

# Biological analyses of underwater video from monitoring and research cruises in Lochs Ailort and Fyne, the Sounds of Barra and Mull, inner Moray Firth, off Wester Ross, Noss Head and Rattray Head, and around the Southern Trench in outer Moray Firth





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# RESEARCH REPORT

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Research Report No. 1085

**Biological analyses of underwater video from monitoring and research cruises in Lochs Ailort and Fyne, the Sounds of Barra and Mull, inner Moray Firth, off Wester Ross, Noss Head and Rattray Head, and around the Southern Trench in outer Moray Firth**

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# RESEARCH REPORT

# Summary

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Biological analyses of underwater video from monitoring and research cruises in Lochs Ailort and Fyne, the Sounds of Barra and Mull, inner Moray Firth, off Wester Ross, Noss Head and Rattray Head, and around the Southern Trench in outer Moray Firth

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**Project No: 014988**  
**Contractor: Dr Colin Moore**  
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## **Keywords**

benthos; biotope; PMF; MPA; protected feature; Annex I; habitat; video; Sound of Barra; Loch Fyne; Sound of Mull; Loch Ailort; Wester Ross; Noss Head; Moray Firth; Southern Trench; Rattray Head

## **Background**

The aim of this study was to improve knowledge of the occurrence and distribution of species and habitats of recognised conservation importance in eleven locations around Scotland through the analysis of seabed video and still photographic imagery collected during monitoring and research cruises undertaken from 2015 to 2018. Nine of the survey locations are encompassed by the Scottish Marine Protected Area (MPA) network: Sound of Barra, Loch Fyne, Sound of Mull, Wester Ross, Noss Head and an MPA proposal encompassing the Southern Trench in the outer Moray Firth and inland waters off Rattray Head. Areas surveyed in Loch Ailort and off Melvaig, Wester Ross do not lie within MPAs. This work also contributes to a programme of refining predictive mapping of the distribution of Habitats Directive Annex I habitats within Scottish marine SACs.

## **Main findings**

- Within the Sound of Barra SAC a high proportion of survey video runs passed through qualifying Annex 1 features (seabed habitats for which the site was designated), with widespread distribution of rocky reef and subtidal sandbank habitats. Four of the six designated subtidal sandbank sub-types were recorded, strongly dominated by 'gravelly and clean sands' and the PMF 'maerl beds'. The 'burrowed mud' PMF was recorded along six video runs beyond the boundary of the SAC, as was the 'northern sea fan and sponge communities' PMF (with the component species the northern sea fan *Swiftia pallida*) along one run.
- The flame shell bed at Otter Spit in the Upper Loch Fyne and Loch Goil MPA, a protected feature and PMF, was found to have a similar distribution to that recorded three years previously. The protected feature 'burrowed mud' was recorded, together with its component species *Pachycerianthus multiplicatus*, at five sites in Loch Shira. The

protected feature 'sublittoral mud and specific mixed sediment communities' was found along five video runs within or close to the southern boundary of the MPA. Other PMFs recorded in the same area included fairly poorly developed examples of 'kelp and seaweed communities on sediment' and sparse *Arctica islandica*.

- The PMF *Swiftia pallida* was found to be widely distributed within the Sound of Mull, as were 'northern sea fan and sponge communities' of which it is a component. 'Burrowed mud' was recorded in the south-east and north-west of the Sound, as was the burrowed mud component species *Funiculina quadrangularis* at one site. Other PMF species recorded included *Leptometra celtica*, which was widely distributed, including in the form of aggregations on mixed substrates, *Arctica islandica*, including one record of an aggregation of the species, and single records of *Lophius piscatorius* and possibly *Parazoanthus anguicomus*.
- Three PMF habitats were recorded within Loch Ailort. These included poor examples of 'kelp and seaweed communities on sublittoral sediment' present along two of the nine video runs and one example of a 'low or variable salinity habitat' supporting kelp. Small aggregations of *Serpula vermicularis* were identified at one site, constituting a poorly developed example of the PMF 'serpulid aggregations'.
- Six of the seven designated protected features of the Wester Ross MPA were identified during the current study. The survey of the flame shell bed in Loch Broom revealed no evidence of a change in its distribution since a 2010 examination, although there appeared to be a temporal increase in the thickness and luxuriance of the byssal turf. Maerl bed habitats were widely recorded around Gruinard Island and amongst the islands in the outer region of the MPA and there was a single record of the related protected feature 'maerl or coarse shell gravel with burrowing sea cucumbers' off Gruinard Island. There were also scattered records of 'kelp and seaweed communities on sublittoral sediment' and a group of five records of the 'circalittoral muddy sand' protected feature near the mouth of Little Loch Broom, mostly supporting aggregations of *Leptometra celtica*, also observed at the mouth of Loch Broom. Other PMFs observed within the MPA included *Arctica islandica*, *Gadus morhua* and *Ostrea edulis*.
- The seabed off Melvaig, Wester Ross largely consisted of megaripples of coarse sediment, with the 'maerl bed' PMF ascribed to nine of the twenty sites.
- The distribution of the horse mussel bed protected feature within the Noss Head MPA was found to be consistent with that based on previous surveys.
- All three designated Annex 1 subtidal sandbank sub-type habitats of the Moray Firth SAC were observed. There was a progression of sub-types east of Cromarty Firth, from 'mixed sediments' in the mouth of the Firth, through 'gravelly and clean sands', to an extensive area of 'muddy sands' in less current-swept waters. Three fairly well-burrowed examples of 'burrowed mud' were recorded.
- The protected feature 'burrowed mud' was widely recorded in deep water of the Southern Trench MPA proposal. There were sparse records of two PMF species here: *Lophius piscatorius* and possibly *Molva molva*. *Sabellaria spinulosa* reef habitats were widely recorded in the south-eastern arm of the MPA proposal. *Sabellaria* reefs are included in the OSPAR List of Threatened and/or Declining Species and Habitats.

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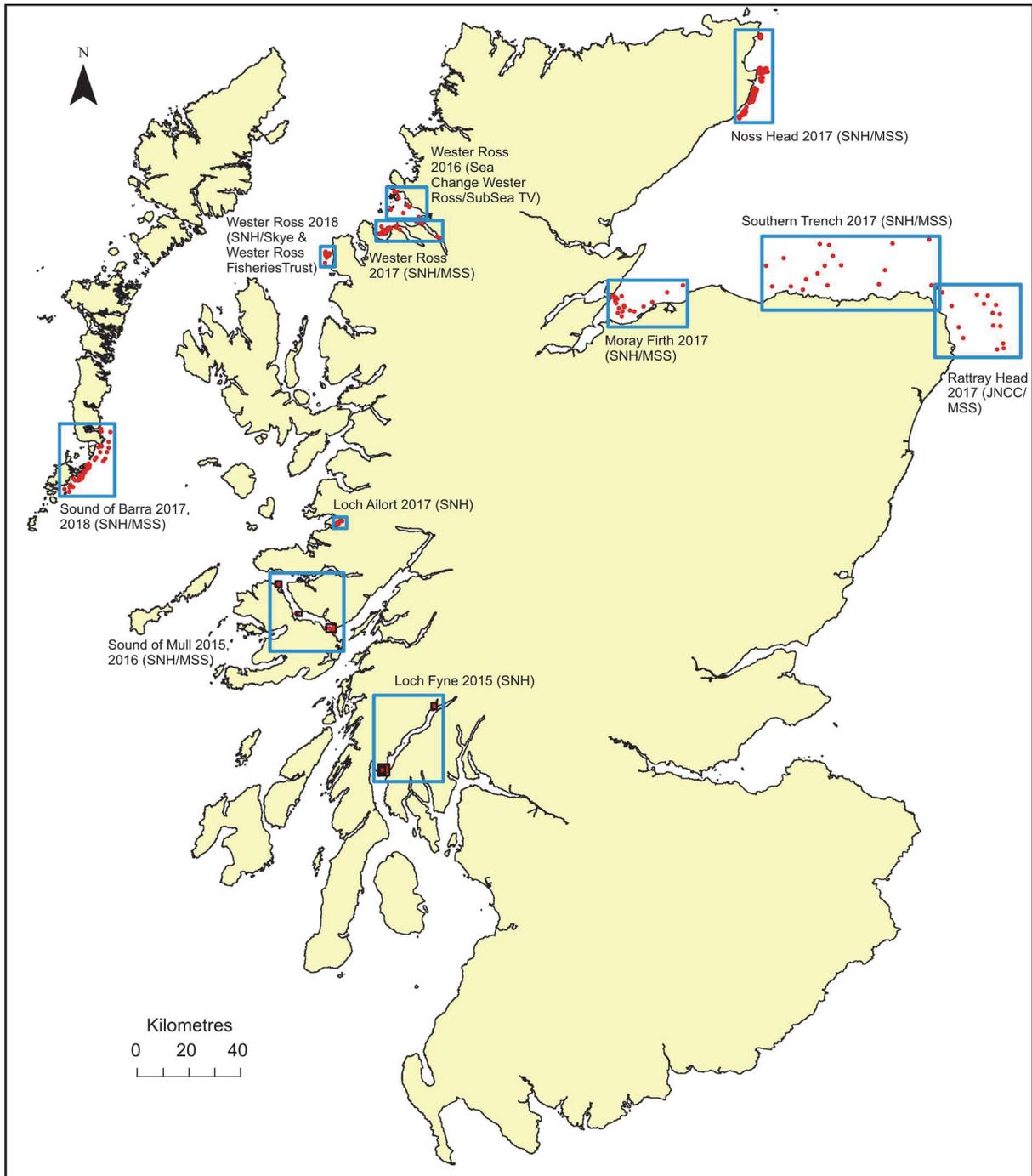
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# 1. INTRODUCTION

This is the thirteenth report from a series of underwater video analyses commissioned by SNH since 2009. The primary aim of these studies is to improve knowledge of the occurrence and distribution of species and habitats of recognised conservation importance through the analysis of seabed video and still photographic imagery collected during monitoring and research cruises. The drivers for the different surveys include mapping and monitoring within marine protected areas (MPAs), monitoring to assess the impacts of human activities and general inventory sampling to fill gaps in current understanding.



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Figure 1. Distribution of video survey locations (blue boxes) and sample sites (red dots).

The present investigation analysed underwater video footage from thirteen surveys at eleven locations in Scottish territorial waters. These data were collected from 2015 to 2018 by Marine Scotland Science (MSS), SNH, Joint Nature Conservation Committee (JNCC), Skye and Wester Ross Fisheries Trust, Sea Change Wester Ross and SubSea TV. The survey locations are shown in Figure 1.

Nine of the survey locations are encompassed within the Scottish network of marine protected areas, which includes Special Areas of Conservation (SACs) and Nature Conservation Marine Protected Areas (NC MPAs). The SACs were established under the 1992 EC Habitats Directive and were selected for the protection of particular habitats and species which are listed in Annex 1 and 2, respectively, of the Directive. The MPAs were designated in 2014 under the Marine (Scotland) Act 2010 (see Marine Scotland, 2011). The surveys carried out within Loch Ailort in 2017 and off Melvaig, Wester Ross in 2018 do not lie within protected areas.

Parts of the Sound of Barra and Moray Firth SACs form a component of this work. The analyses also encompass footage collected from the following MPAs: Upper Loch Fyne and Loch Goil, Wester Ross, Noss Head and the proposed Southern Trench MPA in the outer Moray Firth (SNH, 2014). The habitats for which these sites were designated are listed in Annexes 1 and 2 of this report. Surveying was also carried out in the Sound of Mull which lies within the Loch Sunart to Sound of Jura MPA, designated for the protection of geodiversity features and the common skate. The 2017 Noss Head survey extended into the East Caithness Cliffs MPA designated for the protection of the black guillemot.

The conservation importance of features found in this report has been assessed through consideration of a number of legislative drivers. These include the presence of qualifying habitats within the SACs and protected features (PFs) in the MPAs, and the presence of Scottish Priority Marine Features (PMFs) (SNH & JNCC, 2014) within and outside MPAs. Cognisance has also been taken of other published importance measures.

The current study serves to contribute to a programme of refining the distribution of Habitat Directive Annex I habitats within Scottish SACs and of protected features within MPAs. It also contributes to ongoing monitoring of protected areas and to a programme of improving knowledge of the distribution of biotopes and PMFs within protected and wider areas. The purpose of the individual surveys is summarised in Table 1.

## 2. METHODS

Survey details are given in Table 1. Video images were obtained from dropdown video drifts for all surveys apart from Wester Ross 2016, where video clips were recorded by diver at intervals along an approximate compass bearing. For most surveys the video frame carried a laser scaling system and the facility to take digital still photographs at intervals. A high definition video camera was employed at all sites, generally in combination with a lower resolution 'navigation' camera (see Table 2). A video overlay display for most of the surveys provided varying combinations of time, date, position and depth data along the runs (see Table 2 for details). Where this was lacking, time, positional and depth details were provided for the start and end of the runs except for Rattray Head and most of the Wester Ross 2016 sites, where depth data were available for only the start of the runs. Vessel track data were available for most of the surveys, generally at a frequency of 1 Hz (Table 1). All depths were converted to depth below chart datum, employing TotalTide software (Admiralty, Taunton) to determine tidal rise at the most appropriate secondary port.

The video and still imagery was used to describe the nature of the seabed in terms of the physical structure and the species assemblages. Species present were, as far as possible, identified and quantified using the semi-quantitative MNCR SACFOR scale (Hiscock, 1996). Biotopes were allocated based on the physical and biological attributes (Connor *et al.*, 2004). Runs traversing a sequence of habitats were split into corresponding segments, with the transition points recorded using the time, position and depth where the data were available. Where positional data were not available for biotope boundaries, the start and end positions of the run were allocated to all the component segments. Video segments, as well as homogeneous, unsegmented runs are regarded as video samples. Segmentation of runs was not practicable in the case of mosaics of biotopes, in which case all biotopes observed were simply listed. For surveys of SAC locations each video sample was classified according to the qualifying Habitats Directive Annex I habitats present. The presence of PFs was recorded for all video samples within MPAs and the presence of PMFs for all video samples.

In the figures of this report the positions of biotope records have generally been plotted using biotope symbols marking the midpoint of the start and end of the sample, together with the positional track data, either in full detail or in simplified form using a straight line between start and end points to facilitate greater clarity or where the track data are missing (at least in part), infrequent or inaccurate. In an accompanying GIS file the detailed vessel track data for each run, where available, has been segmented into biotopes, Annex 1 habitats, PFs and PMFs and this form of display is employed in figures of the current report only where it provides additional useful detail.

Table 1. Survey details. The survey area code is the abbreviation employed in Tables 3 & 4.

Survey location	Organisation	Date	Vessel	Track frequency (Hz)	No. sites	Survey area code	Interest
Sound of Barra	SNH/MSS	11-12/5/2017	MRV <i>Albana Mara</i>	1	30	SOB	Refining distribution of biotopes including Annex I habitats
Sound of Barra	SNH/MSS	9-12/6/2018	MRV <i>Albana Mara</i>	1	32	SOB	as above
Loch Fyne	SNH	10-22/7/2015	MRV <i>Seol Mara</i>	0.05	46	LF	MPA monitoring and refining knowledge of protected feature distribution
Sound of Mull	SNH/MSS	24-25/9/2015	MRV <i>Albana Mara</i>	1	11	SOM	Contingency sampling, monitoring MPA management effectiveness
Sound of Mull	SNH/MSS	18/04/2016	MRV <i>Albana Mara</i>	1	8	SOM	as above
Loch Ailort	SNH	27/04/2017	RIB <i>Aphrodite</i>	0	9	LA	Serpulid aggregations PMF distribution and condition
Wester Ross	SNH/MSS	14-15/5/2017	MRV <i>Albana Mara</i>	1	35	WER	Refining knowledge of MPA protected feature distribution
Wester Ross	Sea Change Wester Ross/ SubSea TV	22-26/8/2016	Unknown	0	9	WER	as above
Wester Ross	SNH/Skye & Wester Ross Fisheries Trust	26/02/2018	FV <i>Zephyr</i>	0.2	20	MHS	Improving knowledge on the distribution of biotopes and herring spawn check
Noss Head	SNH/MSS	08-12/7/2017	MRV <i>Albana Mara</i>	1	126	NH	Improving knowledge of protected features within MPAs and biotope distribution outwith MPAs
Moray Firth	SNH/MSS	13/07/2017	MRV <i>Albana Mara</i>	1	23	MF	Refining distribution of biotopes including Annex I habitats
Southern Trench	SNH/MSS	14-15/7/2017	MRV <i>Albana Mara</i>	1	18	STR	Refining knowledge of MPA protected feature distribution
Ratray Head	JNCC/MSS	7-8/11/2017	MRV <i>Scotia</i>	1	17	RH	Contingency sampling, improving knowledge of distribution of biotopes

Table 2. Video footage details.

Survey	Overlay time	Overlay date	Overlay position	Overlay depth	Video resolution
Sound of Barra 2017 (SNH/MSS)	•	•	•	•	1440x1080, 720x576
Sound of Barra 2018 (SNH/MSS)	•	•	•	•	1920x1080, 720x576
Loch Fyne 2015 (SNH)	•		•		1440x1080, 768x576
Sound of Mull 2015 (SNH/MSS)	•	•	•	•	1920x1080, 720x576
Sound of Mull 2016 (SNH/MSS)	•	•	•	•	1920x1080, 720x576
Loch Ailort 2017 (SNH)					1920x1080
Wester Ross 2017 (SNH/MSS)	•	•	•	•	1440x1080, 720x576
Wester Ross 2016 (Sea Change Wester Ross/SubSea TV)					1920x1080
Wester Ross 2018 (SNH/Skye & Wester Ross Fisheries Trust)	•	•	•		1920x1080, 720x480
Noss Head 2017 (SNH/MSS)	•	•	•	•	1920x1080, 720x576
Moray Firth 2017 (SNH/MSS)	•	•	•	•	1920x1080, 720x576
Southern Trench 2017 (SNH/MSS)	•	•	•	•	1920x1080, 720x576
Ratray Head 2017 (JNCC/MSS)					1920x1080

### 3. RESULTS

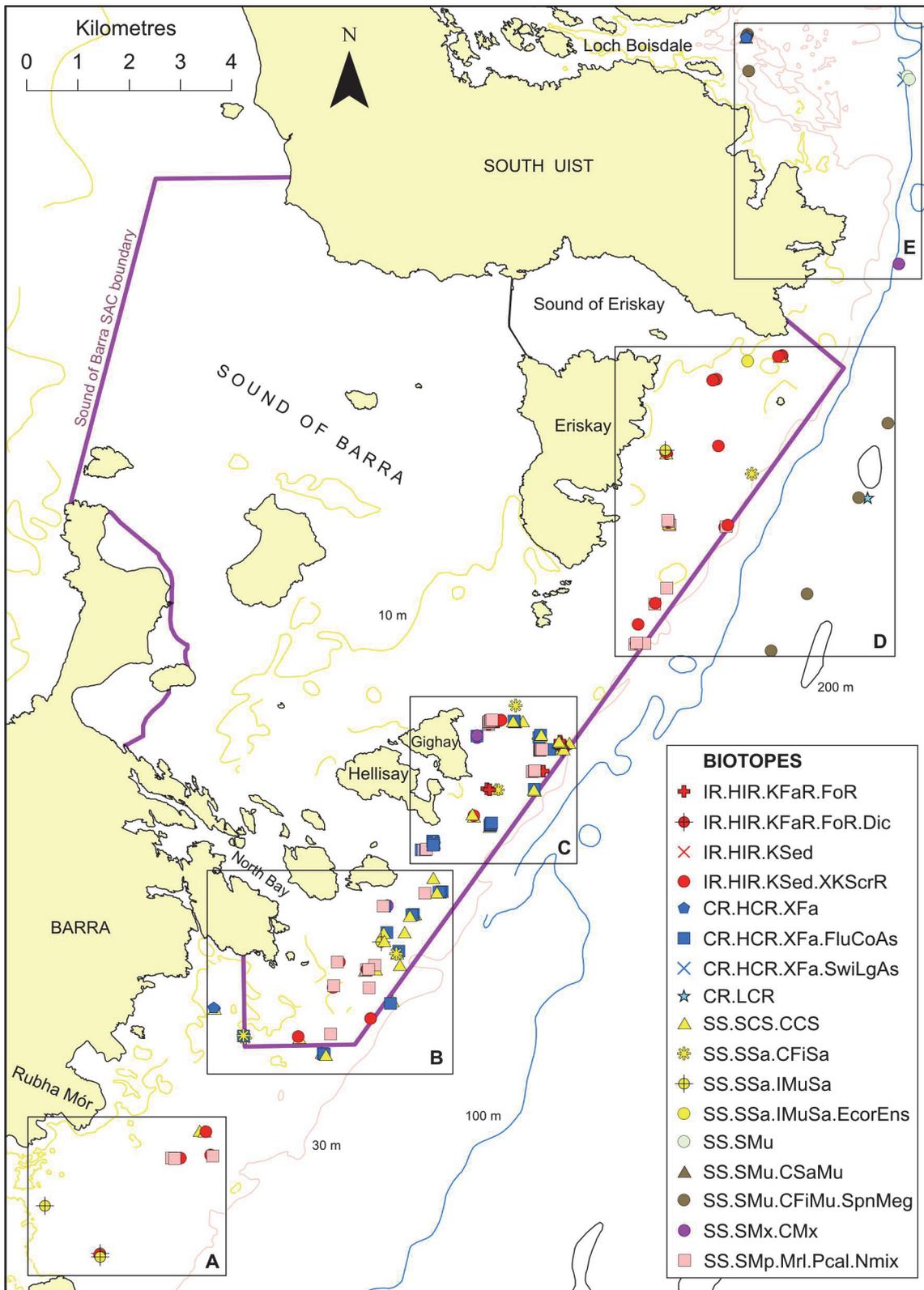
The presence and distribution of habitats, biotopes and species in each survey area is summarised in this section but presented in detail for each site in Annex 4, with site location data in Annex 3. In this section PMF biotopes and species are highlighted using red text. Annex 5 provides an inventory of the biotopes recorded, as well as PF species, together with illustrative photographs or video frame grabs and lists of their occurrence.

