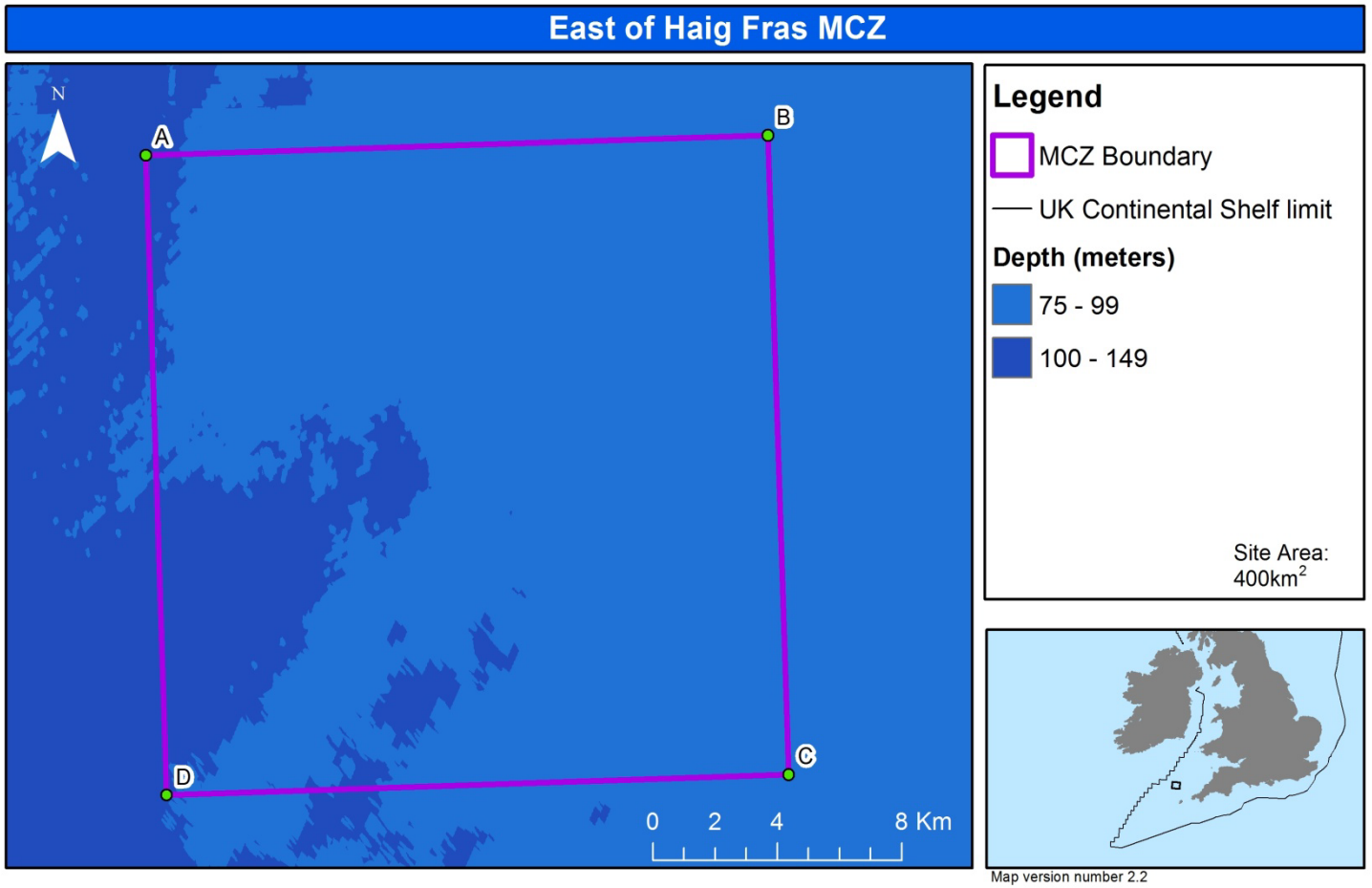
6. Designated Features of East of Haig Fras MCZ

Feature	Feature Type	General Management Approach
A4.2 Moderate energy circalittoral rock[9]	Broad-Scale Habitat	Recover to Favourable Condition
A5.1 Subtidal coarse sediment[10] **/ A5.4 Subtidal mixed sediments**[11] **mosaic**	Broad-Scale Habitat	Recover to Favourable Condition
A5.2 Subtidal sand[12]	Broad-Scale Habitat	Recover to Favourable Condition

See Map 2 for further detail of the designated feature distribution. Note that the inset map shows how the three designated features are intermixed at a detailed spatial scale creating a complex habitat mosaic.

