

# EIAR Volume 4: Offshore Infrastructure Technical Appendices Appendix 4.3.3-5 Underwater Image Analysis

**Kish Offshore Wind Ltd** 

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# Dublin Array Offshore Wind Farm -Underwater Image Analysis

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COMMERCIAL IN CONFIDENCE

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# List of Abbreviations and Acronyms

Term	Definition
DDV	Drop-Down Video
DSLR	Digital Single Lens Reflex
DVL	Doppler Velocity Logger
EUNIS	European Nature Information System
GPS	Global Positioning System
HD	High Definition
INNS	Invasive Non-Native Species
JNCC	Joint Nature Conservation Committee
NMBAQC	Northeast Atlantic Marine Biological Analytical
	Quality Control scheme
OWF	Offshore Wind Farm
ROV	Remotely Operated Vehicle
SACFOR	Superabundant, Abundant, Common, Frequent, Occasional, Rare
USBL	Ultra Short Base Line
UTM	Universal Transverse Mercator
WGS84	World Geodetic System 1984

#### **Executive Summary**

The Dublin Array project is being developed by Kish Offshore Wind Ltd and Bray Offshore Wind Ltd. on behalf of a consortium of owners. AQUAFACT (APEM Group) were commissioned to carry out an underwater camera survey of the proposed cable punch out location to determine the presence and extent of any geogenic or biogenic reef habitats in the nearshore area and to investigate three magnetometer anomalies.

The survey work was carried out by XYZ Engineering Ltd. along with representatives from AQUAFACT and Maritime Archaeology Ltd. to control the capture of still images. The highest quality images from the benthic transects were selected by AQUAFACT for subsequent laboratory analysis and reporting. Post-survey laboratory analysis of the benthic still images was carried out by the APEM Ltd. Marine Biolabs team.

The image analysis resulted in the survey area being divided between five biotopes or biotope complexes. The most widespread habitat complex recorded in the survey area was 'Circalittoral fine mud' (MC611; SS.SMu.CFiMu), followed by 'Dense foliose red seaweeds on moderately exposed Atlantic infralittoral silty rock' (MB121B; IR.MIR.KR.XFoR) in the central and western extent. 'Faunal communities of Atlantic circalittoral mixed sediment' (MC421; SS.SMx.CMx) were recorded on six of the eight transects, but was most prevalent in the east of the survey area on Transects G and H. The western area, particularly on Transects G and H, included larger boulders that were classified as 'Faunal turf communities on Atlantic circalittoral rock' (EUNIS code: MC121; JNCC code: CR.HCR.FaT). The least frequently recorded habitat was 'Kelp and seaweed communities on Atlantic infralittoral rock' (MB121; IR.HIR.KFaR), which was restricted to the westernmost Transects A and B, which were closest to the shore. The coarser substrates dominated by epifaunal species are considered likely to recover from damage quickly and therefore have a high resilience to disturbance. The habitats with longer-lived slow-growing species such as *Cerianthus lloydii* or the kelp Laminaria are considered to have a 'medium' resilience to disturbance.

No evidence of biogenic reef was observed within the survey area. The slender seapen *Virgularia mirabilis* and possible *Nephrops norvegicus* burrows were observed on some of the transects, but not in sufficient abundance to be classified as the threatened and/or declining 'sea pen and burrowing megafauna communities' habitat.

Geogenic reef, in the form of stony reef as characterised in Irving (2009) was identified on all eight of the transects. 40% of the images analysed were considered to be medium resemblance stony reef and 9% met the criteria for low resemblance stony reef. Following assessment of the extent of each of these areas in GIS, six of the eight transects (A, C, G, H and I) had areas that met the minimum extent criteria for Annex I stony reef. The areas of potential reef on Transects B and E were either only present in single images or in consecutive images that were too close together to qualify as Annex I reef habitat.

#### 1. Introduction

#### 1.1 Project Background

The Dublin Array project is being developed by Kish Offshore Wind Ltd and Bray Offshore Wind Ltd. on behalf of a consortium of owners. AQUAFACT (part of the APEM Group) were commissioned to carry out an underwater camera survey of the nearshore area around the proposed cable punch out location to determine the presence and extent of any Annex I geogenic or biogenic reef habitats (EC Habitats Directive 92/43/EEC) in the nearshore area and to investigate magnetometer anomalies for potential archaeological interest.

XYZ Engineering Ltd. was appointed by AQUAFACT to carry out the Drop-Down Video (DDV) survey. An AQUAFACT field scientist was present during the survey to control still image capture during the transects. An archaeological representative from Maritime Archaeology Ltd. was also present on the survey to control the capture of stills during inspections of the magnetometer anomalies.

Post-survey laboratory analysis of still images was carried out by the APEM Ltd. Marine Biolabs team.

#### 1.2 Scope

The primary objectives of the survey were to collect visual data to inform the following:

- 1. The extent of geogenic reef in the region of proposed borehole locations, the potential landfall drill punch out location and cable routing from the punchout offshore;
- 2. The presence and extent of any biogenic reef if present;
- 3. Provide further information on archaeological anomalies as identified from previous magnetometer site investigation.

#### 2. Methodology

#### 2.1 Survey Location

The proposed location for the cable punch out is in Killiney Bay on the south coast of Dublin (Figure 1).





Figure 1 Location of the proposed cable punch out

The DDV survey comprised capturing high definition (HD) video and still imagery of the seabed at eight predetermined locations. Seven of these locations were transects running parallel to the shore (see Figure 2) labelled A through H (Transect F was descoped prior to the survey) and ranged between 40 and 325 m in length. Three anomalies identified during magnetometer survey were also included in the survey. One of these anomalies overlapped with transect G and another was designated as target location I. For the sake of consistency, location I is also referred to as a transect throughout this report. Figure 2 shows the target transect lines and areas that required archaeological investigation.





Figure 2 Locations of target transects and magnetometer anomalies

#### 2.2 Survey Methodology

The DDV survey was carried out by XYZ Engineering Ltd. on the 17<sup>th</sup> May 2024 in light winds, neap tides, and a calm sea state (XYZ Engineering, 2024). Representatives from AQUAFACT and Maritime Archaeology were on board the survey vessel to monitor the live video feed and control the capture of still images.

#### 2.2.1 Survey Vessel

All equipment was deployed from a P5 survey vessel. The survey vessel was fitted with an Ultra Short Base Line (USBL) transceiver from a pole mounted towards the bow of the boat, away from sources of engine noise. The transceiver was kept 1.0 m below the hull of the boat to minimise possible sources of interference from bubbles.

#### 2.2.2 ROV System

The survey was carried out using a 3kW surface power supplied inspection class remotely operated vehicle (ROV). The imaging system was mounted to a was fabricated payload skid that was fitted to the bottom of the ROV's frame. The ROV was deployed at the start of each target transect where it was then piloted to the seabed and video and still recordings



commenced. The ROV was flown approximately along the target transect lines, maintaining proximity to the seabed. For the magnetometer anomalies, the ROV was flown around the target locations until the archaeologist had sufficient information to determine whether the features were of archaeological interest.

#### 2.2.3 Positional System

The ROV was equipped with an USBL positioning system which communicated with a transponder on the surface vessel to provide a latitude and longitude of the ROV. Positional information was recorded at 1 second intervals to provide a flight log for each transect. The ROV was also equipped with a doppler velocity logger (DVL) to help maintain stability in the currents.

#### 2.2.4 Imaging System

A digital single lens reflex (DSLR) camera with a micro four-thirds sensor for still imagery was mounted in a vertical direction onto a custom fabricated payload skid. The camera was oriented in a perpendicular position to the seabed to provide a plan image of the bed. Parallel scaling lasers situated 30 cm apart were mounted below the DSLR camera to provide reference points in the imagery so that distances could be accurately measured. 6000 lumens of lighting were mounted on the payload skid in a downward pointing orientation to provide dedicated lighting for the still imagery camera. A HD camera with a 1/2.3" CMOS sensor was mounted on to the bottom of the payload skid to assist with navigation and provide a HD video feed to the surface. An additional 6000 lumens of lighting were mounted on the ROV in a forward-facing orientation.

#### 2.2.5 Still imagery

During the benthic transects, the live video feed was monitored by a representative from AQUAFACT with control of the still image camera to capture still images as required. During the inspections of the magnetometer anomalies, a marine archaeologist representative from Maritime Archaeology Ltd. was provided with control of the still image camera.

All still imagery captured by the camera operators was saved in .jpg format. The highest quality images from the benthic transects were selected by AQUAFACT for subsequent laboratory analysis and reporting.

#### 2.3 Laboratory Analysis

#### 2.3.1 Macrobenthic analysis

Detailed laboratory analysis of selected digital still images was conducted in line with the Northeast Atlantic Marine Biological Analytical Quality Control scheme (NMBAQC) epibiota interpretation guidelines (Turner *et al.*, 2016). Still images taken along each transect were analysed by viewing at 1:1.



All conspicuous taxa were identified to the lowest possible taxonomic level using relevant taxonomic keys and photographic guides to enable biotope classification. The taxonomic data and substrate information for each image were assigned to marine habitats following the EUNIS classification system (EEA, 2022) following the guidance in Parry *et al.* (2019). Equivalent biotope codes based on the Joint Nature Conservation Committee (JNCC) classification system (Connor *et al.*, 2004) have also been included for reference.

The coordinate data for each still image were used to extrapolate biotopes onto the adjacent ROV flight paths for each transect. These data were then imported into QGIS to map the habitats present along the Global Positioning System (GPS) track.

#### 2.3.2 Reef Assessment

Where potential Annex I reef habitat was noted in the still images for a transect, reef assessments were undertaken using appropriate guidance in Irving (2009) and Golding *et al.* (2020) for potential geogenic reefs (e.g. stony reefs) and Gubbay (2007) and Limpenny *et al.* (2010) for potential biogenic reefs (such as *Sabellaria spinulosa* and *Modiolus modiolus* reefs, respectively).

