**Joint Recommendation regarding the protection of Subtidal coarse sediment, Subtidal sand, Subtidal mud, Subtidal mixed sediments and Sea-pen and burrowing megafauna communities within the Greater of Haig Fras Marine Conservation Zone under Article 11 necessary for the purpose of complying with obligations under Article 13(4) of Directive 2008/56/EC and Article 18 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy (the Basic Regulation).**

DRAFT

## Contents Page


## Joint Recommendation

1. Introduction ..... 8

2. The Recommendation to be implemented ..... 8

3. Control and enforcement of the proposed fisheries management measures ..... 11

## Tables

**Table 1:** Gear types to be prohibited within the Greater Haig Fras MCZ management boundary ..... 9

**Table 2:** Coordinates for the Greater Haig Fras MCZ site and management boundaries ..... 9

**Table 3:** Coordinates of Greater Haig Fras MCZ management zones.....10

## Supporting Documentation

1. Introduction ..... 13

1.1 General remarks ..... 13

1.2 Overall aim of the present proposal ..... 14

1.3 Recommendations to be implemented ..... 15

2. Legal framework ..... 17

2.1 Common Fisheries Policy ..... 17

2.2 Fisheries access to Greater Haig Fras MCZ ..... 17

2.3 Designation of Greater Haig Fras MCZ ..... 19

3. Process ..... 19

3.1 Stakeholder workshops ..... 20

3.2 Consultation on management proposals ..... 20

3.3 Formal agreement of Joint Recommendations ..... 20


DRAFT

3.4 Involvement of North West Water Advisory Council..... 21

4. Rationale for measures ..... 21

5. Principles..... 22

6. Proposal scope ..... 23

## Tables

**Table 4:** Gear types to be prohibited within the Greater Haig Fras MCZ management boundaries..... 15

**Table 5:** Coordinates for the Greater Haig Fras MCZ management boundaries ..... 15

## Figures

**Figure 1:** Map of Greater Haig Fras MCZ site and management boundaries17

**Figure 2:** Map of Greater Haig Fras MCZ site boundary ..... 19

## List of Annexes

Annex A – Meeting note from workshop..... 25

Annex B – Overview of the 11 information items in the Commission's guidelines from 2008 ..... .26

Annex C – Map of English MPA network..... 79

Annex D – Map and coordinates for Greater Haig Fras MCZ increased reporting zone ..... 80

Annex E – JNCC feedback for Pecheurs de Bretagne Greater Haig Fras MCZ proposal .....84

Annex F – References..... .86

**Annex B – Overview of the 11 information items in the Commission's guidelines from 2008**

DRAFT

1. Comprehensive description of the natural features including distribution within the site ..... 26

2. Scientific rationale for the site's selection in accordance with the information provided in the Greater Haig Fras Marine Conservation Zone Designation Order. Intrinsic value of its features. Specific conservation objectives ..... 28

2.1 Conservation objectives ..... 28

3. Basis for the spatial extent of the site boundary clearly justified in terms of conservation objectives ..... 29

4. Threats to the long-term natural distribution, structure and functions of the habitats and the long-term survival of associated species from different types of fishing gear. List of other human activities in the area that could damage the habitats ..... 29

4.1 All demersal towed gears (including scallop dredges, beam trawls, otter trawls and seine nets) ..... 30

4.2 All demersal static gears (including gillnets, trammel nets, longlines, pots and traps) ..... 32

4.3 Other Human activities ..... 32

5. Fleet activity in the area and in the region, distribution of fleets (by nation, gear and species) and information on target and bycatch species over 6 years from 2010 to 2015 inclusive ..... 32

5.1 Validity of data ..... 32

5.1.1 Data analysis ..... 33

5.1.2 Data limitations ..... 34

5.2 Fleet activity by state ..... 34

5.3 Landings values ..... 35

5.4 Annual variation in fishing activity ..... 41

5.5 Fleet activity by gear group – Geographical distribution ..... 48

5.6 By-catch ..... 61

DRAFT

6. Seasonal trends in fisheries for years 2010 to 2015 inclusive..... 62

7. Proposed fisheries management measures to maintain the habitat feature in favourable condition. Are they proportionate and enforceable? Other conservation measures that apply to the area ..... 70

7.1 Options for fisheries management measures..... 70

7.2 Proposed management option ..... 71

7.3 Other fisheries measures which apply to the site ..... 72

8. Control measures envisaged by the Member State, possible ecological and control buffer zones to ensure site protection and/or effective control and monitoring measures..... 73

8.1 Measures envisaged by Member States for Control, Enforcement and Compliance ..... 73

8.1.1 Surface surveillance..... 73

8.1.2 Remote Vessel Monitoring..... 73

8.2 Vessel position monitoring system requirements and increased reporting costs 74

8.3 Key provisions to include in EC regulation to manage the Greater Haig Fras MCZ76

9. Measures to monitor and assess the maintenance and/or recovery of the features within the site..... 77

10. Coordination with neighbouring Member States as appropriate ..... 77

11. Evaluation of possible displacement of fishing effort and impact on new areas ..... 78

## Tables

**Table 1:** Number of vessels and pings (0-6 knots) associated with the Greater Haig Fras MCZ by year and Member State..... 35

**Table 2.1:** Landings (tonnes) from vessels operating in ICES rectangles 29E1 and 29E2 by gear type, year and Member State..... 36

**Table 2.2:** Landings (£) from vessels operating in ICES rectangles 29E1 and 29E2 by gear type, year and Member State. ..... 38

DRAFT

## Figures

**Figure 1:** Examples of habitats from the 2012 MB0120 survey to Greater Haig Fras MCZ ©JNCC & Cefas ..... 27

**Figure 2:** Site boundary for the Greater Haig Fras MCZ ..... 30

**Figures 3 – 8:** VMS reports indicating all fishing activity in the Greater Haig Fras MCZ 2010 – 2015 by Nationality ..... 42-47

**Figure 9:** VMS reports indicating all demersal/non-demersal fishing activity in the Greater Haig Fras MCZ 2010 all nationalities ..... 49

**Figure 10:** VMS reports indicating demersal towed fishing activity only in Greater Haig Fras MCZ 2010 ..... 50

**Figure 11:** VMS reports indicating all demersal/non-demersal fishing activity in the Greater Haig Fras MCZ 2011 all nationalities ..... 51

**Figure 12:** VMS reports indicating demersal towed fishing activity only in Greater Haig Fras MCZ 2011 ..... 52

**Figure 13:** VMS reports indicating all demersal/non-demersal fishing activity in the Greater Haig Fras MCZ 2012 all nationalities ..... 53

**Figure 14:** VMS reports indicating demersal towed fishing activity only in Greater Haig Fras MCZ 2012 ..... 54

**Figure 15:** VMS reports indicating all demersal/non-demersal fishing activity in the Greater Haig Fras MCZ 2013 all nationalities ..... 55

**Figure 16:** VMS reports indicating demersal towed fishing activity only in Greater Haig Fras MCZ 2013 ..... 56

**Figure 17:** VMS reports indicating all demersal/non-demersal fishing activity in the Greater Haig Fras MCZ 2014 all nationalities ..... 57

**Figure 18:** VMS reports indicating demersal towed fishing activity only in Greater Haig Fras MCZ 2014 ..... 58

**Figure 19:** VMS reports indicating all demersal/non-demersal fishing activity in the Greater Haig Fras MCZ 2015 all nationalities ..... 59

DRAFT

**Figure 20:** VMS reports indicating demersal towed fishing activity only in Greater Haig Fras MCZ 2015 ..... 60

**Figure 21:** Greater Haig Fras MCZ site map including protected features for which management is being proposed ..... 72

## Charts

**Chart 6.1:** UK seasonal fishing activity (all gears and year 2010-2015) in Greater Haig Fras MCZ ..... 62

**Chart 6.2:** French seasonal fishing activity (all gears and years 2010-2015) in Greater Haig Fras MCZ - other Member States..... 64

**Chart 6.3:** Irish seasonal fishing activity (all gears and years 2010-2015) in Greater Haig Fras MCZ - other Member States..... 66

**Chart 6.4:** Spanish seasonal fishing activity (all gears and years 2010-2015) in Greater Haig Fras MCZ - other Member States..... 68

DRAFT

**Joint recommendation**

## 1. Introduction

This joint recommendation contains a proposal for the regulation of fisheries activity and is initiated by the United Kingdom (UK) and submitted to the European Commission jointly by the UK and the following Member States, France, Ireland and Spain, being those Member States that have a direct management interest affected by the joint recommendation.

The overall aim of this joint recommendation is to ensure the protection of Subtidal coarse sediment (Eunis[1] habitat type A5.1), Subtidal sand (A5.2), Subtidal mud (A5.3), Subtidal mixed sediments (A5.4) and Sea-pen and burrowing megafauna communities (Habitat Feature of Conservation Importance) within the Greater Haig Fras Marine Conservation Zone (MCZ) from fisheries, thereby contributing to the obligation to recover this habitat type to favourable condition in accordance with the Greater Haig Fras Marine Conservation Zone Designation Order 2016 in compliance with Article 11 of the Common Fisheries Policy. It is not considered that the geomorphological feature within the site (Haig Fras rock complex) is at risk from fishing activities and as such it is not included in the management proposal set out in this document.

Haig Fras Special Area of Conservation (SAC)[2] is located within Greater Haig Fras MCZ and is designated for Annex I reef in accordance with the Habitats Directive. Haig Fras SAC has a conservation objective to recover the Annex I habitat to Favourable Conservation Status; management proposals for commercial fishing on the Annex I reef habitat are being taken forward separately in accordance with Article 6 of the Habitats Directive. Other habitats in this joint recommendation within the Haig Fras SAC are protected features of the Greater Haig Fras MCZ and are outside the protection afforded to it under the Habitats Directive. The measures included in this Joint Recommendation are in addition to those set out in the Haig Fras SAC Joint Recommendation (recognising that some of the gear restrictions will overlap between both sites and are therefore subject to final agreement amongst Member States and the European Commission. It is the intention of the UK government (as the initiating Member State) to take forward measures in respect of fisheries activities exercised by all fishing vessels including vessels carrying the flag of other Member States of the EU.

## 2. The Recommendations to be Implemented

[1] http://eunis.eea.europa.eu/habitats.jsp

[2] http://jncc.defra.gov.uk/page-6533

The proposals for Greater Haig Fras MCZ are in addition to the management measures that are proposed (and being taken forward separately) for the management of fisheries within the Haig Fras SAC. The following recommendations for Greater Haig Fras MCZ are proposed for adoption:

- the exclusion of demersal trawls and dredges (see Table 1) to protect a proportion of the protected features of the MCZ and an increased reporting zone around the prohibited area (see Section 8 of Annex B).

**Table 1: Gear types that are prohibited in the areas proposed for closure within the site.**

| **Gear Types to be prohibited within the sites management boundary** | **Gear code Annex XI in EU Regulation No 404/2011** | **International Standard Classification of Fishing Gears** |
|---|---|---|
| Beam Trawl | TBB | TBB |
| Bottom Trawl/Otter Trawl | OTB, OTT, PTB,TBN,TBS,TB | OTB,OTT,OT,PTB,TB |
| Dredges | DRB | DRB, DRH |

The coordinates of the site (Table 2) and management (Table 3) boundaries are as follows:

**Table 2: Co-ordinates of the Greater Haig Fras MCZ**

| Point | Latitude | Longitude |
|---|---|---|
| 1 | 50° 30′ 00.000″ N | 08° 00′ 00.000″ W |
| 2 | 50° 30′ 00.000″ N | 07° 36′ 00.000″ W |
| 3 | 50° 29′ 58.009″ N | 07° 21′ 41.976″ W |
| 4 | 50° 22′ 30.724″ N | 07° 21′ 41.695″ W |
| 5 | 50° 04′ 35.429″ N | 07° 44′ 33.490″ W |
| 6 | 50° 04′ 35.602″ N | 08° 02′ 33.338″ W |
| 7 | 50° 10′ 00.000″ N | 08° 12′ 00.000″ W |
| 8 | 50° 20′ 00.000″ N | 08° 12′ 00.000″ W |
| 9 | 50° 20′ 00.000″ N | 08° 00′ 00.000″ W |

DRAFT

**Table 3: Co-ordinates of the Greater Haig Fras MCZ management zone boundaries**

| Area | Point | Latitude | Longitude |
|---|---|---|---|
| 1 | 1 | 50° 30' 0.000" N | 7° 49' 7.406" W |
| 1 | 2 | 50° 28' 50.016" N | 7° 50' 41.265" W |
| 1 | 3 | 50° 27' 7.822" N | 8° 0' 0.000" W |
| 1 | 4 | 50° 20′ 00.000″ N | 08° 00′ 00.000″ W |
| 1 | 5 | 50° 25' 23.782" N | 7° 47' 45.862" W |
| 1 | 6 | 50° 24' 24.375" N | 7° 41' 28.104" W |
| 1 | 7 | 50° 29' 58.855" N | 7° 27' 47.170" W |
| 2 | 1 | 50° 29' 30.184" N | 7° 21' 41.958" W |
| 2 | 2 | 50° 25' 1.200" N | 7° 31' 23.880" W |
| 2 | 3 | 50° 23' 43.166" N | 7° 32' 27.625" W |
| 2 | 4 | 50° 21' 58.917" N | 7° 36' 43.999" W |
| 2 | 5 | 50° 19' 58.116" N | 7° 42' 42.444" W |
| 2 | 6 | 50° 19' 31.119" N | 7° 43' 59.901" W |
| 2 | 7 | 50° 18' 31.780" N | 7° 48' 9.288" W |
| 2 | 8 | 50° 17' 48.073" N | 7° 55' 24.196" W |
| 2 | 9 | 50° 17' 8.120" N | 8° 5' 15.612" W |
| 2 | 10 | 50° 12' 56.710" N | 8° 9' 13.183" W |
| 2 | 11 | 50° 9' 33.199" N | 8° 8' 21.328" W |
| 2 | 12 | 50° 7' 20.355" N | 8° 4' 12.939" W |
| 2 | 13 | 50° 5' 56.018" N | 8° 2' 9.330" W |
| 2 | 14 | 50° 6' 0.878" N | 7° 59' 15.518" W |
| 2 | 15 | 50° 7' 34.168" N | 7° 48' 3.175" W |
| 2 | 16 | 50° 12' 12.214" N | 7° 44' 25.188" W |
| 2 | 17 | 50° 13' 40.540" N | 7° 44' 26.300" W |
| 2 | 18 | 50° 14' 20.594" N | 7° 42' 25.992" W |
| 2 | 19 | 50° 13' 22.350" N | 7° 40' 24.646" W |
| 2 | 20 | 50° 15' 20.916" N | 7° 35' 3.825" W |

DRAFT

| | | | |
|---|---|---|---|
| 2 | 21 | 50° 16' 54.696" N | 7° 33' 13.953" W |
| 2 | 22 | 50° 17' 54.927" N | 7° 30' 24.062" W |
| 2 | 23 | 50° 22′ 30.724″ N | 07° 21′ 41.695″ W |

## 3. Control and enforcement of the proposed fisheries management measures

Control and enforcement of the proposed fisheries management measures will be based on the risk-based systems in accordance with the model developed by the UK's Marine Management Organisation (MMO).

Key provisions which should be included in an EC regulation to facilitate control enforcement and compliance include:

- A prohibition on any demersal trawls and dredges being deployed within both management zones within Greater Haig Fras MCZ. All gear types are permitted to fish in the reporting zone outside the management area with increased VMS reporting.
- Establishment of a 1nm (1.852 km) reporting zone around the Greater Haig Fras MCZ prohibited areas. All fishing vessels within this area shall be required to record or report vessel positions at minimum 10 minute intervals. These areas shall be defined by the reporting zone and coordinates displayed in Annex D.
- A requirement for all fishing vessels entering the reporting zone to have a system for recording and reporting vessel position which meets prescribed specifications (see Section 8.2 of Annex B for minimal requirements) and is installed and operative. Any fishing vessel entering either management zone in Greater Haig Fras MCZ or the reporting zone without such a system will be committing an offence.
- A requirement for all fishing vessels transiting the prohibited area carrying prohibited gears to have all prohibited gears on board lashed and stowed.
- A requirement for all fishing vessels transiting the restricted area carrying prohibited gears to ensure that the speed during transit is not less than 6 knots except in the case of force majeure or adverse conditions[3]. In such cases the master shall inform the fisheries monitoring centre of the flag member state which shall then inform the UK Fisheries Monitoring Centre (MMO FMC) as soon as possible.

[3] Article 50 4(b) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:343:0001:0050:EN:PDF

DRAFT

The proposal on which gears types to prohibit is formulated in terms of Gear Codes in Annex XI in EU Regulation 404/2011 and is explained in more detail in Section 8 of Annex B.

The ongoing management needs of the site will be assessed on an annual basis. If changes to the current management status are required the UK will coordinate such a requirement in accordance with Article 11 and Article 18 of the Basic Regulation and in collaboration with those Member States with a direct management interest in the Greater Haig Fras site.

DRAFT

**Joint Recommendation regarding the protection of Subtidal coarse sediment, Subtidal sand, Subtidal mud, Subtidal mixed sediments and Sea-pen and burrowing megafauna communities within the Greater of Haig Fras Marine Conservation Zone under Article 11 necessary for the purpose of complying with obligations under Article 13(4) of Directive 2008/56/EC and Article 18 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy (the Basic Regulation).**

**Supporting Documentation**

## 1. Introduction

### 1.1 General Remarks

The Greater Haig Fras site was designated as a Marine Conservation Zone (MCZ) in January 2016. Marine Conservation Zones (MCZs) are designated by the UK government under the Marine and Coastal Access Act 2009 for England and Wales. These zones will contribute to the UK's commitment to have a well-managed and ecologically coherent network of MPAs and will also assist in meeting commitments relating to the EC Marine Strategy Framework Directive (MSFD). All MCZs are designated using a separate order; in this case the Greater Haig Fras Marine Conservation Zone Designation Order 2016.

Commercial fishing has been identified as an activity which could adversely impact the integrity of the site's features and, as such, is required to be assessed and, if necessary, managed to reduce its impact. The General Management Approaches (GMAs) for the features of Greater Haig Fras MCZ are to recover all protected features (Subtidal coarse sediment, Subtidal sand, Subtidal mud, Subtidal mixed sediments (A5.1-5.4) and Sea-pen and burrowing megafauna communities) to favourable condition.

As the proposed area of the Greater Haig Fras site falls beyond 12 nautical miles (nm) of the UK coastline, all Member States have access to the site. However, the UK, France, Ireland and Spain are currently the only Member States, that have an active fishing interest in the site. It is the intention of the UK government (as the initiating Member State) to take forward measures in respect to fisheries activities exercised by all vessels including fishing vessels carrying the flag of other Member States of the EU.

DRAFT

This document covers the 11 information items of the Commission's guidelines from 2008 [4] concerning development of proposals for fisheries management measures in marine Natura 2000 areas within the scope of the Common Fisheries Policy.

### 1.2 Overall aim of the present proposal

The overall aim of the present proposal is to ensure adequate protection of Subtidal coarse sediment (A5.1), Subtidal sand (A5.2), Subtidal mud (A5.3), Subtidal mixed sediments (A5.4) and Sea-pen and burrowing megafauna communities from fishing activities that could adversely affect feature condition and thereby to contribute to the obligation of recovering all protected features to favourable condition in accordance with the Greater Haig Fras Marine Conservation Zone Designation Order 2016 and Article 11 of the CFP. Part of the MCZ is also designated as the Haig Fras Special Area of Conservation (SAC) for Annex I reef (1170) which is subject to Article 6 (2) of the Habitats Directive, which states that Member States shall take appropriate steps to avoid the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated. Several of the protected habitat features (Subtidal sand, Subtidal mud and Subtidal coarse/mixed sediments) of the MCZ occur within the SAC.

The Conservation Objective for the Greater Haig Fras MCZ is, subject to natural change, to ensure that Subtidal coarse sediment, Subtidal sand, Subtidal mud, Subtidal mixed sediments and Sea-pen and burrowing megafauna communities are to remain in or be brought into favourable condition. To achieve the conservation objective, general management approaches (i.e. recovery or maintenance of feature condition) have been set out for each protected feature. Except where direct evidence of condition is available, feature condition is typically based on a proxy assessment of feature sensitivity and the presence of activities to which the features may be sensitive. For the Greater Haig Fras MCZ, the General Management Approaches (GMA) has been set to recover all features to favourable condition.

According to advice provided by JNCC, the UK Government's statutory scientific advisor for offshore habitats, where fishing using demersal trawls and dredges overlaps with the features it may pose a risk to achievement of the conservation objectives for the site.

The UK is proposing to restrict fishing activity with demersal trawls and dredges across a proportion of the site due to the risk posed to the achievement of the conservation objectives. Where there is uncertainty regarding the impacts of fishing on the features, an "adaptive management" approach is proposed, which would allow the site to move toward achieving its conservation objective while

[4] http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish_measures.pdf

providing the opportunity to improve our understanding of the impacts and subsequently adapt management accordingly. The content of the proposed fisheries management measures is explained in more detail in section 7 of Annex B.

The proposal has been reviewed by CEFAS (see section 3.5).

### 1.3 Recommendations to be implemented

The following recommendations are proposed for adoption in the Greater Haig Fras MCZ:

- the exclusion of demersal trawls and dredges (Table 4) with the proposed management boundary (Figure 1 and coordinates in Table 5).