#### 3.1 Sound of Barra 2017 and 2018 SNH/MSS surveys (Figures 2 - 7)

The video surveys from the Marine Scotland Science 2017 and 2018 Sound of Barra surveys were carried out largely along the eastern fringe of the Sound, mainly over a depth range of 20 - 30 m. The seabed here was found to consist mostly of coarse sediments mosaicked with outcrops of sediment-scoured bedrock. The sediment was principally composed of shell and maerl gravel with coarse sand formed into megaripples. Live maerl was recorded extensively over the region, generally concentrated in the megaripple troughs. Where the live maerl attained 10% cover (at least in patches) the biotope **SS.SMp.Mrl.Pcal.Nmix** was recognised (see Moore, 2014a, 2017), although the characterising holothurian, *Neopentadactyla mixta*, was only observed at two of the 20 sites where this biotope was recorded. Where live maerl was sparse or absent the video samples have been ascribed to the biotope **SS.SCS.CCS**. Such sites exhibited a poorly developed epibiotic community. Finer sediments were recorded at a few sites in the form of fine - medium sands. These sites were tentatively ascribed to either **SS.SSa.CFiSa** or **SSa.IMuSa** biotopes, with an overlap in depth distribution. The former tended to occur in slightly deeper water (23 - 33 m), whilst the latter was characterised by an extensive diatomaceous film and tended to occupy slightly shallower waters (18 - 29 m) in the entrances to the Sound of Eriskay and North Bay and south of Rubha Mór.

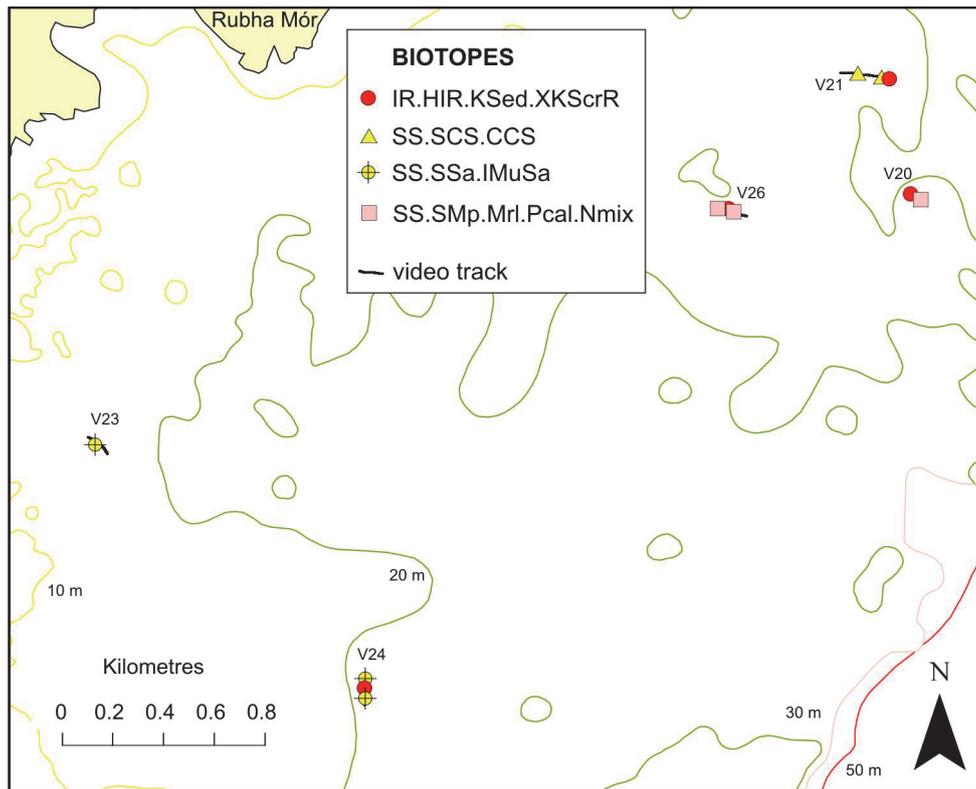
The scoured bedrock outcrops in shallower water (13 - 26 m) largely supported kelp forests and parks dominated by *Laminaria hyperborea* with lesser quantities of *Saccharina latissima*, and an understory turf dominated by red algae (**IR.HIR.KSed.XKScrR**). At a few sites around the lower end of this depth range (24 - 29 m), where kelp was either sparse or absent, sites apparently supporting algally dominated turfs have been referred to either **IR.HIR.KFaR.FoR** (dominated by red algae) or **IR.HIR.KFaR.FoR.Dic** (dominated by *Dictyota dichotoma*). In deeper water (25 - 38 m) turfs appeared to be largely dominated by hydroids and bryozoans such as *Flustra foliacea* and *Nemertesia ramosa*, with such sites largely ascribed to **CR.HCR.XFa.FluCoAs**. It should be noted, however, that firm biotope assignment at many of these scoured turf sites was problematic due to the difficulty in discerning the composition of the turf community.

Several noteworthy habitats were recorded beyond the boundary of the Sound of Barra SAC. Off the entrance to Loch Boisdale a silted rocky slope at a depth of 91 - 110 m supported frequent *Swiftia pallida*, *Axinella infundibuliformis*, *Porella compressa* and *Diazona violacea* (**CR.HCR.XFa.SwiLgAs**) (Figure 7). An impoverished version of the biotope continued into deeper water (110 - 135 m) on scattered boulders and cobbles on a muddy substrate. Farther inshore at the same locality, mud at 29 - 34 m depth supported a megafaunal burrowing community including common *Nephrops norvegicus* and sparse *Pennatula phosphorea* (**SS.SMu.CFiMu.SpnMeg**). The same biotope was recorded at four sites in deeper water (182 - 196 m) to the east of Eriskay, with the mud densely burrowed at two of the sites by *Calocaris macandreae* and *N. norvegicus*, with occasional *Virgularia mirabilis* also present (Figure 6).



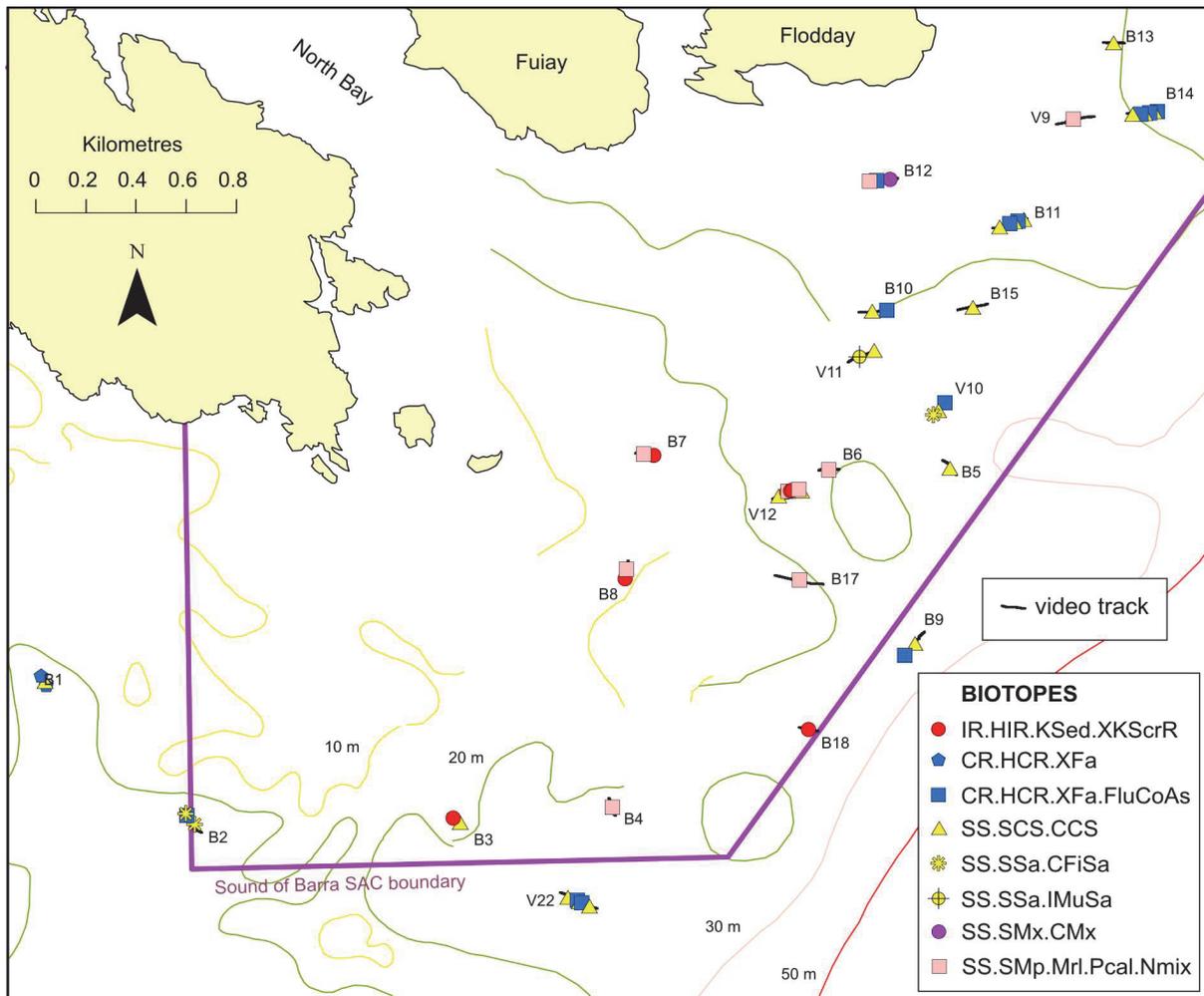
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Figure 2. Distribution of biotope records in the Sound of Barra (2017 and 2018). Detail within insets A - E are shown in Figures 3 - 7.



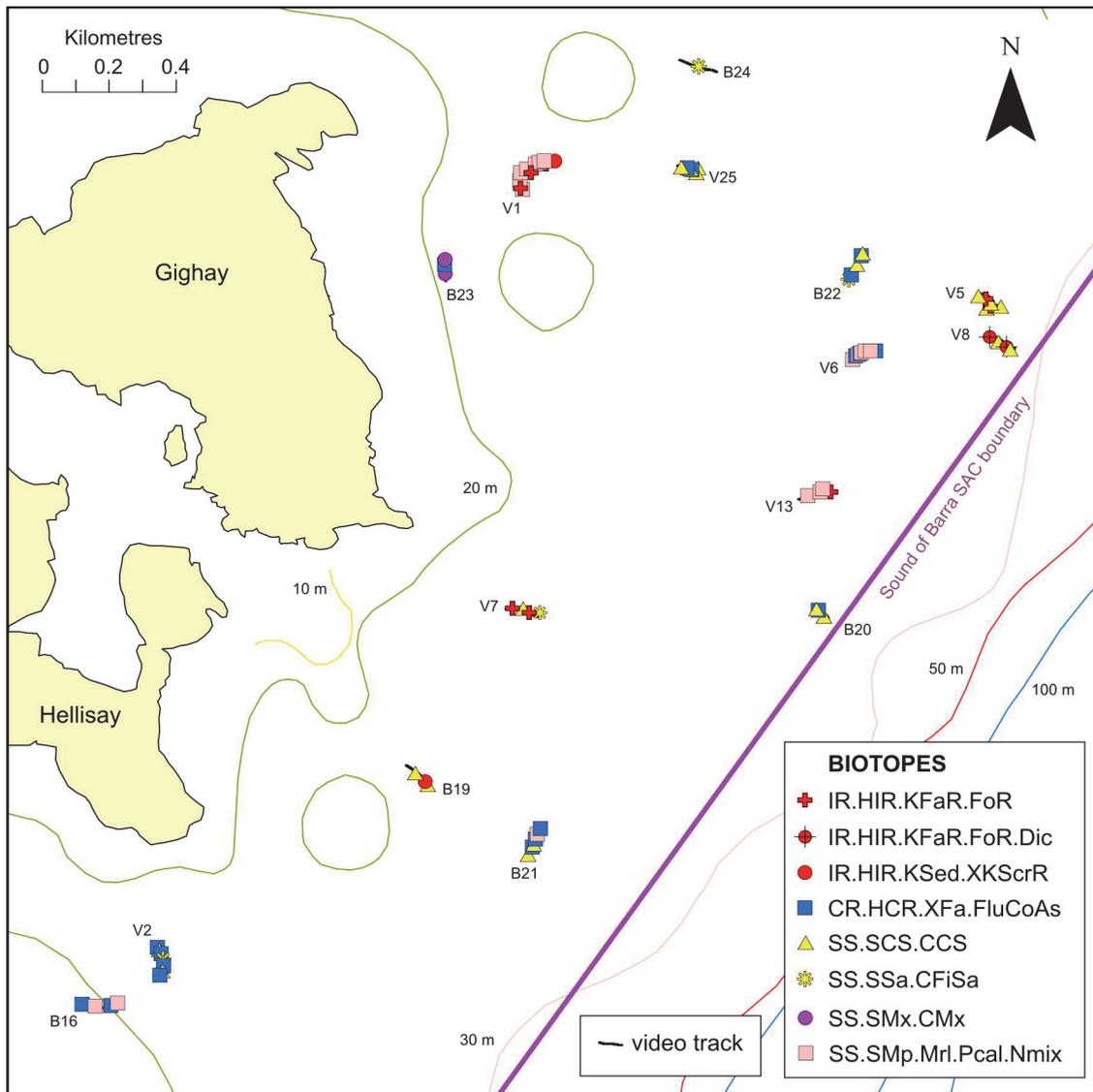
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Figure 3. Distribution of biotope records in the Sound of Barra (2018), inset A (Figure 2).



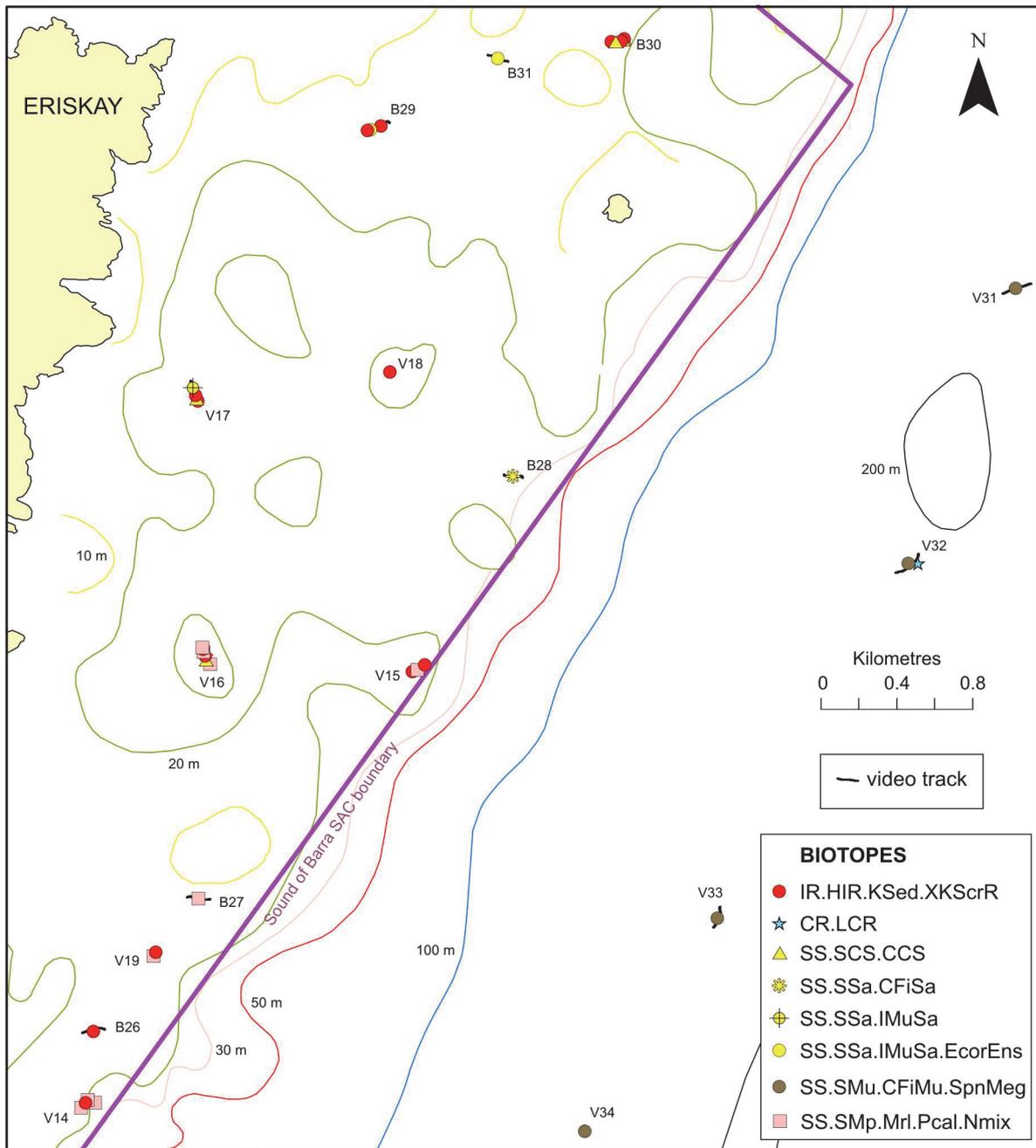
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Figure 4. Distribution of biotope records in the Sound of Barra (2017 and 2018), inset B (Figure 2).