[8] Archived regional project webpage: http://jncc.defra.gov.uk/page-6230-theme=default
[9] MCZ Features Catalogue: http://jncc.defra.gov.uk/page-5798
[10] MCZ Features Catalogue: http://jncc.defra.gov.uk/page-5801
[11] MCZ Features Catalogue: http://jncc.defra.gov.uk/page-5800
[12] MCZ Features Catalogue: http://jncc.defra.gov.uk/page-5803

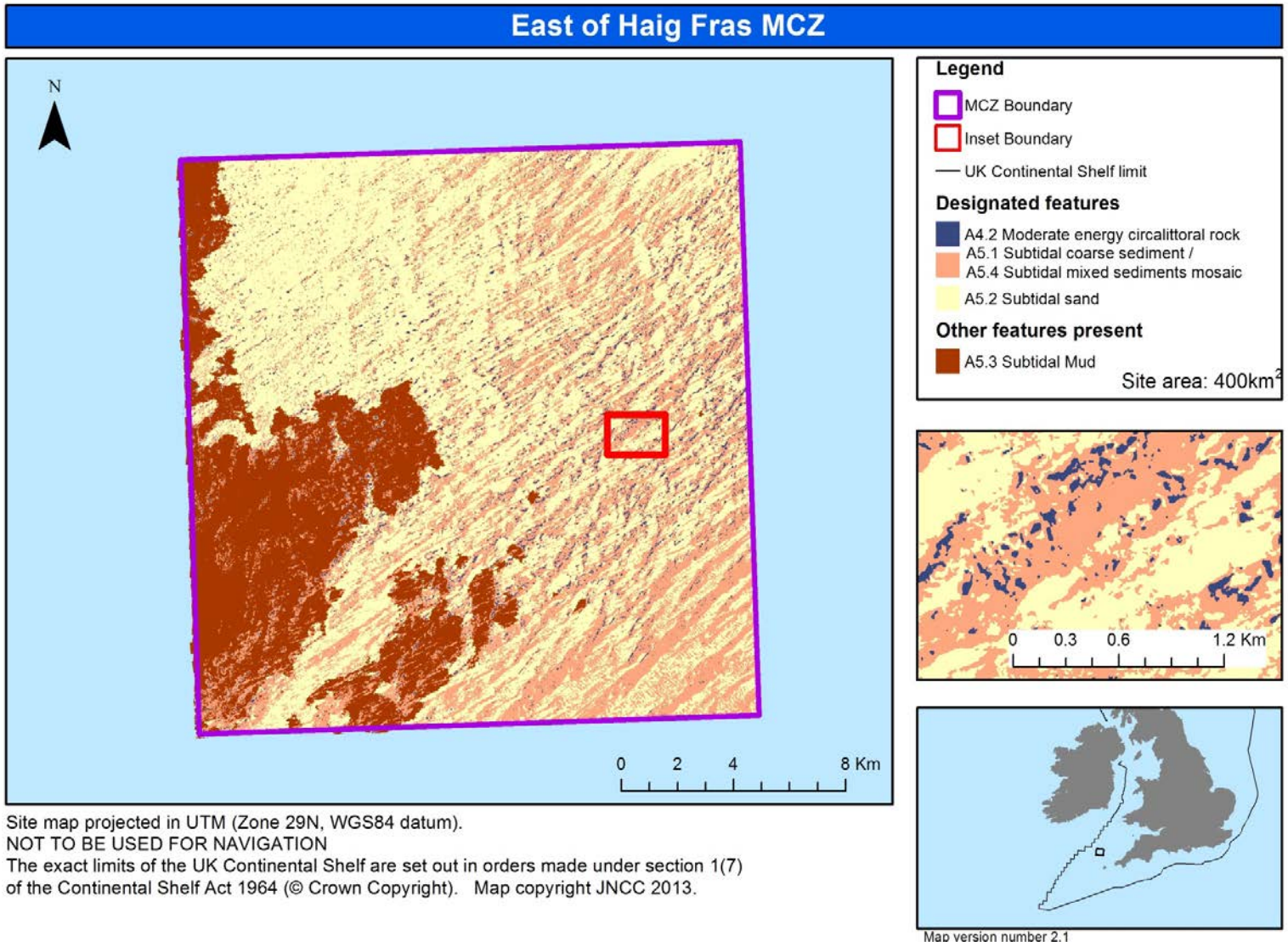
7. Site maps



Boundary coordinates: A) 50° 35' 19"N , 6° 47' 43"W B) 50° 35' 19"N, 6° 30' 47"W C) 50° 24' 32"N, 6° 30' 47"W D) 50° 24' 31"N, 6° 47' 39"W