**Table 4: Gear types that are prohibited in the areas that are proposed for closure within the site**

| **Gear Types to be prohibited within the site** | **Gear code Annex XI in EU Regulation No 404/2011** | **International Standard Classification of Fishing Gears** |
|---|---|---|
| Beam Trawl | TBB | TBB |
| Bottom Trawl/Otter Trawl | OTB, OTT, PTB,TBN,TBS,TB | OTB,OTT,OT,PTB,TB |
| Dredges | DRB | DRB, DRH |

The coordinates of management boundary are as follows:

**Table 5: Greater Haig Fras MCZ proposed closures to demersal trawls and dredges**

| Area | Point | Latitude | Longitude |
|---|---|---|---|
| 1 | 1 | 50° 30' 0.000" N | 7° 49' 7.406" W |
| 1 | 2 | 50° 28' 50.016" N | 7° 50' 41.265" W |
| 1 | 3 | 50° 27' 7.822" N | 8° 0' 0.000" W |
| 1 | 4 | 50° 20’ 00.000” N | 08° 00’ 00.000” W |
| 1 | 5 | 50° 25' 23.782" N | 7° 47' 45.862" W |
| 1 | 6 | 50° 24' 24.375" N | 7° 41' 28.104" W |
| 1 | 7 | 50° 29' 58.855" N | 7° 27' 47.170" W |
| 2 | 1 | 50° 29' 30.184" N | 7° 21' 41.958" W |
| 2 | 2 | 50° 25' 1.200" N | 7° 31' 23.880" W |

DRAFT

| | | | |
|---|---|---|---|
| 2 | 3 | 50° 23' 43.166" N | 7° 32' 27.625" W |
| 2 | 4 | 50° 21' 58.917" N | 7° 36' 43.999" W |
| 2 | 5 | 50° 19' 58.116" N | 7° 42' 42.444" W |
| 2 | 6 | 50° 19' 31.119" N | 7° 43' 59.901" W |
| 2 | 7 | 50° 18' 31.780" N | 7° 48' 9.288" W |
| 2 | 8 | 50° 17' 48.073" N | 7° 55' 24.196" W |
| 2 | 9 | 50° 17' 8.120" N | 8° 5' 15.612" W |
| 2 | 10 | 50° 12' 56.710" N | 8° 9' 13.183" W |
| 2 | 11 | 50° 9' 33.199" N | 8° 8' 21.328" W |
| 2 | 12 | 50° 7' 20.355" N | 8° 4' 12.939" W |
| 2 | 13 | 50° 5' 56.018" N | 8° 2' 9.330" W |
| 2 | 14 | 50° 6' 0.878" N | 7° 59' 15.518" W |
| 2 | 15 | 50° 7' 34.168" N | 7° 48' 3.175" W |
| 2 | 16 | 50° 12' 12.214" N | 7° 44' 25.188" W |
| 2 | 17 | 50° 13' 40.540" N | 7° 44' 26.300" W |
| 2 | 18 | 50° 14' 20.594" N | 7° 42' 25.992" W |
| 2 | 19 | 50° 13' 22.350" N | 7° 40' 24.646" W |
| 2 | 20 | 50° 15' 20.916" N | 7° 35' 3.825" W |
| 2 | 21 | 50° 16' 54.696" N | 7° 33' 13.953" W |
| 2 | 22 | 50° 17' 54.927" N | 7° 30' 24.062" W |
| 2 | 23 | 50° 22’ 30.724” N | 07° 21’ 41.695” W |

DRAFT

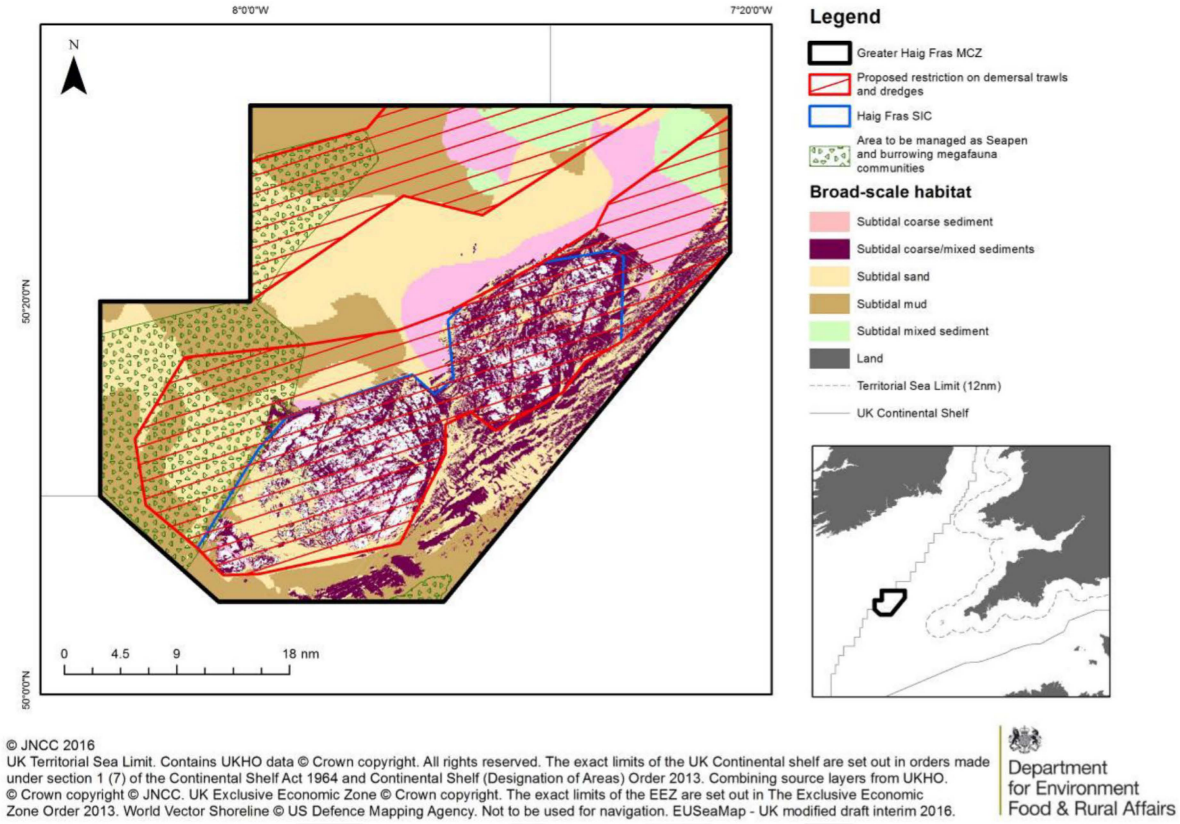



**Figure 1: Greater Haig Fras MCZ site map including protected features for which management is being proposed.**

## 2. Legal framework

### 2.1 Common Fisheries Policy

The Common Fisheries Policy (Regulation No 1380/2013 (The Basic Regulation) Article 11) states that Member States are empowered to adopt conservation measures not affecting fishing vessels of other Member States that are applicable to waters under their sovereignty or jurisdiction. The UK has an obligation in recovering these habitat types to favourable condition in accordance with the Greater Haig Fras Marine Conservation Zone Designation Order 2016.

Where a Member State ("initiating Member State") considers that measures need to be adopted for the purpose of complying with the obligations referred to above, and other Member States have a direct management interest in the fishery to be affected by such measures, the European Commission shall be empowered to adopt such measures, upon request, by means of delegated

acts. For this purpose cooperation between Member States having a direct management interest is foreseen with a view to formulating a joint recommendation in agreement on draft fisheries management measures to be forwarded to the Commission.

The initiating Member State shall provide the Commission and the other Member States having a direct management interest with relevant information on the measures required, including their rationale, scientific evidence in support and details on their practical implementation and enforcement. Member States shall consult the relevant Advisory Councils.

The initiating Member State and the other Member States having a direct management interest may submit a joint recommendation within six months from the provision of sufficient information. The Commission shall adopt the measures, taking into account any available scientific advice, within three months from receipt of a complete request (Reg 1380/2013, Articles 11 and 18).

The following chapters describe how the UK, as the initiating Member State, has taken the Commission's criteria for decision making into account, as well as the requirements for regional coordination in line with the new Basic Regulation.

**2.2 Fisheries Access to the Greater Haig Fras MCZ**

In accordance with the Basic Regulation the following Member States operate demersal towed gears within the proposed management zone; UK, France, Ireland and Spain.

Of these Member States, UK, Ireland, France and Spain have undertaken demersal trawling within the proposed management zone in the past six years; from 2010 to 2015 inclusive (details of activity and gear type can be found from table 2.1). The most significant activity was from French and UK vessels with lower, but substantive, levels of activity from Irish and Spanish vessels.

DRAFT

### 2.3 Designation of the Greater Haig Fras MCZ

The Greater Haig Fras site was designated as a Marine Conservation Zone (MCZ) in January 2016 (see Figure 2). MCZs are designated by the UK government under the Marine and Coastal Access Act 2009 for England and Wales. These zones will contribute to the UK's commitment to have a well-managed and ecologically coherent network of MPAs within 2 years of designation and will also assist in meeting commitments relating to the EC Marine Strategy Framework Directive (MSFD).

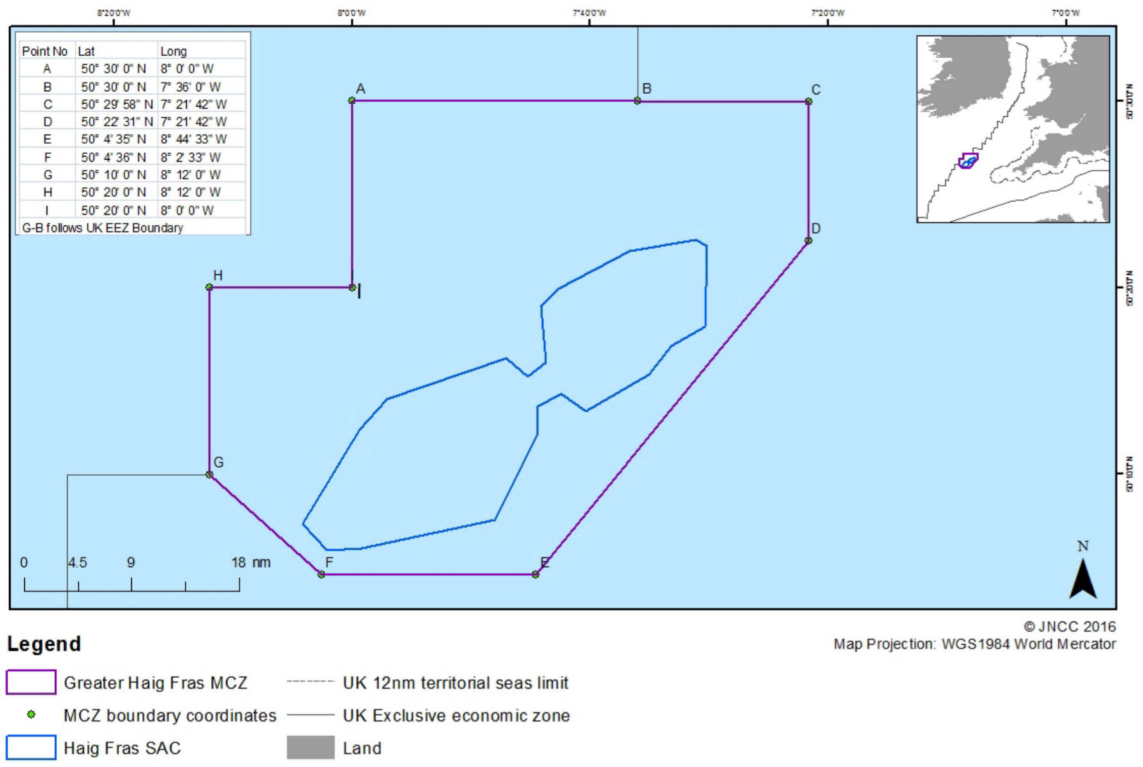



**Figure 2: Site boundary for Greater Haig Fras MCZ (coordinates rounded to nearest second)**

## 3. Process

This chapter describes the process from when the initiative to introduce fishery management measures to protect Subtidal coarse sediment, Subtidal sand, Subtidal mud, Subtidal mixed sediments and Sea-pen and burrowing megafauna communities from fisheries activities at Greater Haig Fras commenced. A fisheries management workshop in Exeter in May 2016 was jointly hosted by the Department for Environment Food and Rural Affairs (Defra) and the Joint Nature Conservation Committee (JNCC) which will inform the development of fisheries management measures in the form of 'A Joint Recommendation' by the UK, France, Ireland and Spain, to the

European Commission. All have access to the site but have not actively fished the site (using proposed prohibited gears) over the years analysed 2010-2015.

### 3.1 Stakeholder workshop

A Defra-led workshop was held in Exeter on 18 and 19 May 2016 to discuss fisheries management measures for MPAs in the Channel and the Southwest Approaches with the intention of developing management measures in conjunction with stakeholders. The workshop was attended by French, Irish and UK fisheries representatives as well as delegates from the French, Irish and Spanish governments and the Northwest Waters Advisory Council (NWWAC). There was also representation from Non-Governmental Organisations (NGOs) and conservation organisations.

Ahead of these meetings the UK prepared fisheries management options papers for the sites which discussed the risk to achievement of the conservation objectives associated with a range of management options.

Representatives from Pecheurs de Bretagne submitted their own draft proposals for fisheries management measures and requested these be considered. These were discussed at the meeting and Defra committed to considering these further post-workshop. These proposals were assessed by JNCC are set out at Annex E.

It was noted that the southwest of the site was an important ground for prawn fishermen. Attendees wished to have it noted that there is a need to balance risks within this site i.e. risk to the burrowing sea-pen habitat and also socio economic risks for fishermen operating in the area.

A site specific excerpt from the report of the meeting is at Annex A.

### 3.2 Consultation on management proposals

Fisheries management measures were developed in close coordination with other Member States with a direct management interest in the sites. Draft management proposals were subject to a six week period of consultation with Member States with a direct management interest in the sites and the Northwest Waters Advisory Council.

Finalised management proposals were then presented to other Member States with a direct management interest in the sites for agreement that sufficient information had been provided in order to commence the formal agreement of the proposals as Joint Recommendations. [Following this, ad hoc meetings of the Northwest Waters Article 11 sub-group were held to start formal agreement proceedings for the Joint Recommendations. Any outstanding issues were then

addressed before agreement was reached on the Joint Recommendations by members of the Northwest Waters High-Level Group and they were submitted to the European Commission for adoption.]

### 3.3 Formal agreement of Joint Recommendations

Finalised management proposals were then presented to other Member States with a direct management interest in the sites for agreement that sufficient information had been provided in order to commence the formal agreement of the proposals as Joint Recommendations. [Following this, ad hoc meetings of the Northwest Waters Article 11 sub-group were held to start formal agreement proceedings for the Joint Recommendations. Any outstanding issues were then addressed before agreement was reached on the Joint Recommendations by members of the Northwest Waters High-Level Group and they were submitted to the European Commission for adoption.]

### 3.4 Involvement of the NWWAC

The North Western Waters Advisory Council (NWWAC) attended the workshop in Exeter in May 2016 where initial proposals for management were discussed and the UK presented its rationale behind the measures proposed. In January 2017, the UK consulted the NWWAC on proposals for fisheries management measures in 12 MPAs, in line with the provision outlined in Article 11 of the CFP. The NWWAC held a meeting on 28 February 2017 where the proposed measures were presented and discussed, which the UK attended.

On 30 March 2017, the UK replied to a response from the Secretariat covering general comments on the proposals as well as some specific comments on several of the proposals for the MPAs in question. With respect to Greater Haig Fras MCZ, no remarks were made.

## 4. Rationale for measures

The seabed in the site has a diverse range of sediment types from mud to coarse and mixed sediments. These habitats are known to support a range of animal species, including those which live within the sediments and those that live on the sediment surface. The site surrounds an isolated fully submarine bedrock outcrop (the Haig Fras rock complex geological feature), the only substantial area of rocky reefs in the Celtic Sea. The available evidence indicates that the features designated may be sensitive to prevailing fishing activities and as such measures are proposed to reduce the level of risk to achieving the site's conservation objectives.

**Demersal towed gears**

Whilst it is unlikely that demersal towed gears can affect the long-term natural distribution of the protected features within the site, there is some evidence to indicate that the use of demersal trawls and dredges can impact the structure and function of the habitat and the long term survival of its associated species. This site covers a broad range of habitats and biological communities which is likely to be reflected in an equally broad range of sensitivities to demersal trawl and dredge activity. It is expected that such activities could result in some degradation of the associated benthic communities relative to the un-impacted state particularly with a reduction in the abundance of fragile long lived species. Stable sediments are likely to be more susceptible to disturbance from mobile demersal fishing gears while in higher energy areas much of the natural fauna will be well adapted to recover from disturbance. There is evidence that severity of impact over certain habitats may be cumulative[2] and may be less severe where fishing pressure is low. As with demersal trawls and dredges, demersal seines may impact the structure and function of sedimentary habitats and the long term survival of their associated species. However, demersal seines (Danish and Scottish seines) lack the heavy gear components of other mobile demersal gears, such as otter doors and trawl shoes (Suuronen et al. 2012; Donaldson et al. 2010), so the risk of impact to sedimentary features and thus to achieving the conservation objective for the site is likely to be lower.

**Demersal static gear**

It is not expected that demersal static gears will have a significant impact on sedimentary features within the site, however, the impacts of repeated exposure to these types of fishing gear at high levels of fishing activity are unknown.

## 5. Principle

Based on scientific advice from JNCC considering the risk associated with a range of management options and the consideration of socio-economic interests the UK has decided to protect Subtidal coarse sediment (A5.1), Subtidal sand (A5.2), Subtidal mud (A5.3), Subtidal mixed sediments (A5.4) and Sea-pen and burrowing megafauna communities (HFCI) in Greater Haig Fras MCZ from physical disturbance due to demersal trawl and dredge activity.

When formulating the present proposal, the following principles were applied:

*1. Sound scientific basis*

This proposal for fisheries management measures is based on available scientific evidence. JNCC has provided scientific advice in relation to the risk to achieving the conservation objectives. . The

proposal has also been reviewed by CEFAS. The advice from Cefas was that this approach reduces the pressures from demersal trawls and dredges sufficiently to contribute to long term progress in recovering the features towards favourable condition.

*2. Stakeholder involvement*

An important element of the process of formulating fisheries management measures has been the involvement of stakeholders. This is outlined in further detail in sections 3.1 and 3.2.

*3. Transparency*

In this proposal the UK has been transparent on the data being used, the steps being taken and the methodology used, as well as the involvement of stakeholders.

4. *Proportionality*

An approach was sought that would deliver a regulatory proposal that delivers a key contribution to the achievement of the conservation objectives while minimising the effect on the fishing industry. A key safeguard in the process to deliver such an outcome was to follow the European Commission guidance in this regard, which described a proportional approach towards balancing sustainable exploitation of resources and the need to conserve important habitats, including a precautionary approach to fisheries management.

5. *Non discrimination*

The proposal will need to ensure that measures are not applied in a discriminatory manner. A coordinated approach between Member States is the only way of ensuring non-discrimination for fleets affected by the proposed measures. Ultimately, a proposal is presented to the European Commission for regulation in the framework of the CFP, ensuring a level playing field for the fishing sector affected.

**6. Proposal scope**

The proposed management boundary for a closure to demersal trawls and dredges encompasses approximately 59% of the site. Of the areas to be considered for management for the designated features, approximately 48% for Subtidal mud, 50% of the Subtidal sand and in excess of 71% for Subtidal coarse/mixed sediments mosaic are included. 63% of the Sea-pen and burrowing megafauna communities are included.

DRAFT

**List of Annexes:**

Annex A – Excerpt of the meeting note from the May 2016 workshop in Exeter

Annex B – Overview of the 11 information items in the Commission's guidelines from 2008

Annex C – Map of English MPA network

Annex D – Map and coordinates for Greater Haig Fras MCZ reporting zone with increased reporting

Annex E – JNCC feedback for Pecheurs de Bretagne Greater Haig Fras MCZ proposal

Annex F – References

DRAFT

**Annex A – Excerpt of the meeting note from workshop**

## Greater Haig Fras MCZ

It was noted that this is an important site for Irish fisheries and that more recent (2014-2015) data showed a marked increase in Irish activity in the site. Significant Nephrops grounds to the Irish fleet.

France noted that they are currently requesting two fishing corridors remain open in the Haig Fras SAC site and as such this should be taken into consideration when discussing management measures for Greater Haig Fras MCZ. Ireland also supported this.

Pecheurs de Bretagne submitted a proposal for management which was discussed and will be considered further post-workshop.

It was noted that the southwest of the site was an important ground for prawn fishermen. Attendees wished to have it noted that there is a need to balance risks within this site i.e. risk to the burrowing sea-pen habitat and also socio economic risks for fishermen operating in the area.

Further discussions on management will follow once displacement and accumulation of impacts on the fishing fleet has been considered in the context of this particular site, North West of Jones Bank and East of Haig Fras. This is all part of the fishing route for the fleet operating in this area. One site has knock-on consequences for the others and all are being considered for management (along with the current Haig Fras SAC proposal).

DRAFT

**Annex B – Overview of the 11 information items in the Commission's guidelines from 2008**

The Commission has issued guidance on a consistent approach to requests for fisheries management measures under the Common Fisheries Policy[5]. Accordingly, this document provides the scientific and technical information required to support a formal request to the Commission for fisheries regulation under the Common fisheries Policy.

## 1 Comprehensive description of the natural features including distribution within the site

Greater Haig Fras MCZ is located approximately 120 km west of Land's End in Cornwall. The site is designated for approximately 2,041km$^2$ of continental shelf seabed that surrounds an isolated fully submarine bedrock outcrop (the Haig Fras Rock Complex geological feature). The subtidal rocky habitat within this site is already designated as a feature of the Haig Fras SAC.

The seabed surrounding this outcrop has a diverse range of sediment types from mud to coarse and mixed sediments (Figure 1 - images). This variety of subtidal sediments supports a range of communities. Burrowed mud communities are found in the deeper areas to the south and west of the site, including the Feature of Conservation Importance (FOCI) Sea-pen and burrowing megafauna communities.

The MCZ currently has six designated features; Subtidal coarse sediment, Subtidal sand, Subtidal mud, Subtidal mixed sediments, the habitat FOCI Sea-pen and burrowing megafauna communities and the Haig Fras rock complex geological feature.

The variety of subtidal sediments present here support a range of animals including many species of polychaete worm and bivalve mollusc that live within the sediment, and on the surface of the sediment epifaunal species including echinoderms such as sea urchins and starfish are recorded. In the deeper areas of the site, a particular type of mud habitat known as Sea-pen and burrowing megafauna communities occurs, which is also an OSPAR Threatened and / or Declining habitat across the North-east Atlantic. The burrowing activity of crustaceans such as mud shrimps and the Norway lobster Nephrops norvegicus has an important functional role, allowing oxygen penetration deeper into the sediment, releasing nutrients, and increasing the structural complexity of the habitat. Although characterised by Nephrops and sea-pen, this habitat also supports a rich community of animals living within the sediment.

[5] http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish_measures.pdf

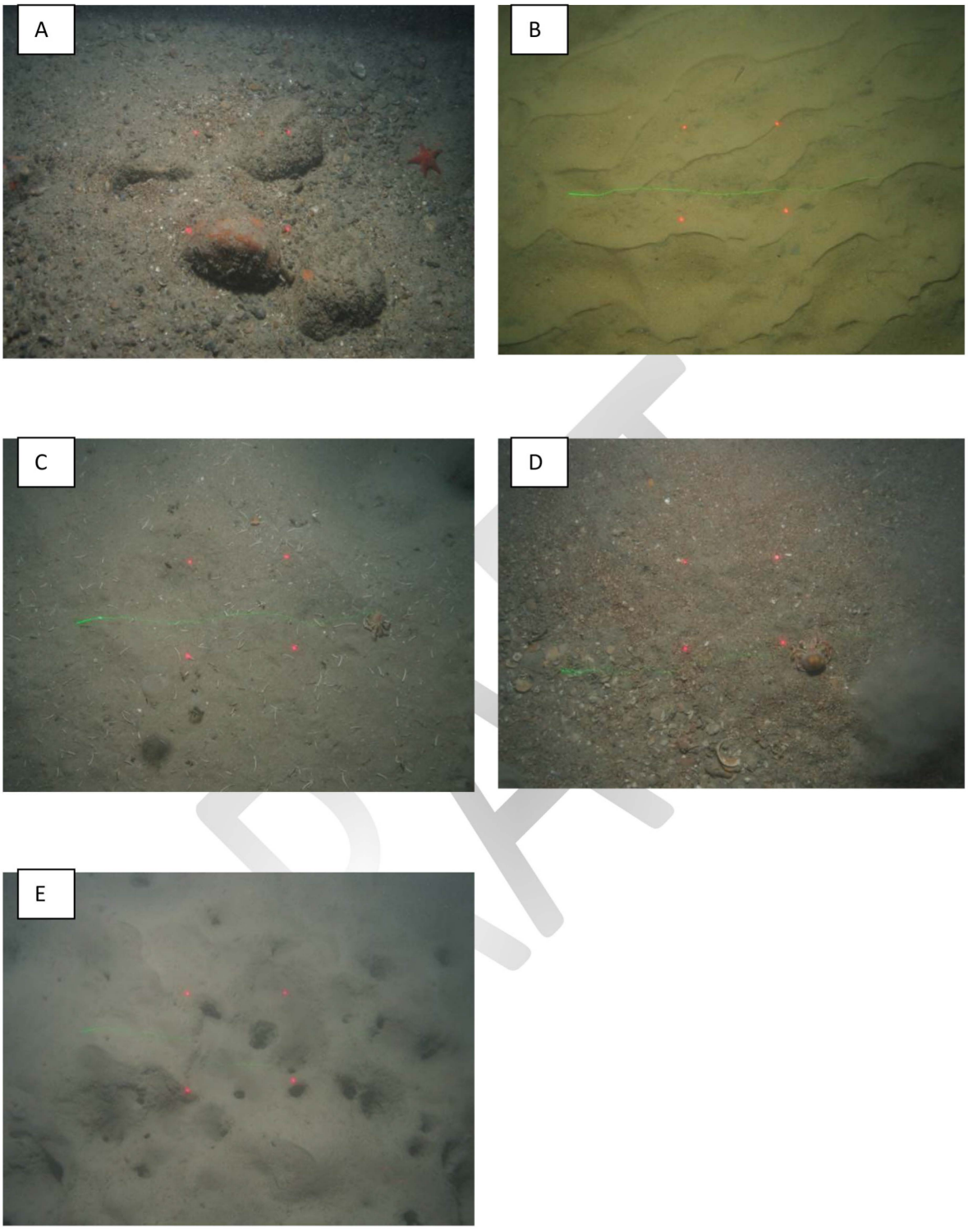



**Figure 1.** Photographs from the 2012 MB0120 survey to Greater Haig Fras MCZ ©JNCC/Cefas

**A: Subtidal coarse sediment**

**B: Subtidal sand** (fine rippled sand with minimal shell debris)

**C:** Jellyfish, tusk shells and a crab on **Subtidal mud**

**D:** Hermit crab (*Pagarus berhardus*) on **Subtidal mixed sediments**

**E: Seapen and burrowing megafauna communities**

## 2 Scientific rationale for the site's selection in accordance with the information provided in the Marine Conservation Zone Designation Order. Intrinsic value of its features. Specific conservation objectives

The UK has committed to the development of an MPA network designed to protect a range of nationally important marine species and habitats which will be central to achieving Good Environmental Status (GES) by 2020 under the Marine Strategy Framework Directive (MSFD). Such a network is also consistent with the UK's obligations under the OSPAR Convention. Due to the large number of individual habitats and species in UK waters, features were grouped into Broad-scale Habitats. To ensure that the full range of biodiversity in UK seas is conserved, representative examples of Broad-scale Habitats and specific features of conservation importance were designated within the MCZ network.