Stony reef assessments were undertaken using the criteria and methods in Irving (2009) and Golding et al. (2020). Boulders and cobbles are generally considered to be greater than 64 mm diameter and the cobble reef assessment criteria are based on this approach. Following Irving (2009), composition, elevation and biota characteristics were considered to assess whether any stills along each transect resembled stony reef. Characteristics were scored as 'Low', 'Medium' or 'High' resemblance to cobble reef, or 'No resemblance' and the specific criteria for scoring each of these characteristics is indicated in Table 1. The Irving (2009) criterion for biota for Low and Medium resemblance reef is less clearly defined than the other criteria due to the difficulty of enumerating epifauna in reef habitats, with emphases on the physical aspects of reef habitat. For each image a score of 'Low', 'Medium', 'High' or 'Infauna' was assigned based on the relative dominance of biotic growth forms present. Where potential stony reef criteria were identified, the coordinates for each still image were used to extrapolate reef assessments onto the adjacent ROV flight path for each transect. These data were then imported into QGIS to map the potential reef extent along each transect. The 'extent' characteristic was assessed by measuring the distance between positions of consecutive images that met the criteria for medium resemblance stony reef. Where these consecutive images covered a distance of greater than 25 m they were classified as Annex I geogenic reef.

	Resemblance to Stony Reef			
Characteristic	Not a stony reef	Low	Medium	High
Composition (% of particles >64 mm diameter) <sup>a</sup>	<10%	10-40%	40-95%	>95%
Elevation	Flat seabed	<64 mm	64 mm to 5 m	>5 m
Extent*	<25 m <sup>2</sup>	>25 m <sup>2</sup>	>25 m <sup>2</sup>	>25 m <sup>2</sup>
Biota	Dominated by infauna	Low epifaunal dominance	Medium epifaunal dominance	>80% of species present are epifaunal

Table 1. Criteria used to assess Reefiness (Irving, 2009)

<sup>a</sup> Based on >64 mm representing cobbles/boulders.

\*Extent of the field of view was typically 1 m<sup>2</sup> and extent for the reef assessment was assessed by measuring distance between consecutive images in GIS.

#### 3. Results

#### 3.1 Distribution of images analysed

The sampling log with coordinates for the images analysed for each transect is presented in Appendix 1 and their distribution in relation to the ROV flight paths is mapped in Figure 3.





Figure 3 Distribution of analysed still images in relation to ROV flight paths for each transect

Notes on substrata and conspicuous fauna, biotope assignments and cobble reef assessments for each still image are presented in Appendix 2. The distribution of extrapolated biotopes for each transect is mapped in Figure 4 and extrapolated stony reef assessments for each transect are mapped in Figure 5.





Figure 4 Distribution of extrapolated EUNIS habitat classifications for each transect



Figure 5

Stony reef assessments for each transect



#### 3.2 Transect A

#### 3.2.1 Transect A Benthic Composition

Transect A had a consistent substrate and faunal composition although in some stills the substrate was obscured by large epibiota (Figure 6A). Where visible, the substrate was infralittoral rock formed from a mix of cobbles, boulders and pebbles with *Laminaria* spp. and filamentous red algae. The transect was assigned to the biotope complex 'Kelp and seaweed communities on Atlantic infralittoral rock' (EUNIS: MB121; JNCC: IR.HIR.KFaR), Figure 6A-C.

#### 3.2.2 Transect A Reef Assessment

No mussels or *Sabellaria* spp. were observed on Transect A. The substrate in the first segment of the transect was obscured by fronds of the kelp *Laminaria* spp. so a stony reef assessment was not possible (Figure 6A). The remainder of the transect comprised medium sized cobbles (64 mm - 5 m) with over 40% coverage and >80% epifaunal species present (Figure 6B) so medium stony reef was assigned for all stills except P1021503.JPG. This still had cobbles with elevation <64 mm and a coverage of 10-40% so low resemblance reef was assigned (Figure 6C).



Figure 6. Representative seabed images of the biotopes identified at Transect A



#### 3.3 Transect B

#### 3.3.1 Transect B Benthic Composition

Transect B comprised four distinct biotopes with varying sediment and faunal composition. The northern end of the transect was composed of large boulders and cobbles with filamentous red algae. This section of the transect was assigned to the biotope complex 'Dense foliose red seaweeds on moderately exposed Atlantic infralittoral silty rock' (EUNIS: MB121B; JNCC: IR.MIR.KR.XFoR), Figure 7A.

The middle section of Transect B comprised fine mud with some small burrows and no conspicuous fauna. This section was assigned to the biotope complex 'Circalittoral fine mud' (EUNIS code: MC611; JNCC: SS.SMu.CFiMu), Figure 7B.

A single still from Transect B was assigned to the biotope complex 'Faunal communities of Atlantic circalittoral mixed sediment' (EUNIS code: MC421; JNCC: SS.SMx.CMx), due to the presence of mud, shell fragments and pebbles but absence of cobbles, Figure 7C.

The substrata of southern section of Transect B consisted of cobbles and pebbles with *Laminaria* spp. and red filamentous algae. This section was assigned to the biotope complex 'Kelp and seaweed communities on Atlantic infralittoral rock' (EUNIS code: MB121; JNCC: IR.HIR.KFaR), Figure 7D.

#### 3.3.2 Transect B Reef Assessment

No mussels or *Sabellaria* spp. were observed on Transect B. A stony reef assessment could not be completed for many of the stills on Transect B as the substrata were obscured by suspended sediment. In the northern extent of Transect B three stills were assigned to medium resemblance stony reef, comprised of medium sized cobbles (64 mm – 5 m) with over 40% coverage and >80% epifaunal species present (Figure 7D). A single still was assigned to low resemblance stony reef, comprising cobbles with elevation <64 mm and a coverage of 10-40%.

A stony reef assessment was possible for two stills from the southern biotope of Transect B. Both comprised medium sized cobbles (64 mm - 5 m) with over 40% coverage and >80% epifaunal species so medium resemblance stony reef was assigned.





Figure 7. Representative seabed images of the biotopes identified at Transect B

#### 3.4 Transect C

#### 3.4.1 Transect C Benthic Composition

Transect C consisted of three distinct biotopes with varying sediment and faunal composition. The northern and southern ends of the transect were composed of large boulders and cobbles with filaments red algae. These sections of the transect were assigned to the biotope complex 'Dense foliose red seaweeds on moderately exposed Atlantic infralittoral silty rock' (EUNIS: MB121B; JNCC: IR.MIR.KR.XFoR), Figure 8A & B. Conspicuous fauna observed in this biotope included the edible urchin *Echinus esculentus*.

Two stills at the southern end of Transect C had substrata composed of mixtures of mud, gravel, pebbles and cobbles. These stills were assigned to the biotope complex 'Faunal communities of Atlantic circalittoral mixed sediment' (EUNIS code: MC421; JNCC: SS.SMx.CMx), Figure 8C. No conspicuous fauna was observed in this biotope.



The middle section of Transect C comprised of fine mud with some small burrows with no conspicuous fauna. This section was assigned to the biotope complex 'Circalittoral fine mud' (EUNIS code: MC611; JNCC: SS.SMu.CFiMu), Figure 8D.

#### 3.4.2 Transect C Reef Assessment

No mussels or *Sabellaria* spp. were observed on Transect C. Stony reef assessment was not possible for some stills on Transect C as the substrata were obscured by suspended sediment. The northern and southern biotopes of this transect were mostly assigned to medium resemblance stony reef, comprised of medium sized cobbles (64 mm – 5 m) with over 40% coverage and >80% epifaunal species present (Figure 8A). Two stills from the southern section of the MB121B (IR.MIR.KR.XFoR) biotope complex were assigned to low resemblance stony reef, comprised of cobbles with elevation <64 mm and a coverage of 10-40% (Figure 8B).



Figure 8. Representative seabed images of the biotopes identified at Transect C



#### 3.5 Transect D

#### 3.5.1 Transect D Benthic Composition

Transect D consisted of three distinct biotopes with varying sediment and fauna composition. The southern end of the transect was composed of large boulders and cobbles with filamentous red algae. This section of the transect was assigned to the biotope complex 'Dense foliose red seaweeds on moderately exposed Atlantic infralittoral silty rock' (EUNIS: MB121B; JNCC: IR.MIR.KR.XFoR), Figure 9A & B. Conspicuous fauna found in this biotope included colonial Ascidiacea and *Alcyonidium diaphanum*.

The middle section of Transect D comprised of fine mud with some small burrows. Conspicuous fauna found in this biotope included *Cerianthus lloydii* and *Virgularia mirabilis*. This section was assigned to the biotope complex 'Circalittoral fine mud' (EUNIS code: MC611; JNCC: SS.SMu.CFiMu), Figure 9C.

Four stills (three at the southern end along with the northernmost still) along transect D had sediment composed of a mixture of mud, gravel, pebbles and cobbles. These stills were assigned to the biotope complex 'Faunal communities of Atlantic circalittoral mixed sediment' (EUNIS code: MC421; JNCC: SS.SMx.CMx), Figure 9D. Conspicuous fauna found in this biotope included filamentous red algae.

#### 3.5.2 Transect D Reef Assessment

No mussels or *Sabellaria* spp. were observed on Transect D. Stony reef assessments were not possible for two stills on this transect as the sediment composition was obscured by suspended sediment.

The southern biotope of Transect D was mostly assigned to medium resemblance stony reef, comprising medium sized cobbles (64 mm - 5 m) with over 40% coverage and >80% epifaunal species present (Figure 9A). Three stills from the southern section of the MB121B (IR.MIR.KR.XFoR) biotope complex were assigned to low resemblance stony reef, composed of cobbles with elevation <64 mm and a coverage of 10-40% (Figure 9B).





Figure 9. Representative seabed images of the biotopes identified at Transect D

#### 3.6 Transect E

#### 3.6.1 Transect E Benthic Composition

Transect E consisted of three distinct biotopes with varying sediment and fauna composition. The majority of the transect comprised fine mud with burrows. Conspicuous fauna observed included *Cerianthus Iloydii*. This section of the transect was assigned to the biotope complex 'Circalittoral fine mud' (EUNIS code: MC611; JNCC: SS.SMu.CFiMu), Figure 10A.

Three stills towards the southern end of Transect E were composed of a mixture of mud, gravel, pebbles and cobbles. These stills were assigned to the biotope complex 'Faunal communities of Atlantic circalittoral mixed sediment' (EUNIS code: MC421; JNCC: SS.SMx.CMx) Figure 10B & C.