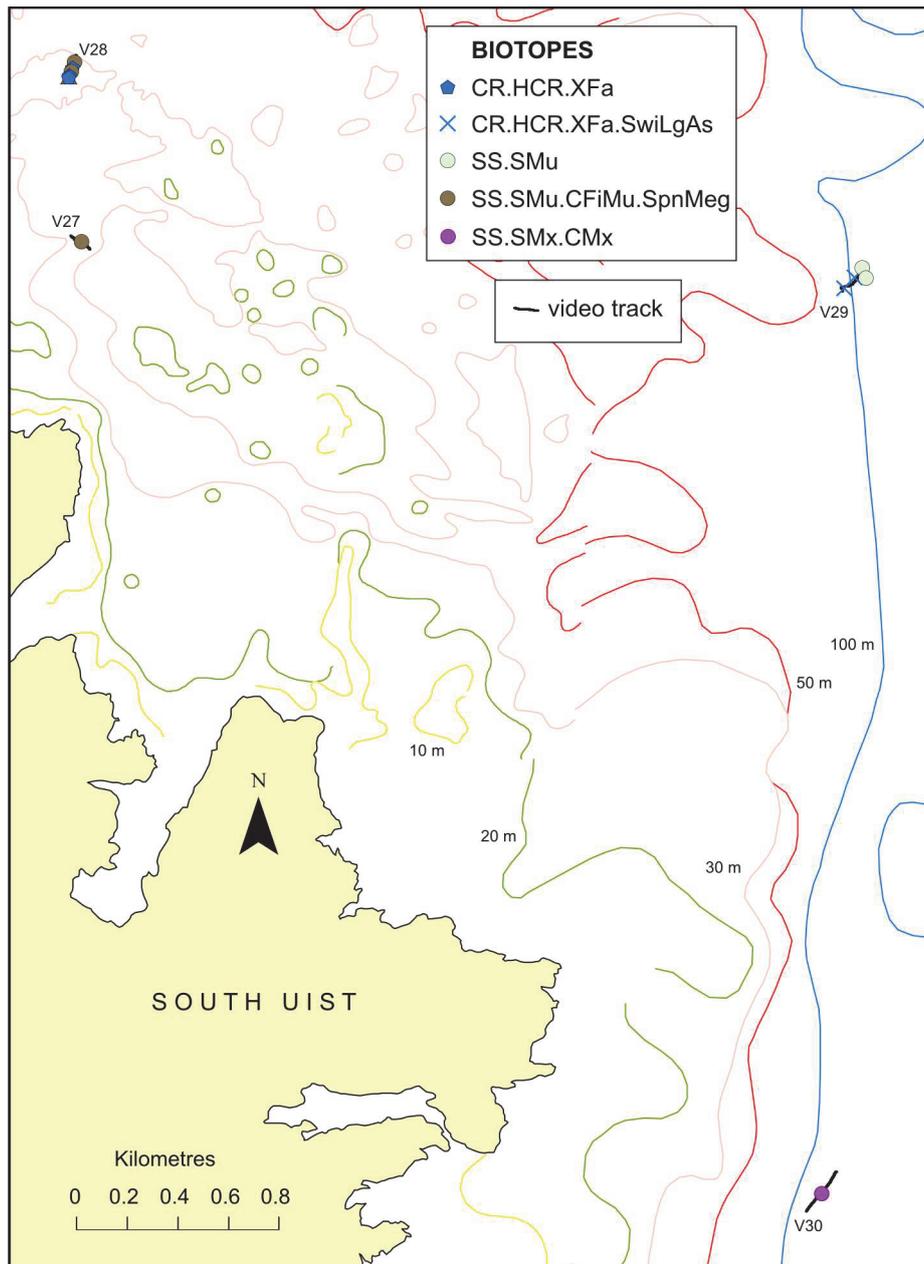
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Figure 5. Distribution of biotope records in the Sound of Barra (2017 and 2018), inset C (Figure 2).



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Figure 6. Distribution of biotope records in the Sound of Barra (2017 and 2018), inset D (Figure 2).

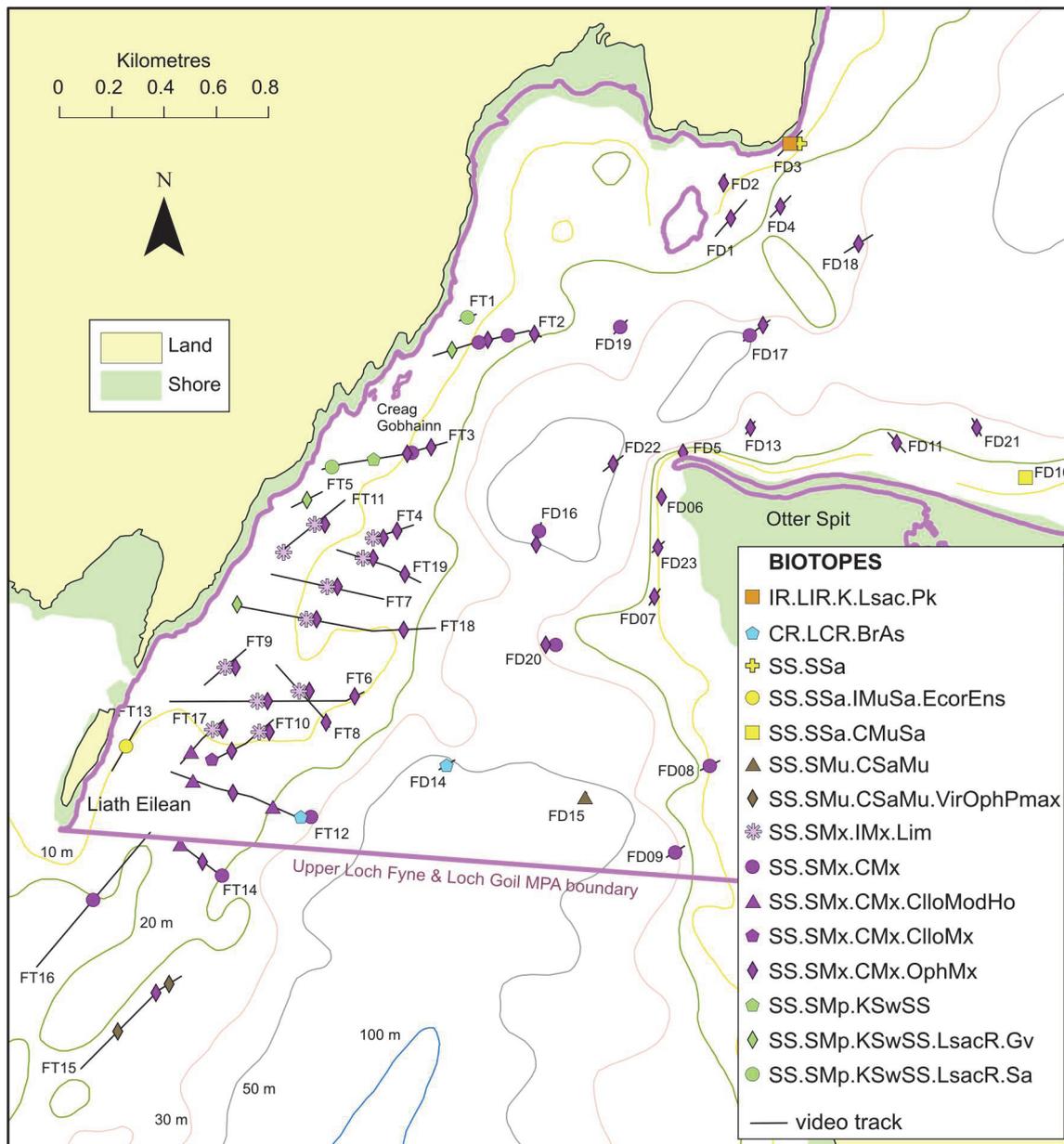


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Figure 7. Distribution of biotope records in the Sound of Barra (2018), inset E (Figure 2).

### 3.2 Loch Fyne 2015 SNH survey (Figures 8 - 9)

A total of ten video runs traversed the Otter Spit flame shell bed on the western side of the channel between Liath Eilean and Creag Gobhainn over a depth range of 6 - 13 m, with the coverage of *Limaria hians* nest material ranging between 10 - 100% on a substrate of silty sand and gravel with shells consolidated by the byssal turf (**SS.SMx.IMx.Lim**). A minimum of 10% coverage of the sea bed by *Limaria* nest material has been adopted by Moore *et al.* (2013) as a working definition of a flame shell bed. The flame shell bed in turn generally supported an ophiuroid bed dominated by dense *Ophiocomina nigra* (**SS.SMx.CMx.OphMx**).

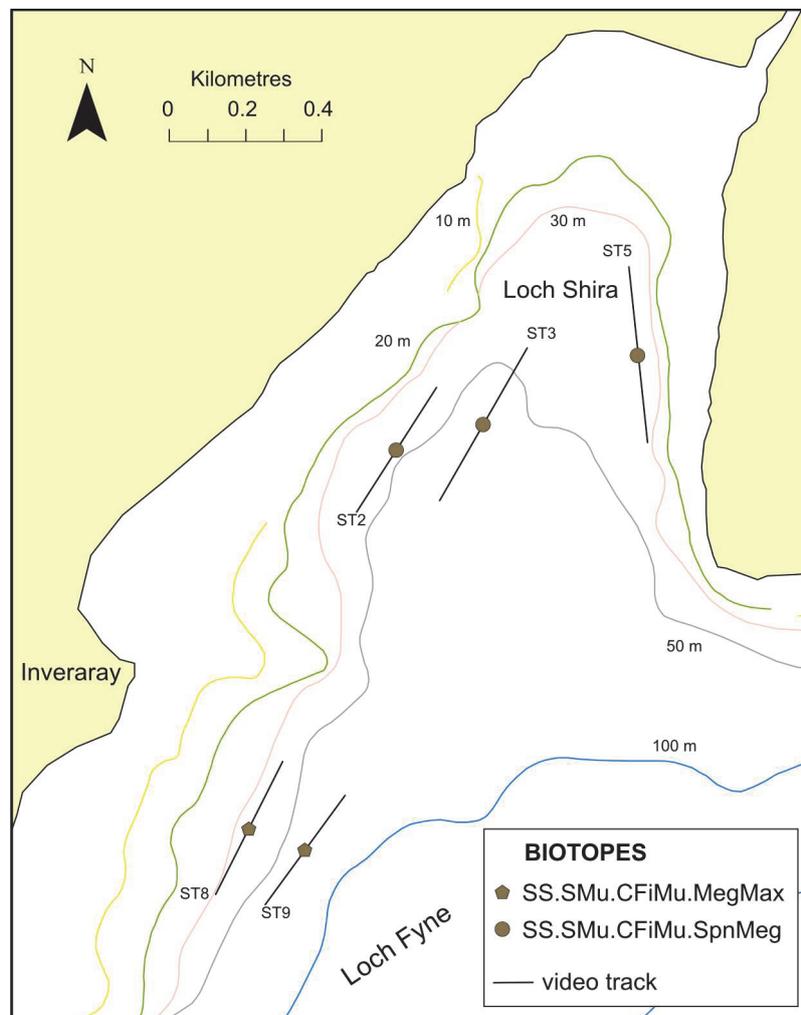


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Figure 8. Distribution of biotope records in Loch Fyne in 2015 (southern survey area).

Mixed substrates of silty sand and gravel with varying densities of shells and pebbles occupied much of the remaining surveyed region of the narrows over a broad depth range of 2 - 65 m, with shells and stones encrusted with serpulid worms and supporting fairly sparse hydroid clumps, *Alcyonium digitatum* and, in shallower water, foliose, filamentous and filiform red algae. *Cerianthus lloydii* and holothurians, especially *Thyonidium drummondii*, were widely distributed and where these populations were well-developed at four sites east of Liath Eilean, the biotope **SS.SMx.CMx.CiloModHo** was recognised, although the characterising *Modiolus modiolus* was not observed. Most of the mixed substrate sites, particularly in the more current-swept regions of the surveyed area, supported dense beds of ophiuroids, generally dominated by *Ophiocomina nigra* (**SS.SMx.CMx.OphMx**). Mixed substrate sites supporting few ophiuroids and holothurians have been referred to **SS.SMx.CMx**.

Muddy sand supporting sparse *Virgularia mirabilis* was recorded in deep water (50 m) to the south of Otter Spit (**SS.SMu.CSaMu**), where a single specimen of *Arctica islandica* was observed. Farther to the south-west in shallower water (22 - 23 m) the sandy mud underlay a surface cover of gravel and shells and supported dense *Cerianthus lloydii*, with *Virgularia mirabilis* and *Ophiura* spp. (**SS.SMu.CSaMu.VirOphPmax**).



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Figure 9. Distribution of biotope records in Loch Fyne and Loch Shira in 2015 (northern survey area).

Reef biotopes were poorly represented in the surveyed area. In deep water (41 - 56 m) to the south of Otter Spit slightly silted cobbles, boulders and pebbles supported a fairly sparse fauna of serpulids, hydroids, anomiid bivalves and *Antedon* spp., with *Modiolus modiolus* recorded in low abundance at one of the sites (**CR.LCR.BrAs**). Bedrock was recorded at a single site north-east of Glas Eilean, where in association with boulders and cobbles at a depth of 11 - 14 m, it supported a park of *Saccharina latissima* (tentatively referred to **IR.LIR.K.Lsac.Pk**).

Parks of *S. latissima* were also observed at six inshore sites (3 - 9 m depth) between Liath Eilean and just north of Creag Gobhainn but overlying sediments of silty sand, gravel and pebbles. The sediment supported a fairly poorly developed red algal turf dominated by filamentous and foliose species, as well as *Desmarestia* spp. The sandier sites have been largely referred to **SS.SMp.KSwSS.LsacR.Sa** and the more mixed, gravelly sites to **SS.SMp.KSwSS.LsacR.Gv**. Live maerl was recorded at several locations along video run FT3 around 300 m south of Creag Gobhainn, although nowhere exceeding 1% cover.

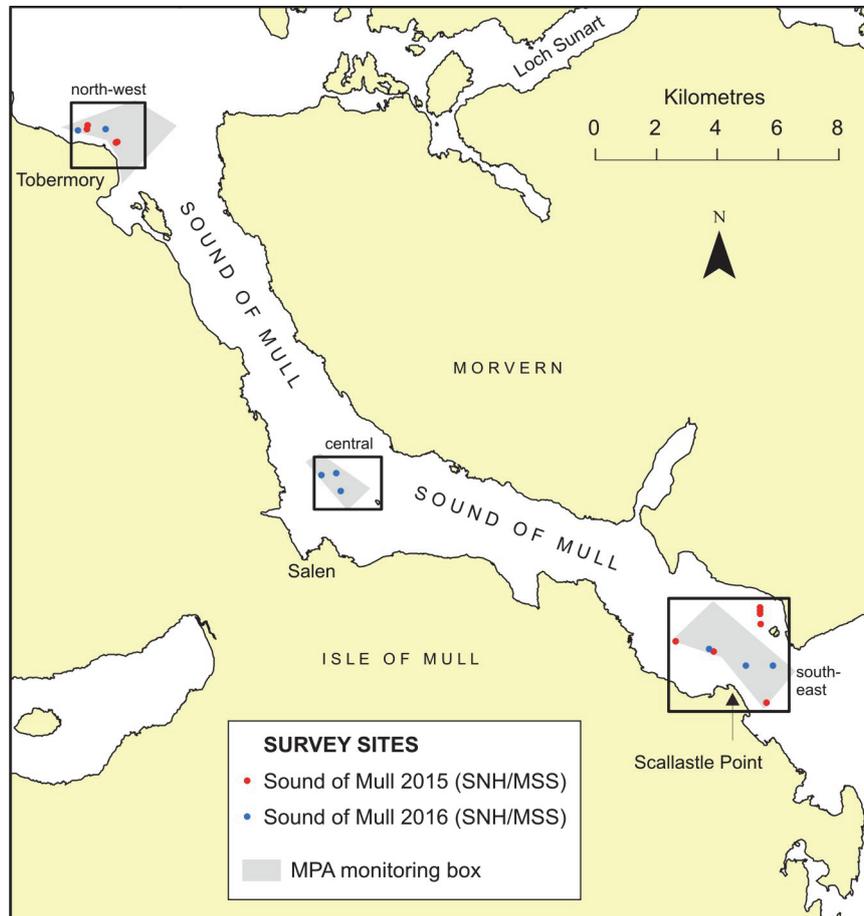
The five survey sites in Loch Shira (Figure 9) were all located on soft mud burrowed by *Nephrops norvegicus* and *Calocaris macandreae* and supporting frequent *Pachycerianthus multiplicatus*. The vertical angle of the camera was not conducive to characterising the topography of the seabed, such as detecting the presence of mounds, but the two sites at the mouth of the loch displayed some indication of the stellate-shaped proboscis traces of *Maxmuelleria lankesteri*, so have been referred to **SS.SMu.CFiMu.MegMax**. The three inner sites may belong to the same biotope, although no evidence of the presence of echiuroids was observed. They have been referred to **SS.SMu.CFiMu.SpnMeg**. Two of the three sites displayed low densities of *Virgularia mirabilis*.

### 3.3 Sound of Mull 2015 and 2016 SNH/MSS surveys (Figures 10 - 13)

The surveys were concentrated in three regions: off Scallastle Point at the south-eastern mouth of the sound, off Salen midway along the sound, and at the north-western entrance to the sound, north of Tobermory (Figure 10). In each of these regions survey sites were located within monitoring boxes established to assess the effectiveness of MPA management measures (Figure 10).