Selection guidelines for MCZs were laid out by Defra to support the initial identification of sites through four regional stakeholder projects. The guidance covers the aim of the network; the involvement of stakeholders; the principles for design of an MPA network; principles for the identification of sites and also the setting of conservation objectives.

The recommendations were based around the seven design principles laid out in the Ecological Network Guidance (ENG):

- Representativity
- Replication
- Adequacy
- Viability
- Connectivity
- Protection
- Best available evidence

Greater Haig Fras MCZ is included in the MPA network for its contribution to the conservation of the broad-scale habitats of Subtidal coarse sediment (EUNIS habitat type A5.1), Subtidal sand (EUNIS habitat type A5.2), Subtidal mud (EUNIS habitat type A5.3) and Subtidal mixed sediments (EUNIS habitat type A5.4). It also provides a contribution to the conservation of the habitat feature of conservation importance Sea-pen and burrowing megafauna communities.

### 2.1 Conservation objectives

Conservation objectives set out the described status for the protected feature(s) of an MPA.

DRAFT

To achieve the conservation objectives a general approach to management for each designated feature has been set by JNCC based on current knowledge of condition. This approach considers whether management should be adopted to maintain the feature in its existing condition or whether some form of recovery is necessary to bring the feature into favourable condition.

The General Management Approach (GMA) for the protected features of the Greater Haig Fras MCZ are:

- **Subtidal coarse sediments** - Recover to favourable condition
- **Subtidal mud** – Recover to favourable condition
- **Subtidal sand** – Recover to favourable condition.
- **Subtidal mixed sediments** - Recover to favourable condition
- **Sea-pen and burrowing megafauna communities** – Recover to favourable condition

## 3 Basis for the spatial extent of the site boundary clearly justified in terms of conservation objectives

The western boundary of Greater Haig Fras MCZ aligns with the UK continental shelf limit. The remainder of the site has been drawn to encompass the entirety of the geological feature Haig Fras Rock Complex and the Haig Fras SAC and a representation of subtidal sediment in the surrounding area. The boundary is in accordance with the MCZ Ecological Network Guidance, which advises using a minimum number of simple lines to delineate the site.

DRAFT

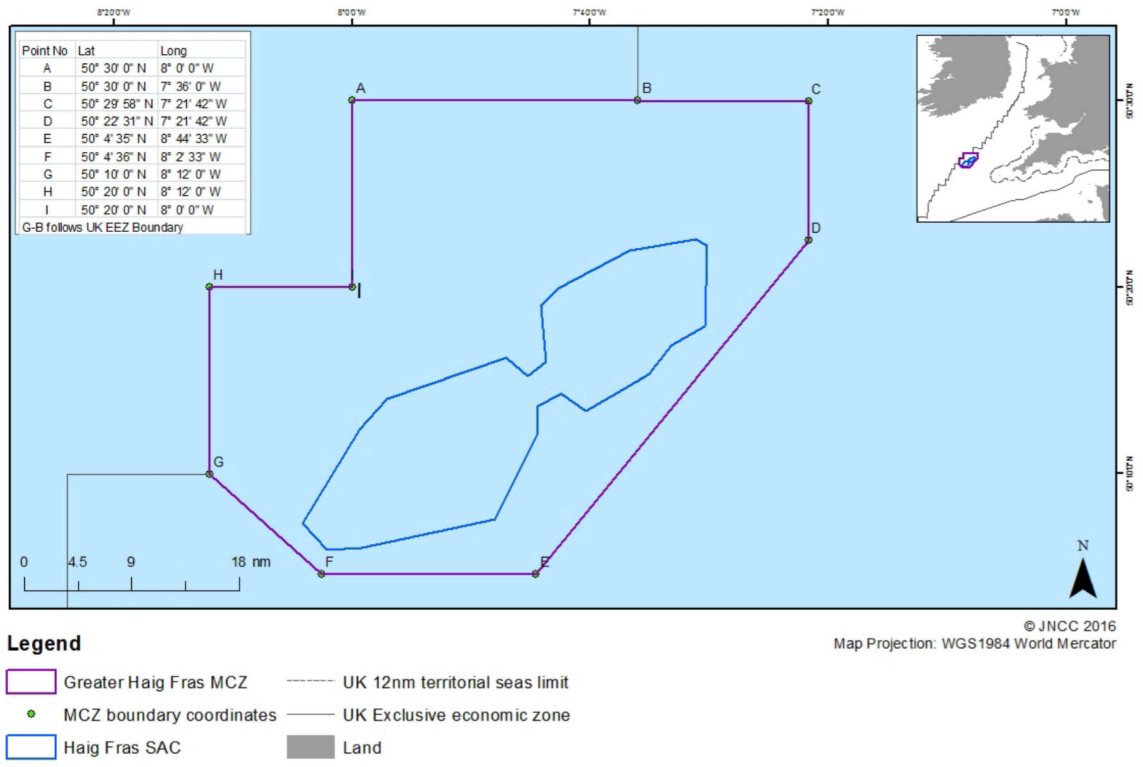



**Figure 2: Site boundary for Greater Haig Fras MCZ (coordinates rounded to nearest second)**

# 4 Threats to the long-term natural distribution, structure and functions of the habitats and the long-term survival of associated species from different types of fishing gear. List of other human activities in the area that could damage the habitats

## 4.1 All demersal towed gears (including scallop dredges, beam trawls and otter trawl)

It is unlikely that demersal trawls and dredges can affect the long-term natural distribution of **Subtidal sand, Subtidal coarse sediment, Subtidal mixed sediment**, **Subtidal mud and Seapen and burrowing megafauna communities.** However, there is evidence to indicate that their use can impact the structure and function of the habitats and the long term survival of their associated species.

The extent to which mobile gear impacts on **Subtidal sand** communities can vary considerably, according to the type of gear, the intensity of fishing and the sediment composition. Trawling and dredging tend to cause increased mortality of fragile and long lived species and favour opportunistic, disturbance-tolerant species (Bergman & Van Santbrink, 2000; Eleftheriou & Robertson, 1992). Some particularly sensitive species may disappear entirely (Bergman & Van Santbrink, 2000). The net result is benthic communities modified to varying degrees relative to the un-impacted state (Bergman &

Van Santbrink, 2000; Kaiser et al. 2006). In higher energy locations, for example the sandy bank tops or wave and/or tide exposed areas the associated fauna tend to be well adapted to disturbance and as a result are more tolerant of fishing-related disturbance (Dernie et al. 2003; Hiddink et al. 2006). The habitat may be maintained in a modified state; however modification is likely to be low relative to natural variation. In lower energy locations, such as muddy sands and sand in deep water, or on the flanks and towards troughs between banks, sediments tend to be more stable and their associated fauna less tolerant of disturbance (Kaiser et al. 2006; Hiddink et al. 2006). The habitat may be maintained in a modified state with reduced abundance of fragile, long lived species.

As with sandy habitats, the broad scale habitat **Subtidal coarse sediment** includes sub-habitats with a wide range of sensitivities to trawling. Communities on unstable coarse sediments are considered to contain relatively robust fauna which are not believed to be greatly impacted by surface abrasion (Hall et al 2008). More stable gravels may support a 'turf' of fragile species which are easily damaged by trawling and recover slowly (Collie et al 2005, Foden et al 2010). Trawling may result in a modified benthic community with reduced abundance of fragile long lived species. Recovery time from dredging is longer than from trawling (Foden et al 2010).

The broad scale habitat **Subtidal mud** covers a range of habitats and biological communities on muds and sandy muds. While some variability in sensitivity is to be expected at this broad scale, many instances of this habitat occur in sheltered areas characterised by undisturbed muddy sediments with a rich and diverse fauna. The stable nature of the sediments makes them generally susceptible to disturbance from demersal towed gears. Subtidal mud habitats may contain the Feature of Conservation Importance **Seapen and burrowing megafauna communities.** Fishing with demersal towed gears over this feature can reduce habitat complexity and species diversity can decrease (Greathead et al. 2007; Hinz et al. 2009). There is evidence that severity of impact is cumulative (Hinz et al. 2009) so may be less severe where fishing pressure is low (Ball et al. 2000; OSPAR, 2010). *Nephrops* may be an important component of the benthic community, so fisheries that greatly alter its abundance or size composition may be seen to have a negative impact.

The broad scale habitat **Subtidal mixed sediments** covers a wide range of different types of sediment from muddy, gravely sands to mosaics of cobbles and pebbles in or on a sand, gravel or mud seabed. Areas of mixed sediments may also include instances where waves or ribbons of sand form on the surface of a gravel bed (Anon, 2010). These different habitats can be expected to vary greatly in their sensitivity to fishing impacts (Roberts et al. 2010). However, as there are very few studies that directly evaluate fishing impacts on subtidal mixed sediments it is not possible to give general advice for this broad scale habitat. In the absence of specific advice, a reasonable proxy may

be to consider the advice given for other, similar constituent habitats, outlined in the information above.

### 4.2 All demersal static gears (including gillnets, trammel nets, longlines, pots and traps)

It is unlikely that demersal static gears will have a significant effect on the long-term natural distribution of **Subtidal sands, Subtidal coarse sediment, Subtidal mud or Subtidal mixed sediment**, or on the structure and function of their associated biological communities. Studies on the impacts of potting on seapens have shown little or no adverse effect from a *single* fishing operation (Eno et al. 1996; Eno at al. 2001; Kinnear et al. 1996). However, the impacts of repeated exposure to these types of fishing gear at high levels of fishing activity are unknown (Eno et al. 2001). Targeted potting may be expected to result in a reduction in ***Nephrops*** and hence their **burrows.** *Nephrops* may be an important component of the benthic community so fisheries that greatly reduce its abundance may be seen to have a negative impact.

### 4.3 Other Human activities

The information within this section represents current knowledge of the nature and extent of activities taking place within or close to the site.

Three telecommunications cables pass through the site. Some shipping activity also occurs within the MPA. Under international law, ships have a right of passage at sea including in areas designated as MPAs (unless management specifies the restriction of ship transiting as outlined through an International Maritime Organisation measure). The pressures associated with shipping activity within Greater Haig Fras MCZ are not considered likely to impact the protected features of the site.

Ministry of Defence (MoD) training and exercises may take place in or around the site. The MoD have incorporated all designated MPAs into their Environmental Protection Guidelines (Maritime) and wider Marine Environmental and Sustainability Assessment Tool.

## 5 Fleet activity in the area and in the region, distribution of fleets (by nation, gear, and species), and information on target and bycatch species over 6 years from 2010 to 2015 inclusive.

### 5.1 Validity of data

In the section below relevant fleet statistics for the years 2010 - 2015 are provided as requested by the European Commission guidance. The UK, as the initiating Member State, analysed fishing from Member States active in the area of Greater Haig Fras MCZ over a six year period. This approach is consistent with other management proposals methodology across Member States. A four year

dataset is considered to be representative of the contemporary fisheries carried out in the area and thus valid for the purposed of underpinning the current proposal.

Overall, fisheries have been changing since the early 2000s as a result of changes in economic and regulatory conditions, e.g. fuel prices and engine efficiencies, the introduction of individual transferable quota (ITQ) systems[6] in various forms. Fishing fleets have been reduced in terms of the number of vessels and fishing effort has decreased. Fishing opportunities are dictated by stock status, market conditions, fuel prices and technological opportunities, as well as quota availability. In addition, policy decisions on alternative use of marine habitat, sustainable exploration and environmental policies will influence fishing opportunities.

The fisheries are dynamic and sound judgement is required when using the data. However, more recent datasets are expected to improve our understanding of the structure of fisheries.

Vessels from three Member States including the UK have been present within the relevant area according to VMS reports or "pings". However, French vessels routinely report every hour and not every two hours like all other Member States' vessels. The data concerning the number of French vessels will be accurate but their activity through pings may appear distorted. To maintain consistency across all vessels and Member States' data, the information on French vessels has been displayed as it was received into the MMO Fisheries Monitoring Centre (FMC); therefore it has not been altered to reflect possible one hour vessel pings as this could alter the validity of the data further. To establish which vessels specifically report at a higher level would require additional processing and information.

To note, unknown gear classification relates to a specific VMS report which does not have valid corresponding log book information.

### 5.1.1 Data analysis

Data presented has been analysed by applying the standard methodology used to identify whether or not vessels have been fishing in a specified spatial area. VMS reports ("pings") were used to indicate vessel fishing activity based on the speed of the vessel as reported within the VMS report. Each ping was classified as indicative of fishing activity taking place if the speed was greater than or equal to zero knots and less than or equal to six knots[7].

[6] Individual transferable quotas (ITQs) are a type of catch share system, which is a tool used by some governments to manage fisheries

[7] Article 50 of Council Regulation (EC) No 1224/2009 : http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:343:0001:0050:EN:PDF

Each speed filtered VMS ping (0-6 knots) received from a vessel in ICES statistical rectangles 29E1 and 29E2 (the ICES rectangle location of the site) was extracted from the UK VMS system. Each ping will hold the following information: the vessel identity (CFR) number; position and speed; and the date and time of that ping. These fishing pings from the rectangles concerned are then processed in GIS software to identify whether the position was inside or outside Greater Haig Fras MCZ or the proposed management areas. This provides a proportion of pings falling within the area for the vessels of each Member State.

### 5.1.2 Data limitations

The data provided in this section is subject to several limitations:

1. Data is only available from vessels that are required to carry EU VMS systems (i.e. vessels 12 metres and above in length). As such their pattern of activity may differ from vessels of less than 12 metres in length.
2. Vessel numbers derived from VMS can suggest increase over the years analysed, however it is important to note that during this period VMS was introduced to the 12m and above fleet, in addition to the 15m and above fleet.
3. Unless stated otherwise, all data shown is over a six year period 2010 – 2015.
4. The speed thresholds (0-6knots) used to make assumptions as to whether a vessel is fishing or not only provide indications, not definitive proof of fishing and have been applied across all gear types.
5. The proportion of activity inside an area is based on the number of pings as opposed to actual fishing time.
6. VMS reports are sent by every fishing vessel at 2 hourly intervals, with the exception of the French VMS activity. This was witnessed at an hourly rate.
7. A proportion of the UK VMS data showed two vessels reporting at a high rate than the usual 2 hourly reporting period in March 2012. The rate in those periods reached a report every five minutes or greater
8. No Spanish landing information has been supplied to the UK.

## 5.2 Fleet activity by state

From 2010 to 2015 vessels from four Member States (including the UK) were active within and around the Greater Haig Fras MCZ (see table 1). Of these, the most significant activity was from UK, Irish and French vessels, with lower levels of activity from Spanish and UK vessels (see table 1).

DRAFT

**Table 1**: Number of vessels and pings (0-6knots) associated with Greater Haig Fras MCZ by year and Member State.

| Nationality | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|
| Denmark | Vessel numbers | 1 | 0 | 0 | 0 | 1 | 0 |
| | VMS pings | 1 | 0 | 0 | 0 | 1 | 0 |
| Faroes | Vessel numbers | 0 | 0 | 0 | 1 | 0 | 0 |
| | VMS pings | 0 | 0 | 0 | 5 | 0 | 0 |
| France | Vessel numbers | 55 | 41 | 43 | 54 | 45 | 33 |
| | VMS pings | 7535 | 6774 | 5061 | 7389 | 4789 | 4225 |
| Germany | Vessel numbers | 0 | 0 | 1 | 0 | 0 | 0 |
| | VMS pings | 0 | 0 | 1 | 0 | 0 | 0 |
| Ireland | Vessel numbers | 23 | 28 | 30 | 24 | 52 | 71 |
| | VMS pings | 71 | 302 | 395 | 247 | 1452 | 1791 |
| Lithuania | Vessel numbers | 0 | 0 | 0 | 0 | 1 | 0 |
| | VMS pings | 0 | 0 | 0 | 0 | 1 | 0 |
| Netherlands | Vessel numbers | 0 | 1 | 2 | 0 | 0 | 0 |
| | VMS pings | 0 | 1 | 8 | 0 | 0 | 0 |
| Spain | Vessel numbers | 1 | 3 | 2 | 0 | 3 | 0 |
| | VMS pings | 90 | 38 | 74 | 0 | 158 | 0 |
| UK** | Vessel numbers | 20 | 15 | 18 | 17 | 13 | 17 |
| | VMS pings | 1717 | 1034 | 4490 | 1240 | 815 | 1118 |

* A proportion of the French VMS data showed vessels reporting at a higher rate than the usual 2 hourly reporting period. This was not consistent across all vessels or all reports.

** A proportion of the UK VMS data showed two vessels reporting at a high rate than the usual 2 hourly reporting period in March 2012. The rate in those periods reached a report every five minutes or greater.

## 5.3 Landings values

As shown in Tables 2.1 and 2.2 the gear groups of major importance in terms of effort (tonnage) and economic importance (value) include (1) Beam Trawls directed at demersal fish (flatfish), (2) Otter board bottom trawls for demersal fish, (3) otter board bottom trawls for demersal and semi pelagic fish. Fishing for these species occurs in the Southern Irish Sea, Celtic Sea and North East Atlantic.

The fisheries data for 2010 – 2015 inclusive in Greater Haig Fras MCZ involve similar gear types but only two groups are of major importance regarding effort and four regarding value as can be seen in Table 2.2. Demersal trawls, Otter trawls, dredge and beam trawls also take place within the Greater Haig Fras MCZ but with much lower levels of effort and landings value.

DRAFT

**Table 2.1:** Vessel size and gear type for vessels operating in 29E1 and 29E2 Greater Haig Fras MCZ by year and Member State showing effort (tonnage caught)

| Sum of Tonnes (29E1 and 29E2) | | Years | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Nationality** | **Gears** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **Grand Total** |
| FRA | GNS | 0.00 | 0.65 | 0.00 | 0.00 | 7.45 | 12.52 | 20.63 |
| | GTR | 5.00 | 11.83 | 4.90 | 16.32 | 0.00 | 2.29 | 40.33 |
| | HMP | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.48 |
| | LLS | 0.00 | 0.00 | 4.09 | 39.37 | 13.58 | 76.09 | 133.13 |
| | OTB | 417.47 | 535.89 | 570.38 | 953.08 | 445.16 | 325.06 | 3,247.04 |
| | OTM | 7.12 | 4.33 | 0.00 | 0.00 | 0.00 | 0.00 | 11.45 |
| | OTT | 1,031.89 | 898.44 | 1,082.94 | 1,156.77 | 601.25 | 778.78 | 5,550.06 |
| | PS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.30 | 0.30 |
| | SDN | 2.53 | 0.26 | 27.43 | 24.06 | 17.30 | 18.32 | 89.90 |
| | TB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 21.02 | 21.02 |
| **FRA Total** | | **1,464.48** | **1,451.40** | **1,689.73** | **2,189.60** | **1,084.74** | **1,234.37** | **9,114.33** |
| IRL | Anchored seine | 0.00 | 0.00 | 0.00 | 23.42 | 0.00 | 1.83 | 25.25 |
| | Beam trawl | 20.78 | 19.16 | 11.26 | 94.51 | 2.55 | 3.27 | 151.52 |
| | Bottom trawls | 707.05 | 639.24 | 607.85 | 942.27 | 1,204.13 | 1,558.33 | 5,658.87 |
| | Fly shooting seine | 17.07 | 4.15 | 8.58 | 9.51 | 25.19 | 3.68 | 68.18 |
| | Lines | 0.13 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.45 |
| | Nets | 106.74 | 75.52 | 156.85 | 77.71 | 201.36 | 53.79 | 671.97 |
| | Pelagic trawls | 1,110.00 | 0.68 | 0.00 | 80.10 | 15.00 | 0.00 | 1,205.78 |
| | Seines | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 0.19 |
| | Traps | 0.00 | 0.00 | 0.00 | 0.00 | 3.86 | 0.00 | 3.86 |
| **IRL Total** | | **1,961.77** | **739.07** | **784.54** | **1,227.51** | **1,452.08** | **1,621.09** | **7,786.07** |
| UK | Beam trawls | 56.17 | 67.54 | 76.97 | 61.26 | 13.59 | 40.80 | 316.33 |
| | Gillnets (all) | 176.15 | 262.15 | 280.83 | 333.99 | 539.96 | 587.01 | 2,180.09 |
| | Nephrops trawls | 0.00 | 4.01 | 0.00 | 6.96 | 0.00 | 20.60 | 31.58 |

DRAFT

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Otter trawls (Bottom and not specified) | 250.14 | 208.50 | 399.56 | 234.50 | 113.71 | 114.56 | 1,320.96 |
| | Otter twin trawls | 8.31 | 0.00 | 0.00 | 4.36 | 14.97 | 28.99 | 56.64 |
| | Trammel nets | 4.19 | 0.31 | 10.66 | 17.02 | 16.43 | 22.01 | 70.62 |
| **UK Total** | | **494.97** | **542.51** | **768.01** | **658.10** | **698.66** | **813.97** | **3,976.22** |
| **Grand Total (Tonnes)** | | **3,921.23** | **2,732.99** | **3,242.28** | **4,075.21** | **3,235.48** | **3,669.43** | **20,876.62** |

**Please note no Spanish landing information has been submitted to the UK.**

DRAFT

**Table 2.2:** Vessel size and gear type for vessels operating 29E1 and 29E2 in Greater Haig Fras MCZ by year and Member State showing landing values

| Sum of Value £ (29E1 and 29E2) | | Years | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Nationality** | **Gears** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **Total (£)** |
| FRA | GNS | £6 | £2,030 | £0 | £0 | £36,978 | £54,815 | £93,829 |
| | GTR | £16,815 | £49,354 | £20,158 | £70,157 | £0 | £9,752 | £166,236 |
| | HMP | £1,099 | £0 | £0 | £0 | £0 | £0 | £1,099 |
| | LLS | £0 | £0 | £6,326 | £44,881 | £23,065 | £109,517 | £183,788 |
| | OTB | £931,278 | £1,075,818 | £1,010,808 | £1,880,040 | £869,310 | £704,069 | £6,471,322 |
| | OTM | £9,689 | £7,566 | £0 | £0 | £0 | £0 | £17,255 |
| | OTT | £2,409,699 | £1,924,117 | £2,026,522 | £2,518,508 | £1,222,220 | £1,653,597 | £11,754,662 |
| | PS | £0 | £0 | £0 | £0 | £0 | £678 | £678 |
| | SDN | £2,989 | £370 | £33,791 | £38,976 | £23,952 | £26,555 | £126,633 |
| | TB | £0 | £0 | £0 | £0 | £0 | £46,762 | £46,762 |
| **FRA Total** | | **£3,371,574** | **£3,059,255** | **£3,097,605** | **£4,552,561** | **£2,175,525** | **£2,605,744** | **£18,862,263** |
| IRL | Anchored seine | £0 | £0 | £0 | £26,509 | £0 | £2,945 | £29,454 |
| | Beam trawl | £40,993 | £37,891 | £18,828 | £175,618 | £5,857 | £6,896 | £286,083 |
| | Bottom trawls | £1,425,627 | £1,434,194 | £1,360,743 | £2,348,914 | £3,391,427 | £4,825,397 | £14,786,302 |
| | Fly shooting seine | £19,274 | £4,247 | £9,091 | £10,131 | £33,097 | £4,655 | £80,494 |
| | Lines | £239 | £504 | £0 | £0 | £0 | £0 | £743 |
| | Nets | £131,668 | £96,317 | £180,075 | £83,428 | £281,905 | £70,894 | £844,287 |
| | Pelagic trawls | £83,172 | £1,444 | £0 | £7,684 | £1,286 | £0 | £93,586 |
| | Seines | £0 | £0 | £0 | £0 | £0 | £191 | £191 |
| | Traps | £0 | £0 | £0 | £0 | £3,379 | £0 | £3,379 |
| **IRL Total** | | **£1,700,974** | **£1,574,597** | **£1,568,737** | **£2,652,283** | **£3,716,950** | **£4,910,978** | **£16,124,519** |
| UK | Beam trawls | £165,910 | £243,593 | £200,663 | £156,044 | £33,791 | £119,178 | £919,179 |
| | Gillnets (all) | £488,833 | £751,469 | £572,853 | £722,105 | £1,006,788 | £1,109,460 | £4,651,509 |
| | Nephrops trawls | £0 | £15,039 | £0 | £14,757 | £0 | £67,910 | £97,707 |

DRAFT

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Otter trawls (Bottom and not specified) | £736,493 | £650,485 | £1,309,496 | £629,602 | £335,748 | £351,762 | £4,013,587 |
| | Otter twin trawls | £19,399 | £0 | £0 | £8,150 | £51,418 | £145,830 | £224,797 |
| | Trammel nets | £26,291 | £2,432 | £33,449 | £70,098 | £85,594 | £95,800 | £313,664 |
| **UK Total** | | **£1,436,927** | **£1,663,019** | **£2,116,461** | **£1,600,755** | **£1,513,339** | **£1,889,941** | **£10,220,442** |
| **Grand Total** | | **£6,509,475** | **£6,296,870** | **£6,782,803** | **£8,805,600** | **£7,405,814** | **£9,406,663** | **£45,207,224** |

**Please note no Spanish landing information has been submitted to the UK.**

DRAFT

## 5.4 Annual variation in fishing activity

Fishing effort is indicated by the number of VMS reports at speeds indicative of fishing (from 0 to 6 knots) received by the UK Fisheries Monitoring Centre. Reports are sent by every fishing vessel at 2 hourly intervals.