Four stills along Transect E (two at the southern end and two at the northern end) were composed of large boulders and cobbles covered with faunal turf. These stills were assigned to the biotope complex 'Faunal turf communities on Atlantic circalittoral rock' (EUNIS code: MC121; JNCC code: CR.HCR.FaT) Figure 10D.



#### 3.6.2 Transect E Reef Assessment

No mussels or Sabellaria spp. were observed on Transect E.

The areas of Transect E assigned to the 'MC121 (CR.HCR.FaT) biotope complex were assessed for stony reef. All were assigned to medium resemblance stony reef, comprising medium sized cobbles (64 mm - 5 m) with over 40% coverage and >80% epifaunal species present (Figure 10D).

One still from Transect E assigned to the biotope complex 'Circalittoral mixed sediment', was found to exhibit low resemblance stony reef, composed of cobbles with elevation <64 mm and a coverage of 10-40% (Figure 10C).



Figure 10. Representative seabed images of the biotopes identified at Transect E

#### 3.7 Transect G

#### 3.7.1 Transect G Benthic Composition

Transect G consisted of three distinct biotopes with varying sediment and fauna composition. The biotope with highest occurrence comprised fine mud with burrows, conspicuous fauna



recorded included *Cerianthus lloydii* and *Virgularia mirabilis*. This section was assigned to the biotope complex 'Circalittoral fine mud' (EUNIS code: MC611; JNCC: SS.SMu.CFiMu), Figure 11A.

The middle and north-western part of the transect were composed of a mixture of mud, gravel, pebbles and cobbles. Conspicuous fauna observed included *Cerianthus lloydii*, *Pecten maximus, Asterias rubens* and *Alcyonidium diaphanum*. These stills were assigned to the biotope complex 'Faunal communities of Atlantic circalittoral mixed sediment' (EUNIS code: MC421; JNCC: SS.SMx.CMx), Figure 11B & C.

The remaining stills from Transect G comprised large boulders and cobbles covered in faunal turf. Conspicuous fauna observed included *Alcyonium digitatum, Asterias rubens* and *Alcyonidium diaphanum*. These stills were assigned to the biotope complex 'Faunal turf communities on Atlantic circalittoral rock' (EUNIS code: MC121; JNCC code: CR.HCR.FaT), Figure 11D.



Figure 11. Representative seabed images of the biotopes identified at Transect G

#### 3.7.2 Transect G Reef Assessment

No mussels or Sabellaria spp. were observed on Transect G.

The areas of Transect G assigned to the MC121 (CR.HCR.FaT) biotope complex were assessed for stony reef. All were assigned to medium resemblance stony reef, comprising medium sized cobbles (64 mm - 5 m) with over 40% coverage and >80% epifaunal species present (Figure 11D).

A few stills from Transect G assigned to the MC421 (SS.SMx.CMx) biotope complex 'Circalittoral mixed sediment', were considered to be low resemblance stony reef, composed of cobbles with elevation <64 mm and a coverage of 10-40% (Figure 11B).

#### 3.8 Transect H

#### 3.8.1 Transect H Benthic Composition

Transect H consisted of three distinct biotopes with varying sediment and fauna composition. The middle section of Transect H was composed of fine mud with some small burrows. Conspicuous fauna found in this biotope included *Cerianthus lloydii* and the brown crab *Cancer pagurus*. This section was assigned to the biotope complex 'Circalittoral fine mud' (EUNIS code: MC611; JNCC: SS.SMu.CFiMu), Figure 12A.

The northern most and southern most extremes of Transect H comprised of large boulders and cobbles covered with faunal turf. Conspicuous fauna observed included *Necora puber*, *Alcyonium digitatum*, *Asterias rubens* and *Alcyonidium diaphanum*. These stills were assigned to the biotope complex 'Faunal turf communities on Atlantic circalittoral rock' (EUNIS code: MC121; JNCC code: CR.HCR.FaT) Figure 12B.

A few stills scattered along Transect H comprised mixtures of mud, gravel, pebbles and cobbles. Conspicuous fauna observed included *Cerianthus Iloydii*, *Nemertesia* spp. and *Alcyonidium diaphanum*. These stills were assigned to the biotope complex 'Faunal communities of Atlantic circalittoral mixed sediment' (EUNIS code: MC421; JNCC: SS.SMx.CMx) Figure 12C & D.

#### 3.8.2 Transect H Reef Assessment

No mussels or *Sabellaria* spp. were observed on Transect H.

The areas of Transect H assigned to the MC121 (CR.HCR.FaT) biotope complex were assessed for stony reef. All were assigned to medium resemblance stony reef, composed of medium sized cobbles (64 mm – 5 m) with over 40% coverage and >80% epifaunal species present (Figure 12B).



A few stills from Transect H assigned to the biotope complex 'Circalittoral mixed sediment', were considered to be low resemblance stony reef, comprising cobbles with elevation <64 mm and a coverage of 10-40% (Figure 12C).



Figure 12. Representative seabed images of the biotopes identified at Transect H

#### 3.9 Transect I

#### 3.9.1 Transect I Benthic Composition

Transect I consisted of two distinct biotopes with varying sediment and fauna composition. All but one of the stills on this transect included large boulders and cobbles with filamentous red algae. This section of the transect was assigned to the biotope complex 'Dense foliose red seaweeds on moderately exposed Atlantic infralittoral silty rock' (EUNIS: MB121B; JNCC: IR.MIR.KR.XFoR), Figure 13A. Conspicuous fauna found in this biotope included *Asterias rubens*.

A single still on Transect I was composed of mud, gravel, pebbles and cobbles. No conspicuous fauna was observed. This still was assigned to the biotope complex 'Faunal communities of Atlantic circalittoral mixed sediment' (EUNIS code: MC421; JNCC: SS.SMx.CMx), Figure 13B.



#### 3.9.2 Transect I Reef Assessment

No mussels or Sabellaria spp. were observed on Transect I.

The areas of Transect I assigned to the MB121B (IR.MIR.KR.XFoR) biotope complex were assessed for stony reef. All were considered to represent medium resemblance stony reef, composed of medium sized cobbles (64 mm - 5 m) with over 40% coverage and >80% epifaunal species present (Figure 13A).

The still from Transect I assigned to the MC421 (SS.SMx.CMx) biotope complex was considered to be low resemblance stony reef, comprising cobbles with elevation <64 mm and a coverage of 10-40% (Figure 13B).



Figure 13. Representative seabed images of the biotopes identified at Transect I

#### 3.10 Annex I Reef Assessment

The images classified as medium resemblance stony reef needed to fulfil the minimum extent criteria of >25 m<sup>2</sup> to qualify as Annex I reef habitat (Irving, 2009). The habitat extent, and in particular patchiness, is impossible to assess based on a single still image. Therefore, to provide a conservative estimate of the minimum extent of potential Annex I stony reef habitat the distances between consecutive images classified as including medium resemblance stony reef habitat were measured in GIS. Where consecutive images covered a minimum transect distance of 25 m, these were considered to represent Annex I stony reef habitat. The distribution of Annex I stony reef habitat identified is mapped in Figure 14.





Figure 14. Distribution of Annex I stony reef habitat

Transects A, C, D, G, H and I all included at least one area that met the minimum extent criteria for Annex I stony reef (see Figure 14). The areas of potential stony reef identified on Transects B and E were only present in isolated images or consecutive images that were less than 25 m apart and were therefore did not represent Annex I habitat.

#### 3.11 Notable taxa

The European edible sea urchin *Echinus esculentus* has been assessed for the IUCN Red list (World Conservation Monitoring Centre, 1996) and is considered 'Lower Risk/near threatened'. One individual of this species was recorded in image P1021202 on Transect C.

One individual of the commercially important brown crab *Cancer pagurus* was recorded in image P1010597 on Transect H and two king scallops *Pecten maximus* were recorded in image P1010245 on Transect G and P1010473 on Transect H, respectively.

Two colonies of the slender sea pen *Virgularia mirabilis*, were recorded on Transect D and one on Transect G. This species can represent the priority habitat 'Sea-pen and burrowing megafauna communities' where conspicuous populations are present. Possible *Nephrops norvegicus* burrows were recorded in six images on Transect G and seven images on Transect H, although no actual burrowing megafaunal species were observed in any of the images.



No Invasive Non-Native Species (INNS) were recorded in any of the images analysed.

#### 4. Discussion

The most widespread habitat complex recorded in the survey area was 'Circalittoral fine mud' (MC611; SS.SMu.CFiMu), assigned to 96 of the images analysed. Many of these images had no visible fauna other than the tube-dwelling anemone *Cerianthus Iloydii*. The response of this species to disturbance has not been well-documented (Perry & Watson, 2023), but it has a long-lifespan and slow growth rate and is therefore considered likely to be more sensitive to physical damage and take longer to recover from disturbance (MESL, 2008). Tillin & Tyler-Walters (2013) considered this species to have a 'medium' resilience as it is relatively common and occurs in a range of habitat types.

Possible *Nephrops norvegicus* burrows were observed on Transects G and H and the slender seapen *Virgularia mirabilis* was recorded on transects D and G, both of which are associated with the 'sea pen and burrowing megafauna communities' habitat, which is classified as threatened and/or declining (OSPAR, 2010). However, the JNCC (2014) clarification report for this habitat states that to be considered 'sea pen and burrowing megafauna communities' habitat, densities of burrows and/or mounds, together with sea pens if present, should be classified as 'frequent' or above on the SACFOR scale (Hiscock, 1996: <u>Superabundant, Abundant, Common, Frequent, Occasional, Rare</u>). Larger burrows and sea pens were not recorded in sufficient abundance on any of the transects for such classification and overall the survey area did not indicate a resemblance to the 'sea pen and burrowing megafauna communities' habitat.

The second most frequently recorded habitat in the survey area was 'Dense foliose red seaweeds on moderately exposed Atlantic infralittoral silty rock' (MB121B; IR.MIR.KR.XFoR), which was found in the central and western extent of the survey area on Transects B, C, D and I. This habitat was characterised by the presence of large boulders and cobbles supporting silt-tolerant colonial epifauna and filamentous red algae. Physical disturbance of such habitats may move and turn over boulders to which individuals are attached and result in mortality, but would only be predicted to remove entire individuals where some shear stress and dragging are involved (Tillin & Tyler-Walters, 2013). The red algae characterizing this biotope are primarily short-lived species that can reproduce annually and maintain presence in disturbed areas via germlings or species with strategies to resist disturbance, e.g. growing back from more resistant crustose bases (Tillin, 2016). Epifaunal sponge species, barnacles, hydroids, ascidians and bryozoans are opportunistic colonisers of rock surfaces and are therefore also likely to recover rapidly following impacts.