At the south-eastern mouth of the Sound of Mull (Figure 11) spring tidal currents attain a velocity of 1.8 knots in the centre of the channel (Admiralty Chart BA2171). Seabed habitats were found to be highly patchy with up to 30 biotope changes being recorded along a 60 minute video run. The principal habitat, recorded over a wide depth range (16 - 121 m), consisted of mixed substrata, with clean or muddy sand accompanied by varying proportions of gravel, pebbles and cobbles (**SS.SMx.CMx**). This habitat supported *Leptometra celtica* at several sites at densities ranging up to abundant. In the narrowest part of the sound the mixed substrate was populated by abundant *Ophiocomina nigra* (**SS.SMx.CMx.OphMx**). Mixed substrate patches alternated with areas of bedrock and boulders over much of the surveyed area. In shallower waters (16 - 26 m) the rock often supported a well-developed red algal turf (**IR.HIR.KFaR.FoR**), whereas in deeper waters (20 - 63m) faunal crusts of *Parasmittina trispinosa* and serpulid worms were accompanied by generally sparse *Alcyonium digitatum* (**CR.MCR.EcCr.FaAICr, FaAICr.Pom**), and at a few sites by turfs of hydroids and bryozoans (**CR.HCR.XFa**) or dense *A. digitatum* (**CR.MCR.EcCr.FaAICr.Adig**). Frequent - common *Swiftia pallida* was widely recorded, particularly along video run SOM-V07 in association with *Caryophyllia smithii* and occasional hydroid clumps (**CR.MCR.EcCr.CarSwi.LgAs**). A possible small patch of the white cluster anemone, *Parazoanthus anguicomus*, was also recorded along this run (sample SOM-V07.16). Along video run SOM-V03 in Inninmore Bay the *Swiftia* was accompanied by a well-developed turf of hydroids and bryozoans, as well as by sponges and dense *Metridium dianthus* (**CR.HCR.XFa.SwiLgAs**). In the same area a bedrock cliff also supported a dense

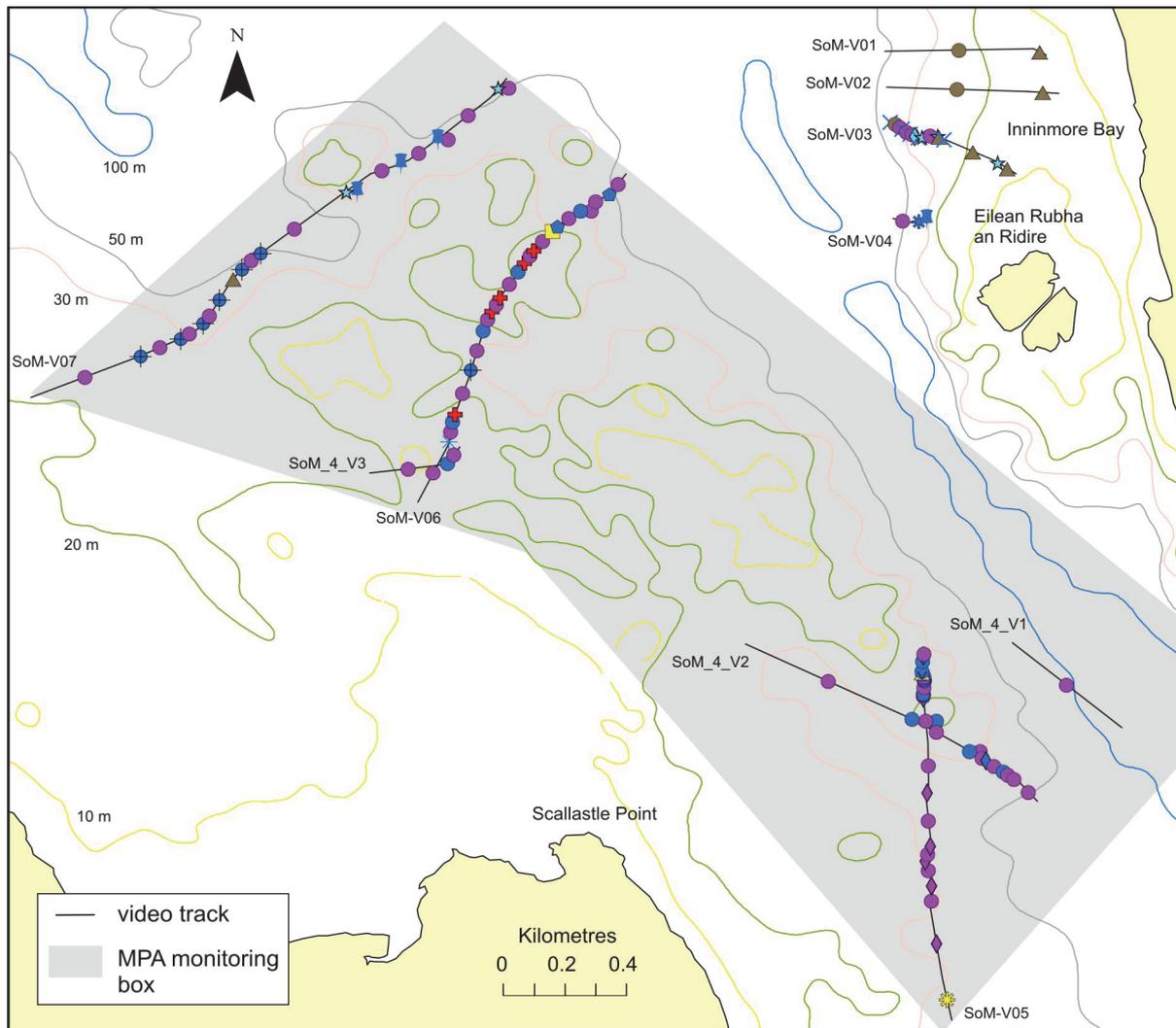
hydroid turf, probably including *Tubularia indivisa*, as well as *Alcyonium digitatum* (tentatively ascribed to **CR.HCR.FaT.CTub.Adig**). Soft sediments were recorded in the presumably more current-sheltered embayment of Inninmore Bay, where muddy sand or a cohesive sandy mud was lightly burrowed by *Nephrops norvegicus* and *Gonoplax rhomboides* and supported sparse *Pennatula phosphorea* over a depth range of 20 - 52 m (**SS.SMu.CFiMu.SpnMeg**). With decreasing depth from 26 - 15 m the seapens were lost and megafaunal burrows became very sparse (**SS.SMu.CSaMu**).



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Figure 10. Distribution of video sites in the Sound of Mull (2015 and 2016), showing the three survey areas (black boxes).

Off Salen (Figure 12) the predominant habitat along the three video runs examined was non-cohesive muddy sand supporting *Ophiura albida* and *O. ophiura* and fairly sparse *Pecten maximus* and *Aequipecten opercularis* (**SS.SSa.CMuSa**). This was recorded over a depth range of 28 - 42 m. A similar fauna was observed along the southern half of video run SOM3\_3 at 31 - 37 m depth, although here it was accompanied by moderate numbers of small burrows (tentatively ascribed to **SS.SMu.CSaMu**). *Arctica islandica* siphons were observed along two of the three runs, attaining a density of common at one location (sample SOM\_3\_V3.1). Patches of silted cobbles, boulders and bedrock were observed along all three runs with the rock supporting a sparse (**CR.MCR.EcCr.FaAICr**, **CR.LCR.BrAs**) or well-developed hydroid turf (**CR.HCR.XFa**). Occasional *Swiftia pallida* colonies were recorded at two sites, with the biotopes **CR.HCR.XFa.SwiLgAs** and **CR.MCR.EcCr.CarSwi.LgAs** being tentatively recognised at sites respectively characterised by hydroid-rich and hydroid-poor communities. Both sites represent at best poor examples of the nominated biotope.



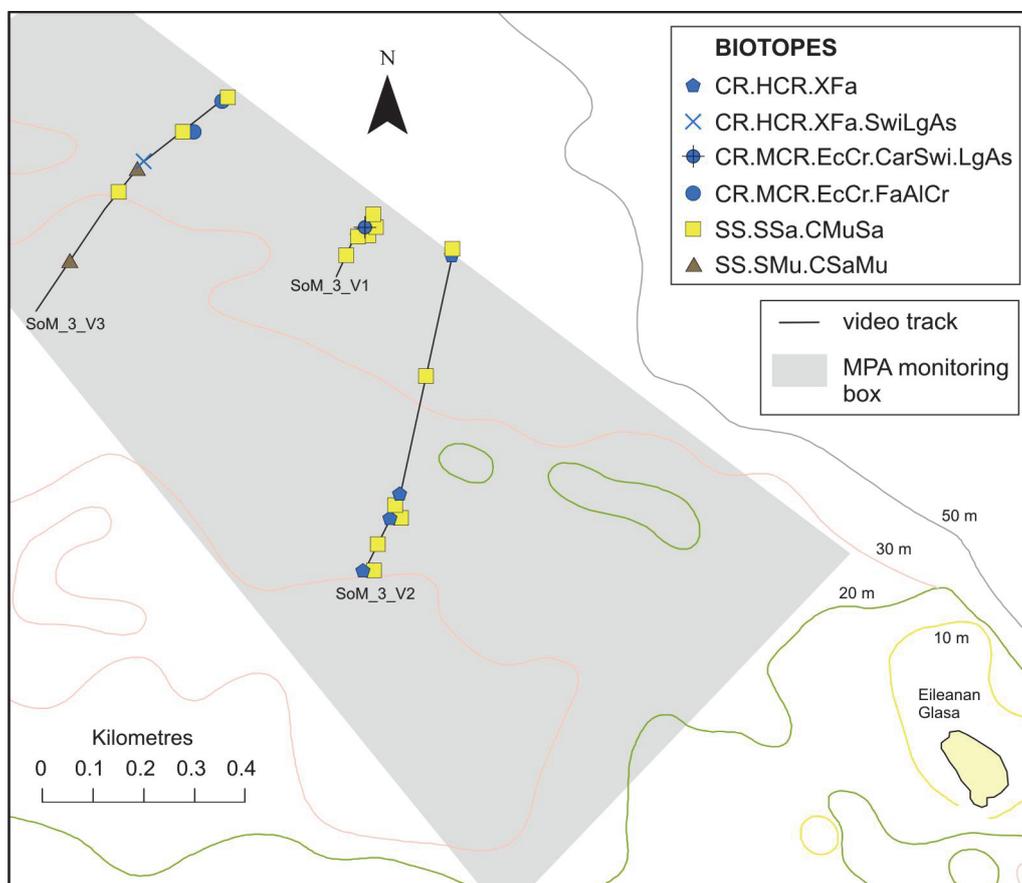
BIOTOPES			
+	IR.HIR.KFaR.FoR	⊕	CR.MCR.EcCr.FaAlCr.Sec
*	CR.HCR.FaT.CTub.Adig	☆	CR.LCR
⬢	CR.HCR.XFa	⬢	CR.LCR.BrAs
×	CR.HCR.XFa.SwiLgAs	◇	CR.LCR.BrAs.AmenCio.Bri
⊕	CR.MCR.EcCr.CarSwi.LgAs	▲	SS.SCS.CCS
●	CR.MCR.EcCr.FaAlCr	⊛	SS.SSa.CFiSa
⬢	CR.MCR.EcCr.FaAlCr.Adig	■	SS.SSa.CMuSa
◇	CR.MCR.EcCr.FaAlCr.Bri	▲	SS.SMu.CSaMu
*	CR.MCR.EcCr.FaAlCr.Pom	●	SS.SMu.CFiMu.SpnMeg
		●	SS.SMx.CMx
		◇	SS.SMx.CMx.OphMx

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Figure 11. Distribution of biotope records in the Sound of Mull in 2015 and 2016 (south-eastern survey area).

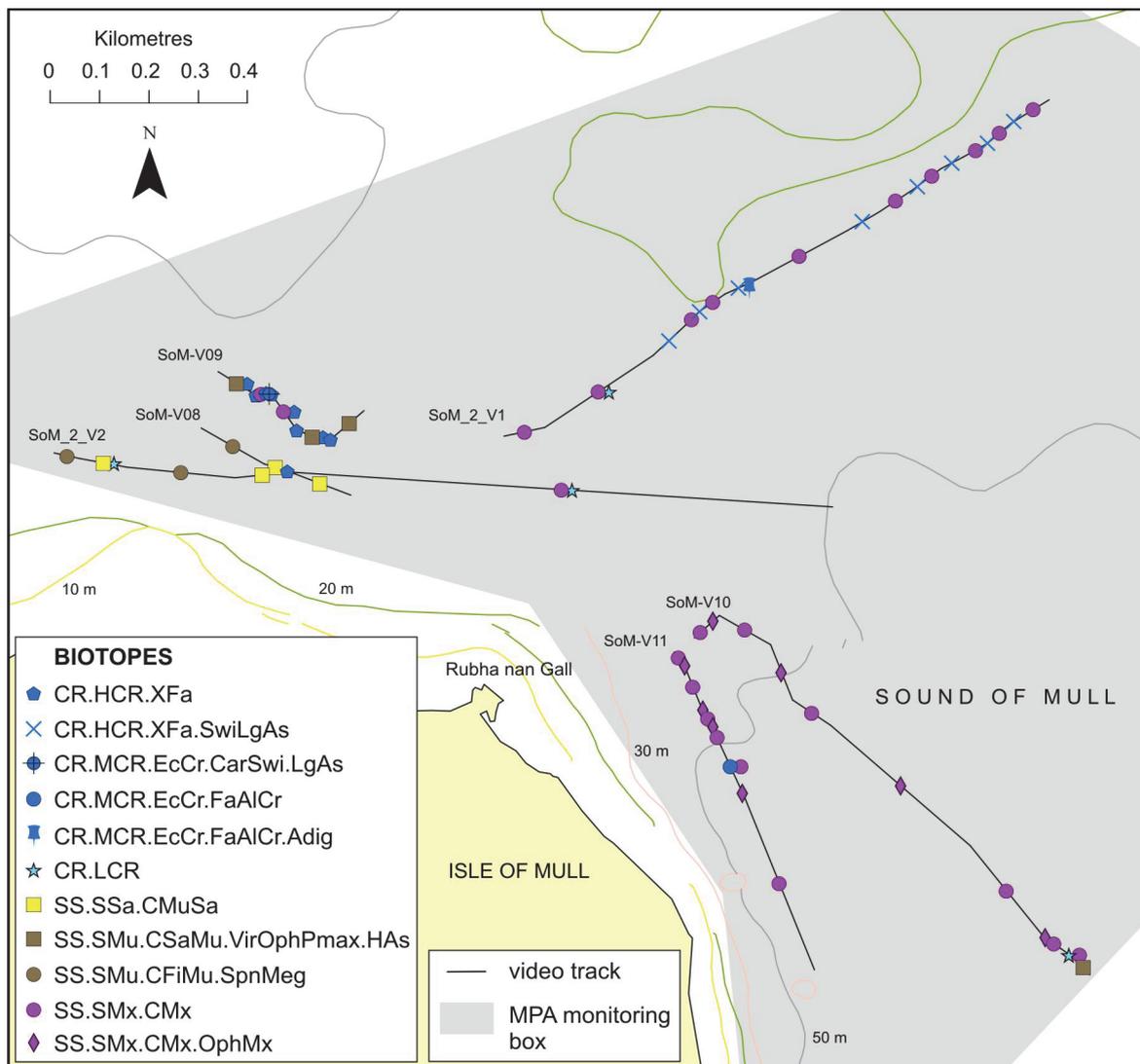
At the north-western entrance to the sound (Figure 13) mixed substrates of silty, gravelly sands with varying densities of pebbles, cobbles and boulders were widely recorded in the eastern half of the surveyed area (east of Rubha nan Gall) at depths of 27 - 89 m. The fauna typically contained hydroid patches, sparse *Alcyonium digitatum*, *Munida rugosa*, *Asterias rubens* and *Echinus esculentus* (**SS.SMx.CMx**), as well as *Leptometra celtica* at five

locations, with aggregations at three. A single *Lophius piscatorius* was recorded at one site. Along runs SOM\_V10 and SOM\_V11 the mixed substrate supported regions of dense ophiuroids dominated by *Ophiothrix fragilis* (**SS.SMx.CMx.OphMx**). Along run SOM2\_V1 the mixed substrate alternated with areas of dense, silted cobbles, boulders and bedrock supporting a hydroid and bryozoan turf with *Swiftia pallida* (**CR.HCR.XFa.SwiLgAs**). West of Rubha nan Gall silted boulders and bedrock, particularly along run SOM\_V09, also supported a dense hydroid and bryozoan turf, typically including *Halecium halecinum*, *Nemertesia antennina*, *Lytocarpia myriophyllum* and *Securiflustra securifrons* at depths of 29 - 36 m, but *S. pallida* was largely absent (**CR.HCR.XFa**). This habitat formed a mosaic with areas of stony, muddy sand along this run, supporting occasional megafaunal burrows (referred to **SS.SMu.CSaMu.VirOphPmax.HAs**). Sparse *Funiculina quadrangularis* was recorded within one such patch. Muddy sand was also present along much of the adjacent runs SOM2\_V2 and SOM-V08 at depths of 28 - 32 m, both in the form of non-cohesive sediment (**SS.SSa.CMuSa**) and cohesive sediment supporting a megafaunal burrowing community including *Goneplax rhomboides* and possibly *Nephrops norvegicus* (**SS.SMu.CFiMu.SpnMeg**).



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Figure 12. Distribution of biotope records in the Sound of Mull in 2016 (central survey area).



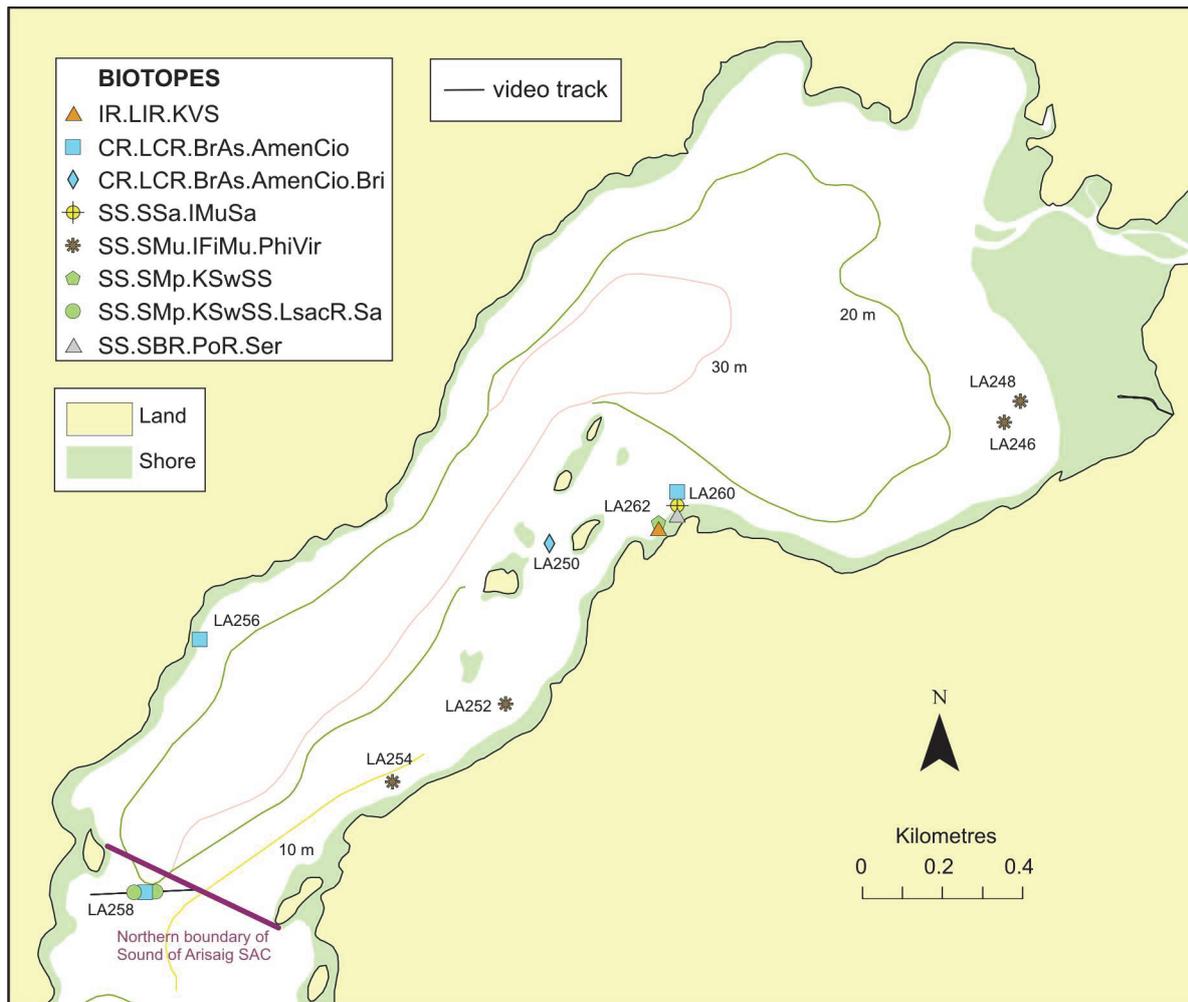
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Figure 13. Distribution of biotope records in the Sound of Mull in 2015 and 2016 (north-western survey area).

### 3.4 Loch Ailort 2017 SNH survey (Figure 14)

Sedimentary sample sites located in deeper waters (5 - 17 m) largely displayed sandy mud habitats characterised by fairly sparse megafaunal burrows, including possibly those of *Nephrops norvegicus*, dense *Amphiura* spp. and *Ophiura ophiura*, and *Philine aperta* (occasional - frequent) (**SS.SMu.IFiMu.PhiVir**). In shallower waters (1 - 5 m) sediments were more mixed, consisting of sands with varying concentrations of gravel, pebbles and boulders supporting a patchy turf of filamentous algae (**SS.SMp.KSwSS**), with *Saccharina latissima* also present at some sites (**SS.SMp.KSwSS.LsaR.Sa**). These sites represent poor examples of the biotopes and the ascriptions should be considered tentative.