**VMS Activity**

Over the years analysed (2010-2015), through VMS, the total volume of vessels fishing in the Offshore Overfalls MCZ from other Member States are 516 and 63 from the UK, making a total of 579 (an average of 96 vessels per year). However, vessels have been counted more than once if they enter the MCZ in separate years. See Table 1.

French VMS activity suggests a fluctuation in vessel numbers over recent years, from 55 vessels in 2010, dropping to 41 vessels in 2011, gradually increasing back to 54 vessels in 2013 before decreasing to 33 vessels in 2015. This is reflected in the number of VMS pings, with 7,535 pings in 2010, declining to 5,061 in 2012, increasing to 7,389 pings in 2013 before decreasing to 4,225 pings in 2015. The activity has occurred across the site, however the recent deduction of VMS pings in 2014 and 2015 has shown activity generally focussing within the north eastern section of site, above a part of the subtidal coarse sediment inside the proposed closures.

Irish VMS activity suggests a strong increase in vessel numbers over recent years, from 23 vessels in 2010, rising to 71 vessels in 2015. This is reflected in the number of VMS pings, increasing from 71 in 2010, up to 1,791 in 2015. The activity has occurred across the site with the majority of pings focussed across the centre of the site, outside the proposed closures. The activity suggests that the Irish vessels have favoured to operate to the west of the site with some strong trawls entering across the western section of the site, straddling the edge of the EEZ. The majority of the pings lie outside of the proposed closures.

Spanish VMS activity suggests a fluctuation in vessel numbers over recent years, with 1 vessel in 2010, 3 vessels in 2011 and 2014 and zero vessels in 2013 and 2015. However the activity based on VMS pings holds a greater fluctuation. With 90 pings in 2010, 38 pings in 2011, 74 pings in 2012 and 158 pings in 2014. In the past the activity has predominately occurred across the Haig Fras SAC. In addition there has been some activity outside to the west of the site although no pings have been recording inside.

UK VMS activity suggests a fluctuation over recent years, from 20 vessels in 2010, decreasing to 15 vessels in 2011, before rising to 18 vessels in 2012. Again there was a drop in 2014 with 13 vessels before increasing back to 17 vessels in 2015. This reflected in the number of VMS pings, starting with 1,717 pings in 2010, decreasing to 1,034 in 2011, dramatically increasing to 4,490 in 2012 (partly due to data limitation 7, see section 5.1.2) before arriving at 1,118 in 2015. The activity has occurred in two main areas. The one area above the Haig Fras SAC, moving northwest to an area above the subtidal coarse sediment, the second area is to the west of the site with some strong trawls entering across the western section of the site, straddling the edge of the EEZ. The majority of the pings lie outside of the proposed closures.

DRAFT

**Landings information**

The values (£) and landings (tonnes) effort taken within ICES rectangles 29E1 and 29E2 vary between each member state.

French Landings within ICES rectangles 29E1 and 29E2 has fluctuated over the recent years in terms of tonnes landed and value taken. In 2010 there was 1,464 tonnes landed with an approximate value of £3.3million, this rose to 2,189 tonnes in 2012 with an approximate value of £4.51million. However this then steadily decreased to 1,234 tonnes in 2015 with an approximate value of £2.6million. The gears types commonly used in these ICES rectangles are from Bottom Otter trawling (OTB) and Otter trawling (OTT) and to a lesser degree long lining (LLS).

Irish Landings within ICES rectangles 29E1 and 29E2 have increased over recent years in terms of tonnes landed and value taken. In 2011 there was 739 tonnes landed with an approximate value of £1.5million, rising to 1,621 tonnes and a value of £4.9million. This has predominately been generated through the Bottom trawls, but also through fluctuating levels of Netting.

UK Landings within ICES rectangles 29E1 and 29E2 has steadily increased over recent years in terms of tonnes landed and value taken. In 2010 there was 494 tonnes landed with an approximate value of £1.4million, rising to 813 tonnes and a value of £1.8million in 2015. The gears types commonly used in these ICES rectangles are from Gill nets and bottom and non-specified Otter trawls.