The habitat complex 'Faunal communities of Atlantic circalittoral mixed sediment' (MC421; SS.SMx.CMx) were recorded in a total of 49 images from six of the eight transects, but was most prevalent in the east of the survey area on Transects G and H. The substrate in this habitat comprised varying mixtures of fine mud, shell gravel and cobbles. The burrowing anemone *Cerianthus lloydii* was present in muddier areas whilst the more stable cobbles

supported epifauna including the erect bryozoan *Alcyonium diaphanum* and the hydroid *Nemertesia* spp. The hydroids and bryozoans found in this biotope are likely to recover from damage quickly and therefore have a high resilience to disturbance (Readman & Lloyd, 2023).

The western part of the survey area, particularly on Transects G and H, also included some areas of larger boulders that were classified as 'Faunal turf communities on Atlantic circalittoral rock' (EUNIS code: MC121; JNCC code: CR.HCR.FaT). This habitat was characterised by boulders with faunal turfs and epifauna including *A. diaphanum, Nemertesia* spp. and the soft coral *Alcyonium digitatum*. As described above, the bryozoan and hydroid species are likely to recover quickly from physical disturbance. *A. digitatum* has been observed to recruit within two years but may take longer to establish a dense population of typical size and age-structure if it suffers significant losses (Stamp *et al.*, 2023).

The least frequently recorded habitat was 'Kelp and seaweed communities on Atlantic infralittoral rock' (MB121; IR.HIR.KFaR), which was restricted to the westernmost Transects A and B, which were closest to the shore. This habitat was characterised by the kelp *Laminaria* spp. and filamentous red algae on boulders and cobbles. Kelp habitats are considered to have a 'medium' resilience to disturbance, with *Laminaria hyperborea* able to recover within two to six years, but full epiphytic and stipe habitat complexity may take seven to ten years for full recovery (Tyler-Walters *et al.*, 2023).

Analysis of the 269 stills from eight ROV transects found no evidence of biogenic reef within the survey area.

Geogenic reef, in the form of stony reef as characterised in Irving (2009) was identified on all eight of the transects. 40% of the images analysed were considered to the meet the composition, elevation and epifaunal criteria for medium resemblance stony reef and a further 9% met the criteria for low resemblance stony reef. Irving (2009) suggests that an area containing a 'low' score for any of the four reef categories used for classification would require strong justification to be considered Annex I reef habitat.

To be classified as Annex I stony reef the images classified as medium resemblance stony reef also needed to fulfil the minimum extent criteria of >25 m<sup>2</sup>. This was assessed by measuring the distance between consecutive medium resemblance stony reef images using GIS to identify areas of greater than 25 m<sup>2</sup> coverage. Six of the eight transects (A, C, G, H and I) had areas that met the minimum extent criteria for Annex I stony reef. The areas of potential reef on Transects B and E were either only present in single images or in consecutive images that were too close together to qualify as Annex I reef habitat.

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# Appendix 1 Still image sampling coordinates (Universal Transverse

Transact	Transect Still No. Time		UTM Z	UTM Zone 29N	
manseet		Time	Easting	Northing	
A	P1021391.JPG	18:27:11	692977.4	5903173.4	
А	P1021396.JPG	18:27:26	692971.3	5903176.6	
А	P1021419.JPG	18:28:35	692964.6	5903196.9	
А	P1021423.JPG	18:28:47	692965.2	5903200.9	
А	P1021431.JPG	18:29:11	692967.8	5903207.9	
А	P1021435.JPG	18:29:23	692964.6	5903211.1	
А	P1021439.JPG	18:29:35	692964	5903215.5	
A	P1021448.JPG	18:30:02	692964.7	5903222.8	
А	P1021463.JPG	18:30:47	692967.8	5903227.2	
А	P1021472.JPG	18:31:14	692966.6	5903236.9	
А	P1021482.JPG	18:31:44	692965.7	5903251	
А	P1021489.JPG	18:32:05	692961.6	5903255.5	
А	P1021494.JPG	18:32:20	692967.1	5903263.1	
A	P1021503.JPG	18:32:47	692966.5	5903267.3	
A	P1021511.JPG	18:33:11	692971.2	5903274.3	
A	P1021514.JPG	18:33:20	692968.4	5903277.3	
В	P1021210.JPG	18:07:18	693040.9	5903406	
В	P1021214.JPG	18:07:32	693053.2	5903401.8	
В	P1021220.JPG	18:07:53	693055.8	5903395.8	
В	P1021225.JPG	18:08:11	693060.4	5903389.4	
В	P1021232.JPG	18:08:34	693062.4	5903377.7	
В	P1021235.JPG	18:08:45	693063	5903373	
В	P1021240.JPG	18:09:03	693063.3	5903367.2	
В	P1021256.JPG	18:09:58	693065.9	5903357.4	
В	P1021263.JPG	18:10:23	693058.1	5903346.4	
В	P1021266.JPG	18:10:33	693060.2	5903337.7	
В	P1021271.JPG	18:10:52	693056.2	5903329.7	
В	P1021276.JPG	18:11:08	693057.1	5903323.6	
В	P1021282.JPG	18:11:29	693058.9	5903316.6	
В	P1021286.JPG	18:11:43	693057.1	5903313.3	
В	P1021292.JPG	18:12:05	693057.6	5903306.9	
В	P1021297.JPG	18:12:22	693055.1	5903297.9	
В	P1021303.JPG	18:12:43	693052.3	5903292.6	
В	P1021308.JPG	18:13:01	693051.2	5903285.4	
В	P1021313.JPG	18:13:49	693040.7	5903253.7	
В	P1021317.JPG	18:14:42	693042.3	5903246.4	
В	P1021322.JPG	18:15:01	693036.7	5903251.9	
В	P1021328.JPG	18:15:14	693038.2	5903249.4	
В	P1021337.JPG	18:15:51	693038.6	5903237	
В	P1021343.JPG	18:16:03	693039.4	5903235.1	
В	P1021347.JPG	18:16:24	693043.3	5903231.3	

#### Mercator, World Geodetic System 1984 Datum)



Transact	Still No	Timo	UTM Z	UTM Zone 29N	
Hansett	Still NO.	Time	Easting	Northing	
В	P1021356.JPG	18:16:59	693051.5	5903218.7	
В	P1021365.JPG	18:17:17	693057.7	5903211.6	
В	P1021376.JPG	18:17:30	693063.9	5903204.3	
В	P1021380.JPG	18:17:43	693067.7	5903194.5	
В	P1021383.JPG	18:17:56	693069.3	5903188	
С	P1021055.JPG	17:49:37	693141.3	5903231.4	
С	P1021063.JPG	17:50:08	693138.8	5903240.4	
С	P1021066.JPG	17:50:22	693140.9	5903244.1	
С	P1021070.JPG	17:50:40	693141.8	5903251.6	
С	P1021076.JPG	17:51:03	693138.7	5903257.2	
С	P1021084.JPG	17:51:36	693140.7	5903263.8	
С	P1021093.JPG	17:52:05	693139.6	5903270.9	
С	P1021098.JPG	17:52:25	693137.9	5903276.5	
С	P1021107.JPG	17:52:57	693136.2	5903282.8	
С	P1021112.JPG	17:53:24	693138.1	5903289	
С	P1021121.JPG	17:54:00	693133.6	5903296.1	
С	P1021129.JPG	17:54:25	693137.4	5903301.1	
С	P1021137.JPG	17:54:53	693136.9	5903308.6	
С	P1021147.JPG	17:55:29	693139.7	5903315.5	
С	P1021153.JPG	17:55:47	693141.1	5903319.4	
С	P1021157.JPG	17:56:06	693142	5903325.8	
C	P1021163.JPG	17:56:26	693142.4	5903331.5	
С	P1021167.JPG	17:56:40	693142.8	5903336.8	
С	P1021171.JPG	17:57:02	693148.2	5903342.4	
С	P1021175.JPG	17:57:14	693148.1	5903350.9	
С	P1021181.JPG	17:57:45	693150	5903359.2	
С	P1021189.JPG	17:58:13	693149	5903365.4	
С	P1021195.JPG	17:58:45	693146.5	5903370.7	
С	P1021201.JPG	17:59:07	693144.4	5903379	
С	P1021202.JPG	17:59:11	693144.9	5903379.8	
С	P1021205.JPG	17:59:23	693143.6	5903381.5	
D	P1010864.JPG	17:19:13	693196.3	5903208.6	
D	P1010869.JPG	17:19:40	693202.2	5903216.7	
D	P1010872.JPG	17:19:54	693207.1	5903220.5	
D	P1010876.JPG	17:20:12	693208.2	5903228.1	
D	P1010881.JPG	17:20:43	693208.6	5903233	
D	P1010887.JPG	17:21:27	693209.3	5903235.7	
D	P1010890.JPG	17:21:45	693217.8	5903236.3	
D	P1010892.JPG	17:22:07	693212.5	5903239.2	
D	P1010900.JPG	17:22:44	693215.8	5903245	
D	P1010904.JPG	17:23:03	693215.2	5903249.2	
D	P1010907.JPG	17:23:21	693210.3	5903252.8	
D	P1010911.JPG	17:23:38	693211.3	5903261	
D	P1010915.JPG	17:23:59	693206.5	5903268.4	
D	P1010921.JPG	17:24:22	693207.6	5903273.5	
D	P1010927.JPG	17:24:54	693208.2	5903276.1	