Rocky substrates were recorded over a depth range of 1 - 8 m, mostly in the form of silted bedrock and boulders. The coralline algal encrusted rock supported dense solitary ascidians, particularly *Ascidia mentula* and *Ascidia aspersa*, and *Chaetopterus variopedatus* (**CR.LCR.BrAs.AmenCio**).



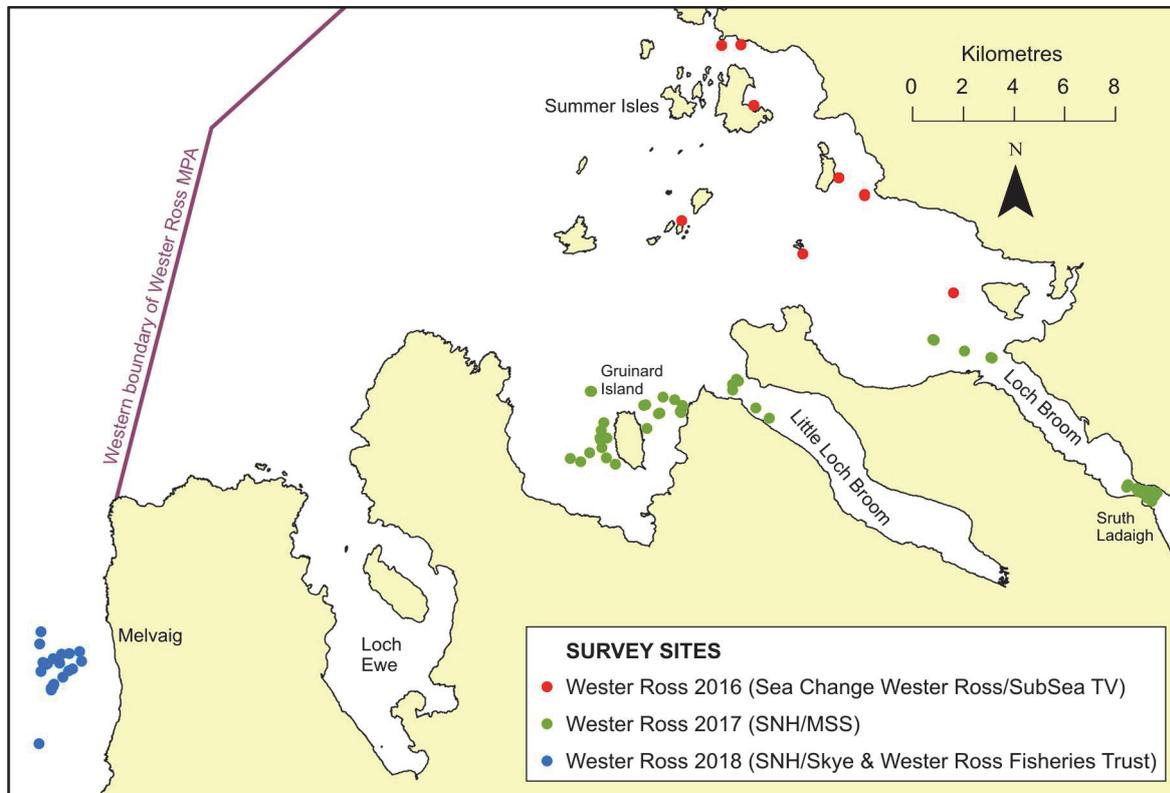
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Figure 14. Distribution of biotope records in Loch Ailort surveyed in 2017.

Amongst a system of skerries at the mouth of the upper basin of the loch, where tidal currents may be accelerated, the bedrock and adjacent mixed stony sediment supported dense *Ophiocomina nigra* (**CR.LCR.BrAs.AmenCio.Bri**). In the same area silted boulders and cobbles on muddy sand supported small aggregations of *Serpula vermicularis* covering around 5% of the seabed. The aggregations consisted of clusters of up to around 50 tubes extending upwards from the substrate to a height estimated to be of the order of 10 cm. The habitat has been assigned to the biotope **SS.SBR.PoR.Ser**. Unlike the serpulid reefs recorded from other Scottish sites (Moore *et al.*, 2009, Dodd *et al.*, 2009), the Loch Ailort aggregations were of simple morphology, formed apparently by contiguous individuals of the same age class, rather than large, topographically complex structures resulting from cumulative recruitment over several years. In very shallow water (1 m) in the same area the boulders and cobbles supported dense *Saccharina latissima*, together with *Halidrys siliquosa* and *Psammechinus miliaris*, characteristic of the biotope complex **IR.LIR.KVS**, to which the site has been tentatively ascribed.

### 3.5 Wester Ross 2017 SNH/MSS survey (Figure 15 - 17)

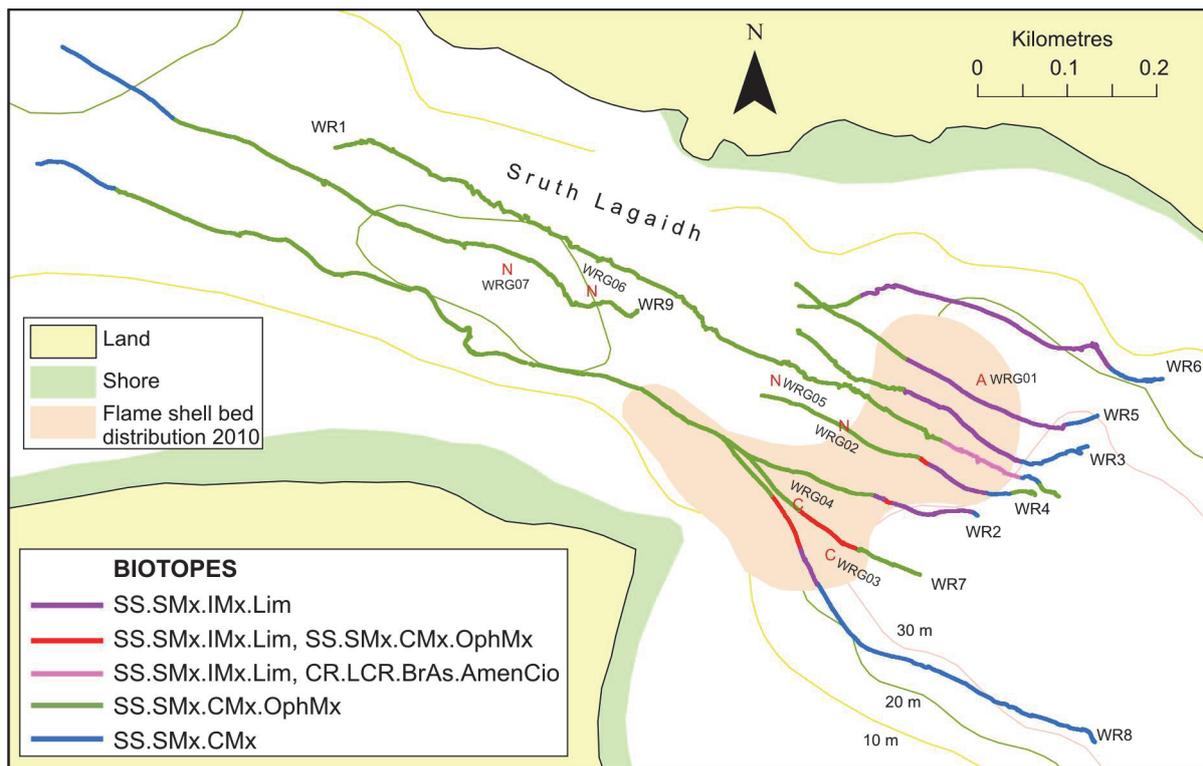
This is one of three surveys carried out off the coast of Wester Ross, the distribution of survey sites being shown in Figure 15.



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Figure 15. Distribution of video sites off Wester Ross surveyed in 2017.

Within Sruth Lagaidh Narrows, Loch Broom, eight video runs passed through a flame shell bed previously mapped by Moore *et al.* (2011) based on a 2010 survey (Figure 16). The flame shell habitat (**SS.SMx.IMx.Lim**) was recorded along all of these runs at depths of 14 - 41 m and generally consisted of a mosaic of a well-developed, byssal turf of *Limaria hians* with patches of silty, coarse sand. Turf cover was near-continuous locally and displayed dense, distinct, flame shell gallery apertures in the byssal turf, as well as some dead shells of *L. hians*, and supported a turf of hydroids. The western margin of the bed was not evident due to the dense cover of ophiuroids in this region (**SS.SMX.CMx.OphMx**). To supplement the video imagery, the biota from seven grab samples collected by MSS in March 2018 in Sruth Lagaidh Narrows was analysed, revealing *L. hians* SACFOR densities of common - abundant within the vicinity of video flame shell bed records (Figure 16). At one grab site (WRG04) *L. hians* was found to be common in association with superabundant *Ophiothrix fragilis*, suggesting that the current westward extension of the bed is likely to be underestimated by Figure 16.



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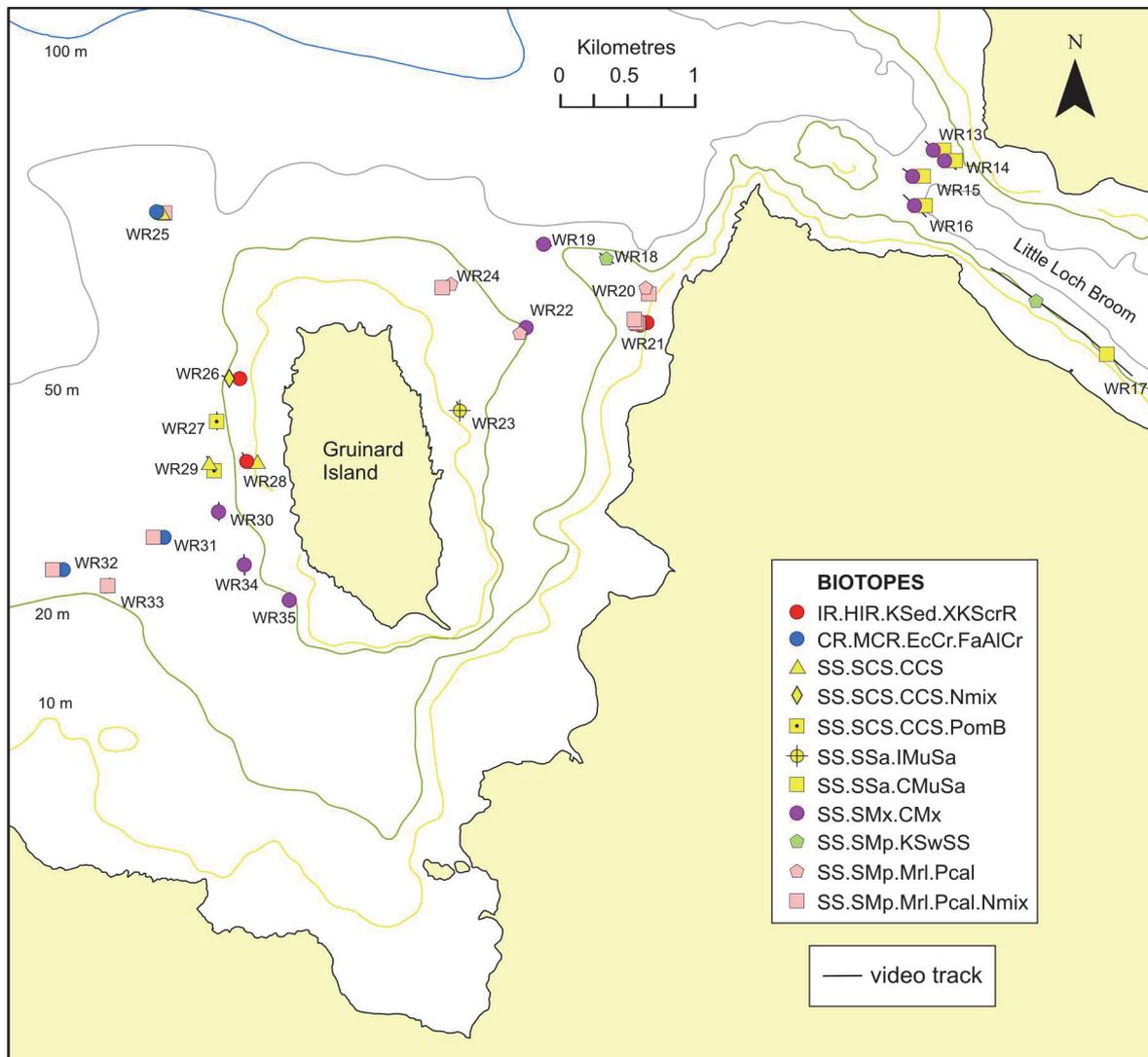
Figure 16. Distribution of biotope records in Sruth Lagaidh Narrows, Loch Broom (2017). Red letters denote *Limaria hians* SACFOR abundance values based on a 2018 grab survey.

The video runs through the narrowest region of the narrows traversed a dense ophiuroid bed (**SS.SMx.CMx.OphMx**) dominated by *Ophiothrix fragilis* with *Ophiocomina nigra* on a mixed substrate of silty sand with stones and shells. With decrease in current speed to the north-west a similar substrate persisted to a depth of at least 28 m, although the ophiuroid fauna was markedly reduced in density and dominated by *Ophiura albida* (**SS.SMx.CMx**). A similar mixed substrate also was recorded to the south-east of the flame shell bed, with dense ophiuroids present down to at least 42 m in the centre of the channel (**SS.SMx.CMx.OphMx**). With decrease in current speed along run WR8, a substrate of stony muddy sand supported sparse *Modiolus modiolus* and some *Arctica islandica* (**SS.SMx.CMx**).

Mixed substrates of pebbles and cobbles on silty or muddy sand were recorded at depths of 25 - 58 m along the three video runs off the mouth of Loch Broom (**SS.SMx.CMx**) (Figure 18). The stones were encrusted with serpulid worms and supported abundant *Leptometra celtica* at site WR10. At site WR12 patches of dense cobbles and boulders supporting *Ciona intestinalis* were ascribed to **CR.LCR.BrAs**. A single specimen of *Ostrea edulis* was recorded at this site.

Four sites were located at the mouth of Little Loch Broom at depths of 35 - 53 m, all of which consisted of muddy sand with varying densities of pebbles and cobbles and occasional boulders (assigned to **SS.SSa.CMuSa** or **SS.SMx.CMx** according to stone density (Figure 17). The stones were encrusted with serpulid worms and pink coralline algae and supported *Leptometra celtica* at all sites, being abundant along sections of three of the video runs. South-east of these sites a further run (WR17) skirted the offshore boundary of the Badluarach maerl bed mapped in 2010 (Moore *et al.*, 2011). This run recorded live maerl at low density (occasional) at 25 m depth on a substrate of silty fine sand and dead maerl, as

well as a filamentous red algal turf and frequent *Saccharina latissima* (**SS.SMp.KSwSS**). In slightly deeper water (25 - 28 m) muddy, shelly sand supported dense *Cerianthus lloydii* (**SS.SSa.CMuSa**).



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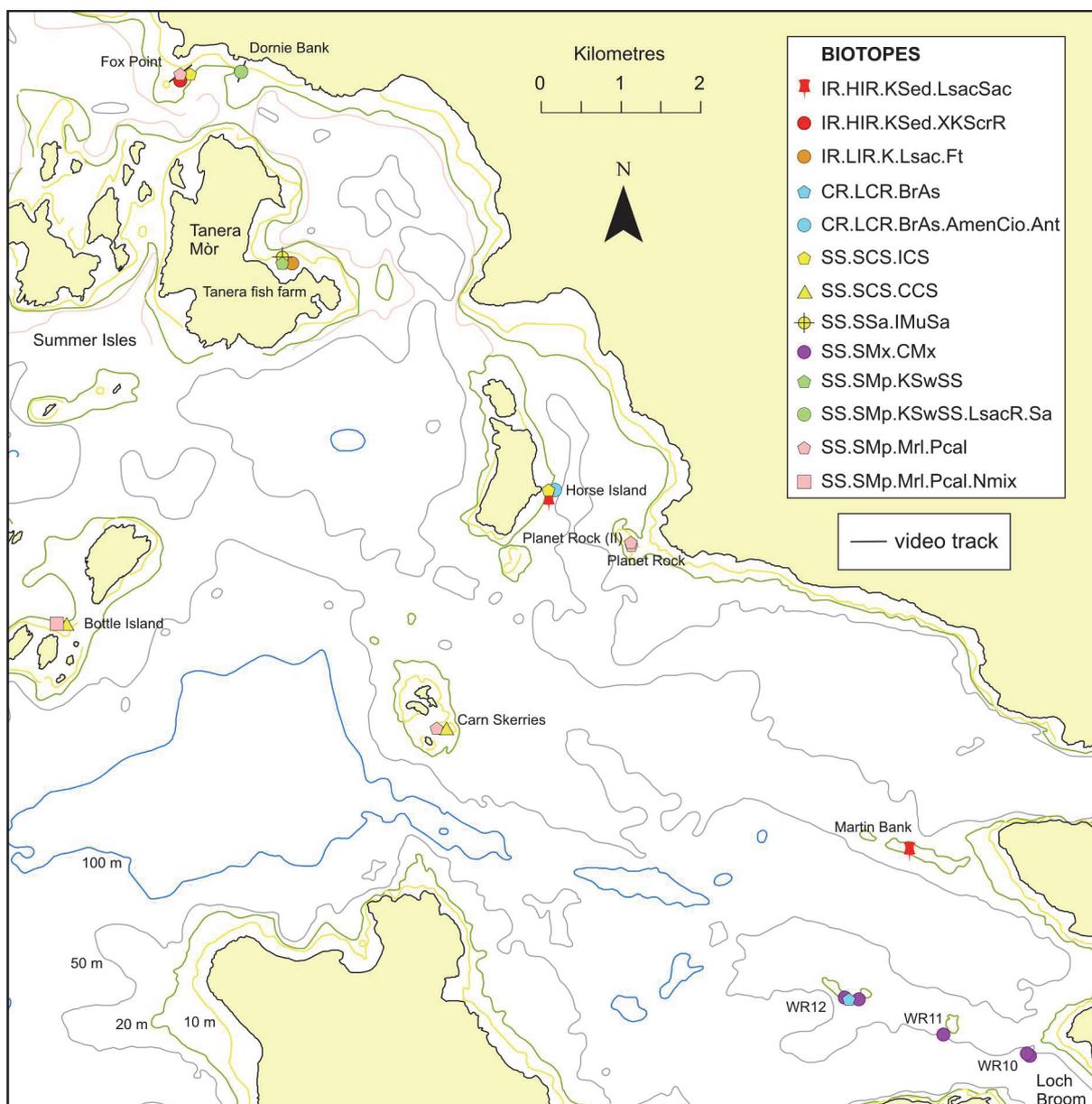
Figure 17. Distribution of biotope records in Little Loch Broom and around Gruinard Island (2017).

Maerl beds were widely recorded at depths of 18 - 30 m at nine of the 18 sites located around Gruinard Island (Figure 17), slightly expanding the known distribution of the habitat in the area (based on habitat mapping in Moore *et al.* (2011) and Moore (2014b)). Live maerl density was generally low (10 - 15% cover), with patches up to 40% at the most north-easterly station WR20. The substrate consisted of either silty sand (**SS.SMp.Mrl.Pcal**) or megaripples of maerl gravel (**SS.SMp.Mrl.Pcal.Nmix**). In both cases the epibiota was generally poorly developed, although an abundant red algal turf was present at station WR20. At nearby station WR18 a substrate of dense dead maerl on silty sand supported an abundant filamentous red algal turf, which appeared to be composed of largely dead material (**SS.SMp.KSwSS**). Coarse sediments of sand and gravel were recorded at several sites at depths of 20 - 28 m midway along the western coastline of Gruinard Island as **SS.SCS.CCS**, or in the presence of scattered pebbles and cobbles encrusted with serpulid worms, barnacles and pink coralline algae, as **SS.SCS.CCS.PomB**. *Neopentadactyla mixta*

was observed at one of these coarse sediment sites, signifying the biotope **SS.SCS.CCS.Nmix**. Reef biotopes were recorded at six sites, in deeper waters (27 - 30 m) as concentrations of boulders and cobbles on sandy sediments, with the rock supporting an encrusting biota of serpulid worms, barnacles and pink coralline algae, as well as sparse hydroids and echinoderms such as *Echinus esculentus* and *Asterias rubens* (**CR.MCR.EcCr.FaAICr**). In shallower waters (18 - 24 m) sand-scoured boulders, cobbles, and bedrock outcrops supported mixed kelp parks dominated by *Laminaria hyperborea* (**IR.HIR.KSed.XKScrR**).