DRAFT

**Figure 3:** VMS reports indicating all fishing activity in Greater Haig Fras MCZ 2010 by Nationality

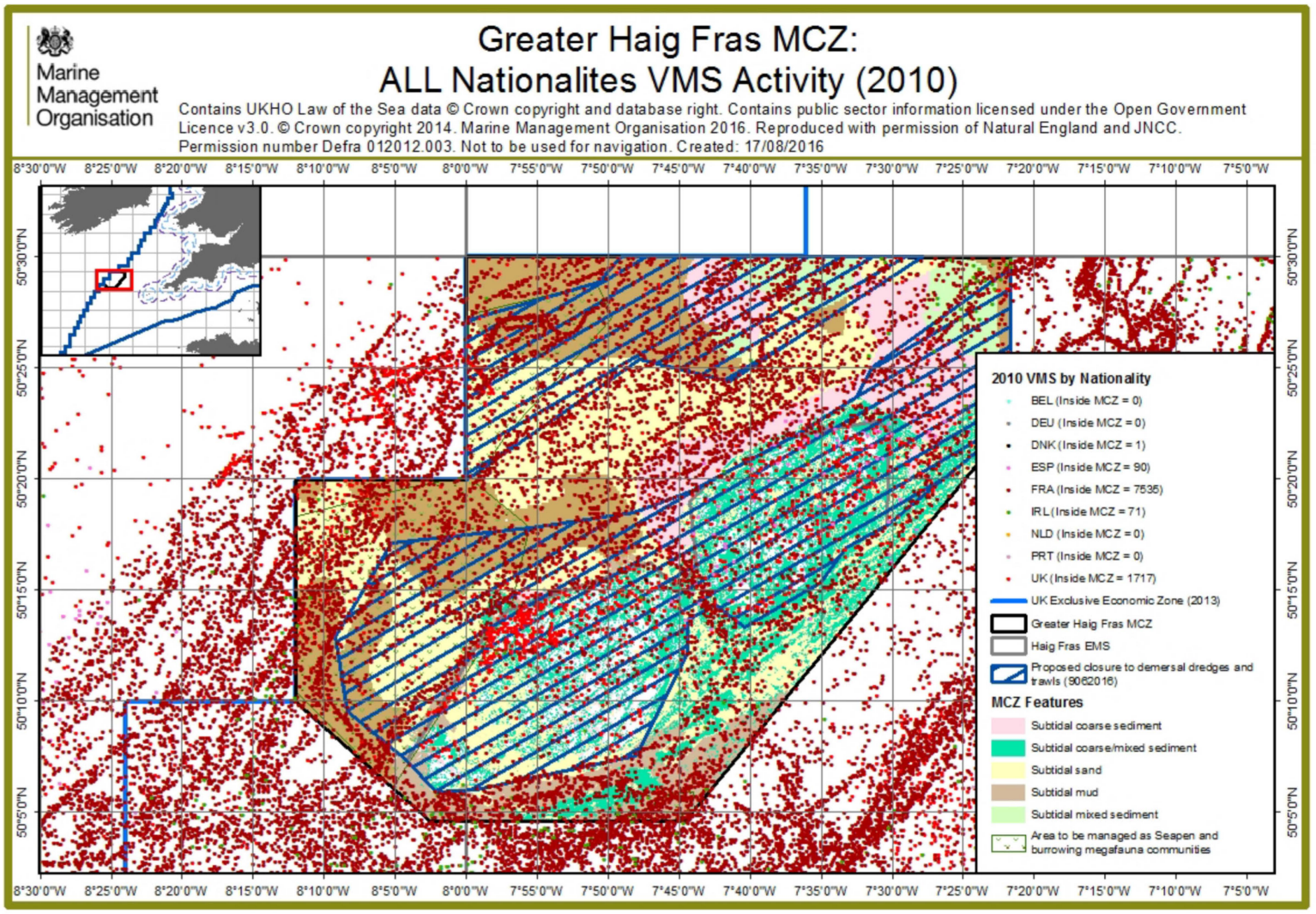


**Figure 4:** VMS reports indicating all fishing activity in Greater Haig Fras MCZ 2011 by Nationality

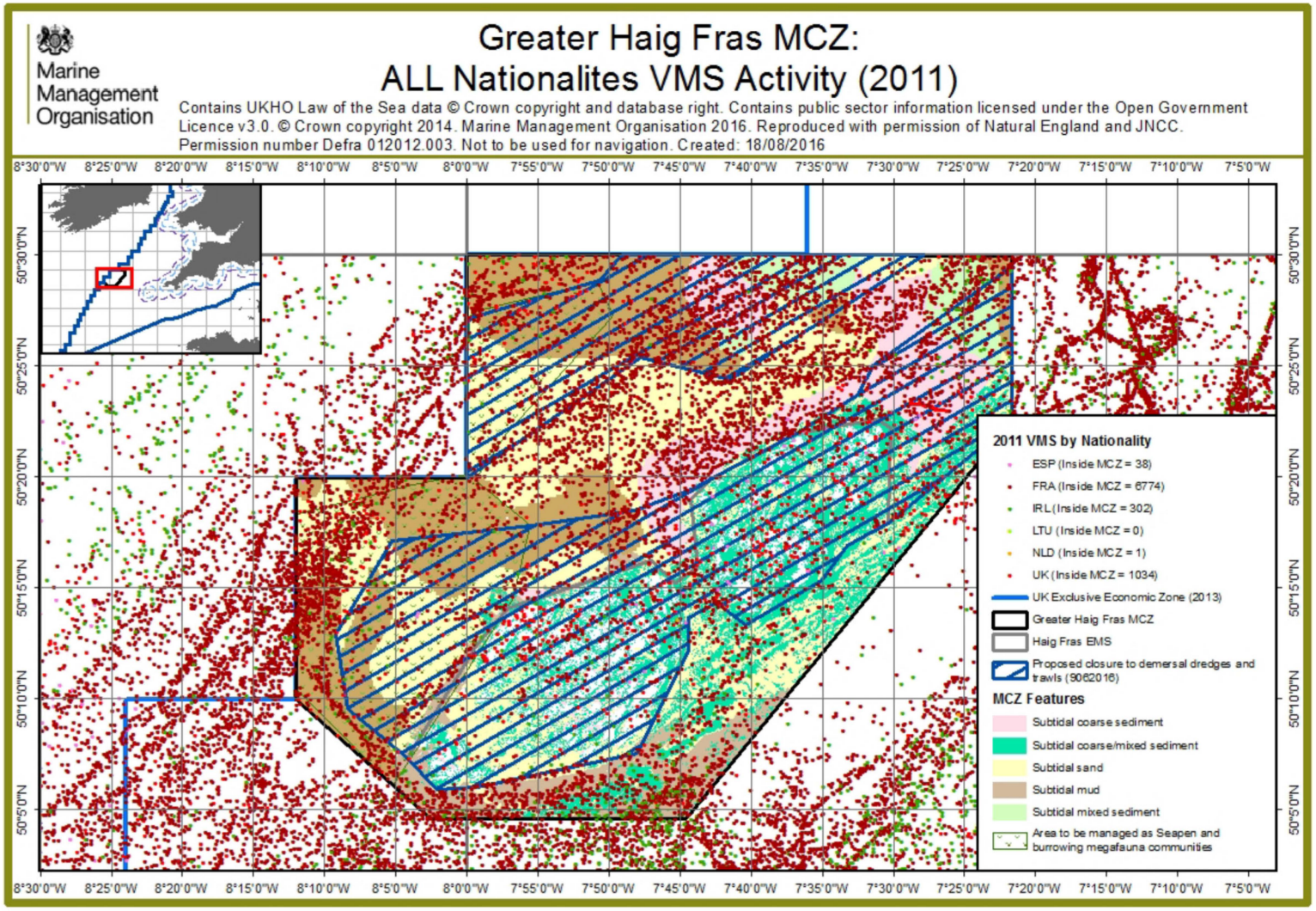


**Figure 5:** VMS reports indicating all fishing activity in Greater Haig Fras MCZ 2012 by Nationality

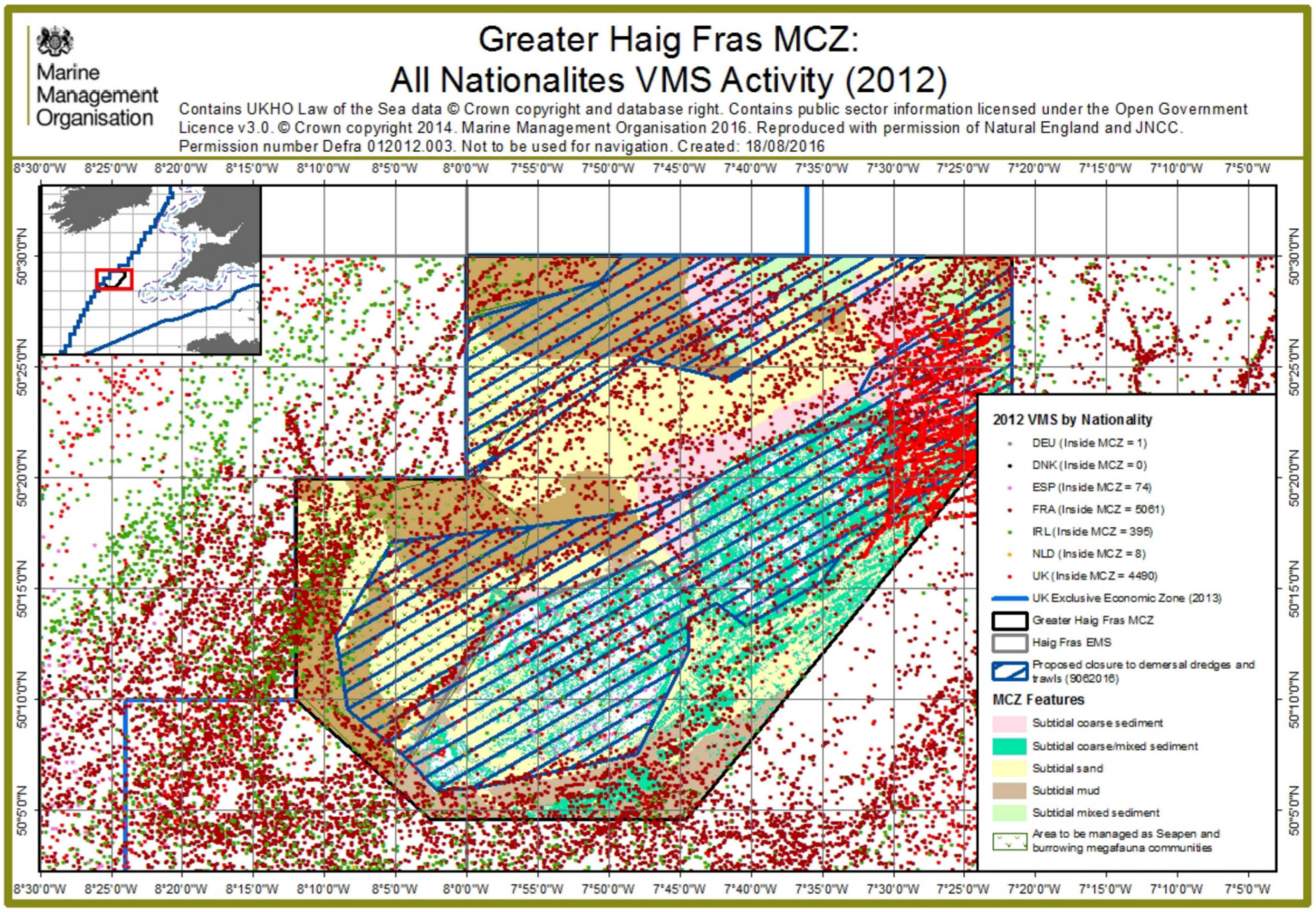


**Figure 6:** VMS reports indicating all fishing activity in Greater Haig Fras MCZ 2013 by Nationality

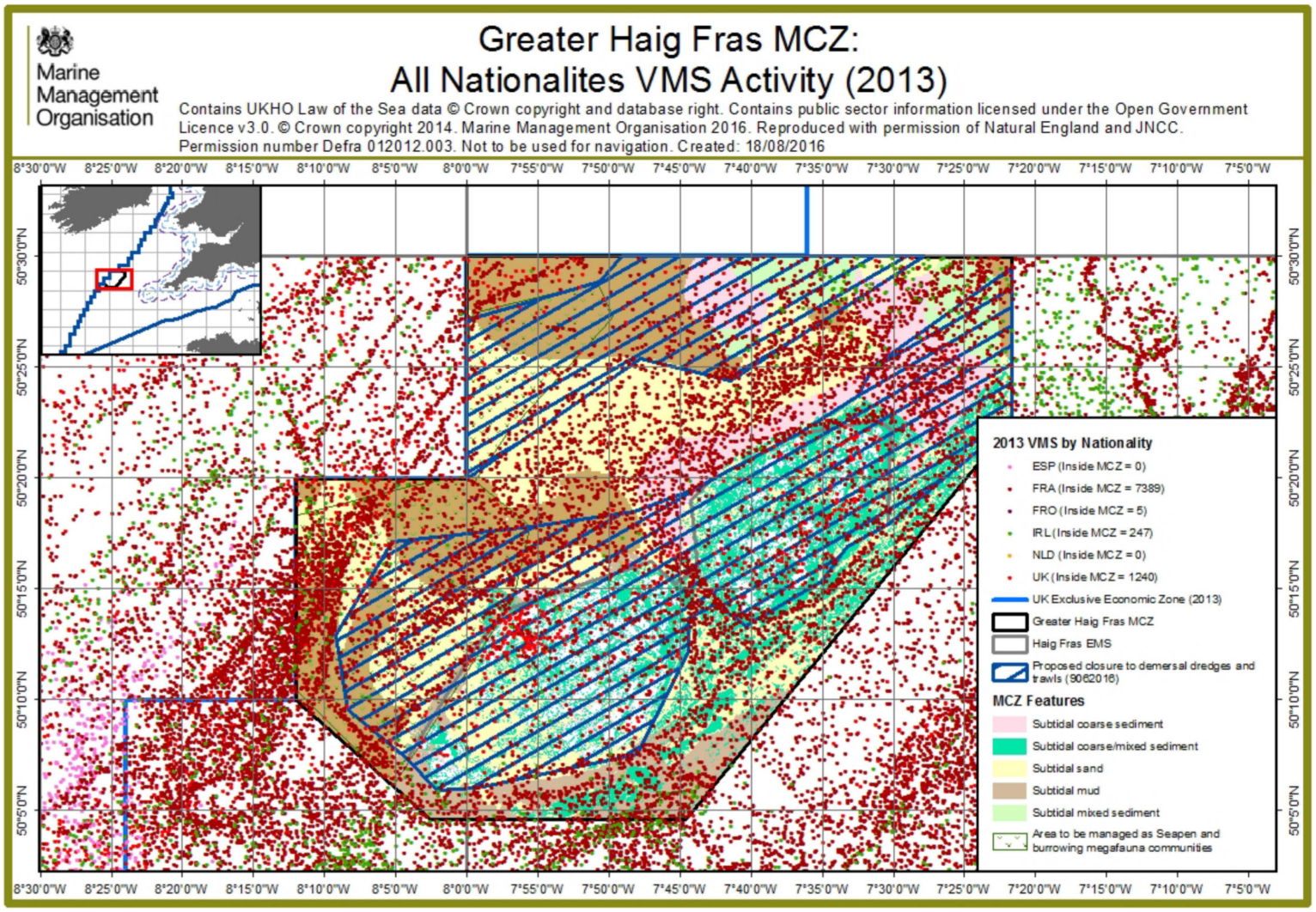


**Figure 7:** VMS reports indicating all fishing activity in Greater Haig Fras MCZ 2014 by Nationality

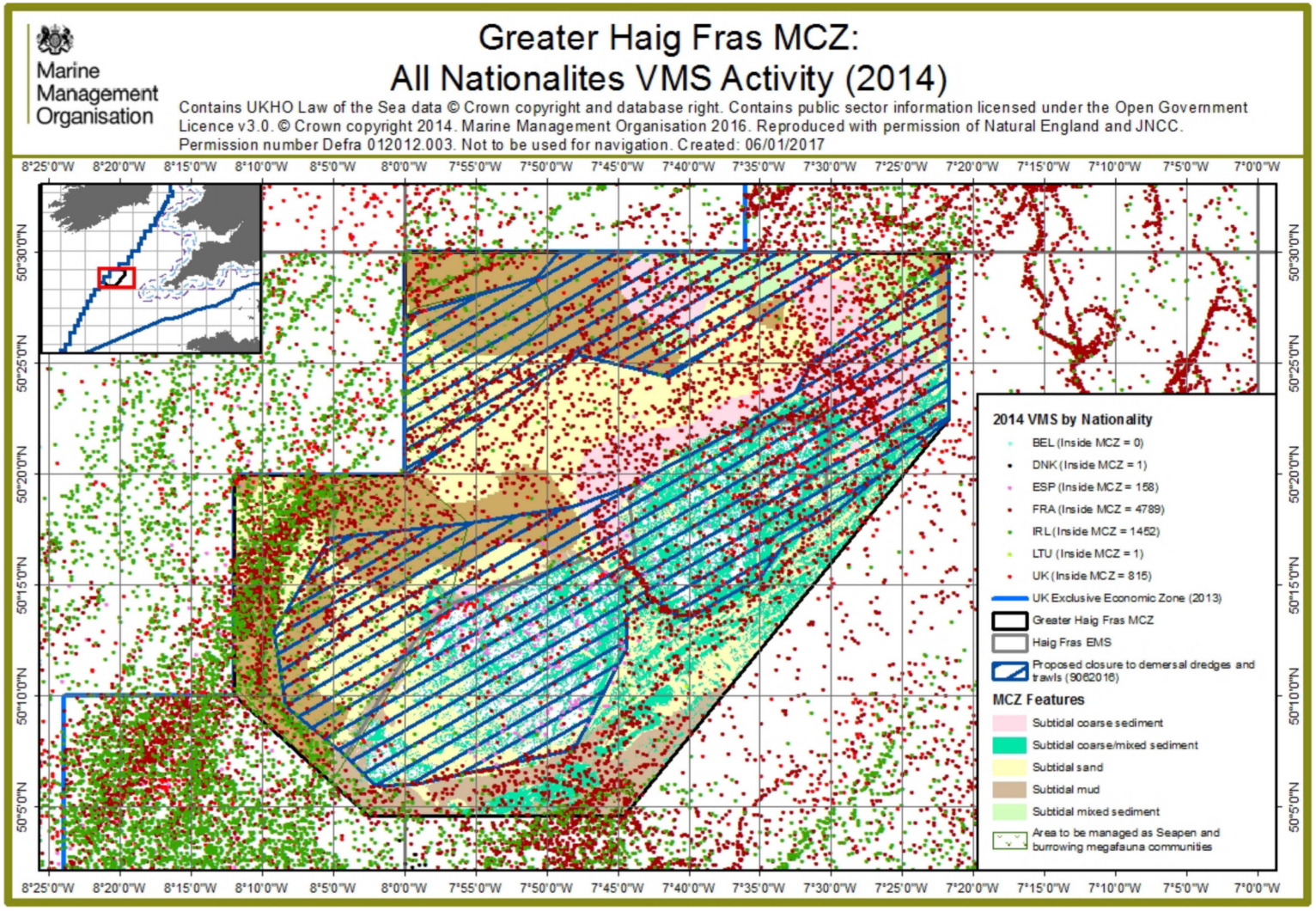
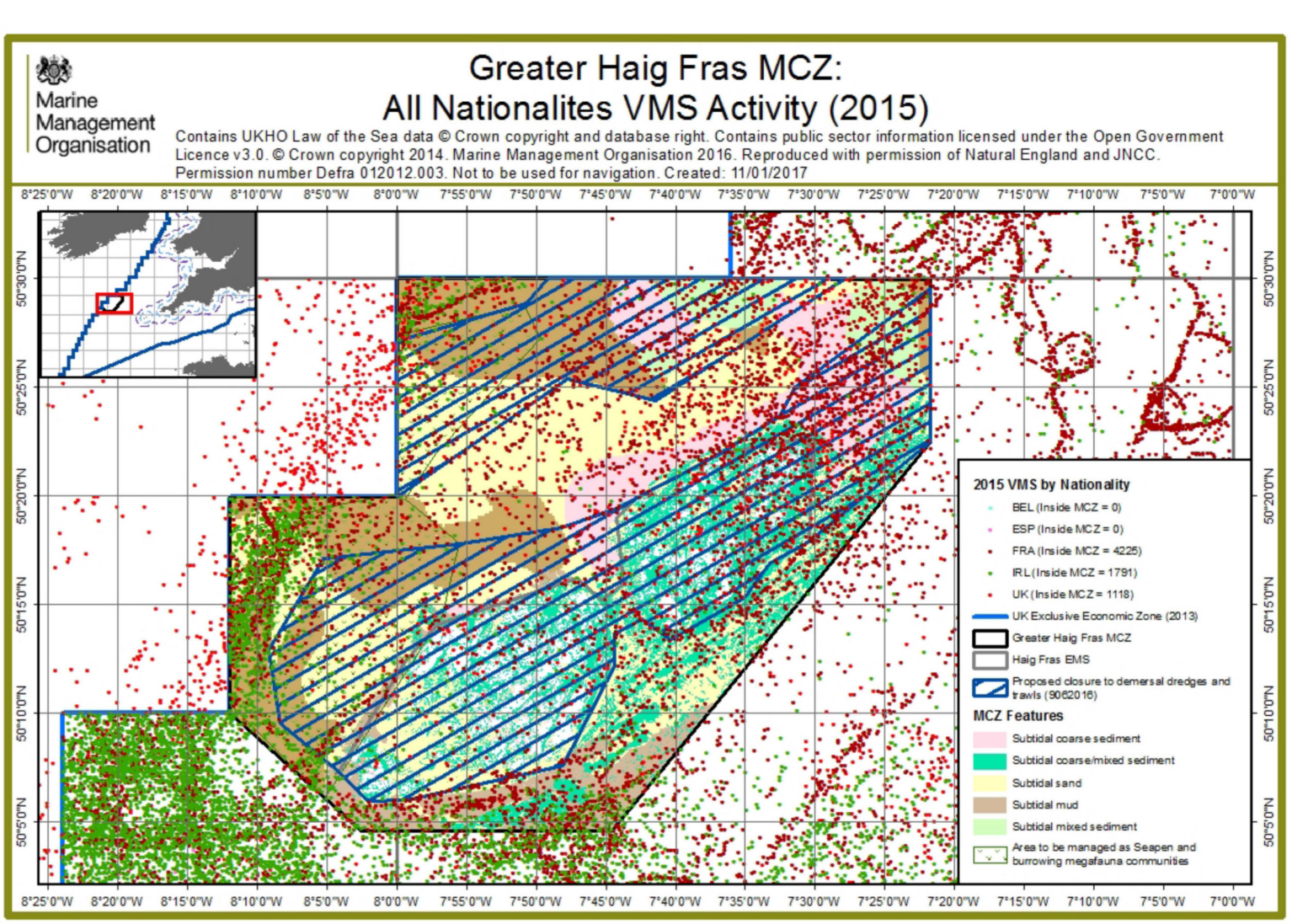


**Figure 8:** VMS reports indicating all fishing activity in Greater Haig Fras MCZ 2015 by Nationality



## 5.5 Fleet activity by gear group – Geographical distribution

In the charts depicted in Section 5.6, demersal gears have been classed as all gear types which are to be excluded from the closed area(s) as stipulated in the gear table on page 7. The charts show all demersal and non-demersal gear types for each year and where possible, the specific gear type recorded has been included.

In addition, each year follows with an additional chart depicting solely the demersal activities across the site. These have been produced to ease the visibility of those activities.