Transect	Still No	Time	UTM Z	UTM Zone 29N	
Tunseet		Time	Easting	Northing	
D	P1010932.JPG	17:25:17	693208.6	5903278.9	
D	P1010937.JPG	17:25:39	693211	5903283	
D	P1010942.JPG	17:26:01	693210.5	5903286.2	
D	P1010952.JPG	17:26:46	693204.9	5903288.8	
D	P1010958.JPG	17:27:18	693203.8	5903294.1	
D	P1010966.JPG	17:27:55	693204.7	5903301	
D	P1010973.JPG	17:28:26	693198.7	5903302.2	
D	P1010983.JPG	17:29:08	693194.9	5903307.7	
D	P1010993.JPG	17:29:53	693195.9	5903315.4	
D	P1011000.JPG	17:30:25	693198.3	5903321.7	
D	P1011008.JPG	17:31:01	693198.6	5903331	
D	P1011016.JPG	17:31:38	693199.3	5903337.2	
D	P1011021.JPG	17:32:19	693201	5903341.5	
D	P1021030.JPG	17:32:59	693201.1	5903348.1	
D	P1021037.JPG	17:33:31	693200.3	5903360	
E	P1010755.JPG	16:38:11	693293.9	5903298.9	
E	P1010758.JPG	16:38:26	693288.8	5903298.7	
E	P1010761.JPG	16:38:48	693282	5903298.1	
E	P1010764.JPG	16:39:03	693275.3	5903299.2	
E	P1010767.JPG	16:39:22	693272.6	5903303.3	
E	P1010771.JPG	16:39:46	693268.8	5903308.3	
E	P1010774.JPG	16:40:05	693272	5903310.3	
E	P1010778.JPG	16:40:31	693275.5	5903313.6	
E	P1010780.JPG	16:40:46	693272.8	5903315.3	
E	P1010786.JPG	16:41:21	693273.5	5903318.7	
E	P1010790.JPG	16:41:46	693278.5	5903319.9	
E	P1010797.JPG	16:42:44	693275.2	5903320	
E	P1010810.JPG	16:44:23	693240.2	5903332.7	
E	P1010819.JPG	16:45:24	693234.4	5903348	
E	P1010830.JPG	16:47:36	693221.9	5903377.7	
E	P1010836.JPG	16:48:13	693241.7	5903373.7	
E	P1010841.JPG	16:48:46	693259.3	5903370.5	
E	P1010847.JPG	16:49:50	693262.7	5903368.1	
E	P1010851.JPG	16:50:16	693262.5	5903373.7	
E	P1010856.JPG	16:50:45	693257.5	5903378.9	
E	P1010860.JPG	16:51:07	693248.4	5903382	
G	P1010181.JPG	15:10:18	693405	5903205.5	
G	P1010183.JPG	15:10:32	693406.9	5903206.1	
G	P1010188.JPG	15:11:07	693388.6	5903207.8	
G	P1010195.JPG	15:11:56	693387.5	5903200.7	
G	P1010200.JPG	15:12:31	693381.9	5903207.6	
G	P1010203.JPG	15:12:52	693375.3	5903208	
G	P1010209.JPG	15:13:34	693365.6	5903204.7	
G	P1010213.JPG	15:14:02	693366.4	5903208.1	
G	P1010220.JPG	15:14:51	693366	5903205	
G	P1010223.JPG	15:15:12	693370.2	5903213.8	



Transact	Still No	Timo	UTM Z	UTM Zone 29N	
Transect	Still No.	Time	Easting	Northing	
6	D1010226 JDC	15.15.22	602260.8	5002220.4	
G	P1010226.JPG	15:15:33	602270	5903220.4	
G	P1010233.JPG	15:16:22	693370	5903220	
G	P1010238.JPG	15:16:57	693367.8	5903236.5	
G	P1010241.JPG	15:17:18	693369.2	5903240.7	
G	P1010245.JPG	15:17:40	093309.5	5903232.9	
G	P1010250.JPG	15:18:21	693381	5903233.2	
G	P1010256.JPG	15:19:03	693384.3	5903249.3	
G	P1010259.JPG	15:19:24	693383.6	5903261.5	
G	P1010262.JPG	15:19:45	693390	5903265.6	
G	P1010266.JPG	15:20:13	693385.7	5903275.1	
G	P1010271.JPG	15:20:48	693385.3	5903281.1	
G	P1010277.JPG	15:21:29	693385.2	5903288.3	
G	P1010280.JPG	15:21:50	693384	5903289	
G	P1010287.JPG	15:22:39	693380.7	5903287	
G	P1010293.JPG	15:23:21	693380.7	5903300.9	
G	P1010298.JPG	15:23:56	693376.7	5903307.1	
G	P1010304.JPG	15:24:38	693370.9	5903309.3	
G	P1010309.JPG	15:25:13	693364.6	5903309.8	
G	P1010315.JPG	15:25:55	693359.7	5903312.9	
G	P1010319.JPG	15:26:22	693357.1	5903319.8	
G	P1010325.JPG	15:27:04	693355.6	5903328.5	
G	P1010327.JPG	15:27:18	693350.1	5903326.7	
G	P1010330.JPG	15:27:38	693343.4	5903328.6	
G	P1010335.JPG	15:28:13	693330.9	5903336.9	
G	P1010338.JPG	15:28:33	693326.7	5903341.4	
G	P1010342.JPG	15:29:01	693319.2	5903354.3	
G	P1010345.JPG	15:29:22	693314.5	5903368	
G	P1010348.JPG	15:29:42	693309.8	5903376.4	
G	P1010350.JPG	15:29:56	693312.4	5903381.9	
G	P1010354.JPG	15:30:24	693320.8	5903381.9	
G	P1010358.JPG	15:30:51	693326.3	5903388.4	
G	P1010362.JPG	15:31:19	693338.2	5903401.7	
G	P1010366.JPG	15:31:46	693347.8	5903411.9	
G	P1010371.JPG	15:32:20	693357.6	5903413.2	
G	P1010374.JPG	15:32:41	693367.1	5903412.3	
G	P1010379.JPG	15:33:16	693380.7	5903414.3	
G	P1010382.JPG	15:33:36	693384	5903417	
G	P1010386.JPG	15:34:04	693384.8	5903436.7	
G	P1010390.JPG	15:34:31	693364.5	5903441.3	
G	P1010393.JPG	15:34:52	693353.4	5903445	
G	P1010395.JPG	15:35:05	693357.5	5903443.1	
G	P1010401.JPG	15:35:47	693352.2	5903442.9	
G	P1010404.JPG	15:36:07	693351.6	5903443.1	
G	P1010410.JPG	15:36:49	693351.1	5903446.5	
G	P1010413.JPG	15:37:10	693350.7	5903449.8	
G	P1010420.JPG	15:38:00	693343.1	5903450.1	



Transact	Still No	Timo	UTM Zone 29N		
Transect	Still No.	Time	Easting	Northing	
G	P1010425.JPG	15:38:35	693331.2	5903456.9	
G	P1010431.JPG	15:40:06	693310.2	5903484.3	
G	P1010434.JPG	15:41:17	693348.3	5903510.4	
G	P1010438.JPG	15:41:54	693377.9	5903481.2	
G	P1010440.JPG	15:42:07	693382	5903471.1	
G	P1010442.JPG	15:42:38	693391.2	5903451	
G	P1010444.JPG	15:42:57	693392.4	5903439.6	
G	P1010447.JPG	15:43:31	693391.1	5903419.4	
G	P1010449.JPG	15:43:59	693403.2	5903398.1	
G	P1010450.JPG	15:44:09	693404.6	5903388.9	
G	P1010453.JPG	15:44:54	693413.3	5903358.1	
G	P1010454.JPG	15:45:43	693438.2	5903323.9	
Н	P1010459.JPG	15:56:02	693492.4	5903165.1	
Н	P1010461.JPG	15:56:11	693494.2	5903166.2	
Н	P1010464.JPG	15:56:22	693492.6	5903167.7	
Н	P1010467.JPG	15:56:33	693490.6	5903165.7	
Н	P1010470.JPG	15:56:44	693490.1	5903169	
Н	P1010473.JPG	15:56:52	693488.2	5903170.1	
Н	P1010476.JPG	15:57:06	693482.6	5903170.3	
н	P1010479.JPG	15:57:16	693473.7	5903166.4	
н	P1010485.JPG	15:57:40	693470.5	5903175.8	
Н	P1010500.JPG	15:58:37	693446.8	5903175.6	
Н	P1010501.JPG	15:58:38	693448.8	5903176.6	
Н	P1010507.JPG	16:02:21	693428.3	5903244.4	
н	P1010509.JPG	16:02:29	693427.7	5903247	
н	P1010513.JPG	16:02:42	693423.2	5903253.7	
н	P1010516.JPG	16:02:55	693424.8	5903257.7	
н	P1010518.JPG	16:03:06	693427.7	5903262.8	
н	P1010522.JPG	16:03:19	693430.5	5903265.4	
Н	P1010526.JPG	16:03:34	693429.6	5903267.4	
Н	P1010533.JPG	16:04:00	693431.4	5903268	
Н	P1010545.JPG	16:04:43	693429.5	5903270.6	
Н	P1010552.JPG	16:05:15	693420.7	5903280.4	
Н	P1010560.JPG	16:05:48	693428.5	5903282.2	
Н	P1010567.JPG	16:06:17	693419.2	5903289.9	
н	P1010573.JPG	16:06:37	693414.3	5903295.7	
н	P1010576.JPG	16:06:57	693409.3	5903300.8	
Н	P1010580.JPG	16:07:13	693408.4	5903304.9	
Н	P1010585.JPG	16:07:31	693403.6	5903311.4	
Н	P1010587.JPG	16:07:40	693394.5	5903315.6	
Н	P1010591.JPG	16:07:56	693395.3	5903318.6	
Н	P1010593.JPG	16:08:31	693388.9	5903327.7	
Н	P1010597.JPG	16:08:46	693389.6	5903334	
Н	P1010603.JPG	16:09:10	693386.1	5903347.3	
Н	P1010608.JPG	16:09:29	693384.9	5903356.7	
Н	P1010619.JPG	16:10:11	693391.1	5903362.7	