### 3.6 Wester Ross 2016 Sea Change Wester Ross & Subsea TV survey (Figure 18)

Maerl beds were recorded at four of the eight dive sites surveyed. The best developed bed was at Planet Rock, where the substrate of live (30% cover) and dead maerl at a depth of 9 m supported generally sparse filamentous and foliose red algae but common *Saccharina latissima* (**SS.SMp.Mrl.Pcal**).



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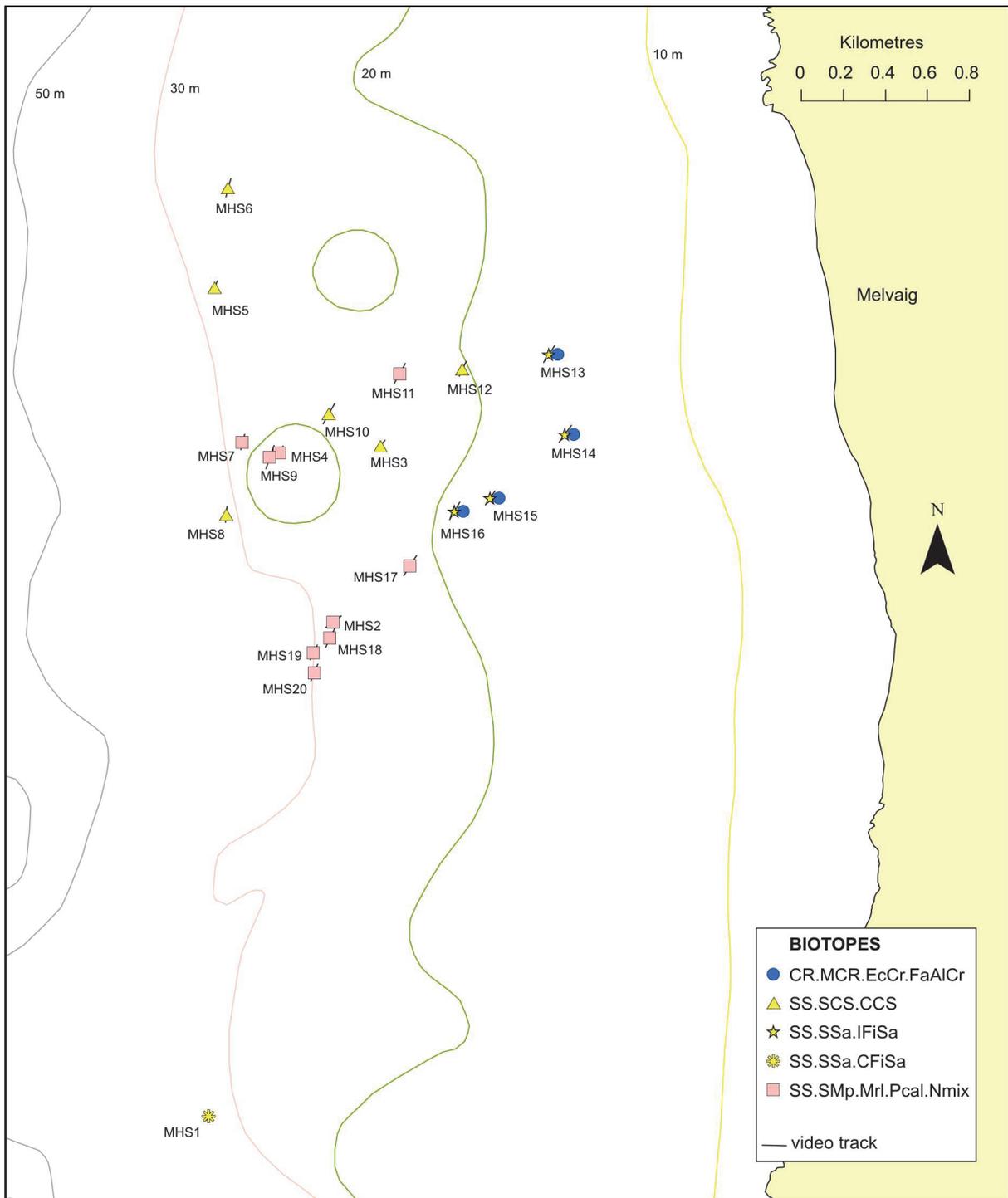
Figure 18. Distribution of biotope records in the approaches to Loch Broom surveyed in 2016.

At Carn Skerries and Fox Point low density patches of live maerl (10 - 15% cover) (**SS.SMp.Mrl.Pcal**) formed a mosaic with coarse sand and gravel (**SS.SCS.ICS**, **SS.SCS.CCS**). Live maerl also formed patches amongst coarse sand and gravel (**SS.SCS.CCS**) at the deepest site (19 m) off Bottle Island, but here the maerl was common within the patches (**SS.SMp.Mrl.Pcal.Nmix**), although rare overall.

At Horse Island the video footage traversed several habitats including silted bedrock and boulders supporting *Ciona intestinalis* and *Antedon* spp. (**CR.LCR.BrAs.AmenCio.Ant**), and in shallower waters probably sediment-scoured bedrock supporting an abundant red algal turf of filamentous and foliose species with *Saccharina latissima* (**IR.HIR.KSed.LsacSac**). A less extensive red algal turf extended onto areas of shell gravel and coarse sand, tentatively ascribed to **SS.SCS.ICS**. A feature of this station was the high density of egg strings and adults of *Onchidoris bilamellata*. **IR.HIR.KSed.LsacSac** was also recorded at 16 m depth on Martin Bank. The transect swam at Dornie Bank passed over an area of mixed sand with scattered gravel and pebbles at an initial depth of 18 m, with the sediment supporting frequent *Cerianthus lloydii* (**SS.SMx.CMx**). This habitat gave way to an area of similar substrate but supporting frequent *Saccharina latissima* and frequent tufts of filamentous and filiform red algae (**SS.SMp.KSwSS.LsacR.Sa**) recorded to a depth of 1 m. At the Tanera fish farm site within the large bay on the eastern side of Tanera Mòr, the video camera route entailed a northwards approach to within around 25 m of fish farm cages, followed by an approximately reciprocal bearing. The substrate throughout the dive was predominantly muddy sand which was covered extensively by an algal mat or turf containing at least some live filamentous and possibly filiform red algae. The sediment supported frequent *Philine aperta* and its egg masses and a dense population of the anemone *Anthopleura ballii*. The habitat has similarities with the biotope **SS.SMu.IFiMu.PhiVir** but the substrate type and algal complement is more suggestive of **SS.SMp.KSwSS**, to which it has been referred. The video footage skirted silted bedrock supporting dense *Saccharina latissima* (**IR.LIR.K.Lsac.Ft**). Midway through the dive (presumably in proximity to the fish farm cages) the algal turf was largely lost and the sediment was coated with a diatomaceous film and supported dense *Cerianthus lloydii* and occasional *P. aperta* (**SS.SSa.IMuSa**).

### 3.7 Wester Ross 2018 SNH/Skye & Wester Ross Fisheries Trust survey (Figure 19)

Live maerl was recorded at most of the 20 sites located off Melvaig west of Loch Ewe. Live maerl cover was generally low (<20%) but sufficient at nine of the sites (i.e. at least 10% and attaining 20% at site MHS18) to recognise the maerl biotope **SS.SMp.Mrl.Pcal.Nmix**. The substrate was largely megaripples of coarse sand and maerl gravel over a depth range of 20 - 32 m. Evidence of the associated biota was fairly scarce but included *Neopentadactyla mixta* and frequent *Antedon* spp. At several sites over the same depth range and displaying a similar substrate but with reduced live maerl content (not exceeding 5%) the biotope **SS.SCS.CCS** was recognised. Farther inshore at depths of 17 - 21 m the substrate changed to a slightly rippled medium sand with a diatomaceous cover and a dense population of *Asterias rubens* (tentatively ascribed to **SS.SSa.IFiSa**). Scattered cobbles and boulders were encrusted with serpulid worms and pink coralline algae and supported sparse *Alcyonium digitatum* and dense *Antedon* spp. (**CR.MCR.EcCr.FaAICr**). The two deepest sites examined in this survey area (both at 38 m) showed contrasting habitat types, with MHS8 displaying megaripples of coarse sand and gravel with no visual evidence of the infaunal community (**SS.SCS.CCS**), whilst MHS1, located 2 km south of the main cluster of sites, exhibited a substrate of fine - medium sand with sparse emergent tubes including possibly those of *Lanice conchilega* (**SS.SSa.CFiSa**).

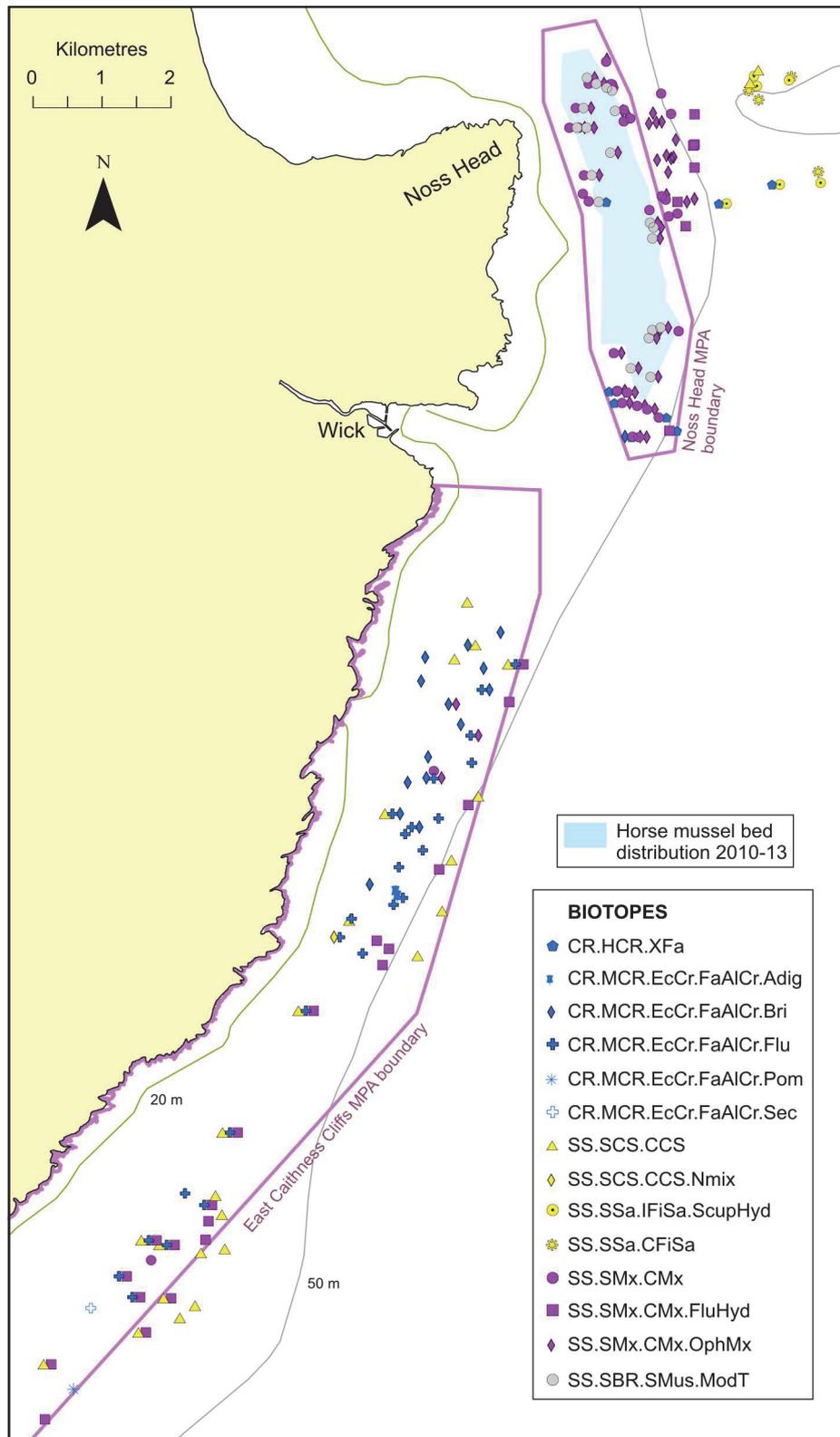


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Figure 19. Distribution of biotope records off Melvaig, Wester Ross surveyed in 2018.

### 3.8 Noss Head 2017 SNH/MSS survey (Figures 20 - 21)

The tide-swept *Modiolus* bed habitat (**SS.SBR.SMus.ModT**) was widely recorded within the Noss Head MPA, being present within a depth range of 38 - 50 m along a total of 19 video samples (Figure 20). *Modiolus modiolus* was recorded as abundant at most stations, although this rose to superabundant locally and dropped to common at several sites near the edge of the bed.

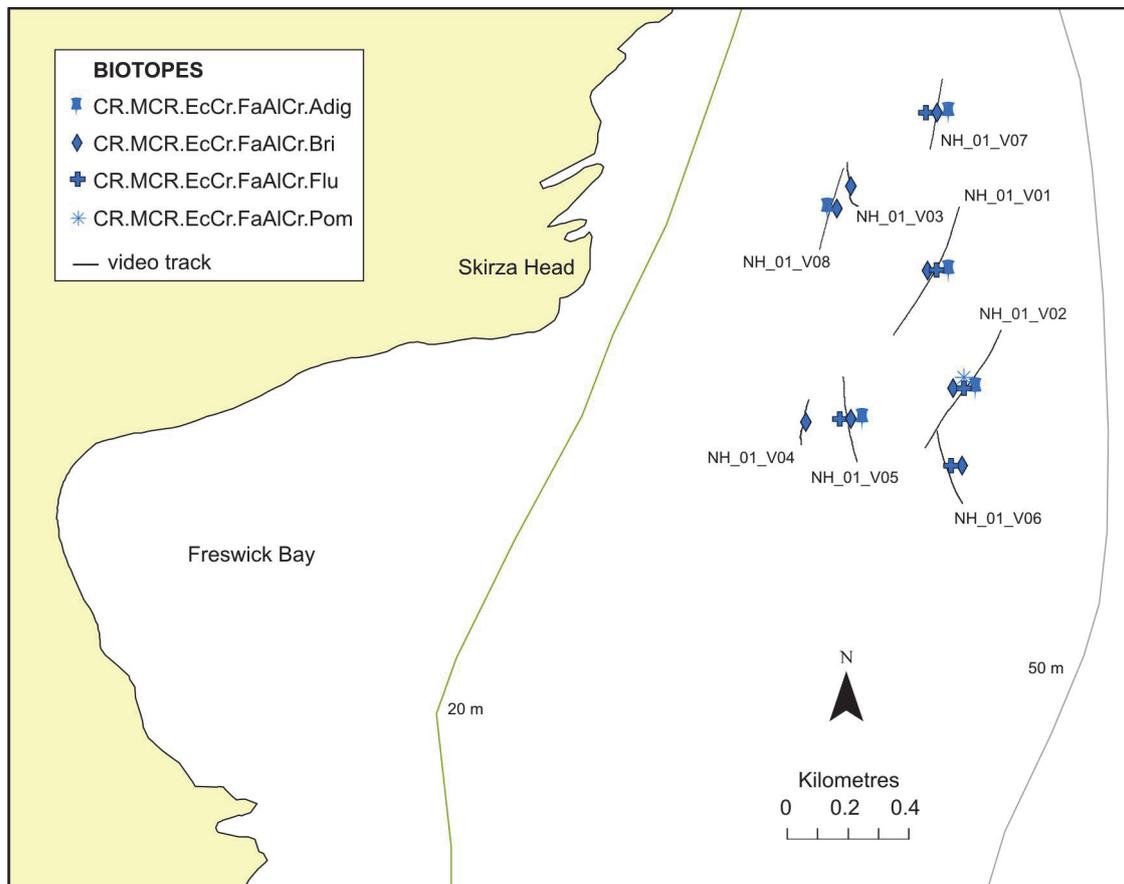


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Figure 20. Distribution of biotope records for Noss Head 2017 survey (southern region).

Even within regions of dense mussels there were patches of dense dead shells with few or no live mussels (**SS.SMx.CMx**). Live mussel shells supported a dense hydroid turf including *Sertularia* sp. and *Kirchenpaueria pinnata*? and a motile fauna dominated by *Echinus*

*esculentus* and *Asterias rubens*, often accompanied by dense ophiuroids, particularly *Ophiothrix fragilis* and *Ophiopholis aculeata* (**SS.SMx.CMx.OphMx**). All *Modiolus* bed records lay within the Noss Head MPA boundary limits.



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Figure 21. Distribution of biotope records for Noss Head 2017 survey (northern region).

Surrounding the *Modiolus* bed at depths of around 30 - 55 m mixed substrates of dense shells (especially *Modiolus*) with gravel and sand hosted a sparse epibiota (**SS.SMx.CMx**), except where the substrate was augmented with cobbles and boulders supporting hydroids, *Alcyonium digitatum*, *Alcyonidium diaphanum* and *Flustra foliacea* (**SS.SMx.CMx.FluHyd**), often in association with dense *Ophiothrix fragilis* and *Ophiocomina nigra* (**SS.SMx.CMx.OphMx**). In deeper waters (55 - 69 m) to the east of the *Modiolus* bed, finer substrates prevailed in the form of coarse sands (**SS.SCS.CCS**) and medium sands (**SS.SSa.CFiSa**) with little visible life, except when augmented with scattered stones supporting generally low densities of hydroids and *Flustra foliacea* (**SS.SSa.IFiSa.ScupHyd**). At a few sites small bedrock outcrops and aggregations of stones supported a dense hydroid turf (tentatively assigned to **CR.HCR.XFa**).