DRAFT

**Figure 9:** VMS reports indicating demersal /non demersal towed fishing activity in Greater Haig Fras MCZ 2010

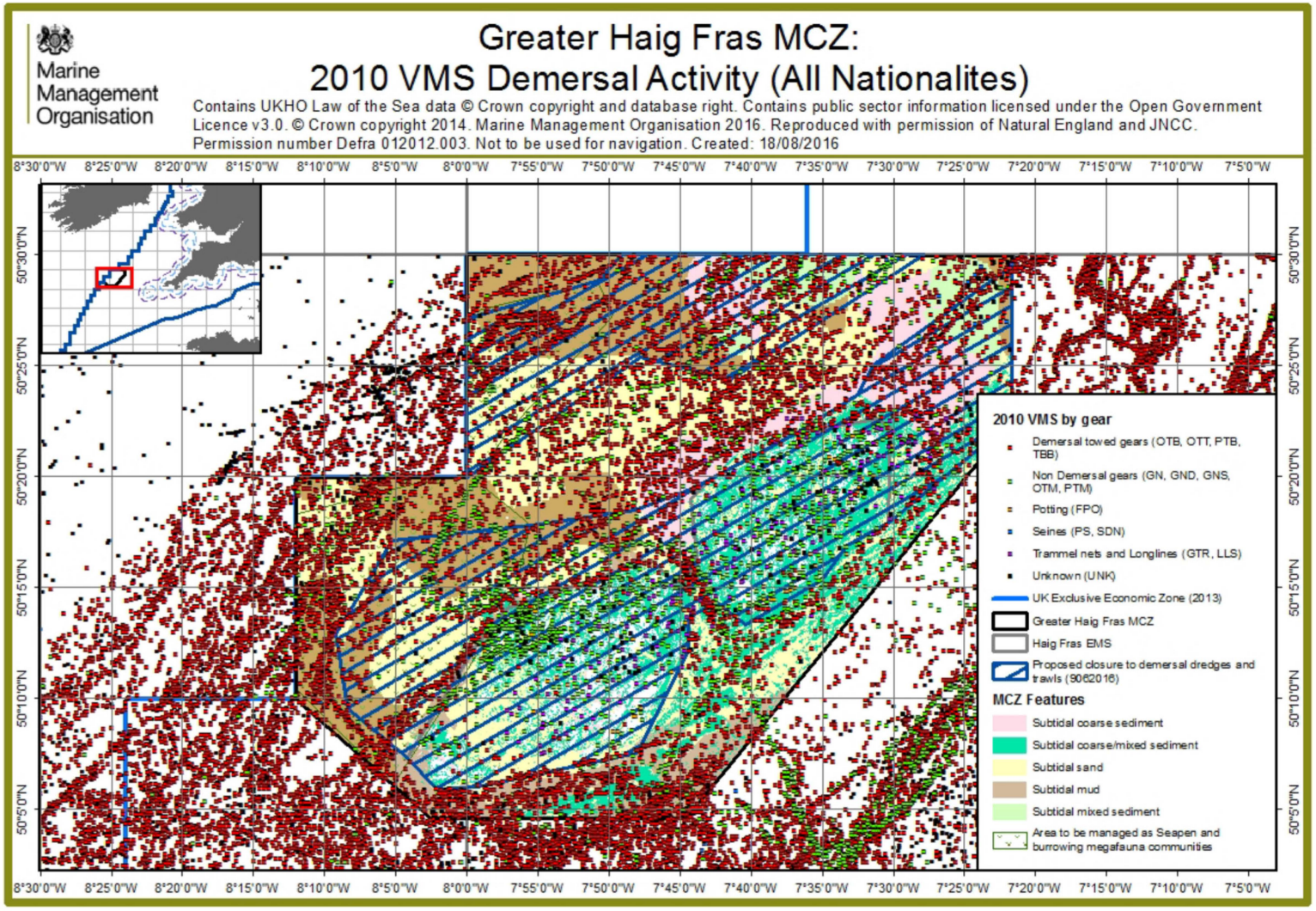


**Figure 10:** VMS reports indicating **<u>demersal towed fishing activity only</u>** in Greater Haig Fras MCZ 2010

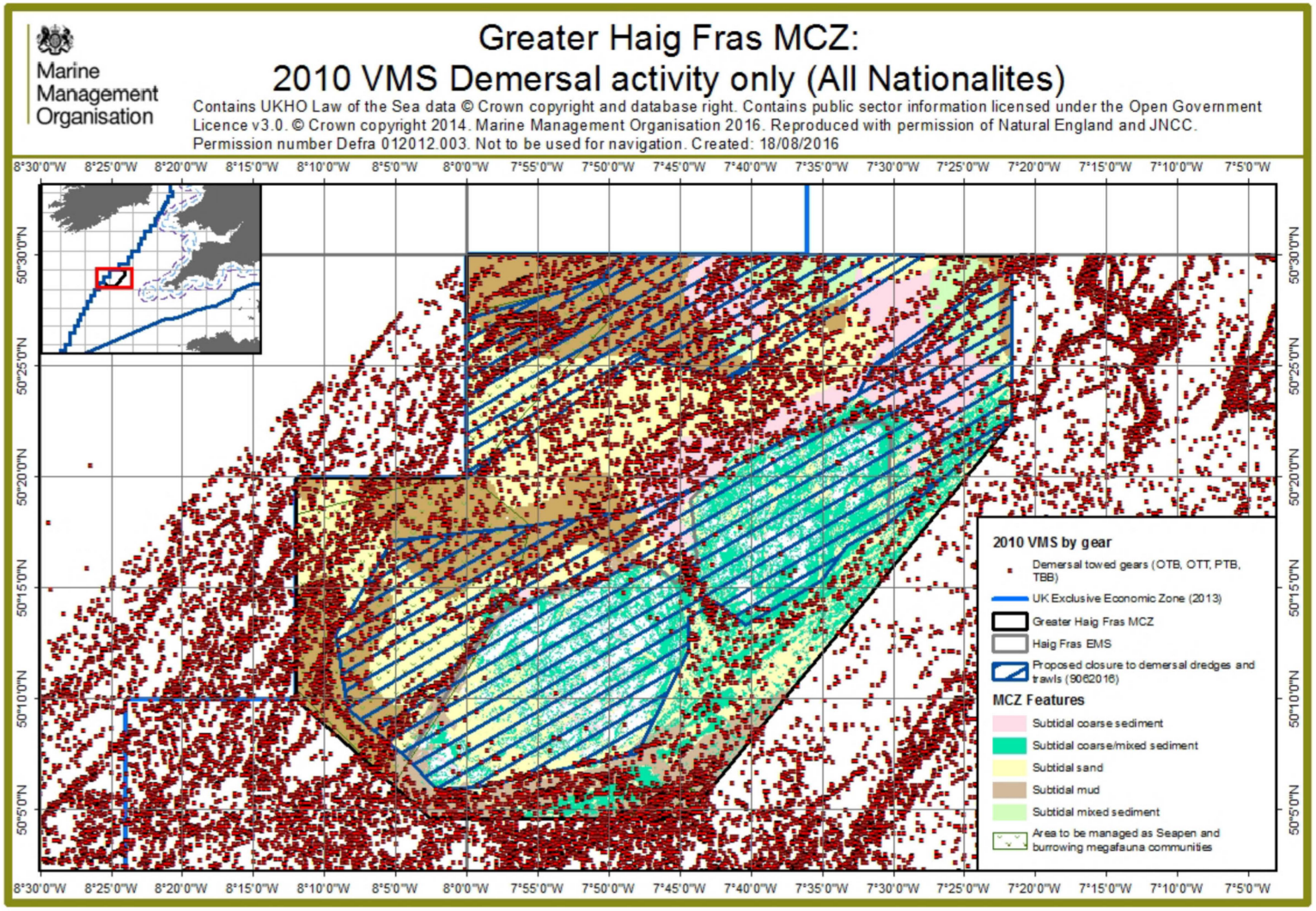


**Figure 11:** VMS reports indicating demersal /non demersal towed fishing activity in Greater Haig Fras MCZ 2011

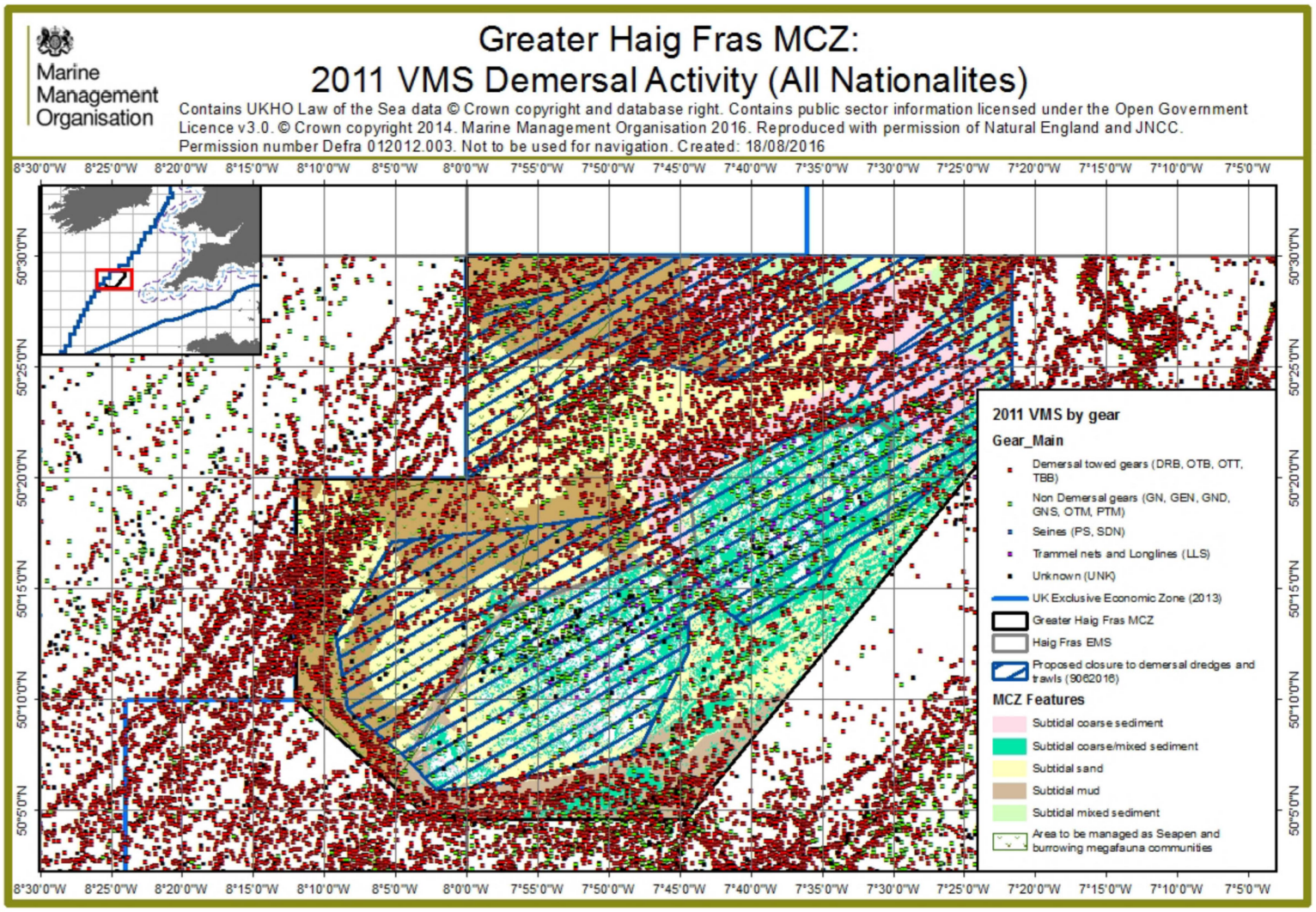


**Figure 12:** VMS reports indicating **<u>demersal towed fishing activity only</u>** in Greater Haig Fras MCZ 2011

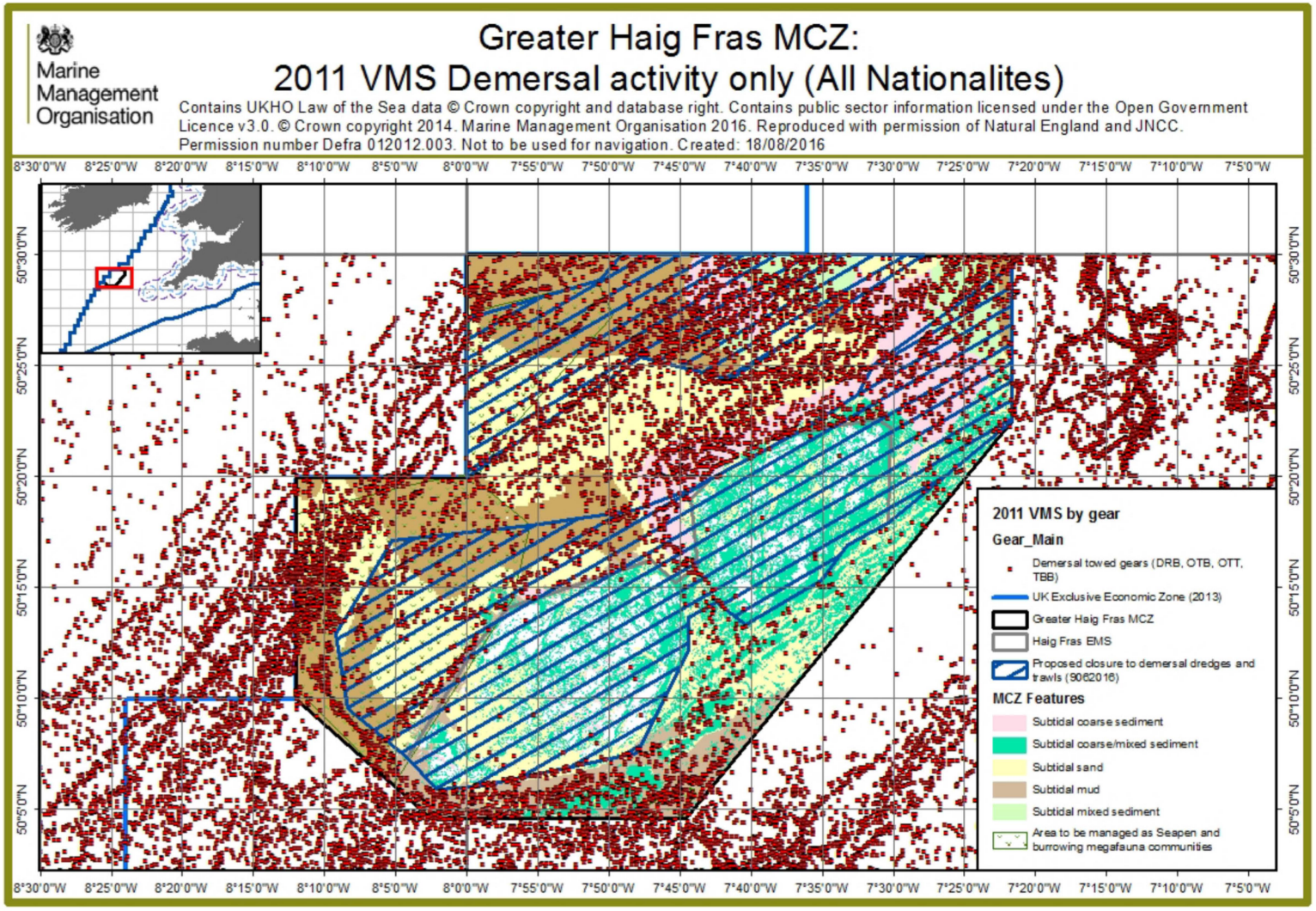


**Figure 13:** VMS reports indicating demersal/non demersal towed fishing activity in Greater Haig Fras MCZ 2012

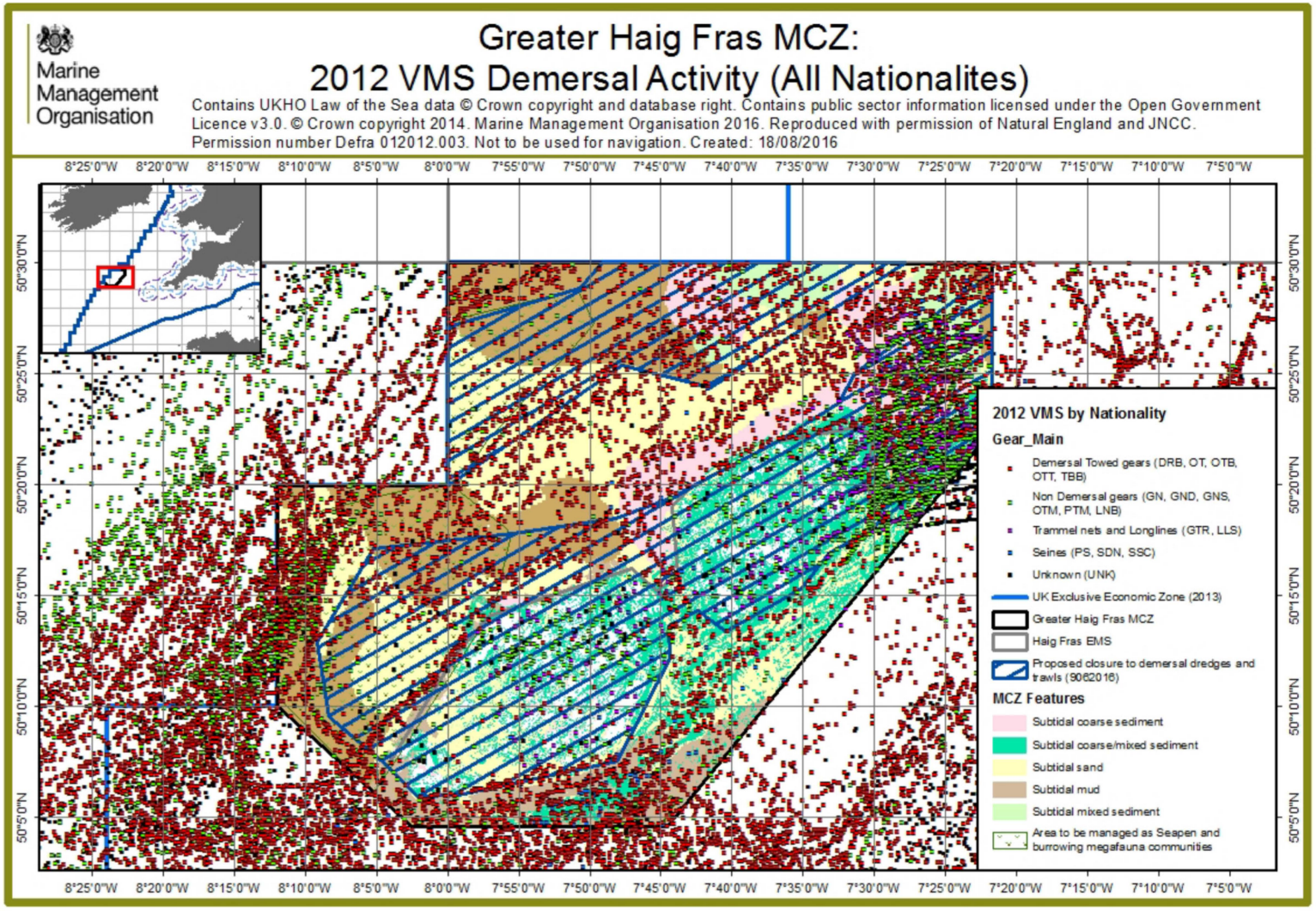


**Figure 14:** VMS reports indicating **<u>demersal towed fishing activity only</u>** in Greater Haig Fras MCZ 2012

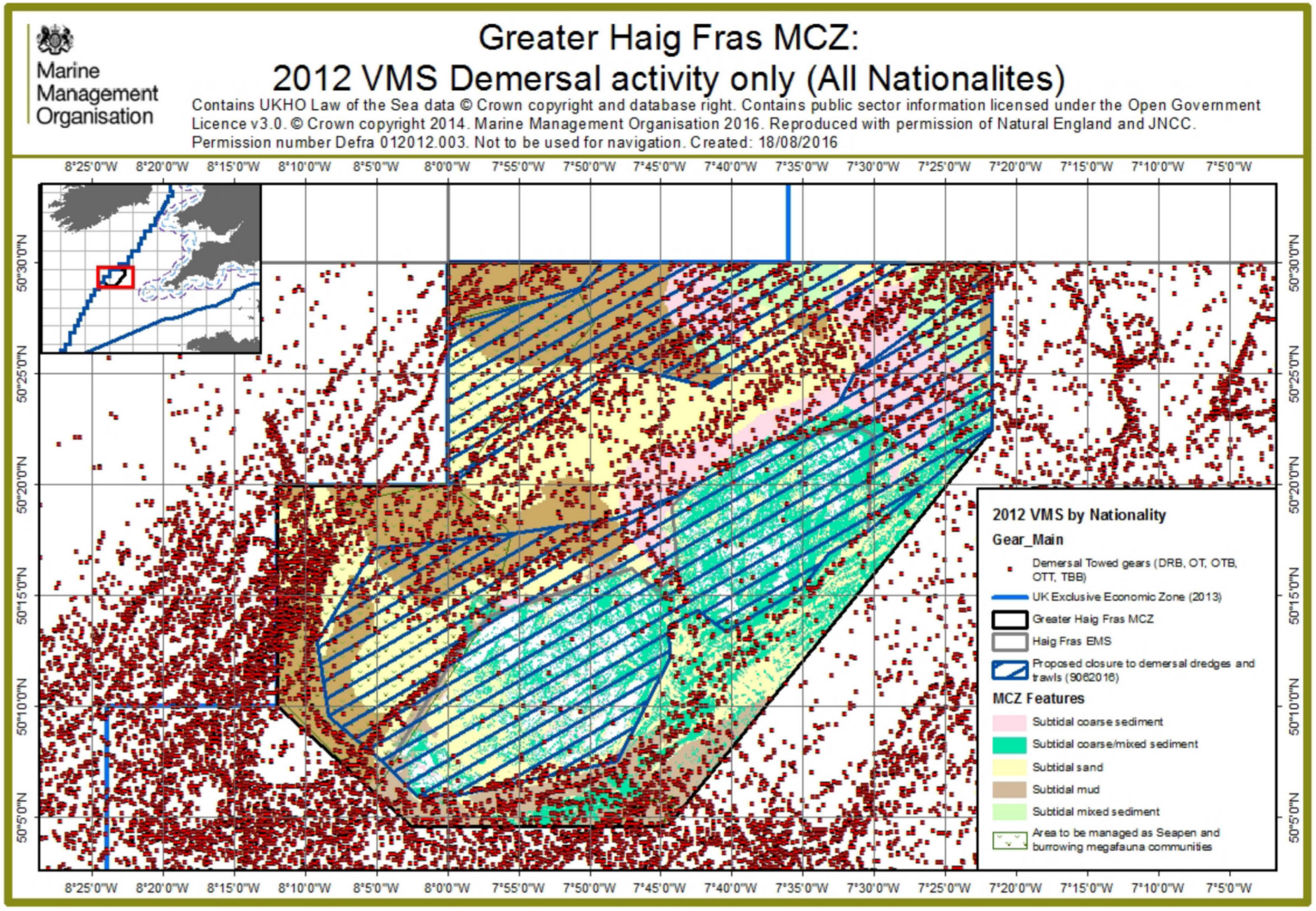


**Figure 15:** VMS reports indicating demersal /non demersal towed fishing activity in Greater Haig Fras MCZ 2013

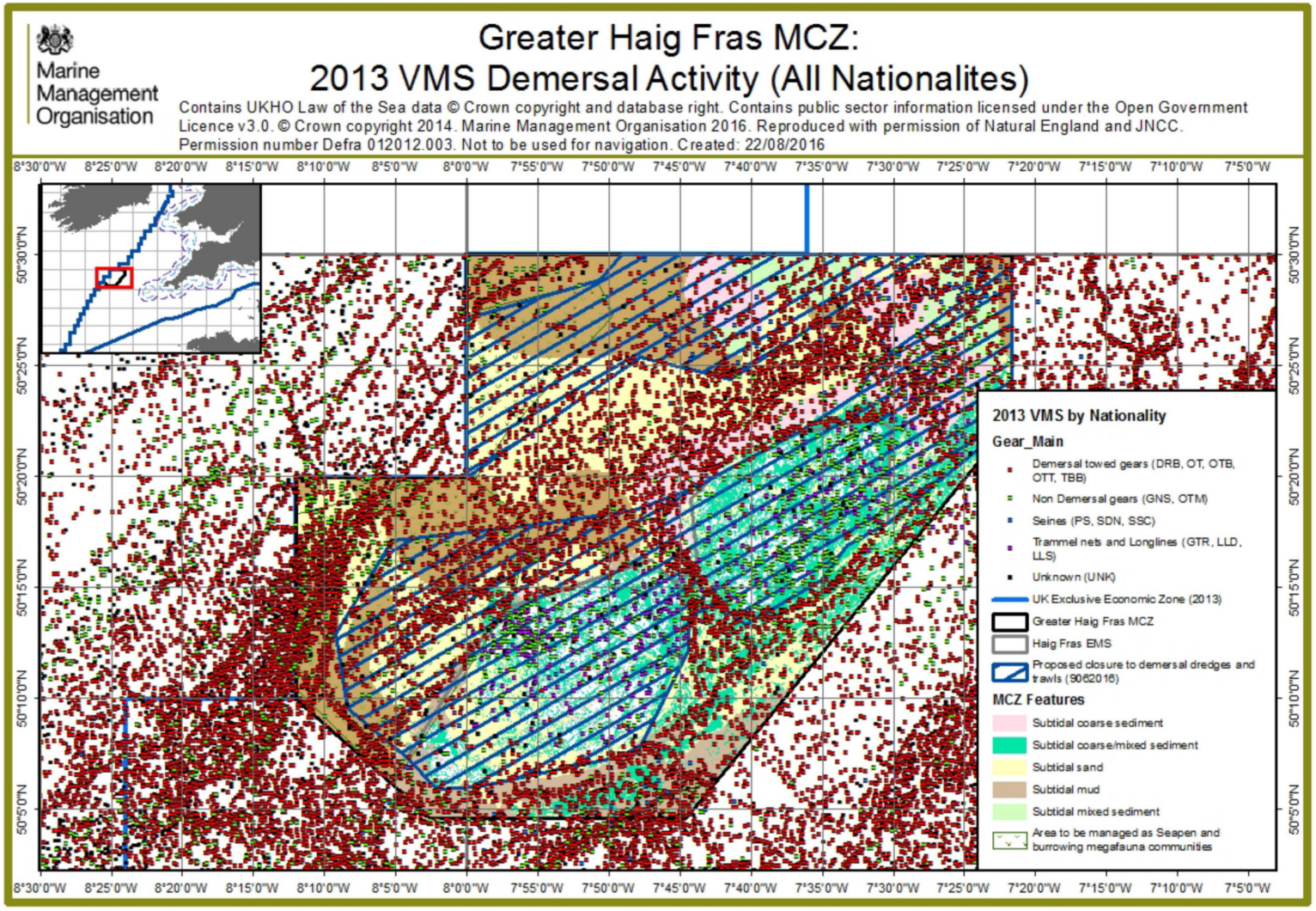


**Figure 16:** VMS reports indicating **<u>demersal towed fishing activity only</u>** in Greater Haig Fras MCZ 2013

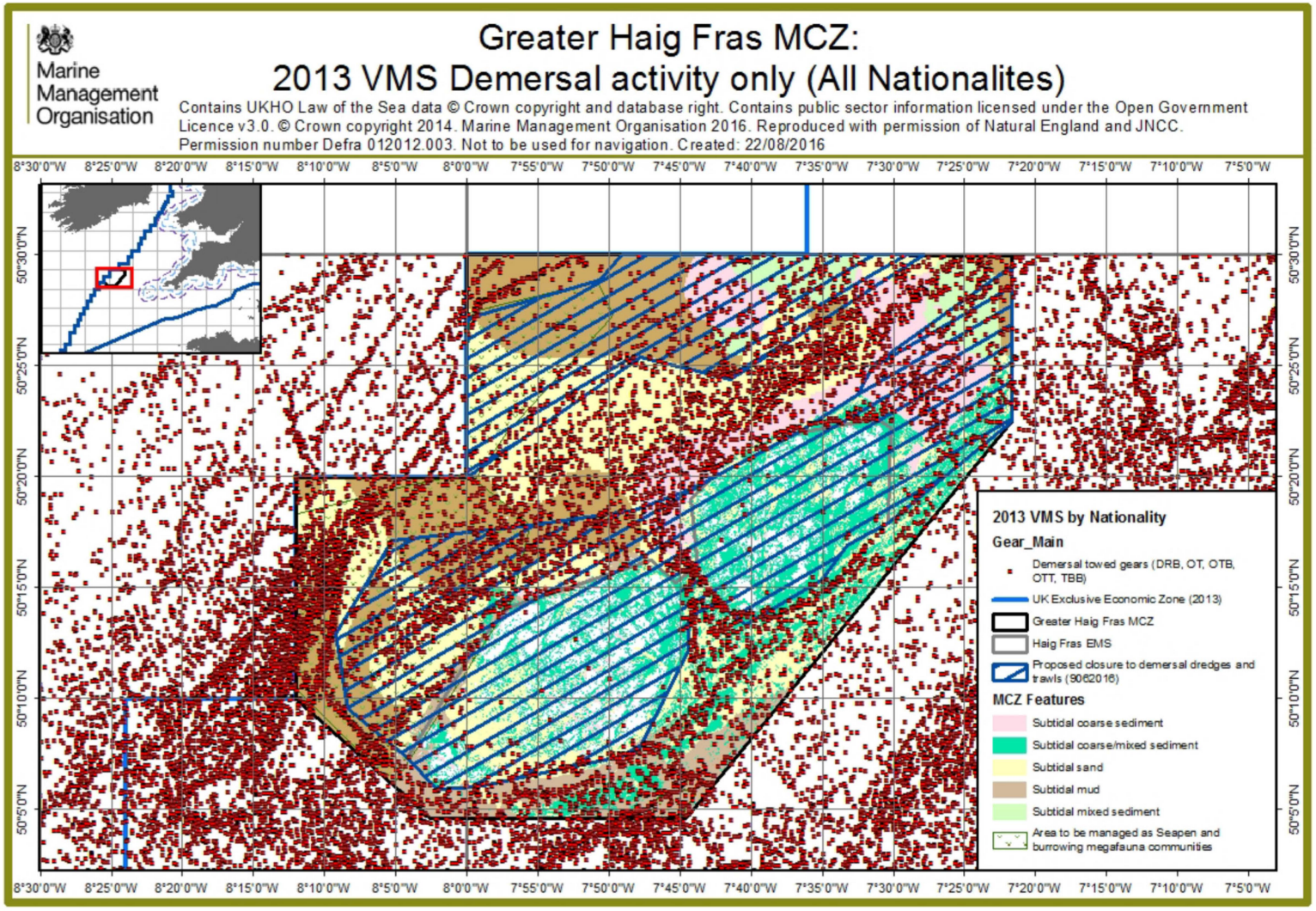


**Figure 17:** VMS reports indicating demersal /non demersal towed fishing activity in Greater Haig Fras MCZ 2014

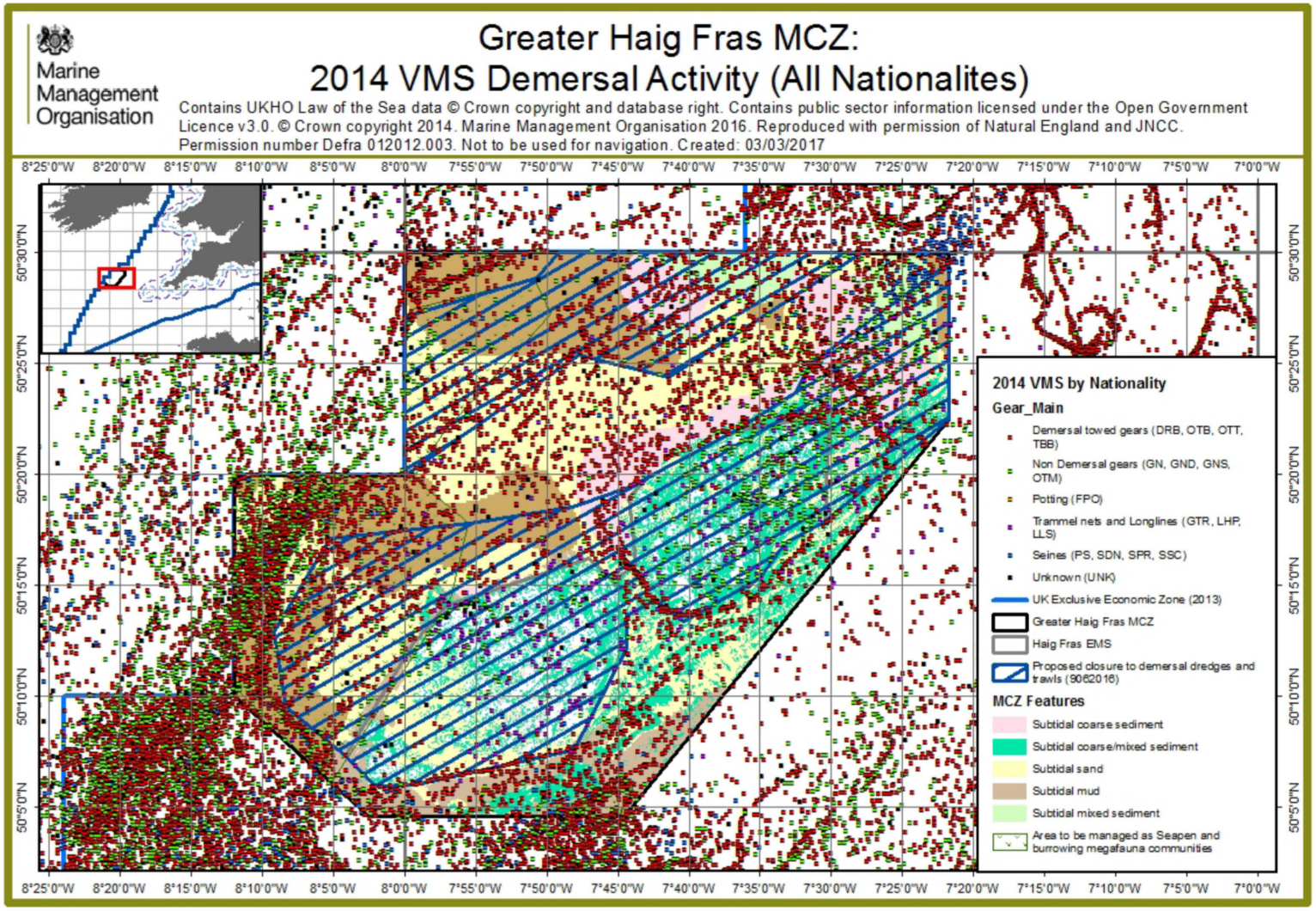


**Figure 18:** VMS reports indicating **<u>demersal towed fishing activity only</u>** in Greater Haig Fras MCZ 2014

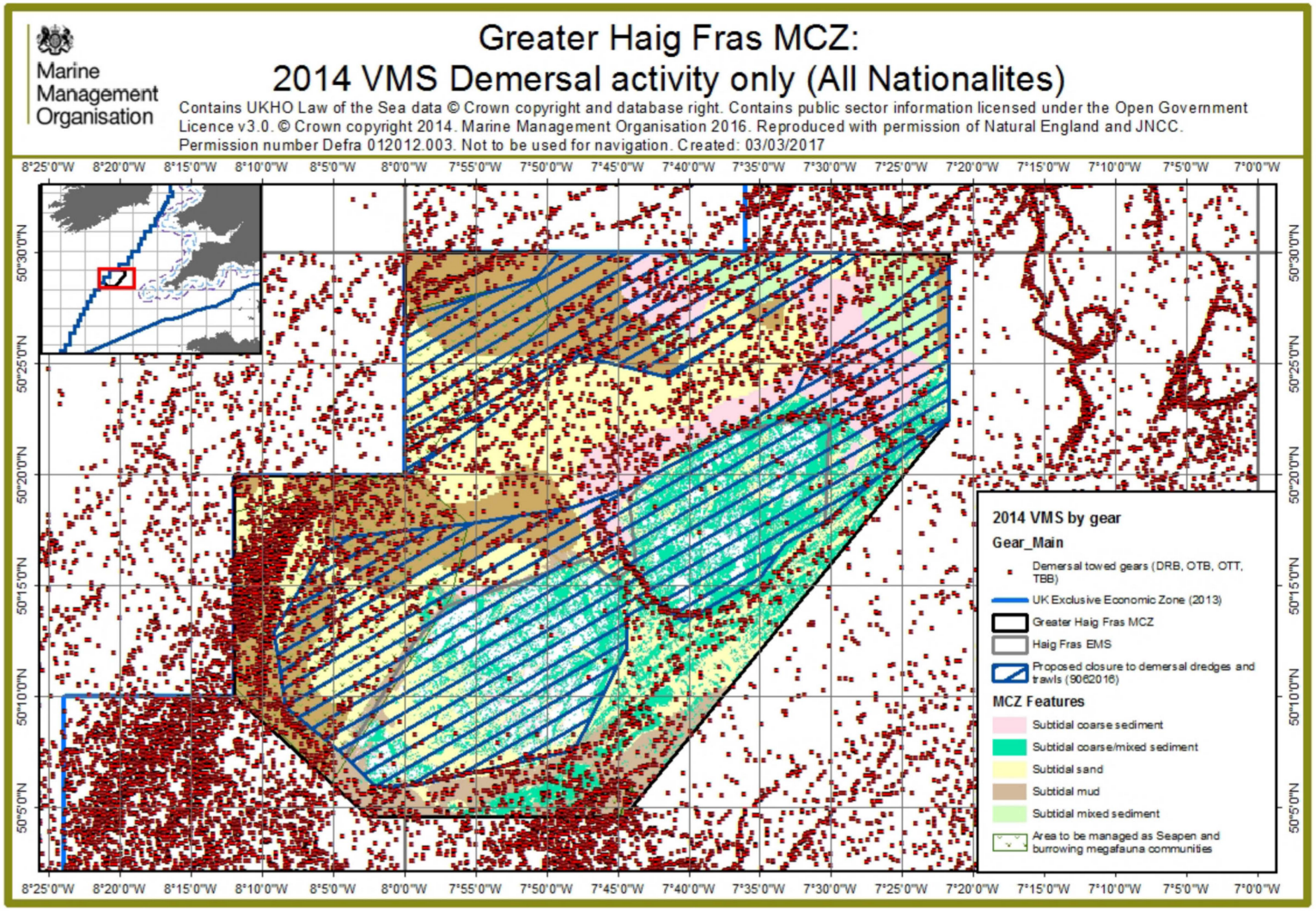


**Figure 19:** VMS reports indicating demersal /non demersal towed fishing activity in Greater Haig Fras MCZ 2015

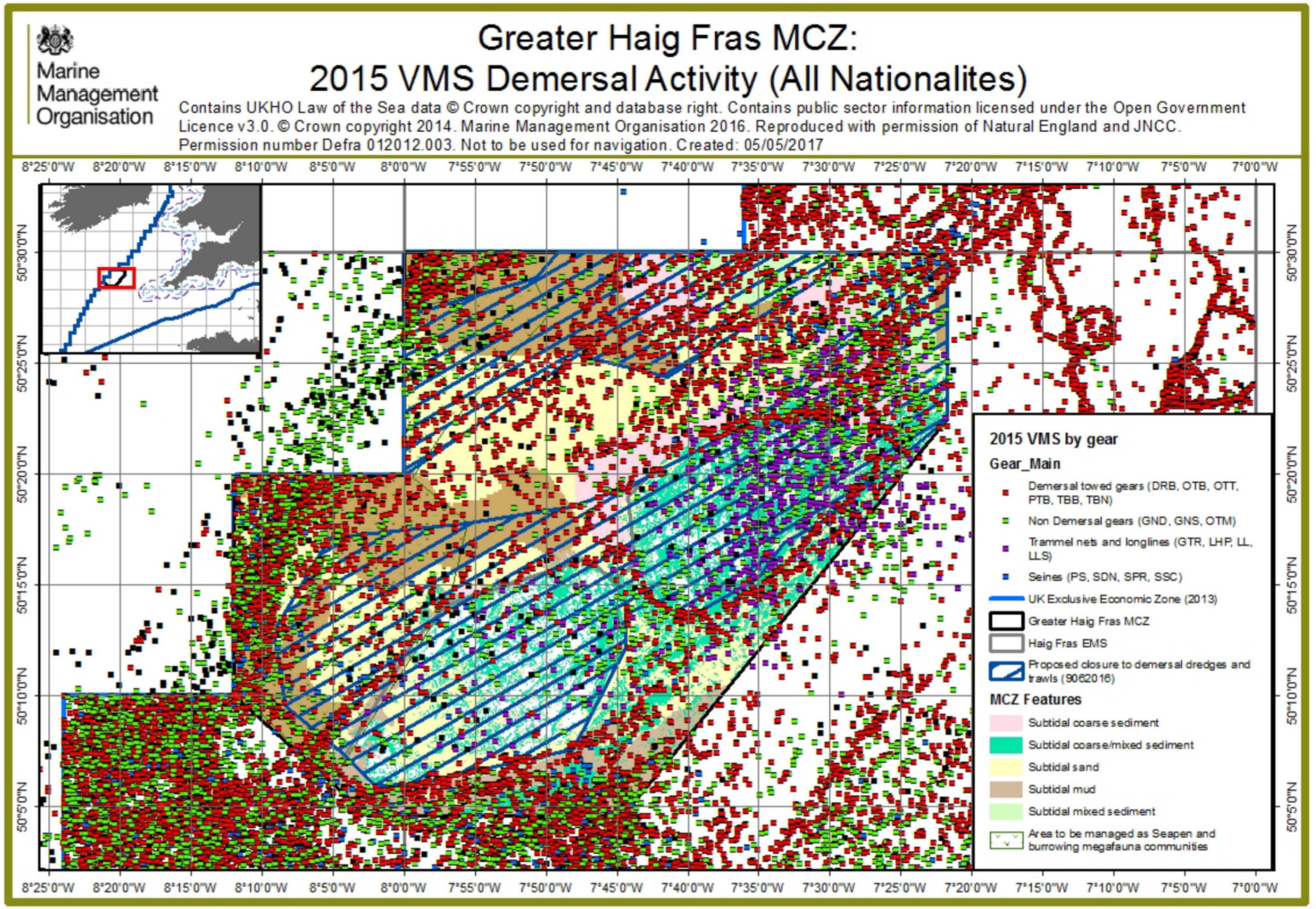
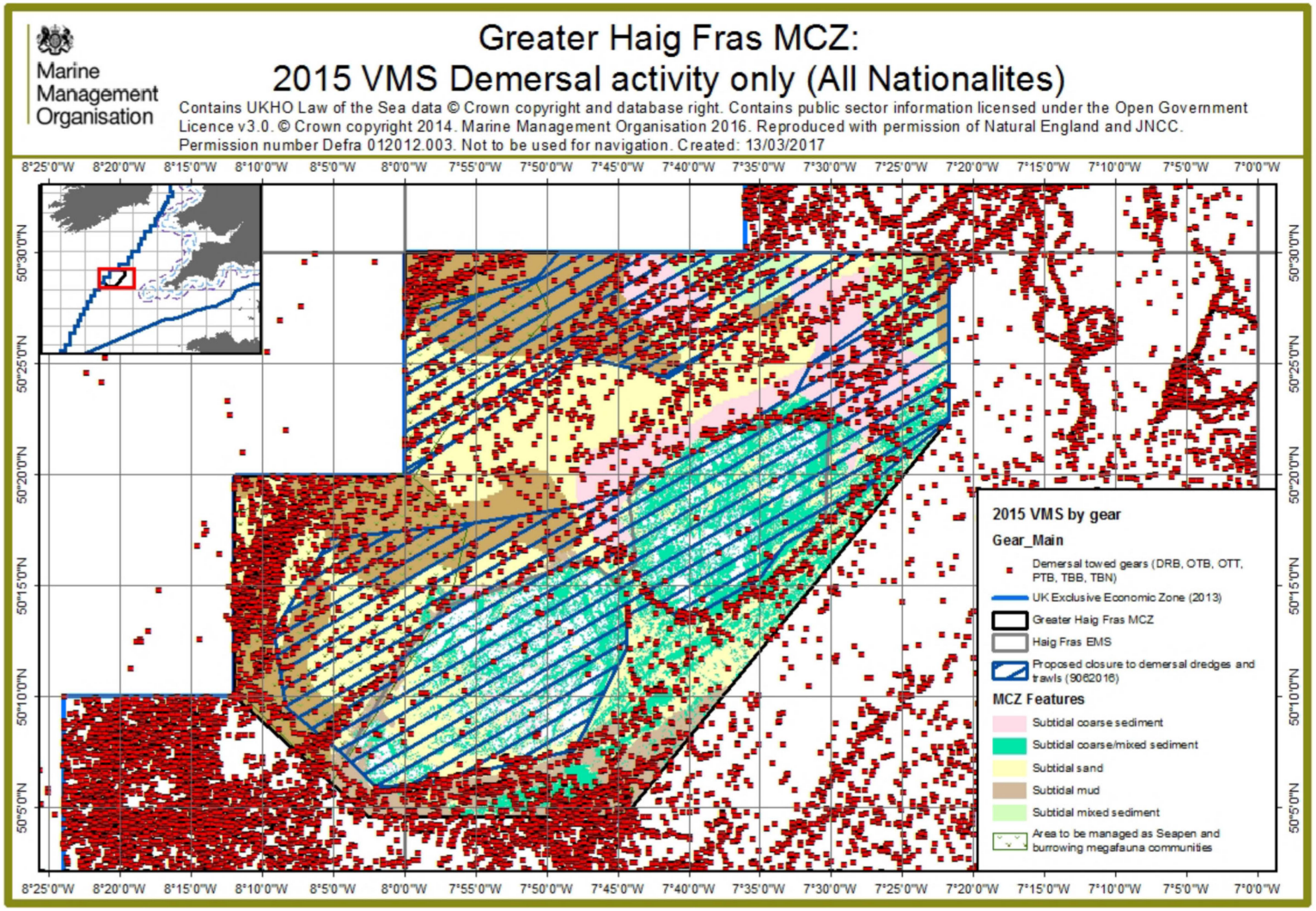


**Figure 20:** VMS reports indicating **<u>demersal towed fishing activity only</u>** in Greater Haig Fras MCZ 2015



## 5.6 By-catch

Both mid-water (pelagic) and bottom (demersal) trawling using otter trawls are the most common activities by taking place in the site based on landings. Beam and bottom otter board trawl land a number of other species as by-catch (e.g. cod, lemon sole). Where these species are landed these are included in the total gross landing value statistics. Additional species may also be caught as bycatch but are not landed and there are no current systematic statistics available for these catch components.