Site map projected in UTM (Zone 31N, WGS84 datum). Bathymetry © British Crown Copyright 2011. This product has been derived in part from material obtained from the UK hydrographic Office with the permission of the Controller of Her Majesty's Stationery Office and UK Hydrographic Office (www.ukho.gov.uk). NOT TO BE USED FOR NAVIGATION. The exact limits of the UK Continental Shelf are set out in orders made under section 1(7) of the Continental Shelf Act 1964 (© Crown Copyright). Map copyright JNCC 2013.

Map 1: Location and Bathymetry of East of Haig Fras MCZ



Map 2: Designated Features of East of Haig Fras MCZ

The red rectangle relates to the inset map section showing the detail of how the three broad-scale habitats are distributed

Detailed site information

Site Description

Finding Sanctuary MCZ Regional Project identified the site using a map showing the predicted distribution of EUNIS[13] broad-scale habitats from the UK SeaMap Project (McBreen, 2010). It comprises a simple rectangle with boundaries aligned north–south and east–west. The site is on a plateau, with the most common depths ranging from 80m to 100m below chart datum (Eggleton and Downie, 2013).

East of Haig Fras MCZ is a complex mixture of habitats including rock, mud, sand and mixed sediments. These broad-scale habitats are all found throughout the site in varying abundance. The north-west quarter of the site is predominantly sandy with more coarse sediments appearing in the southern half of the site. Rocky areas are most common on the diagonal from north-east to south-west (see Map 2).

The site was comprehensively surveyed in 2012 through the Defra-funded MB0120 data gathering contract[14] that now provides an up-to-date dataset for East of Haig Fras MCZ. Grab samples and video analysis gathered provided a detailed overview of the species found within the site across the range of broad-scale habitats. Some of the more common species include a wide variety of worm species of which over 150 different species were recorded within the sediments, including; Platyhelminths *(*Flat worms), Nemertines (Ribbon worms), Sipunculids (Peanut worms) and Annelids (Segmented worms).

There were a high number of crustacean species recorded within the site, with some of the most abundant being the amphipod species *Urothoe* sp*., Ampelisca* sp*. and Unciola planipes.* Molluscs such as *Thyasira flexuosa* (Hatchet shell)*, Polinices pulchellus* (sea snail) and *Corbula gibba* (Basket shell) were reported on more than one occasion from the grab samples taken in the site. Of the Echinoderm species, *Echinocyamus pusillus* (Pea Urchin)*, Ophiuroid* and *Amphiuroid* Brittlestar species were amongst the most common found in and on the sediments. A variety of Porifera (Sponges) and Cnidaria (Hydroids and Anemones) were also identified through the video samples, most frequently on the coarser sediments and rocky habitats. Additionally Asteroidea (Starfish) species, *Scyliorhinus* (Catsharks), *Arnoglossus laterna* (scaldfish) and a variety of other fish were also amongst the species recorded at the site.

The full list of 289 different species recorded during the 2012 MCZ verification survey can be found in Appendix 4 of the Eggleton and Downie report (2013).

Hornwrack on sandy sediment © JNCC & Cefas

[13] EUNIS Classification Database: http://eunis.eea.europa.eu/
[14] MB0120 data gathering contract: http://randd.defra.gov.uk

Designated Features and Features of Conservation Importance

Prior to the dedicated survey in 2012, the site assessment had been made on the basis of best-available evidence drawn largely from historical data, modelled habitat maps and stakeholder knowledge of the area.

The site was originally recommended for three broad-scale habitats; EUNIS A4.2: Moderate energy circalittoral rock, A5.1: Subtidal coarse sediment and A5.2: Subtidal sand. In 2012, the survey collected multibeam acoustic data for bathymetry and backscatter along with video and still images (Eggleton and Downie, 2013). These data revealed low-lying exposures of rock with a thin veneer of overlying sediment throughout the site.