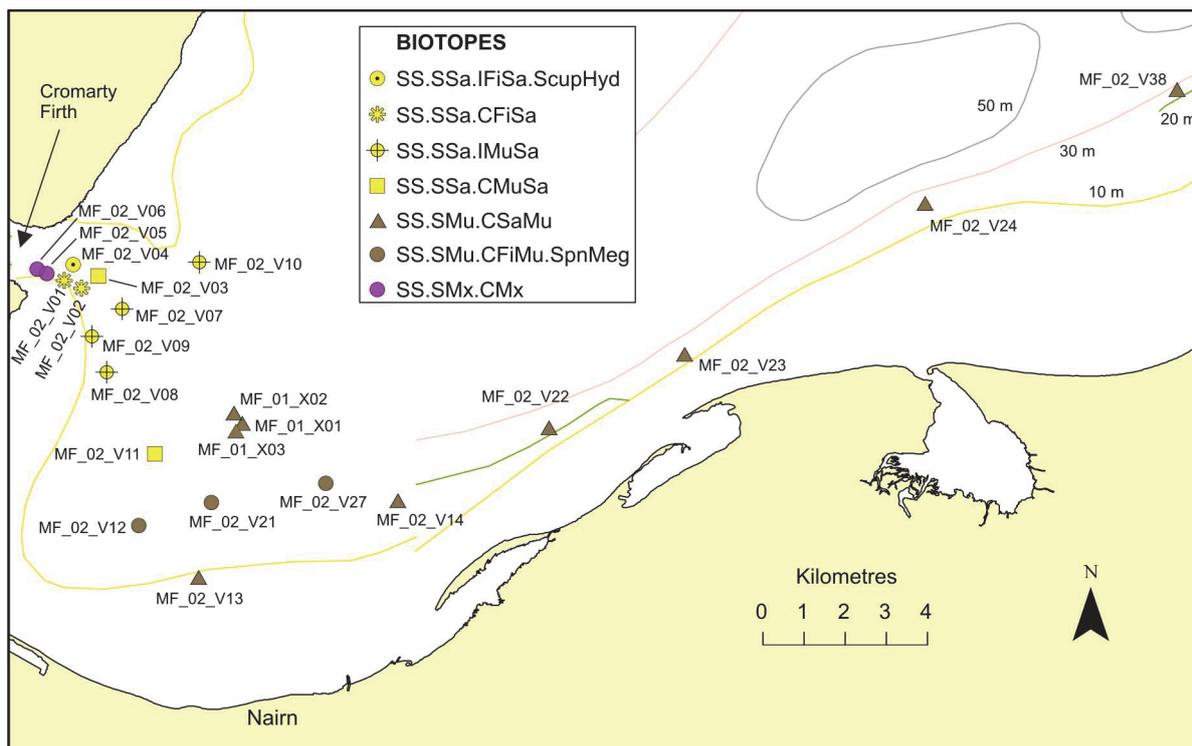
Video sample sites within the East Caithness Cliffs MPA (Figure 20) spanned the depth range 34 - 60 m, with no distinct, depth-related trend in habitat type. There were a few scattered records of coarse sands and gravels, locally formed into megaripples, which exhibited little visible epibiota (**SS.SCS.CCS**), but in contrast to the Noss Head MPA, this region was characterised by dense boulders and cobbles, sometimes with bedrock outcrops, supporting an encrusting fauna of *Spirobranchus* spp. and *Parasmittina trispinosa* (**CR.MCR.EcCr.FaAlCr.Pom**). However, this encrusting fauna was often accompanied by hydroids and *Flustra foliacea* (**CR.MCR.EcCr.FaAlCr.Flu**) or by dense *Ophiothrix fragilis*

and *Ophiocomina nigra* (CR.MCR.EcCr.FaAICr.Bri). In areas of more sparsely scattered stones supporting hydroids and *F. foliacea*, SS.SMX.CMx.FluHyd was recognised.

Eight sample sites were located off Skirza Head, 13 km north of Noss Head at depths of 35 - 51 m (Figure 21). The seabed was largely composed of scoured bedrock ledges with areas of dense boulders and cobbles and small patches of coarse sand and gravel. Rock surfaces were encrusted with pink coralline algae, *Spirobranchus* spp., *Parasmittina trispinosa* and an orange sponge and supported locally dense populations of *Flustra foliacea* (CR.MCR.EcCr.FaAICr.Flu) and *Alcyonium digitatum* (CR.MCR.EcCr.FaAICr.Adig), or concentrations of *Ophiothrix fragilis* and *Ophiocomina nigra* (CR.MCR.EcCr.FaAICr.Bri).

### 3.9 Moray Firth 2017 SNH/MSS survey (Figure 22)

Only sedimentary habitats were recorded in the Moray Firth 2017 survey. Over most of the surveyed area sediments ranged from muddy sands, through sandy muds to soft muds along a substrate continuum, which complicated the ascription of sites exhibiting transitional sediment composition to biotopes, particularly in the absence of detailed particle size data. Fairly well-burrowed soft mud was recorded at 22 - 31 m depth off Nairn (SS.SMu.CFiMu.SpnMeg), apparently representative of a tongue of this habitat extending from the deeper waters of the Moray Firth westward towards the entrance to Inverness Firth (see also Moore, 2014c, 2016). Conspicuous megafaunal burrows included those of *Nephrops norvegicus* and *Calocaris macandreae*, although no *Nephrops* individuals were observed, nor any sea pens.



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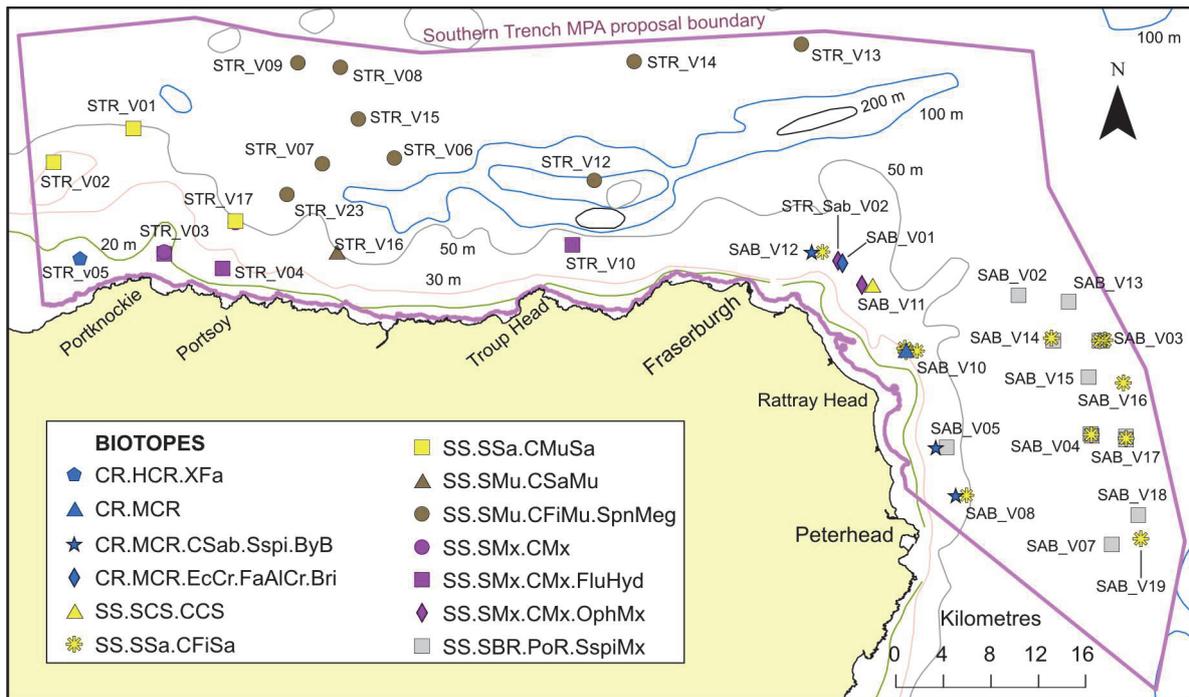
Figure 22. Distribution of biotope records in inner Moray Firth surveyed in 2017.

In shallower waters (18 - 20 m) off the entrance to Cromarty Firth muddy sand exhibited a relief of small mounds and small holes or burrows and locally small depressions possibly caused by *Ensis* spp. (SS.SSa.IMuSa). The *Asterias rubens* population was well-developed here, as it was throughout much of the surveyed area. The dominant habitat observed during

the survey displayed a sediment type intermediate between those of the biotopes noted above, in the form of a cohesive muddy sand or sandy mud (**SS.SMu.CSaMu**). This habitat was recorded largely at depths of 23 - 31 m and appears to occur just inshore of the burrowed mud (see also Moore, 2014c, 2016). The sediment surface displayed polychaete casts, small mounds and very sparse, mostly small megafaunal burrows including occasional *Nephrops norvegicus* locally. Several of the sites were transitional between the burrowed muds farther offshore and the muddy sands farther inshore and so represent tentative ascriptions to the biotope. Coarser sediments were recorded in the vicinity of the tide-swept entrance channel to Cromarty Firth. Silty, gravelly sands with some pebbles, cobbles and shells were observed at 25 - 31 m depth within the channel itself, with the stones and shells supporting serpulid worms, hydroid clumps and sparse *Alcyonium digitatum* (**SS.SMx.CMx**). Sparse, live *Modiolus modiolus* was recorded at one of the sites, as well as dense patches of its empty shells. Moving eastward from the channel, rippled sands were observed at 33 - 47 m depth (**SS.SSa.CFiSa**) and in shallower water (24 m), where scattered shells and stones supported hydroid clumps and *Alcyonium digitatum* (**SS.SSa.IFiSa.ScupHyd**). With further eastward reduction in current speed, the sediment transitioned to muddy sand at 26 m depth supporting large numbers of *Ophiura albida* (**SS.SSa.CMuSa**).

### 3.10 Southern Trench 2017 SNH/MSS survey (Figure 23)

Muds were widely recorded in deep water (72 - 106 m) off the coastline between Portsoy and Fraserburgh, mostly as soft muds burrowed by megafauna including *Nephrops norvegicus* and *Calocaris macandreae*, and supporting frequent *Pennatulula phosphorea* (**SS.SMu.CFiMu.SpM**). At the shallowest of these stations (STR\_V09 and STR\_V08 at depths of 72 - 77 m), the megafaunal burrowing community was poorly developed within a substrate of sandy mud. This is indicative of a biotope transitional between **SpM** and either **SS.SMu.CSaMu** or possibly **SS.SMu.CFiMu**. These sites have been considered here as poor examples of **SpM**, which is consistent with the findings of the more extensive 2011 survey of the area by Hirst *et al.* (2012). In shallower waters off Portknockie (38 - 52 m) the megafaunal burrowing component was lost in an area of silty and muddy sands, where the infaunal community was visually represented by emergent tubes, small holes and worm casts (**SS.SSa.CMuSa**). Closer inshore in this region and farther east off Troup Head at depths of 28 - 43 m mixed substrates of sand with a cover of varying concentrations of gravel, pebbles, cobbles and boulders were recorded, with the stones supporting an encrusting biota of serpulid worms and pink coralline algae, as well as clumps of hydroids and possibly very sparse *Flustra foliacea* (**SS.SMx.CMx.FluHyd**). Where the erect biota was very poorly developed the biotope **SS.SMx.CMx** was recognised. In contrast, at site STR\_V05, a relatively dense turf of hydroids and red algae was observed in association with numerous solitary ascidians. This site has been tentatively referred to **CR.HCR.XFa**, consistent with the recording of this biotope in the same vicinity in 2015 (Moore, 2017). Site STR\_SaB\_V02 was located east of Fraserburgh in an area containing a recent record of a mixed substrate of stones, bedrock and sand supporting a mosaic of *Sabellaria spinulosa* reef habitat (**CR.MCR.CSab.Sspi.ByB**) and an ophiuroid bed (**SS.SMx.CMx.OphMx**) (Moore, 2017). In the current survey the site displayed a substrate of coarse sand with a cover of gravel, pebbles, cobbles and boulders, which were largely obscured by superabundant *Ophiothrix fragilis* (**SS.SMx.CMx.OphMx**). No evidence of a *Sabellaria* reef was observed.



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Figure 23. Distribution of biotope records in the Southern Trench proposed MPA surveyed in 2017. The Southern Trench survey sites are prefixed with 'STR' and the Rattray Head sites with 'SAB'.

### 3.11 Rattray Head 2017 JNCC/MSS survey (Figure 23)

The 17 sample sites were located between Fraserburgh and Peterhead and can be divided into an arc of inshore sites at depths of 39 - 50 m and an arc of offshore sites at 75 - 97 m. The predominant habitat in deeper water consisted of a mixed substrate of sand, gravel and pebbles with much of this material apparently consolidated and forming a crust, locally fragmented. The encrustation is likely to have arisen from the sand-binding activities of *Sabellaria spinulosa*, although firm evidence of the presence of *Sabellaria* tubes was not observable. The crust supported sparse *Alcyonium digitatum* and *Flustra foliacea*, as well as *Urticina* spp. and *Pagurus prideaux* with *Adamsia carciniopados*; small *Lophius piscatorius* were also recorded at one site. The habitat has been tentatively assigned to the biotope **SS.SBR.PoR.SspiMx**, and was interspersed with areas of rippled, fine - medium sand, locally formed into megaripples (**SS.SSa.CFiSa**).

Scattered cobbles and boulders on sandy sediments were more prevalent at the six inshore sites. At three of them the rock was extensively encrusted with *Sabellaria spinulosa* and supported hydroid and bryozoan turfs dominated by *Flustra foliacea* and *Securiflustra securifrons*, together with *Alcyonium digitatum* and *Urticina felina* (**CR.MCR.CSab.Sspi.ByB**). Crust thickness was difficult to determine, but possibly attained 5 cm at least locally at one of the sites. The encrusted stones were scattered on rippled fine - medium sand at two of the sites (**SS.SSa.CFiSa**) and, at the third site, on mixed gravelly, pebbly sand consolidated by *Sabellaria* tubes, often forming laminar crusts with tube apertures visible (**SS.SBR.PoR.SspiMx**). A single *Molva molva* was tentatively identified at this latter site. Dense ophiuroids were recorded at two of the inshore sites, on dense boulders and cobbles at one site (**CR.MCR.EcCr.FaAlCr.Bri**) and, at the other site, on a more mixed substrate of stones and sand (**SS.SMx.CMx.OphMx**) with patches of coarse sand (**SS.SCS.CCS**).

#### 4. DISCUSSION

This section considers the conservation importance of the species and habitats encountered during the surveys, while also providing a summary appraisal of the distribution of PMFs and, where relevant, MPA protected features and SAC Annex I habitats. The conservation importance of species and habitats and their occurrence in each of the survey locations is summarised in Table 3, with the occurrence of Annex I habitats given in Table 4. Over half the biotopes in Table 3 fall within broad habitat types included in the Scottish Biodiversity List (Scottish Government, 2013) but are not recognised by other indicators of conservation importance. Such biotopes are generally of wide occurrence in Scottish waters.

*Table 3. Species and biotopes recorded during the surveys of recognised conservation importance and their frequency of occurrence in video samples in each survey location. Importance indicators are SBL = Scottish Biodiversity List of Habitats and Species, Osp = OSPAR List of Threatened and/or Declining Species and Habitats, PMF = Priority Marine Feature, PF = Protected Feature. Frequencies in red indicate PF survey locations. See Table 1 for survey location codes. Abbreviations used in the tables of this report for PMFs and PFs are provided in Annex 6.*

Biotope/species	Importance indicators				Survey area codes									
	SBL	Osp	PMF	PF	SOB	LF	SOM	LA	MHS	WER	NH	MF	STR	RH
IR.LIR.KVS			•					1						
CR.HCR.XFa.FluCoAs	•				30									
CR.HCR.XFa.SwiLgAs	•		•		2		14							
CR.MCR.CSab.Sspi.ByB		•												3
CR.MCR.EcCr.CarSwi.LgAs	•		•				9							
CR.MCR.EcCr.FaAICr.Sec	•						1				1			
SS.SCS.ICS	•									3				
SS.SCS.CCS	•				49		1			5	25			1
SS.SCS.CCS.Nmix	•		•	•						1	1			
SS.SSa.IFiSa	•								4					
SS.SSa.IFiSa.ScupHyd	•										6	1		
SS.SSa.CFiSa	•				8		1		1		4	2		12
SS.SSa.CMuSa	•			•		1	19			5		2	3	
SS.SSa.IMuSa	•				5			1		2		4		
SS.SSa.IMuSa.EcorEns	•				2	1								
SS.SMu.CSaMu	•			•	1	1	8						8	1
SS.SMu.CSaMu.VirOphPmax	•			•			2							
SS.SMu.CSaMu.VirOphPmax.HAs	•						4							
SS.SMu.CFiMu.MegMax	•		•	•			2							
SS.SMu.CFiMu.SpnMeg	•	•	•	•	7	3	6					3	9	
SS.SMx.IMx.Lim	•		•	•		11				12				
SS.SMx.CMx	•				4	12	78			24	35	2	2	
SS.SMx.CMx.CIloModHo	•			•		4								
SS.SMx.CMx.CIloMx	•					1								
SS.SMx.CMx.FluHyd	•										27		3	
SS.SMx.CMx.OphMx	•					38	13			16	44		1	1
SS.SMp.Mrl.Pcal	•	•	•	•						7				

Table 3 continued

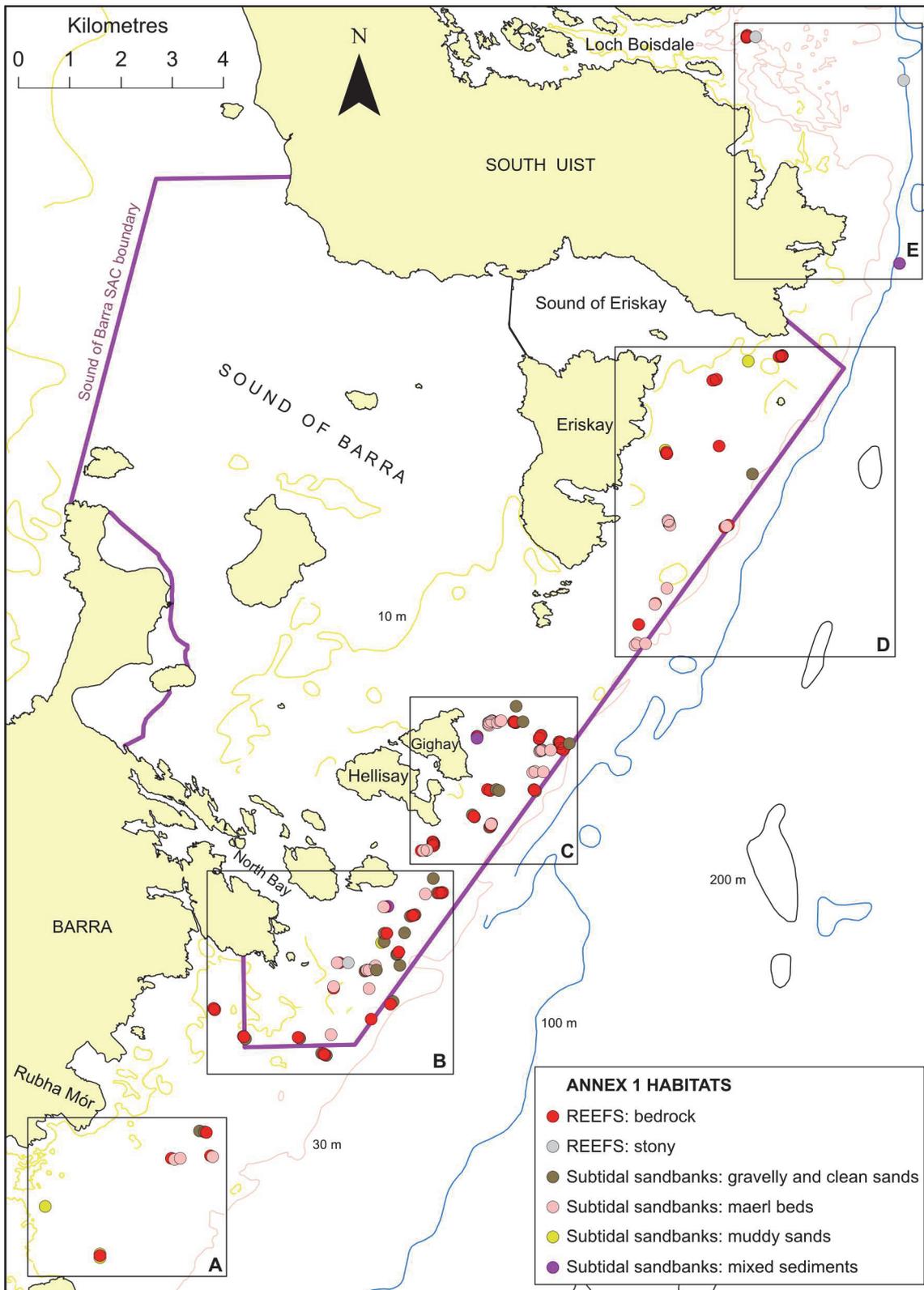
Biotope/species	Importance indicators				Survey area codes									
	SBL	Osp	PMF	PF	SOB	LF	SOM	LA	MHS	WER	NH	MF	STR	RH
SS.SMp.Mrl.Pcal.Nmix	•	•	•	•	39				9	10				
SS.SMp.KSwSS			•	•		1		1		4				
SS.SMp.KSwSS.LsacR.Gv			•			3								
SS.SMp.KSwSS.LsacR.Sa			•	•		2		2		1				
SS.SBR.PoR.Ser	•		•					1						
SS.SBR.PoR.SspiMx		•												13
SS.SBR.SMus.ModT	•	•	•	•							19			
<i>Arctica islandica</i>			•			1	3			1				
<i>Funiculina quadrangularis</i>			•				1							
<i>Pachycerianthus multiplicatus</i>			•	•		5								
<i>Pachycerianthus multiplicatus?</i>			•		1									
<i>Parazoanthus anguicomus?</i>			•				1							
<i>Leptometra celtica</i>			•				19			5				
<i>Leptometra celtica</i> agg.			•	•			8			4				
<i>Swiftia pallida</i>			•		2		32							
<i>Swiftia pallida?</i>							1							
<i>Gadus morhua</i>			•							1	1			
<i>Molva molva</i>			•											1
<i>Lophius piscatorius</i>			•					1						1
Sandeels?			•		1									
<i>Phymatolithon calcareum</i>	•				93				16	26				

Table 4. Frequency of occurrence of Annex I habitats recorded in the SACs surveyed.