France and Ireland have focused on otter trawling (OTB and OTT) over the past years analysed (see charts 6.2 and 6.3). In recent years Ireland's otter trawling presence has increased.

The fishery focuses demersal species.

- UK Demersal top species landed in terms of weight are Cod, Megrim, Anglerfish (Monkfish).
- Other member states generally land Hake, Cod, Megrim, Norway lobster (Nephrops) and Haddock.

With the introduction of Common Fisheries Policy reform, which includes a landing obligation(namely a ban on the discard of certain species by certain vessels/within certain circumstances), it could become possible in the future to collate information on bycatch that could contribute to the overall catch and landings statistics in certain areas. A ban on demersal fish discards was introduced at the end of 2015, following a discard ban on pelagic fish introduced at the end of 2014, with a ban on discarding all other quota species by 2016.[8]

[8] http://ec.europa.eu/fisheries/cfp/fishing_rules/discards_en

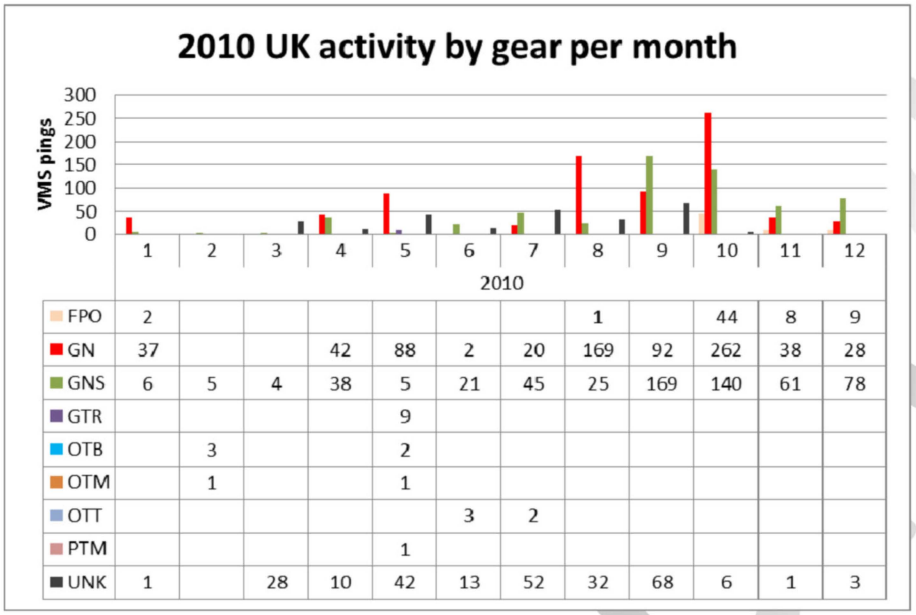
DRAFT

## 6 Seasonal trends in fisheries over years 2010 to 2015 inclusive

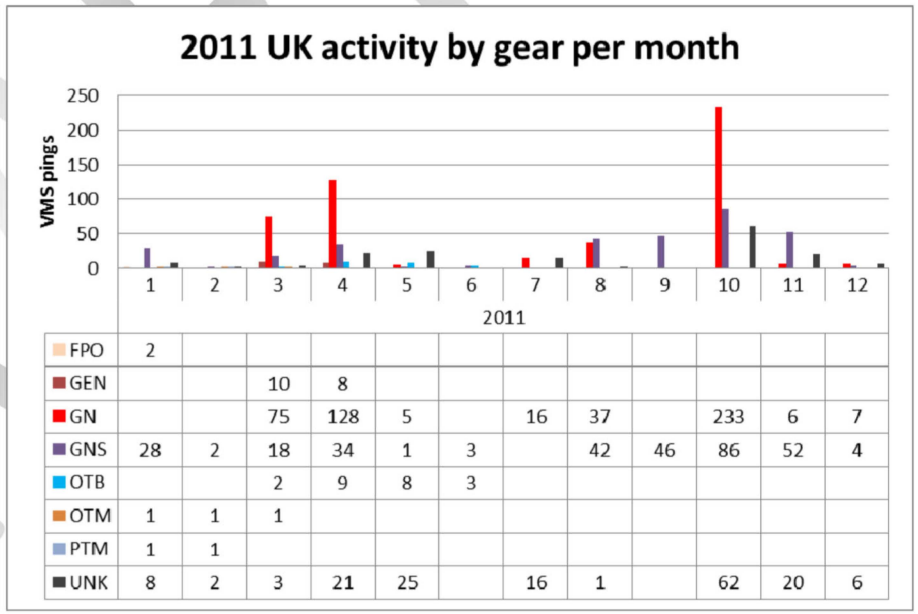
During the period analysed, 2010-2015, there was low levels of activity from a number of nationalities, one Danish vessel was recorded in 2010 (one ping) and 2014 (one ping), two Dutch vessels reported in 2011 (one ping) and 2012 (eight pings), one Faroese report in 2013, one German report in 2012 and one Lithuanian report in 2014. These are not shown in the charts below.

Please note that upon reviewing the UK VMS data it was identified that a number of vessels operating GTR (Trammel nets) reported positional information at a rate of five minutes for a period of time in March 2012. This reporting increase also occurred at periods in 2010. In addition this is also highlighted within table 2.

**Charts 6.1: UK seasonal fishing activity (all gears) in Greater Haig Fras MCZ 2010 – 2015**

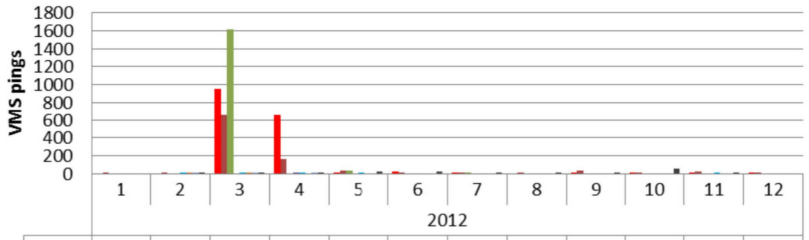



| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FPO | 2 | | | | | | | 1 | | 44 | 8 | 9 |
| GN | 37 | | | 42 | 88 | 2 | 20 | 169 | 92 | 262 | 38 | 28 |
| GNS | 6 | 5 | 4 | 38 | 5 | 21 | 45 | 25 | 169 | 140 | 61 | 78 |
| GTR | | | | | 9 | | | | | | | |
| OTB | | 3 | | | 2 | | | | | | | |
| OTM | | 1 | | | 1 | | | | | | | |
| OTT | | | | | | 3 | 2 | | | | | |
| PTM | | | | | 1 | | | | | | | |
| UNK | 1 | | 28 | 10 | 42 | 13 | 52 | 32 | 68 | 6 | 1 | 3 |



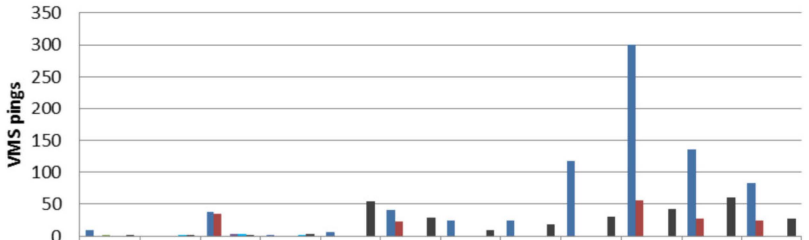

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FPO | 2 | | | | | | | | | | | |
| GEN | | | 10 | 8 | | | | | | | | |
| GN | | | 75 | 128 | 5 | | 16 | 37 | | 233 | 6 | 7 |
| GNS | 28 | 2 | 18 | 34 | 1 | 3 | | 42 | 46 | 86 | 52 | 4 |
| OTB | | | 2 | 9 | 8 | 3 | | | | | | |
| OTM | 1 | 1 | 1 | | | | | | | | | |
| PTM | 1 | 1 | | | | | | | | | | |
| UNK | 8 | 2 | 3 | 21 | 25 | | 16 | 1 | | 62 | 20 | 6 |

## 2012 UK activity by gear per month



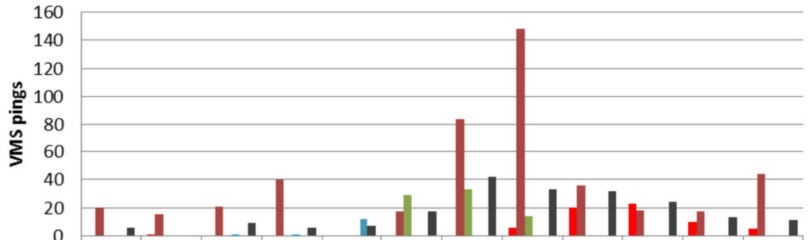

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GN | | | 951 | 656 | 7 | 22 | 4 | | 8 | 1 | 3 | 5 |
| GNS | 18 | 5 | 650 | 167 | 37 | 13 | 5 | 3 | 34 | 13 | 25 | 12 |
| GTR | | | 1617 | | 38 | | 6 | | | | | |
| OT | | | | 1 | | | | | | | | |
| OTB | | 6 | 9 | 1 | 3 | | | | | | 3 | |
| OTM | | 2 | 2 | | | | | | | | | |
| PTM | | 2 | 2 | 1 | | | | | | | | |
| UNK | | 1 | 1 | 12 | 23 | 24 | 15 | 2 | 12 | 53 | 15 | |

## 2013 UK activity by gear per month



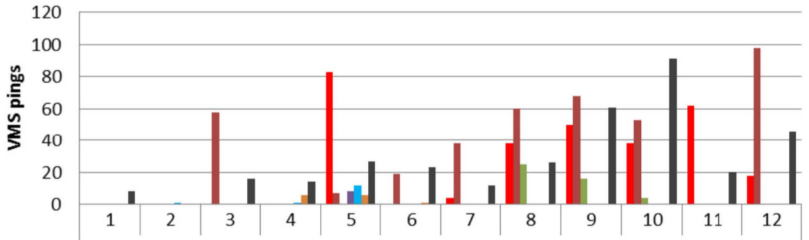

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GNS | 9 | | 38 | 2 | 6 | 41 | 24 | 25 | 117 | 300 | 135 | 83 |
| GTR | | | 35 | | | 23 | | | | 56 | 28 | 24 |
| LLS | 2 | | | | | | | | | | | |
| OT | | | 4 | | | | | | | | | |
| OTB | | 1 | 3 | 1 | | | | | | | | |
| UNK | 2 | 2 | 1 | 4 | 55 | 29 | 10 | 19 | 30 | 43 | 60 | 28 |

## 2014 UK activity by gear per month



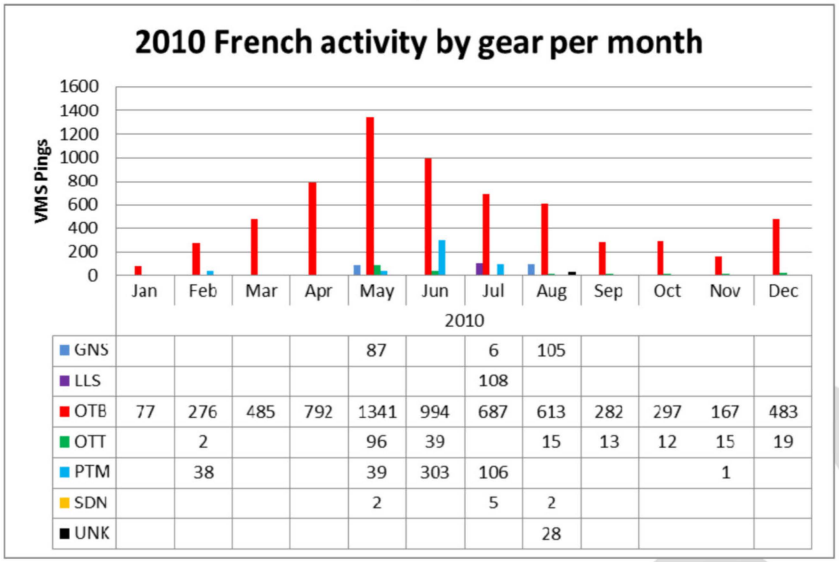

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GN | | 1 | | | | | | 6 | 20 | 23 | 10 | 5 |
| GNS | 20 | 15 | 21 | 40 | | 17 | 84 | 148 | 36 | 18 | 17 | 44 |
| GTR | | | | | | 29 | 33 | 14 | | | | |
| OTB | | | 1 | 1 | | | | | | | | |
| OTT | | | | | 12 | | | | | | | |
| UNK | 6 | | 9 | 6 | 7 | 17 | 42 | 33 | 32 | 24 | 13 | 11 |

## 2015 UK activity by gear per month

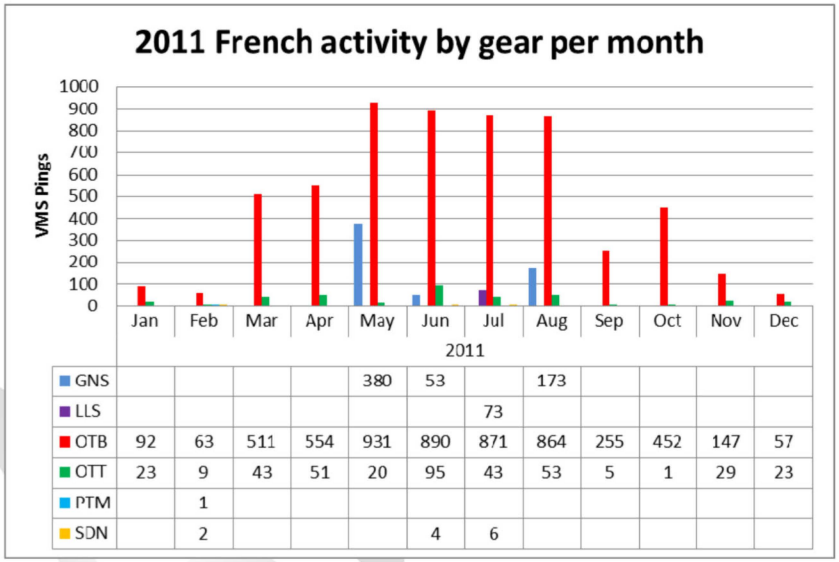



| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GN | | | | | 83 | | 4 | 38 | 50 | 38 | 62 | 18 |
| GNS | | | 58 | | 7 | 19 | 38 | 60 | 68 | 53 | | 98 |
| GTR | | | | | | | | 25 | 16 | 4 | | |
| LL | | | | | 8 | | | | | | | |
| OTB | | 1 | | 1 | 12 | | | | | | | |
| OTT | | | | 6 | 6 | 1 | | | | | | |
| UNK | 8 | | 16 | 14 | 27 | 23 | 12 | 26 | 61 | 91 | 20 | 46 |

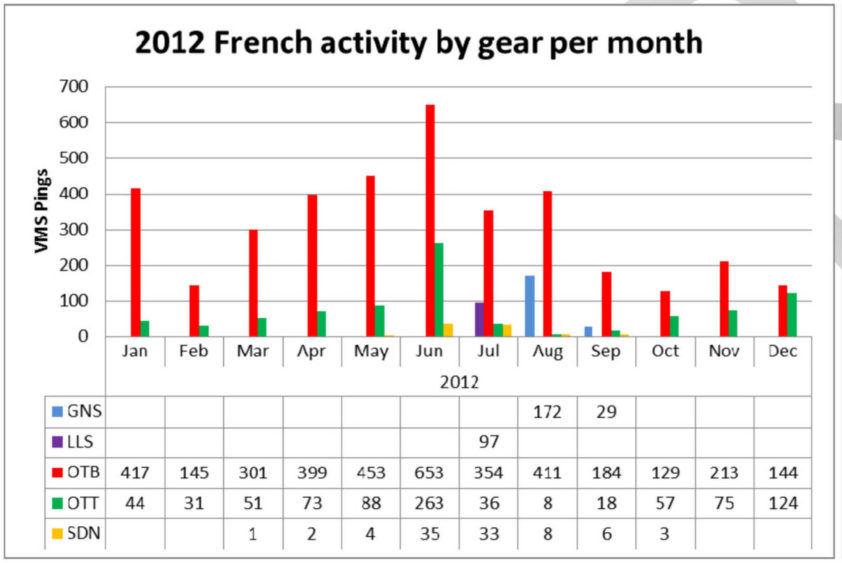
**Charts 6.2: French seasonal fishing activity (all gears) in Greater Haig Fras MCZ 2010 – 2015**



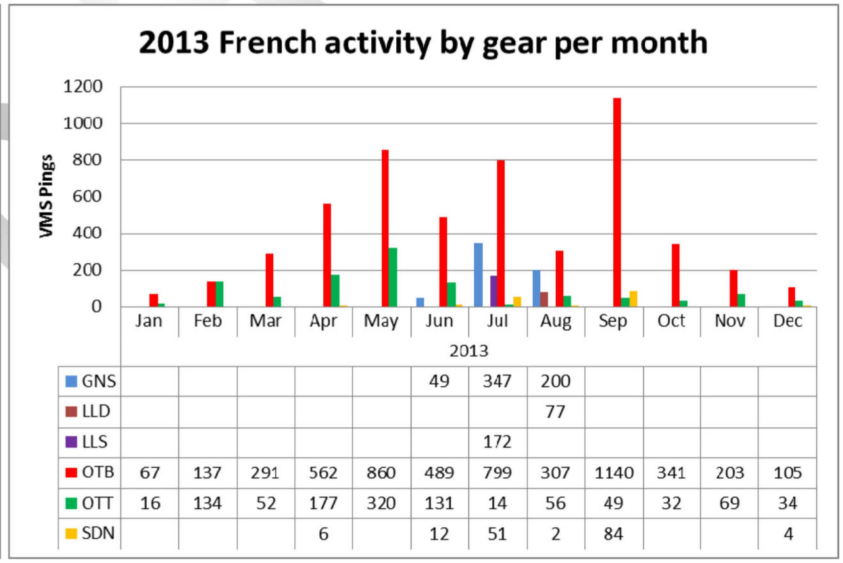

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GNS | | | | | 87 | | 6 | 105 | | | | |
| LLS | | | | | | | 108 | | | | | |
| OTB | 77 | 276 | 485 | 792 | 1341 | 994 | 687 | 613 | 282 | 297 | 167 | 483 |
| OTT | | 2 | | | 96 | 39 | | 15 | 13 | 12 | 15 | 19 |
| PTM | | 38 | | | 39 | 303 | 106 | | | | 1 | |
| SDN | | | | | 2 | | 5 | 2 | | | | |
| UNK | | | | | | | | 28 | | | | |



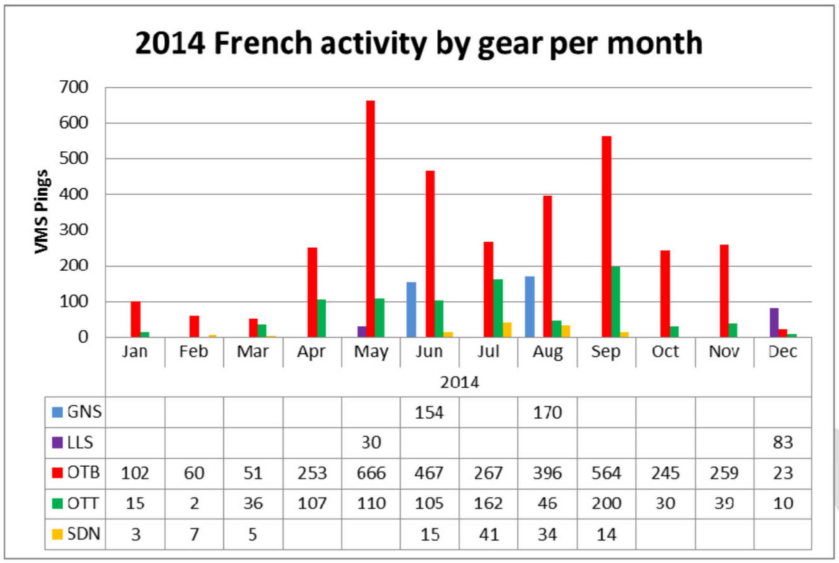

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GNS | | | | | 380 | 53 | | 173 | | | | |
| LLS | | | | | | | 73 | | | | | |
| OTB | 92 | 63 | 511 | 554 | 931 | 890 | 871 | 864 | 255 | 452 | 147 | 57 |
| OTT | 23 | 9 | 43 | 51 | 20 | 95 | 43 | 53 | 5 | 1 | 29 | 23 |
| PTM | | 1 | | | | | | | | | | |
| SDN | | 2 | | | | 4 | 6 | | | | | |



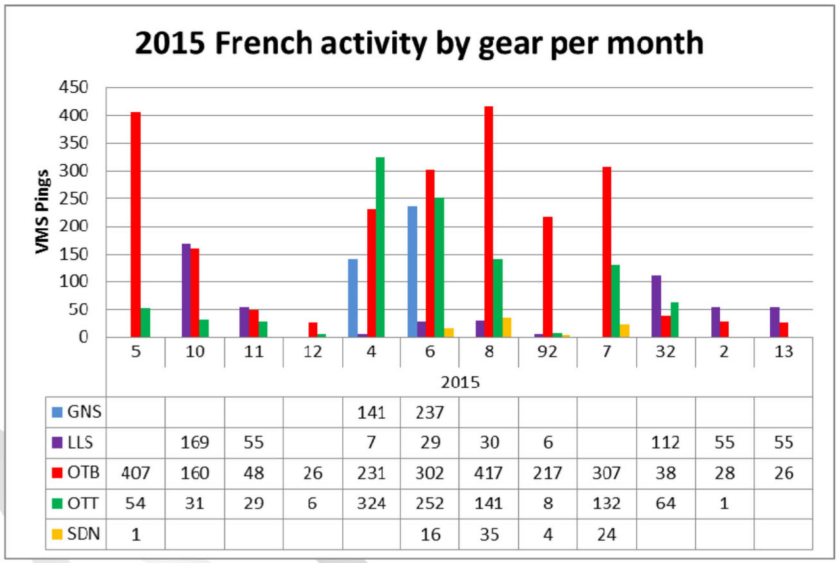

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GNS | | | | | | | | 172 | 29 | | | |
| LLS | | | | | | | 97 | | | | | |
| OTB | 417 | 145 | 301 | 399 | 453 | 653 | 354 | 411 | 184 | 129 | 213 | 144 |
| OTT | 44 | 31 | 51 | 73 | 88 | 263 | 36 | 8 | 18 | 57 | 75 | 124 |
| SDN | | | 1 | 2 | 4 | 35 | 33 | 8 | 6 | 3 | | |




| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GNS | | | | | | 49 | 347 | 200 | | | | |
| LLD | | | | | | | | 77 | | | | |
| LLS | | | | | | | 172 | | | | | |
| OTB | 67 | 137 | 291 | 562 | 860 | 489 | 799 | 307 | 1140 | 341 | 203 | 105 |
| OTT | 16 | 134 | 52 | 177 | 320 | 131 | 14 | 56 | 49 | 32 | 69 | 34 |
| SDN | | | | 6 | | 12 | 51 | 2 | 84 | | | 4 |