Transect	Still No.	Time	UTM Zo	UTM Zone 29N	
			Easting	Northing	
Н	P1010623.JPG	16:10:37	693388.9	5903367.9	
н	P1010629.JPG	16:11:08	693385.5	5903371.6	
Н	P1010638.JPG	16:11:42	693394.5	5903372.6	
н	P1010645.JPG	16:12:09	693391.1	5903379.2	
н	P1010651.JPG	16:12:34	693396.4	5903384.7	
Н	P1010654.JPG	16:12:44	693400.2	5903387.8	
н	P1010662.JPG	16:13:19	693411.2	5903396.6	
Н	P1010666.JPG	16:13:33	693417	5903401.4	
Н	P1010672.JPG	16:18:47	693437.6	5903445.8	
Н	P1010678.JPG	16:19:11	693445.9	5903450.5	
Н	P1010683.JPG	16:19:28	693436.6	5903450.2	
н	P1010686.JPG	16:19:44	693437.6	5903451.8	
Н	P1010691.JPG	16:20:04	693432.6	5903452.8	
Н	P1010699.JPG	16:20:33	693431.9	5903453.8	
н	P1010708.JPG	16:21:06	693428.5	5903452.3	
Н	P1010714.JPG	16:21:33	693426.3	5903447.1	
Н	P1010721.JPG	16:22:00	693417.3	5903444.2	
Н	P1010726.JPG	16:22:23	693416	5903440.5	
Н	P1010736.JPG	16:23:01	693418.6	5903448.1	
Н	P1010740.JPG	16:23:15	693412.1	5903453.9	
Н	P1010748.JPG	16:23:51	693415.3	5903454.9	
Н	P1010751.JPG	16:24:02	693413.2	5903457.3	
1	P1010098.JPG	14:48:19	693184.6	5903144.6	
I	P1010101.JPG	14:48:38	693187.6	5903143.7	
I	P1010103.JPG	14:48:47	693187.1	5903144.6	
I	P1010108.JPG	14:49:19	693184	5903147.6	
I	P1010110.JPG	14:49:30	693183.3	5903147.7	
I	P1010114.JPG	14:49:52	693182.4	5903148.9	
I	P1010117.JPG	14:50:10	693181.3	5903150.6	
I	P1010120.JPG	14:50:28	693180.8	5903150.9	
I	P1010123.JPG	14:50:45	693187.8	5903151.6	
I	P1010128.JPG	14:51:16	693189.7	5903157.4	
I	P1010133.JPG	14:51:49	693186.2	5903154.6	
I	P1010138.JPG	14:52:16	693189.9	5903144	
I	P1010143.JPG	14:52:48	693192.1	5903136.5	
I	P1010145.JPG	14:52:59	693189.9	5903135.7	
I	P1010149.JPG	14:53:24	693186.2	5903140.9	
I	P1010154.JPG	14:53:58	693186.4	5903138.6	
I	P1010158.JPG	14:54:23	693185.8	5903143.3	
I	P1010162.JPG	14:54:47	693183.9	5903144	
I	P1010168.JPG	14:55:25	693180.3	5903145.5	
I	P1010173.JPG	14:55:51	693180.1	5903153	
Ι	P1010176.JPG	14:56:11	693176.3	5903139.1	
I	P1010180.JPG	14:56:40	693178.4	5903149	



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
А	P1021391.JPG	Laminaria kelp, obstructed view of substrate	MB121	N/A	obstructed view of substrate
А	P1021396.JPG	Laminaria kelp, pebbles & cobbles	MB121	N/A	obstructed view of substrate
А	P1021419.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	N/A	obstructed view of substrate
А	P1021423.JPG	Laminaria kelp, pebbles & cobbles	MB121	N/A	obstructed view of substrate
А	P1021431.JPG	Laminaria kelp, obstructed view of substrate	MB121	N/A	obstructed view of substrate
A	P1021435.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
A	P1021439.JPG	Laminaria kelp, pebbles & cobbles	MB121	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
A	P1021448.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
A	P1021463.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
A	P1021472.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
A	P1021482.JPG	Filamentous red algae, pebbles & cobbles	MB121	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
A	P1021489.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
A	P1021494.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
A	P1021503.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	10-40% cobbles, Elevation <64 mm, >80% epifaunal species	Low resemblance stony reef
A	P1021511.JPG	Laminaria kelp, filamentous red algae, pebbles, cobbles & boulders	MB121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
A	P1021514.JPG	Filamentous red algae, pebbles, cobbles & boulders	MB121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
В	P1021210.JPG	Filamentous red algae, pebbles, cobbles & large boulders	MB121B	N/A	obstructed view of substrate

# Appendix 2 Description, EUNIS biotope assignments and reef assessments for each still image

August 2024 v4 - Final



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
B	P1021214 IPG	Filamentous red algae nebbles cobbles & large boulders	MB121B	Ν/Δ	obstructed view of substrate
B	P10212214.01 G	Filamentous red algae, pebbles, cobbles & large boulders	MB121B	40-95% cobbles & boulders Elevation 64 mm - 5	Medium resemblance stony reef
b	1 1021220.51 G		MDIZID	m, >80% epifaunal species	Wedium resemblance stony reel
В	P1021225.JPG	Filamentous red algae, pebbles, cobbles & large boulders	MB121B	10-40% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
В	P1021232.JPG	Filamentous red algae, cobbles & large boulders on muddy	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
	D1001005 ID0	mixed sediment		m, >80% epitaunal species	
В	P1021235.JPG	Filamentous red algae, pebbles, cobbles & large boulders	MB121B	N/A	obstructed view of substrate
В	P1021240.JPG	Filamentous red algae, pebbles, cobbles & large boulders	MB121B	N/A	obstructed view of substrate
В	P1021256.JPG	Filamentous red algae, pebbles, cobbles & large boulders	MB121B	N/A	obstructed view of substrate
В	P1021263.JPG	Filamentous red algae, pebbles, cobbles & large boulders	MB121B	N/A	obstructed view of substrate
В	P1021266.JPG	Filamentous red algae, pebbles, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
В	P1021271.JPG	Fine mud with single boulder covered in filamentous red algae	MC611	N/A	No resemblance
В	P1021276.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
В	P1021282.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
В	P1021286.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
В	P1021292.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
В	P1021297.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
В	P1021303.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
В	P1021308.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
В	P1021313.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
В	P1021317.JPG	Fine mud, worm cast	MC611	N/A	No resemblance
В	P1021322.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
В	P1021328.JPG	Fine mud, single small burrow	MC611	N/A	No resemblance
В	P1021337.JPG	Fine mud, worm cast	MC611	N/A	No resemblance
В	P1021343.JPG	Fine mud, unidentifiable turf	MC611	N/A	No resemblance
В	P1021347.JPG	Fine mud with pebbles and shell frags, sparse red algae	MC421	N/A	No resemblance
В	P1021356.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
В	P1021365.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
В	P1021376.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	N/A	obstructed view of substrate
В	P1021380.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	N/A	obstructed view of substrate
В	P1021383.JPG	Laminaria kelp, filamentous red algae, pebbles & cobbles	MB121	N/A	obstructed view of substrate
С	P1021055.JPG	Fine mud with gravel, pebbles and cobbles, no visible fauna	MC421	N/A	No resemblance
С	P1021063.JPG	Filamentous red algae, mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
С	P1021066.JPG	Filamentous red algae, mud, pebbles, cobbles & boulders	MB121B	N/A	obstructed view of substrate
С	P1021070.JPG	Fine mud with gravel, pebbles and cobbles, unidentifiable turf	MC421	N/A	No resemblance
С	P1021076.JPG	Filamentous red algae, mud, pebbles, cobbles & boulders	MB121B	10-40% cobbles, Elevation <64 mm, >80% epifaunal species	Low resemblance stony reef
С	P1021084.JPG	Filamentous red algae, mud, pebbles, cobbles & boulders	MB121B	N/A	obstructed view of substrate
С	P1021093.JPG	Filamentous red algae, mud, pebbles, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
С	P1021098.JPG	Filamentous red algae, mud, pebbles, cobbles & boulders	MB121B	10-40% cobbles, Elevation <64 mm, >80% epifaunal species	Low resemblance stony reef
С	P1021107.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
С	P1021112.JPG	Filamentous red algae, mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
С	P1021121.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
С	P1021129.JPG	Filamentous red algae, mud, pebbles, cobbles & boulders	MB121B	N/A	obstructed view of substrate
С	P1021137.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
С	P1021147.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
С	P1021153.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
С	P1021157.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
С	P1021163.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
C	P1021167.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
С	P1021171.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
С	P1021175.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	N/A	obstructed view of substrate
С	P1021181.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
С	P1021189.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
С	P1021195.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
C	P1021201.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	N/A	obstructed view of substrate
C	P1021202.JPG	Filamentous red algae, <i>Echinus esculentus</i> , mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
С	P1021205.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
D	P1010864.JPG	Fine mud with pebbles and cobbles, sparse red algae	MC421	40-95% cobbles, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
D	P1010869.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
D	P1010872.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	N/A	obstructed view of substrate
D	P1010876.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
D	P1010881.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
D	P1010887.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	N/A	obstructed view of substrate
D	P1010890.JPG	Filamentous red algae, mud, cobbles & pebbles	MB121B	10-40% cobbles, Elevation <64 mm, >80% epifaunal species	Low resemblance stony reef
D	P1010892.JPG	Fine mud with pebbles and cobbles, sparse red algae	MC421	10-40% boulders, Elevation <64 mm, >80% epifaunal species	Low resemblance stony reef
D	P1010900.JPG	Fine mud with large turf covered boulders	MC421	10-40% cobbles, Elevation 64 mm - 5 m, <80% epifaunal species	Low resemblance stony reef
D	P1010904.JPG	Fine mud, single small burrow	MC611	N/A	No resemblance
D	P1010907.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
D	P1010911.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
	D1010015 ID0			m, >80% epifaunal species	
D	P1010915.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% coopies & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
D	P1010921.JPG	Filamentous red algae, mud, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
D	P1010927.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
D	P1010932.JPG	Filamentous red algae, mud, cobbles & large boulders,	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum & colonial ascidiacea		m, >80% epifaunal species	
D	P1010937.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
D	P1010942.JPG	Filamentous red algae, mud, cobbles & large boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
	D1010050 ID0			m, >80% epifaunal species	
D	P1010952.JPG	Fine mud, <i>Cerianthus Iloydii</i>	MC611	N/A	No resemblance
D	P1010958.JPG	Fine mud, no visible fauna	MC611	N/A	No resemblance
D	P1010966.JPG	Fine mud, small burrows	MC611	N/A	No resemblance
D	P1010973.JPG	Fine mud, small burrows, Virgularia mirabilis	MC611	N/A	No resemblance
D	P1010983.JPG	Fine mud, small burrows	MC611	N/A	No resemblance
D	P1010993.JPG	Fine mud, small burrows	MC611	N/A	No resemblance
D	P1011000.JPG	Fine mud, small burrows	MC611	N/A	No resemblance
D	P1011008.JPG	Fine mud, burrows	MC611	N/A	No resemblance
D	P1011016.JPG	Fine mud, burrows & Virgularia mirabilis	MC611	N/A	No resemblance
D	P1011021.JPG	Fine mud, small burrows	MC611	N/A	No resemblance
D	P1021030.JPG	Fine mud, burrows	MC611	N/A	No resemblance
D	P1021037.JPG	Fine mud with pebbles and cobbles	MC421	N/A	No resemblance
E	P1010755.JPG	Fine mud, small burrows	MC611	N/A	No resemblance
E	P1010758.JPG	Fine mud, few shell fragments, small burrows	MC611	N/A	No resemblance
E	P1010761.JPG	Fine mud with pebbles and cobbles, unidentifiable turf	MC421	N/A	No resemblance
E	P1010764.JPG	Fine mud with pebbles and cobbles, unidentifiable turf	MC421	N/A	No resemblance