The outputs from the 2012 MB0120 survey identified the presence of A5.3 Subtidal mud within the site as well as confirming the three previously recommended features. The extent of A4.2 Moderate energy circalittoral rock was increased to reflect the new data, but additional ground truthing work has been undertaken in order to accurately map this habitat due to the patchy distribution of rocky habitats.

Table 1. Broad-scale habitats identified in East of Haig Fras MCZ.

Broadscale Habitat Type	Spatial extent according to the rMCZ SAD (2011) (km^2 Approx)	Spatial extent according to the 2012 survey (km^2 Approx)
A4.2: Moderate energy circalittoral rock	10	13
A5.1: Subtidal coarse sediment*	236	129
A5.2: Subtidal sand	155	190
A5.3: Subtidal mud	0	77

East of Haig Fras MCZ Post-Survey Site Report (Eggleton and Downie, 2013)

* Includes an un-quantified proportion of A5.4 Subtidal mixed sediments

The distribution of the EUNIS broad-scale habitat classes shown in Map 2 was derived from an analysis of both the acoustic data and the ground-truthing data. Data from grab samples were used to classify the sedimentary broad-scale habitats observed in the area: A5.1 Subtidal coarse sediment, A5.2 Subtidal sand, A5.3 Subtidal mud and A5.4 Subtidal mixed sediments. The areas of sand and mud were mapped using the acoustic data, whereas coarse and mixed sediments could not be distinguished due to the difficulties in separating two similar sediment types through remote survey techniques, and are therefore mapped as a mosaic habitat in East of Haig Fras MCZ. The inset map in Map 2 provides a closer view of how the habitats are distributed within the site.

Areas of boulders and cobbles, acting as hard substrate, were identified in the video on raised ridges of coarse/mixed sediments. The mosaic habitat combining subtidal coarse and subtidal mixed sediments is the most widespread, covering approximately 46% of the site.

The East of Haig Fras MCZ was included in the proposed network because of its contribution to the criteria specified in the Ecological Network Guidance relating to broad-scale habitats.

8. Supporting documentation and reference material

The following table details the sources of information and reference material used to support the designation of East of Haig Fras MCZ.

Data

Feature	Type of information	Source
A4.2 Moderate energy circalittoral rock	Habitat map (modelled)	UKSeaMap 2010
	Combined Kinetic Energy map (modelled)	MB0102
	Hard substrate map	BGS hard substrate
	Habitat map from survey	Cefas - MCZ verification survey Survey ID: CEND 3_12a
A5.3 Subtidal Mud	Habitat map from survey	Cefas - MCZ verification survey Survey ID: CEND 3_12a
A5.1 Subtidal coarse sediment/ A5.4 Subtidal mixed sediments mosaic	Habitat map from survey	Cefas - MCZ verification survey Survey ID: CEND 3_12a
A5.1 Subtidal coarse sediment	Habitat map (modelled)	UKSeaMap 2010
	Particle Size Analysis points	BGS seabed sediments data points
	Habitat map from survey	Cefas - MCZ verification survey Survey ID: CEND 3_12a
A5.2 Subtidal sand	Habitat map from survey	Cefas - MCZ verification survey Survey ID: CEND 3_12a
	Habitat map (modelled)	UKSeaMap 2010
	Particle Size Analysis points	BGS seabed sediments data points

Reports

The reports detailing the fundamental steps taken in order to reach the designation of East of Haig Fras MCZ are listed below.

Date	Report	Link
2011	Regional Project MCZ Recommendations	http://jncc.defra.gov.uk/page-6230
2012	JNCC and NE Advice on Regional Project Recommendations	http://jncc.defra.gov.uk/page-6229
2012	JNCC and NE Amendments Report	http://jncc.defra.gov.uk/page-6229
2013	JNCC Advice on offshore MCZs proposed for designation in 2013	http://jncc.defra.gov.uk/page-6229

9. References

Eggleton & Downie, (2013). Eggleton and Downie, *East of Haig Fras rMCZ Post Survey Report. MB0120 Report* Number 6, Version 8. 2013.
McBreen (2010). McBreen, F., 2010. *UK SeaMap 2010 EUNIS model Version 3.0. UKSeaMap 2010: Predictive seabed habitat map* (v5) JNCC.