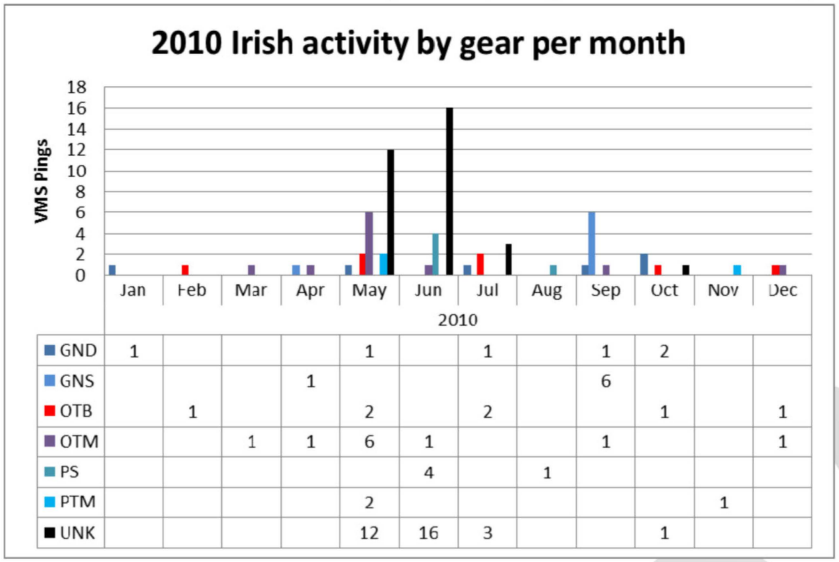

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GNS | | | | | | 154 | | 170 | | | | |
| LLS | | | | | 30 | | | | | | | 83 |
| OTB | 102 | 60 | 51 | 253 | 666 | 467 | 267 | 396 | 564 | 245 | 259 | 23 |
| OTT | 15 | 2 | 36 | 107 | 110 | 105 | 162 | 46 | 200 | 30 | 39 | 10 |
| SDN | 3 | 7 | 5 | | | 15 | 41 | 34 | 14 | | | |



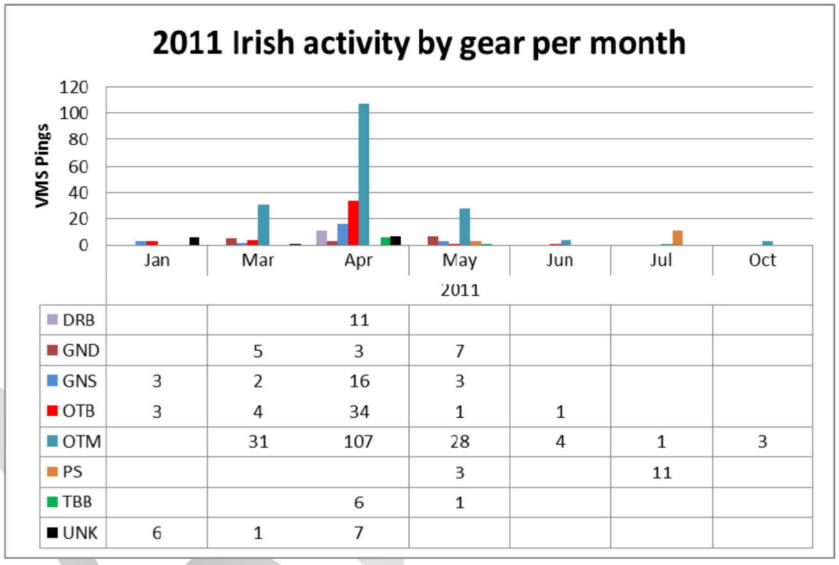

| | 5 | 10 | 11 | 12 | 4 | 6 | 8 | 92 | 7 | 32 | 2 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GNS | | | | | 141 | 237 | | | | | | |
| LLS | | 169 | 55 | | 7 | 29 | 30 | 6 | | 112 | 55 | 55 |
| OTB | 407 | 160 | 48 | 26 | 231 | 302 | 417 | 217 | 307 | 38 | 28 | 26 |
| OTT | 54 | 31 | 29 | 6 | 324 | 252 | 141 | 8 | 132 | 64 | 1 | |
| SDN | 1 | | | | | 16 | 35 | 4 | 24 | | | |

DRAFT

**Charts 6.3: Irish seasonal fishing activity (all gears) in Greater Haig Fras MCZ 2010 – 2015**



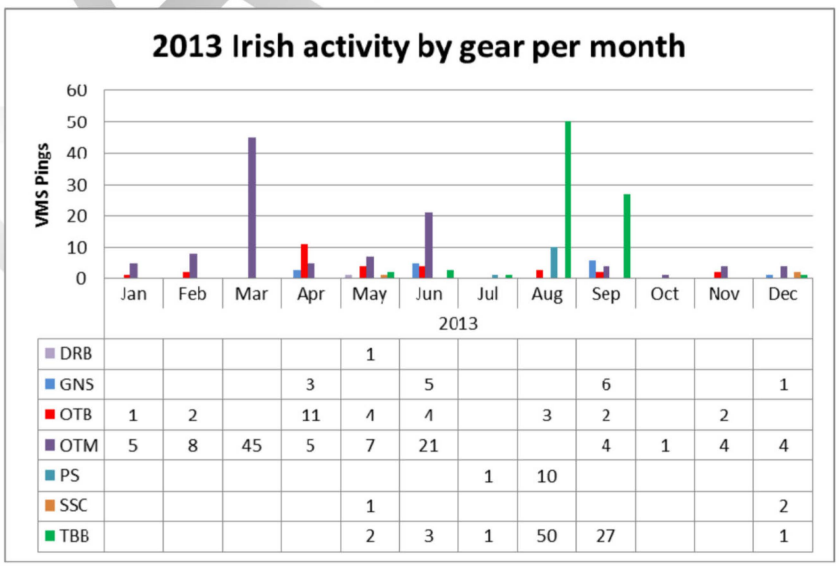

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GND | 1 | | | | 1 | | 1 | | 1 | 2 | | |
| GNS | | | | 1 | | | | | 6 | | | |
| OTB | | 1 | | | 2 | | 2 | | | 1 | | 1 |
| OTM | | | 1 | 1 | 6 | 1 | | | 1 | | | 1 |
| PS | | | | | | 4 | | 1 | | | | |
| PTM | | | | | 2 | | | | | | 1 | |
| UNK | | | | | 12 | 16 | 3 | | | 1 | | |




| | Jan | Mar | Apr | May | Jun | Jul | Oct |
|---|---|---|---|---|---|---|---|
| DRB | | | 11 | | | | |
| GND | | 5 | 3 | 7 | | | |
| GNS | 3 | 2 | 16 | 3 | | | |
| OTB | 3 | 4 | 34 | 1 | 1 | | |
| OTM | | 31 | 107 | 28 | 4 | 1 | 3 |
| PS | | | | 3 | | 11 | |
| TBB | | | 6 | 1 | | | |
| UNK | 6 | 1 | 7 | | | | |

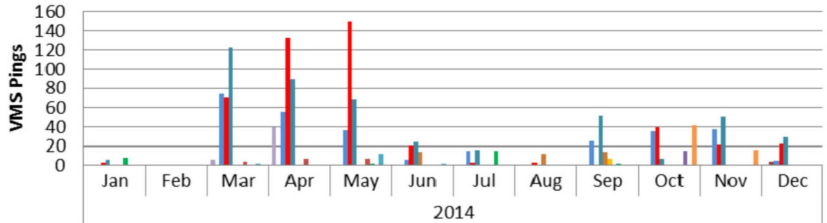



| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRB | | | | 3 | | | 1 | 3 | | | | |
| GND | 9 | 36 | 8 | 4 | | 1 | | 5 | | | | |
| GNS | | 1 | 5 | 2 | | | | 5 | 30 | 6 | | |
| OTB | 6 | 8 | 44 | 10 | 1 | 34 | 2 | | | | 1 | 1 |
| OTM | 3 | 13 | 54 | 25 | 6 | 39 | 2 | | | | 2 | |
| PS | | | 4 | 7 | | | | | | | | |
| TBB | | | | 1 | 1 | | | | | | | |
| UNK | 5 | 3 | 4 | | | | | | | | | |



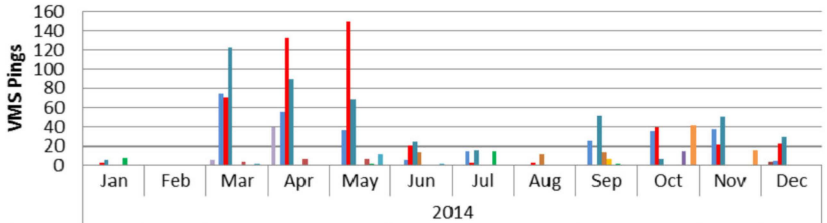

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRB | | | | | 1 | | | | | | | |
| GNS | | | | 3 | | 5 | | | 6 | | | 1 |
| OTB | 1 | 2 | | 11 | 4 | 4 | | 3 | 2 | | 2 | |
| OTM | 5 | 8 | 45 | 5 | 7 | 21 | | | 4 | 1 | 4 | 4 |
| PS | | | | | | | 1 | 10 | | | | |
| SSC | | | | | 1 | | | | | | | 2 |
| TBB | | | | | 2 | 3 | 1 | 50 | 27 | | | 1 |

## 2014 Irish activity by gear per month




| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRB | | | 6 | 39 | | | | | | | | |
| GND | | | | | | | | | | | | 4 |
| GNS | | | 74 | 56 | 36 | 6 | 15 | 1 | 25 | 35 | 37 | 5 |
| OTB | 3 | | 71 | 132 | 149 | 20 | 3 | 3 | 1 | 39 | 21 | 22 |
| OTM | 6 | 1 | 123 | 89 | 69 | 24 | 16 | | 52 | 7 | 51 | 29 |
| PS | | | | | | 14 | | 12 | 14 | | | |
| SDN | | | | | | | | | 7 | | | |
| SSC | | | 4 | 7 | 7 | | | | | | | |
| TBB | 8 | | | | 2 | | 15 | 1 | 2 | | | |
| FPO | | | | | | | | | | 15 | | |
| SPR | | | 2 | 1 | 12 | 2 | | | | | | |
| GTR | | | | | | | | | | 41 | 16 | |

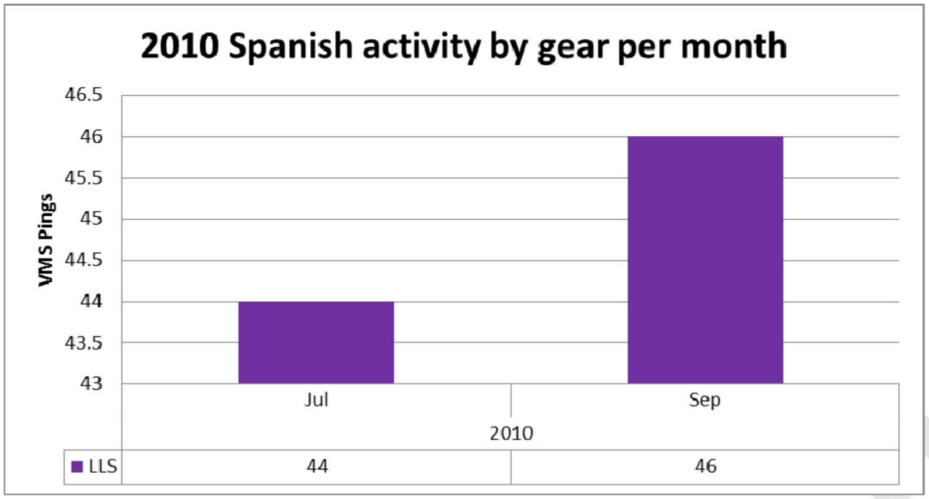
## 2015 Irish activity by gear per month

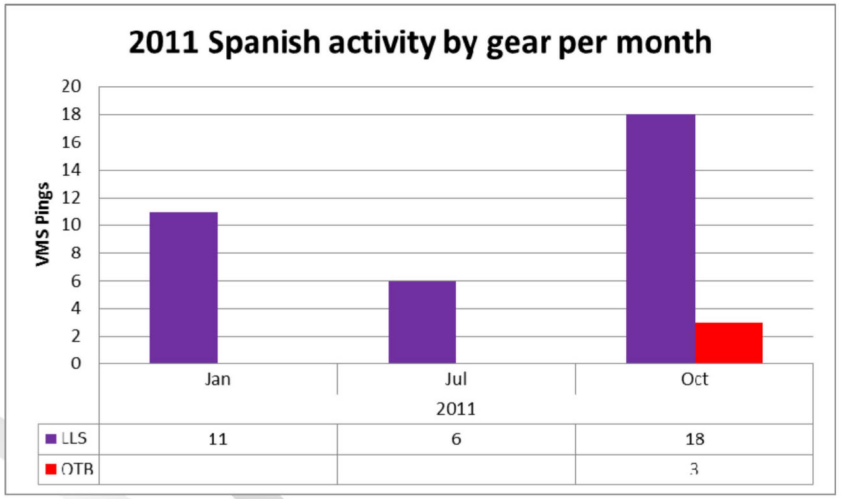


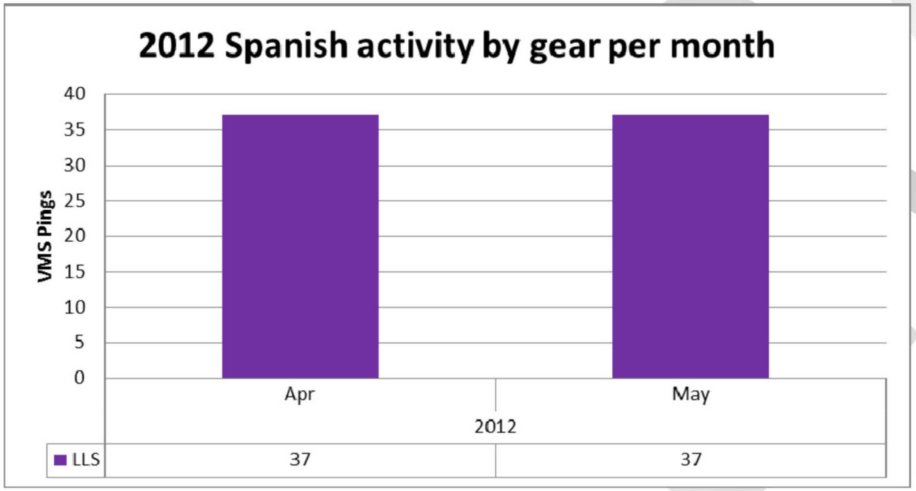

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRB | | | 6 | 39 | | | | | | | | |
| GND | | | | | | | | | | | | 4 |
| GNS | | | 74 | 56 | 36 | 6 | 15 | 1 | 25 | 35 | 37 | 5 |
| OTB | 3 | | 71 | 132 | 149 | 20 | 3 | 3 | 1 | 39 | 21 | 22 |
| OTM | 6 | 1 | 123 | 89 | 69 | 24 | 16 | | 52 | 7 | 51 | 29 |
| PS | | | | | | 14 | | 12 | 14 | | | |
| SDN | | | | | | | | | 7 | | | |
| SSC | | | 4 | 7 | 7 | | | | | | | |
| TBB | 8 | | | | 2 | | 15 | 1 | 2 | | | |
| FPO | | | | | | | | | | 15 | | |
| SPR | | | 2 | 1 | 12 | 2 | | | | | | |
| GTR | | | | | | | | | | 41 | 16 | |

DRAFT

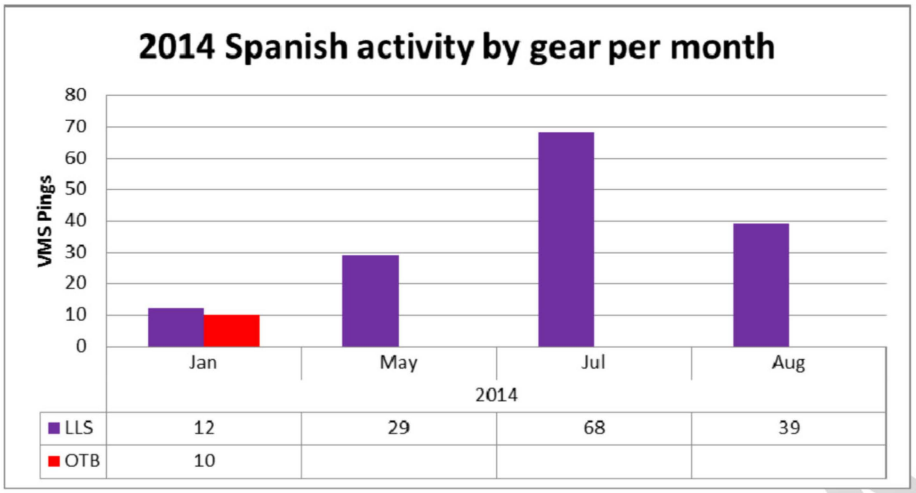
**Charts 6.4: Spanish seasonal fishing activity (all gears) in Greater Haig Fras MCZ 2010 – 2015**




**No activity observed in 2013**




**No activity observed in 2015.**

DRAFT

# 7 Proposed fisheries management measures to maintain the habitat feature in favourable condition. Are they proportionate and enforceable? Other conservation measures that apply to the area

## 7.1 Options for fisheries management

A range of MPA fisheries management options are available to managers, differing in the degree of restriction they would place on fishing operations, and the risk they would pose to achieving the conservation objectives including

- No additional management required
- Reduce/limit pressure e.g. zoned management
- Remove/avoid pressure e.g. full site prohibition

Although it is not generally possible to quantify the degree of risk to achieving the conservation objectives posed by each option, it is possible to identify where risk may exist, and where this could be reduced through the introduction of management measures. Risks have been evaluated using existing data and information on protected features and our understanding of the relationships between the feature and relevant activities.

| Activity | Management options |
|---|---|
| **Demersal towed gear** | **Option 1. No additional management:** This option would pose a risk of not achieving the conservation objectives for Subtidal sand, Subtidal mud, Subtidal coarse and mixed sediments and for the feature of conservation importance, Sea-pen and burrowing megafauna communities. |
| | **Option 2. Reduce/limit pressures:** This option would reduce the risk of not achieving the conservation objectives for Subtidal sand, Subtidal mud, Subtidal coarse and mixed sediments and for the feature of conservation importance, Sea-pen and burrowing megafauna communities.<br><br>Appropriate management could include closure of a proportion of feature area to impacting gears particularly for “heavier” gears that may penetrate more deeply into the sediment. The location of areas covered by management restrictions within each site would need to be decided in consultation with stakeholders, taking into account ecological factors and the sensitivity of the feature. Restrictions could be permanent in some cases or temporary/adaptive in others. The risk of the Conservation Objectives not being met will increase as the size of areas restricting impacting activities decrease. |

**Option 3. Remove/avoid pressures:** This option would reduce the risk of degradation of any of the protected features (Subtidal sand, Subtidal mud, Subtidal coarse and mixed sediments and the feature of conservation importance, Sea-pen and burrowing megafauna communities), to the lowest possible level. Restrictions would be required for all mobile bottom contact gears within the management boundary.

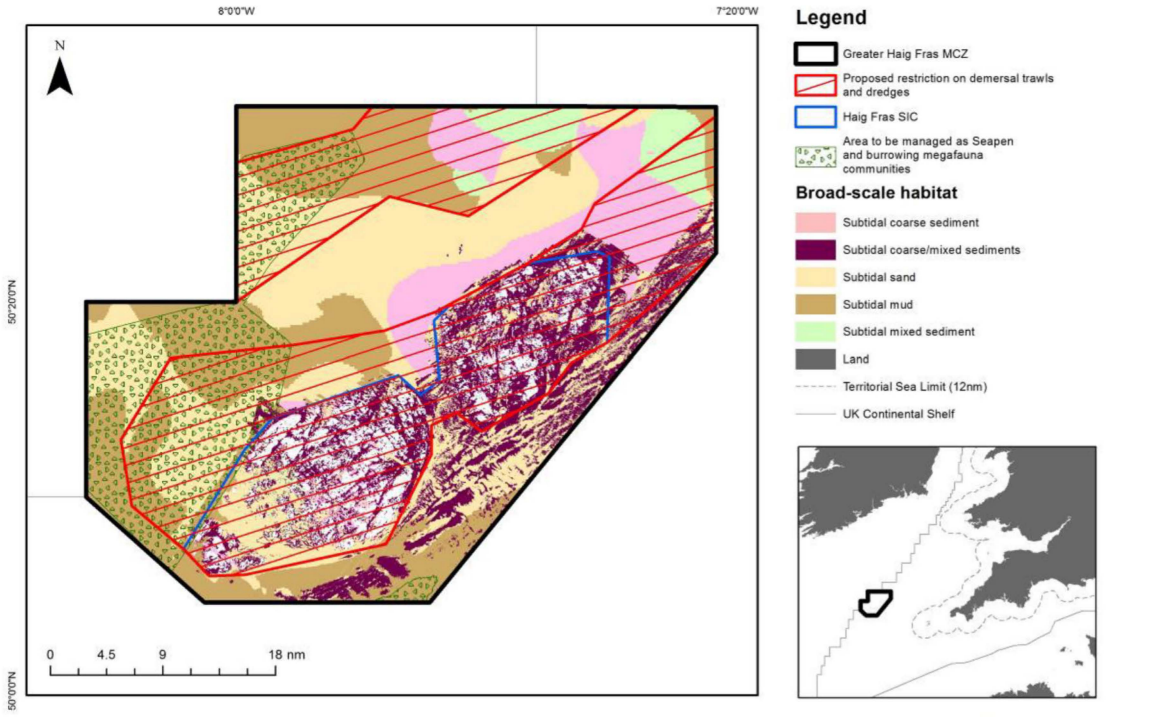
**Demersal static gear**

**No additional management**: This option is considered unlikely to pose a risk to achieving the conservation objectives for Subtidal sand, Subtidal mud, Subtidal coarse and mixed sediments and the feature of conservation importance, Sea-pen and burrowing megafauna communities. However, if monitoring showed evidence of detrimental effects as a result of static gear activity in the future, additional management may be required.

**Reduce/limit pressures:** This option would further reduce the risk to achieving the conservation objectives for Subtidal sand, Subtidal mud, Subtidal coarse and mixed sediments and the feature of conservation importance, Sea-pen and burrowing megafauna communities. If fishing activity were to rise to levels at which damage was occurring, appropriate management could include partial closure of the feature and/or limits on the amount of gear that can be deployed.

## 7.2 Proposed management option

The proposed management option is to reduce/limit pressure by restricting fishing activity with demersal trawls and dredges across a proportion of the site to include each protected feature (see figure 15).




© JNCC 2016
UK Territorial Sea Limit. Contains UKHO data © Crown copyright. All rights reserved. The exact limits of the UK Continental shelf are set out in orders made under section 1 (7) of the Continental Shelf Act 1964 and Continental Shelf (Designation of Areas) Order 2013. Combining source layers from UKHO.
© Crown copyright © JNCC. UK Exclusive Economic Zone © Crown copyright. The exact limits of the EEZ are set out in The Exclusive Economic Zone Order 2013. World Vector Shoreline © US Defence Mapping Agency. Not to be used for navigation. EUSeaMap - UK modified draft interim 2016.

Department for Environment Food & Rural Affairs

DRAFT