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
E	P1010767.JPG	Fine mud with pebbles, cobbles & boulders, unidentifiable turf	MC421	10-40% cobbles, Elevation >64 mm, >80%	Low resemblance stony reef
				epifaunal species	
E	P1010771.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
E	P1010774.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
E	P1010778.JPG	Fine mud, small burrows, cobble with unidentifiable turf	MC611	N/A	No resemblance
E	P1010780.JPG	Fine mud, burrows & Cerianthus lloydii	MC611	N/A	No resemblance
E	P1010786.JPG	Fine mud, burrows & Cerianthus lloydii	MC611	N/A	No resemblance
E	P1010790.JPG	Fine mud, burrows	MC611	N/A	No resemblance
E	P1010797.JPG	Fine mud, burrows	MC611	N/A	No resemblance
E	P1010810.JPG	Fine mud, burrows	MC611	N/A	No resemblance
E	P1010819.JPG	Fine mud, burrows	MC611	N/A	No resemblance
E	P1010830.JPG	Fine mud, burrows	MC611	N/A	No resemblance
E	P1010836.JPG	Fine mud, burrows	MC611	N/A	No resemblance
E	P1010841.JPG	Fine mud, burrows	MC611	N/A	No resemblance
E	P1010847.JPG	Fine mud and shell frags, burrows	MC611	N/A	No resemblance
E	P1010851.JPG	Fine mud, burrows	MC611	N/A	No resemblance
E	P1010856.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
E	P1010860.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
G	P1010181.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
G	P1010183.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum & Alcyonium digitatum		m, >80% epifaunal species	
G	P1010188.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Calliostoma zizyphinum, Alcyonidium diaphanum & Alcyonium		m, >80% epifaunal species	
		digitatum			
G	P1010195.JPG	Large turt covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
1		Alcyonialum diaphanum	1	m, >80% epitaunal species	



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
G	P1010200.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum		m, >80% epifaunal species	
G	P1010203.JPG	Large turf covered boulders on fine mud & cobbles, Asterias	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		rubens, Alcyonidium diaphanum & Alcyonium digitatum		m, >80% epifaunal species	
G	P1010209.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum & red algae		m, >80% epifaunal species	
G	P1010213.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
G	P1010220.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
G	P1010223.JPG	Fine mud, small burrows, cobble with unidentifiable turf	MC611	N/A	No resemblance
G	P1010226.JPG	Fine mud, few shell fragments, small burrows & Cerianthus Iloydii	MC611	N/A	No resemblance
G	P1010233.JPG	Fine mud, few shell fragments, small burrows	MC611	N/A	No resemblance
G	P1010238.JPG	Fine mud with gravel and shell frags, Cerianthus lloydii	MC421	N/A	No resemblance
G	P1010241.JPG	Fine mud, small burrows	MC611	N/A	No resemblance
G	P1010245.JPG	Fine mud with gravel and shell frags, Pecten maximus	MC421	N/A	No resemblance
G	P1010250.JPG	Fine mud, few shell fragments, small burrows	MC611	N/A	No resemblance
G	P1010256.JPG	Fine mud with pebbles, gravel and shell frags, Cerianthus	MC421	N/A	No resemblance
		lloydii			
G	P1010259.JPG	Fine mud, few shell fragments, small burrows	MC611	N/A	No resemblance
G	P1010262.JPG	Fine mud with cobbles, pebbles and shell frags, Cerianthus Iloydii	MC421	N/A	No resemblance
G	P1010266.JPG	Fine mud with cobbles, pebbles and shell frags, <i>Cerianthus</i>	MC421	N/A	No resemblance
G	P1010271.JPG	Fine mud with cobbles, pebbles and shell frags, turf.	MC421	10-40% cobbles. Elevation <64 mm >80%	Low resemblance stony reef
		Alcyonidium diaphanum & Cerianthus Iloydii		epifaunal species	,,
G	P1010277.JPG	Fine mud with cobbles, pebbles and shell frags, turf &	MC421	10-40% cobbles, Elevation <64 mm, >80%	Low resemblance stony reef
		Alcyonidium diaphanum		epifaunal species	
G	P1010280.JPG	Fine mud with cobbles, pebbles and shell frags, turf &	MC421	10-40% cobbles, Elevation <64 mm, >80%	Low resemblance stony reef
		Alcyonidium diaphanum		epifaunal species	



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
G	P1010287.JPG	Fine mud with cobbles, pebbles and shell frags, Cerianthus	MC421	10-40% cobbles, Elevation <64 mm, >80%	Low resemblance stony reef
		lloydii		epifaunal species	
G	P1010293.JPG	Fine mud with cobbles, pebbles and shell frags, Cerianthus	MC421	N/A	No resemblance
		lloydii			
G	P1010298.JPG	Fine mud with cobbles, pebbles and shell frags, turf $\&$	MC421	10-40% cobbles, Elevation <64 mm, >80%	Low resemblance stony reef
		Alcyonidium diaphanum		epifaunal species	
G	P1010304.JPG	Fine mud with pebbles, gravel and shell frags, Cerianthus	MC421	N/A	No resemblance
		lloydii			
G	P1010309.JPG	Fine mud with pebbles, gravel and shell frags, Alcyonidium	MC421	N/A	No resemblance
		diaphanum & Cerianthus Iloydii			
G	P1010315.JPG	Fine mud with pebbles, gravel and shell frags, Cerianthus	MC421	N/A	No resemblance
		lloydii			
G	P1010319.JPG	Fine mud with pebbles, gravel and shell frags, Alcyonidium	MC421	N/A	No resemblance
		diaphanum & Cerianthus Iloydii			
G	P1010325.JPG	Fine mud with cobbles, pebbles and shell frags, turf &	MC421	40-95% cobbles, Elevation 64 mm - 5 m, >80%	Medium resemblance stony reef
		Alcyonidium diaphanum		epitaunal species	
G	P1010327.JPG	Fine mud with cobbles, pebbles and shell frags, turf, Asterias	MC421	40-95% cobbles, Elevation 64 mm - 5 m, >80%	Medium resemblance stony reef
		rubens & Alcyonidium diaphanum		epifaunal species	
G	P1010330.JPG	Fine mud with cobbles, pebbles and shell frags, turf, Asterias	MC421	40-95% cobbles, Elevation 64 mm - 5 m, >80%	Medium resemblance stony reef
	B4040005 IB0	rubens & Alcyonidium diaphanum		epifaunal species	
G	P1010335.JPG	Large boulder with Alcyonium digitatum & Asterias rubens	MC121	40-95% cobbles, Elevation 64 mm - 5 m, >80%	Medium resemblance stony reef
				epifaunai species	
G	P1010338.JPG	Single large turf covered boulder surrounded by fine mud,	MC421	40-95% cobbles, Elevation 64 mm - 5 m, >80%	Medium resemblance stony reef
	D1010242 IDC	Cobbles, peoples and shell frags, Alcyonium digitatum	NAC 421	epiraunal species	Madium racamblanca stany roof
G	P1010342.JPG	Fine mud with bounders, cobbles and pebbles, turi &	101C421	40-95% CODDIES, Elevation 64 mm - 5 m, >80%	Medium resemblance stony reel
6	P1010245 IPG	Fina mud. small burrows & Carianthus lloudii	MC611		No recomblance
0	F1010343.JFG		NICO11	N/A	No resemblance
G	P1010348.JPG	Fine mud, small burrows & Cerianthus lloyali	MIC611	N/A	No resemblance
G	P1010350.JPG	Fine mud, small burrows & Cerianthus lloydii	MC611	N/A	No resemblance
G	P1010354.JPG	Fine mud, burrows	MC611	N/A	No resemblance
G	P1010358.JPG	Fine mud, burrows	MC611	N/A	No resemblance
G	P1010362.JPG	Fine mud, burrows	MC611	N/A	No resemblance



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
G	P1010366.JPG	Fine mud, burrows	MC611	N/A	No resemblance
G	P1010371.JPG	Fine mud, burrows & Cerianthus Iloydii	MC611	N/A	No resemblance
G	P1010374.JPG	Fine mud, burrows & Cerianthus lloydii	MC611	N/A	No resemblance
G	P1010379.JPG	Fine mud, burrows & Cerianthus lloydii	MC611	N/A	No resemblance
G	P1010382.JPG	Fine mud, burrows	MC611	N/A	No resemblance
G	P1010386.JPG	Fine mud, burrows	MC611	N/A	No resemblance
G	P1010390.JPG	Fine mud, possible Nephrops burrows & Cerianthus lloydii	MC611	N/A	No resemblance
G	P1010393.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
G	P1010395.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
G	P1010401.JPG	Fine mud, burrows & Virgularia mirabilis	MC611	N/A	No resemblance
G	P1010404.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
G	P1010410.JPG	Fine mud, burrows	MC611	N/A	No resemblance
G	P1010413.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
G	P1010420.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
G	P1010425.JPG	Fine mud, burrows	MC611	N/A	No resemblance
G	P1010431.JPG	Fine mud with some shell frags, burrows	MC611	N/A	No resemblance
G	P1010434.JPG	Fine mud with cobbles, pebbles and shell frags, turf	MC421	N/A	No resemblance
G	P1010438.JPG	Fine mud with cobbles, pebbles and shell frags, turf, Asterias rubens & Alcyonidium diaphanum	MC421	N/A	No resemblance
G	P1010440.JPG	Turf covered boulder surrounded by fine mud, cobbles, pebbles and shell frags	MC421	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
G	P1010442.JPG	Turf covered boulder surrounded by fine mud, cobbles, pebbles and shell frags	MC421	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
G	P1010444.JPG	Large turf covered boulders on fine mud & cobbles, Alcyonidium diaphanum	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
G	P1010447.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
G	P1010449.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
G	P1010450.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum & red algae		m, >80% epifaunal species	
G	P1010453.JPG	Fine mud with turf covered cobbles, pebbles and shell frags	MC421	10-40% cobbles, Elevation <64 mm, >80% epifaunal species	Low resemblance stony reef
G	P1010454.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum & Alcyonium digitatum		m, >80% epifaunal species	
Н	P1010459.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum		m, >80% epifaunal species	
Н	P1010461.JPG	Fine mud with cobbles, pebbles and shell frags, turf	MC421	10-40% cobbles, Elevation <64 mm, >80%	Low resemblance stony reef
				epifaunal species	
Н	P1010464.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum, Necora puber		m, >80% epifaunal species	
Н	P1010467.JPG	Large turf covered boulder on fine mud, pebbles & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum		m, >80% epifaunal species	
Н	P1010470.JPG	Turf covered boulders surrounded by fine mud, cobbles,	MC421	10-40% cobbles, Elevation >64 mm, >80%	Low resemblance stony reef
		pebbles and shell frags		epifaunal species	
Н	P1010473.JPG	Large turf covered boulders on fine mud & cobbles, Pecten	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		maximus		m, >80% epifaunal species	
Н	P1010476.JPG	Fine mud with turf covered cobbles, pebbles and shell frags, Cerianthus lloydii	MC421	N/A	No resemblance
Н	P1010479.JPG	Large turf covered boulders on fine mud, pebbles & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
Н	P1010485.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum		m, >80% epifaunal species	
Н	P1010500.JPG	Large turf covered boulders on fine mud, pebbles & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
Н	P1010501.JPG	Lots of turf covered cobbles and pebbles on fine mud	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
Н	P1010507.JPG	Large turf covered boulder on fine mud, pebbles & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonium digitatum & Nemertesia		m, >80% epifaunal species	
Н	P1010509.JPG	Fine mud with turf covered cobbles, pebbles & gravel	MC421	10-40% cobbles, Elevation <64 mm, >80%	Low resemblance stony reef
				epifaunal species	



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
Н	P1010513.JPG	Fine mud with turf covered cobbles, pebbles & gravel,	MC421	10-40% cobbles, Elevation <64 mm, >80%	Low resemblance stony reef
		Alcyonidium diaphanum		epifaunal species	
н	P1010516.JPG	Fine mud with turf covered cobbles, pebbles & gravel	MC421	10-40% cobbles, Elevation <64 mm, >80%	Low resemblance stony reef
				epifaunal species	
н	P1010518.JPG	Fine mud with turf covered boulder, cobbles, pebbles &	MC421	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		gravel, Alcyonium digitatum, Necora puber & Nemertesia		m, >80% epifaunal species	
н	P1010522.JPG	Fine mud with turf covered cobbles, pebbles and shell frags,	MC421	10-40% cobbles, Elevation <64 mm, >80%	Low resemblance stony reef
			N0C11	epiraunai species	No soossblasse
н	P1010526.JPG	Fine mud, possible <i>Nephrops</i> burrows	MC611	N/A	No resemblance
н	P1010533.JPG	Fine mud with shell frags, possible <i>Nephrops</i> burrows	MC611	N/A	No resemblance
Н	P1010545.JPG	Fine mud with shell frags, burrows	MC611	N/A	No resemblance
Н	P1010552.JPG	Fine mud with shell frags, burrows	MC611	N/A	No resemblance
н	P1010560.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
н	P1010567.JPG	Fine mud with shell frags, small burrows	MC611	N/A	No resemblance
Н	P1010573.JPG	Fine mud with shell frags, small burrows	MC611	N/A	No resemblance
Н	P1010576.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
Н	P1010580.JPG	Fine mud with shell frags, burrows	MC611	N/A	No resemblance
н	P1010585.JPG	Fine mud, burrows	MC611	N/A	No resemblance
Н	P1010587.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
н	P1010591.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
н	P1010593.JPG	Fine mud with shell frags	MC611	N/A	No resemblance
н	P1010597.JPG	Fine mud with shell frags, burrows, Cancer pagurus	MC611	N/A	No resemblance
н	P1010603.JPG	Fine mud, possible Nephrops burrows	MC611	N/A	No resemblance
Н	P1010608.JPG	Fine mud with shell frags, burrows	MC611	N/A	No resemblance
н	P1010619.JPG	Fine mud with shell frags, burrows	MC611	N/A	No resemblance
Н	P1010623.JPG	Fine mud with shell frags, burrows, Cerianthus lloydii	MC611	N/A	No resemblance
Н	P1010629.JPG	Fine mud with turf covered cobbles & pebbles, Cerianthus	MC421	N/A	No resemblance
		lloydii			
Н	P1010638.JPG	Large turf covered boulders on fine mud & cobbles	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
Н	P1010645.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum		m, >80% epifaunal species	
Н	P1010651.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum		m, >80% epifaunal species	
Н	P1010654.JPG	Fine mud and large turf covered boulders, burrows, Cerianthus	MC421	10-40% cobbles, Elevation >64 mm, <80%	Low resemblance stony reef
		lloydii & Asterias rubens		epifaunal species	
Н	P1010662.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum & Asterias rubens		m, >80% epifaunal species	
Н	P1010666.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum		m, >80% epifaunal species	
н	P1010672.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum & Cerianthus lloydii		m, >80% epifaunal species	
Н	P1010678.JPG	Fine mud and large turf covered boulders, burrows, Cerianthus	MC421	10-40% cobbles, Elevation >64 mm, <80%	Low resemblance stony reef
		lloydii		epifaunal species	
н	P1010683.JPG	Fine mud with shell frags, burrows, Cerianthus lloydii, single	MC611	N/A	No resemblance
		turf covered boulder with Nemertesia			
н	P1010686.JPG	Fine mud with shell frags, burrows, Cerianthus lloydii	MC611	N/A	No resemblance
Н	P1010691.JPG	Large turf covered boulders on fine mud & cobbles, Alcyonium	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		digitatum & Asterias rubens		m, >80% epifaunal species	
Н	P1010699.JPG	Large turf covered boulders on fine mud & cobbles, Alcyonium	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		digitatum & Asterias rubens		m, >80% epifaunal species	
Н	P1010708.JPG	Large turf covered boulder, Alcyonium digitatum	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
Н	P1010714.JPG	Fine mud with turf covered boulders and cobbles, Cerianthus	MC421	10-40% cobbles, Elevation >64 mm, <80%	Low resemblance stony reef
		lloydii, Nemertesia & Alcyonium digitatum		epifaunal species	
Н	P1010721.JPG	Fine mud with turf covered boulders and cobbles, Cerianthus	MC421	10-40% cobbles, Elevation >64 mm, <80%	Low resemblance stony reef
		lloydii & Alcyonidium diaphanum		epifaunal species	
Н	P1010726.JPG	Fine mud with shell frags, burrows, Cerianthus lloydii	MC611	N/A	No resemblance
Н	P1010736.JPG	Large turf covered boulders on fine mud, pebbles & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonium digitatum & Alcyonidium diaphanum		m, >80% epifaunal species	
Н	P1010740.JPG	Large turf covered boulders on fine mud & cobbles,	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		Alcyonidium diaphanum		m, >80% epifaunal species	



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
Н	P1010748.JPG	Large turf covered boulders on fine mud & cobbles, Alcyonium	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		digitatum		m, >80% epifaunal species	
Н	P1010751.JPG	Large turf covered boulders on fine mud & cobbles, Alcyonium	MC121	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		digitatum & Asterias rubens		m, >80% epifaunal species	
I	P1010098.JPG	Filamentous red algae, fine mud, cobbles & boulders, Asterias	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		rubens		m, >80% epifaunal species	
I	P1010101.JPG	Filamentous red algae, fine mud, pebbles & cobbles	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
I	P1010103.JPG	Filamentous red algae, fine mud, pebbles, cobbles & large	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		boulders		m, >80% epifaunal species	
I	P1010108.JPG	Filamentous red algae, fine mud, pebbles, cobbles & large	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		boulders		m, >80% epifaunal species	
I	P1010110.JPG	Filamentous red algae, fine mud, pebbles, cobbles & large	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		boulders		m, >80% epifaunal species	
I	P1010114.JPG	Filamentous red algae on large turf covered boulders, fine	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		mud & pebbles		m, >80% epifaunal species	
I	P1010117.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
I	P1010120.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
I	P1010123.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
I	P1010128.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
I	P1010133.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
I	P1010138.JPG	Filamentous red algae on large turf covered boulders, fine	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
		mud, pebbles & cobbles		m, >80% epifaunal species	
I	P1010143.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	
I	P1010145.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5	Medium resemblance stony reef
				m, >80% epifaunal species	



Transect	Still No.	Description	EUNIS (2022) Biotope code	Stony Reef Criteria	Stony Reef Assessment
I	P1010149.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
I	P1010154.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
I	P1010158.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
I	P1010162.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
I	P1010168.JPG	Cobbles & pebbles on fine mud, sparse filamentous red algae	MC421	10-40% cobbles, Elevation <64 mm, >80% epifaunal species	Low resemblance stony reef
I	P1010173.JPG	Filamentous red algae on large turf covered boulders, fine mud & pebbles	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
I	P1010176.JPG	Filamentous red algae, fine mud, pebbles, cobbles & boulders	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef
I	P1010180.JPG	Filamentous red algae on large turf covered boulders, fine mud & pebbles	MB121B	40-95% cobbles & boulders, Elevation 64 mm - 5 m, >80% epifaunal species	Medium resemblance stony reef