Habitat	Sub-type/feature	SAC	
		Sound of Barra	Moray Firth
Reefs	Bedrock	75	
Reefs	Stony	3	
Subtidal sandbanks	Gravelly & clean sands	57	3
Subtidal sandbanks	Maerl beds	39	
Subtidal sandbanks	Muddy sands	8	6
Subtidal sandbanks	Mixed sediments	4	2

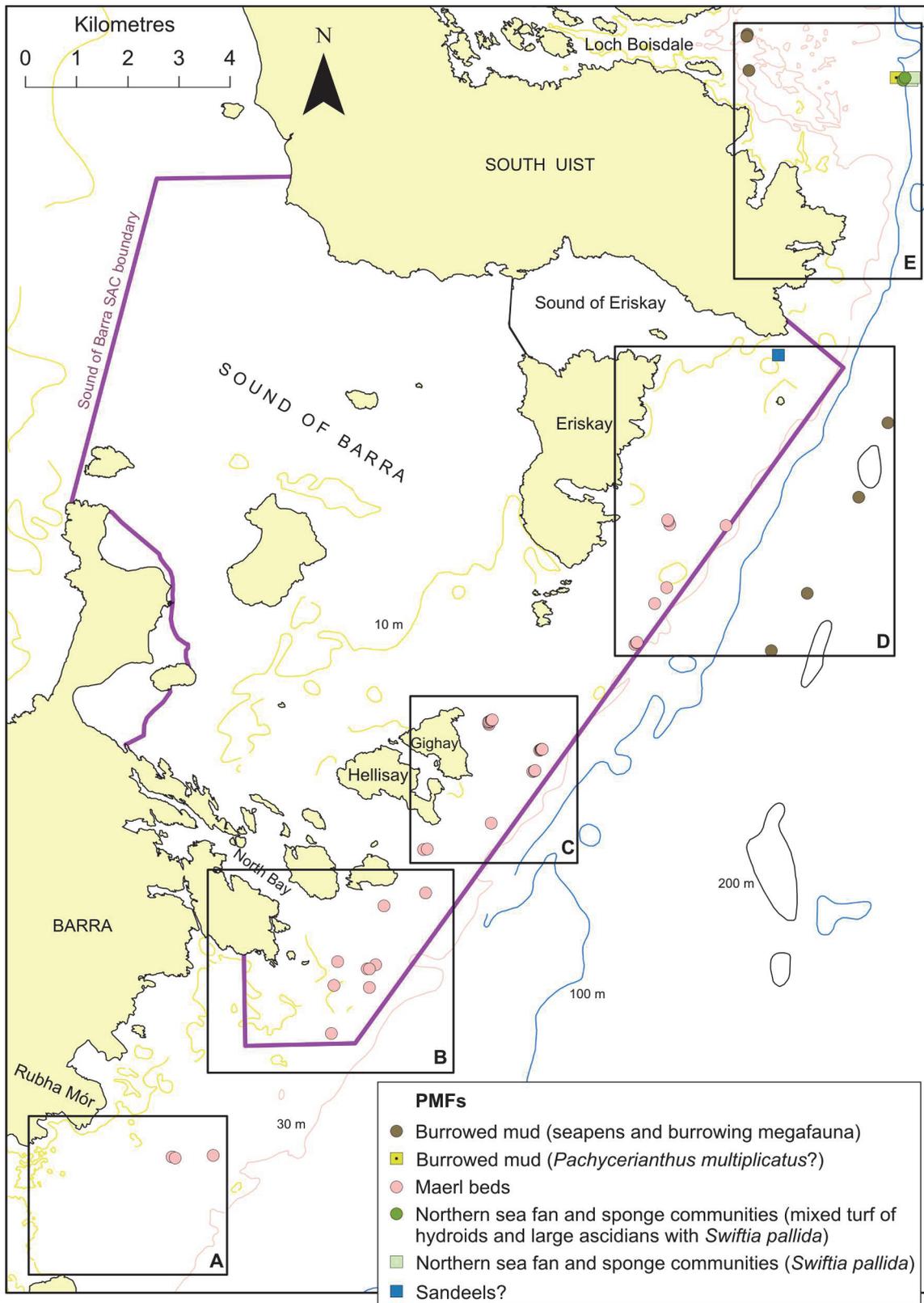
#### 4.1 Sound of Barra 2017 and 2018 SNH/MSS surveys (Figures 24 - 25)

A high proportion of the video runs passed through qualifying Annex 1 features with widespread distribution of rocky reef and subtidal sandbank habitats (Figure 24, Table 4). The *Swiftia pallida* biotope **CR.HCR.XFa.SwiLgAs** represents the only reef PMF recorded, being observed along one video run north of the SAC off Loch Boisdale (Figure 25). Four subtidal sandbank sub-types were recorded, strongly dominated by gravelly and clean sands and maerl beds (Figure 24).



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**Figure 24.** Distribution of records of Annex 1 features within the Sound of Barra SAC and adjacent waters. Further details of sites within insets A - E provided in Figures 3 - 7.



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Figure 25. Distribution of records of PMFs within the Sound of Barra SAC and adjacent waters. Further details of sites within insets A - E provided in Figures 3 - 7.

Both these habitats mostly took the form of megarippled gravels and coarse sands, often supporting live maerl in the troughs, representing the maerl bed PMF **SS.SMp.Mrl.Pcal.Nmix**. The burrowed mud PMF biotope **SS.SMu.CFiMu.SpnMeg** was recorded along six video runs beyond the boundary of the SAC, with the possible presence of the PMF component species *Pachycerianthus multiplicatus* at one of them (Figure 25). Small numbers of possibly sandeels (a PMF) were observed at one site to the east of Eriskay.

#### 4.2 Loch Fyne 2015 SNH survey (Figure 26)

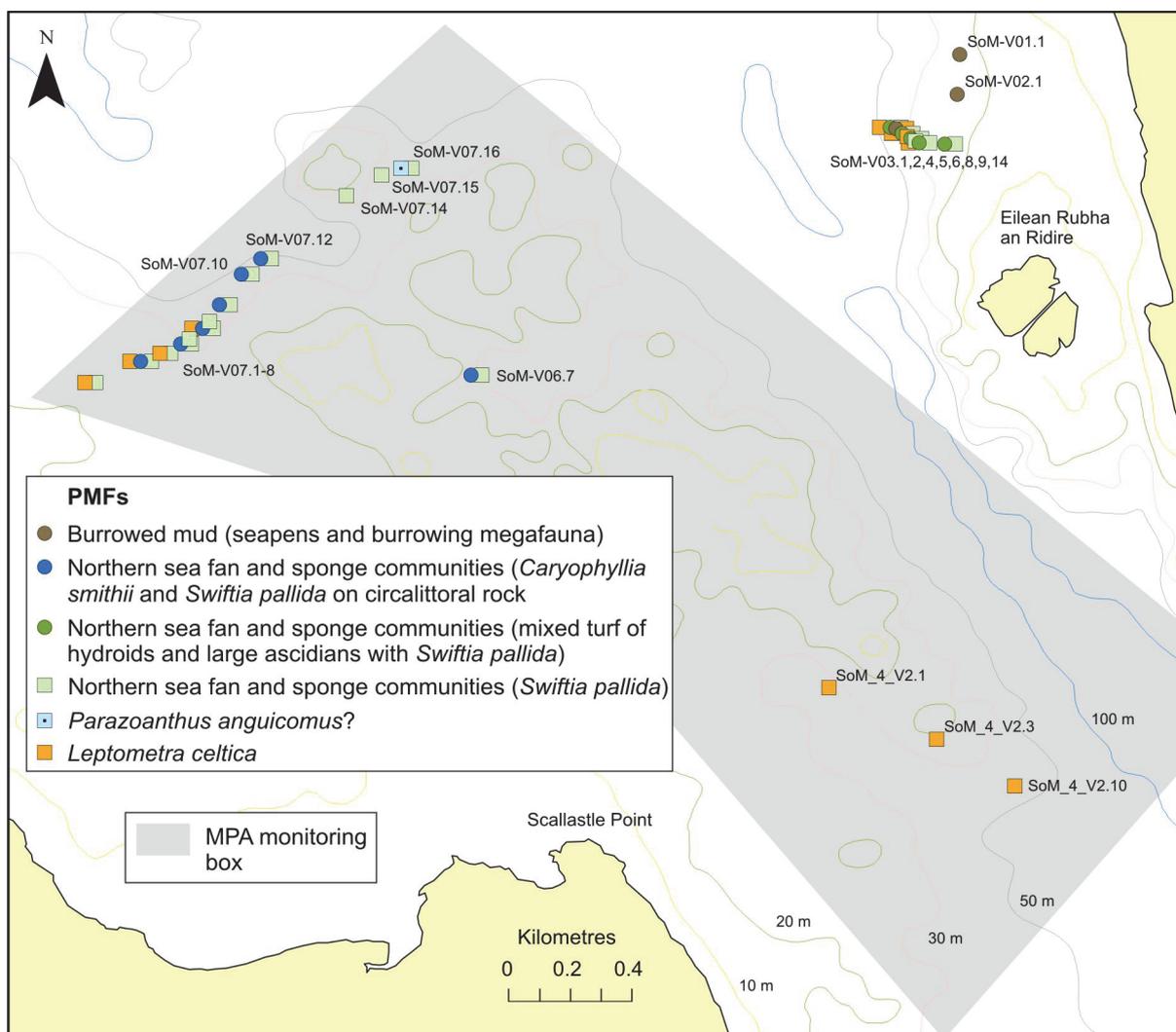
Figure 26 shows the distribution of the flame shell bed, a protected feature and PMF, within the Upper Loch Fyne and Loch Goil MPA as mapped in 2012 by Moore *et al.* (2013). The 2015 survey is indicative of a similar distributional pattern, with slight peripheral variation in extent potentially resulting from temporal differences in the location of observations. The protected feature 'sublittoral mud and specific mixed sediment communities' was recorded along five video runs south of Creag Gobhainn in 2015. This feature occurred both in its component form 'circalittoral sandy mud' (**SS.SMu.CSaMu**) along two video runs and as 'sparse *Modiolus modiolus*, dense *Cerianthus lloydii* and burrowing holothurians on sheltered circalittoral stones and mixed sediment' (**SS.SMx.CMx.CIlModHo**) along three runs, although some of these records lay just beyond the southern margin of the MPA. The protected feature and PMF 'burrowed mud' was present in its two component forms within Loch Shira, with **SS.SMu.CFiMu.SpnMeg** at three sites and **SS.SMu.CFiMu.MegMax** at a further two sites (Figure 9), with the component species *Pachycerianthus multiplicatus* present at all five sites. Other PMFs recorded in the south of the MPA included fairly poorly developed examples of 'kelp and seaweed communities on sediment' (**KSwSS** biotopes) along five runs in shallow water and sparse *Arctica islandica* at one deep site in muddy sand (Figure 26).



### 4.3 Sound of Mull 2015 and 2016 SNH/MSS surveys (Figures 27 - 29)

The protected feature of the Loch Sunart to Sound of Jura MPA (which embraces the surveyed areas), common skate, was not recorded during the current surveys.

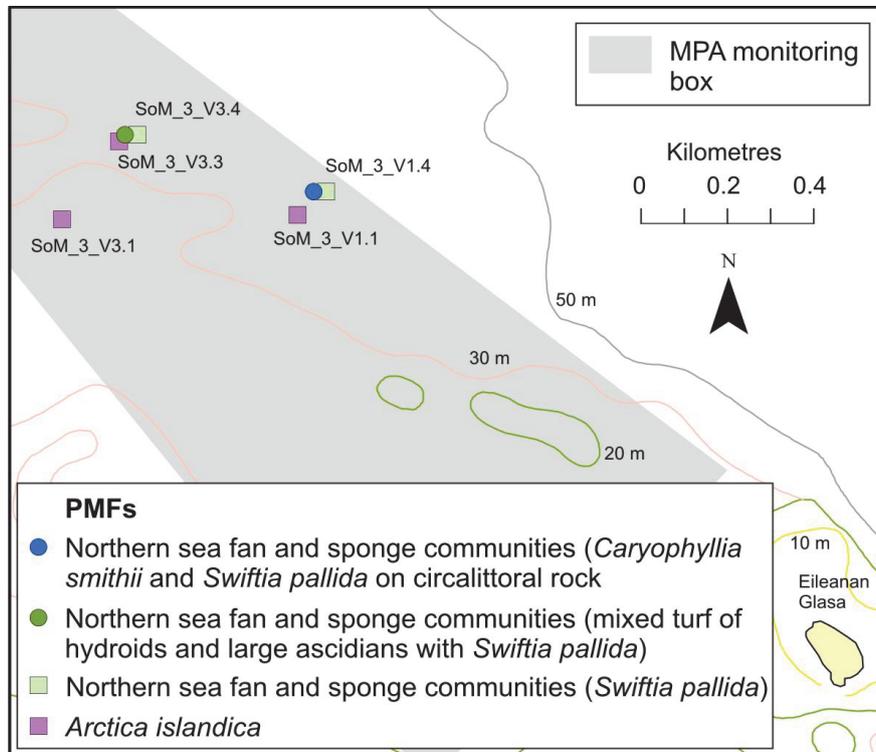
It is clear that the PMF component species *Swiftia pallida* is very widely distributed within the Sound of Mull and at sufficient density to recognise both the *Swiftia* PMF biotopes **CR.MCR.EcCr.CarSwi.LgAs** and **CR.HCR.XFa.SwiLgAs**, although the distinction between the two was not always clear-cut. Both habitats were found in all three regions of the Sound surveyed, with the south-eastern survey area supporting well-developed populations of *Swiftia* (frequent - common). The burrowed mud PMF **SS.SMu.CFiMu.SpnMeg** was recorded in the south-east (Figure 27) and north-west (Figure 29) of the Sound, although burrow density was not high. Two specimens of the burrowed mud component species *Funiculina quadrangularis* were observed along one of the north-western video runs (Figure 29) in an area of sparse burrows, not considered to represent a burrowed mud habitat.



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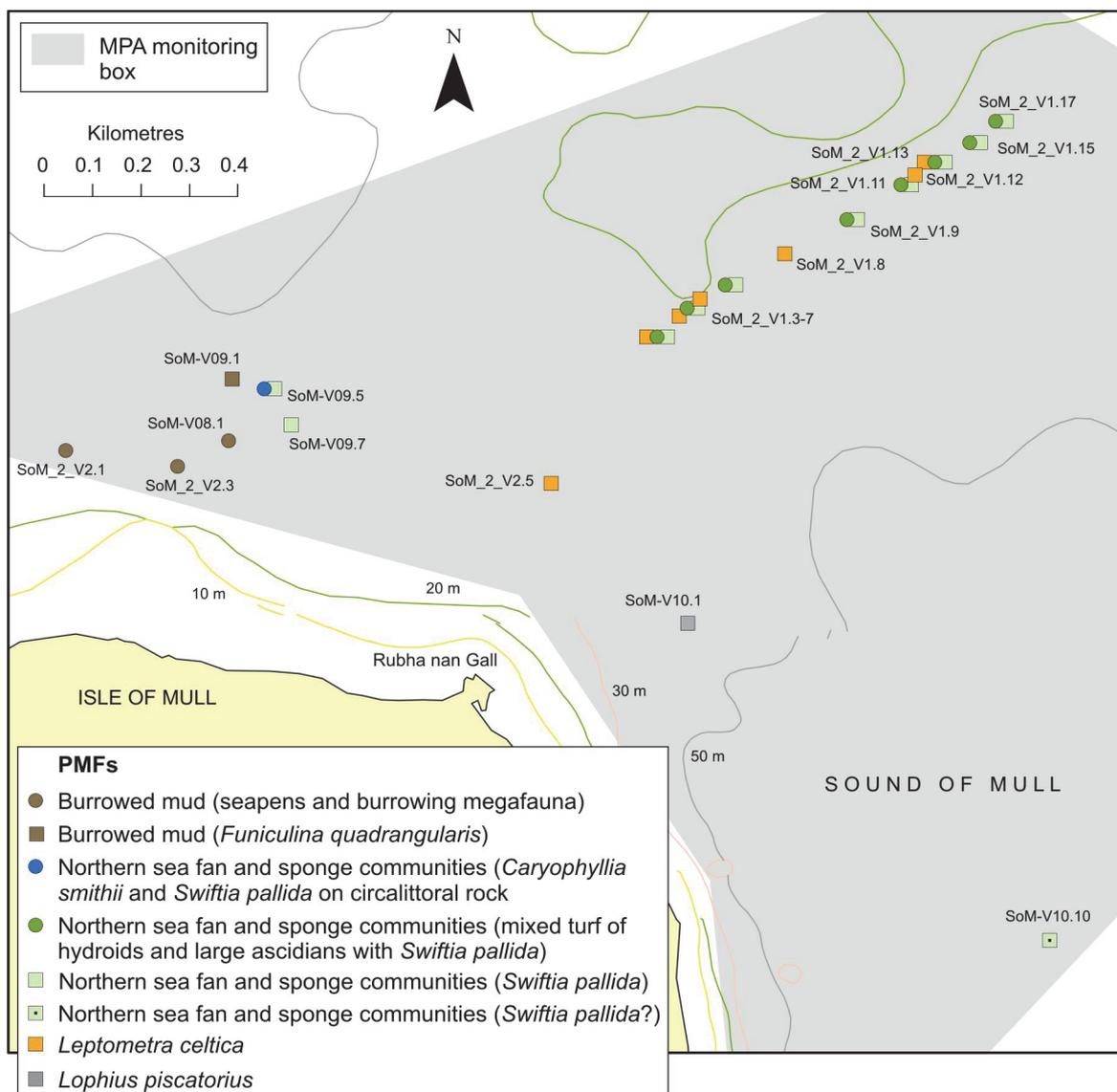
Figure 27. Distribution of records of PMFs in the Sound of Mull (south-eastern survey area).

Other PMF species included *Leptometra celtica*, which was widely distributed in the north-west (Figure 29) and south-east (Figure 27) regions of the Sound with aggregations on mixed substrates at both locations. *Arctica islandica* was observed in three video samples in the central region of the Sound (Figure 28) including one record of an aggregation of the species, and there were single records of *Lophius piscatorius* in the north-west (Figure 29) and possibly *Parazoanthus anguicomus* in the south-east (Figure 27).



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Figure 28. Distribution of records of PMFs in the Sound of Mull (central survey area).



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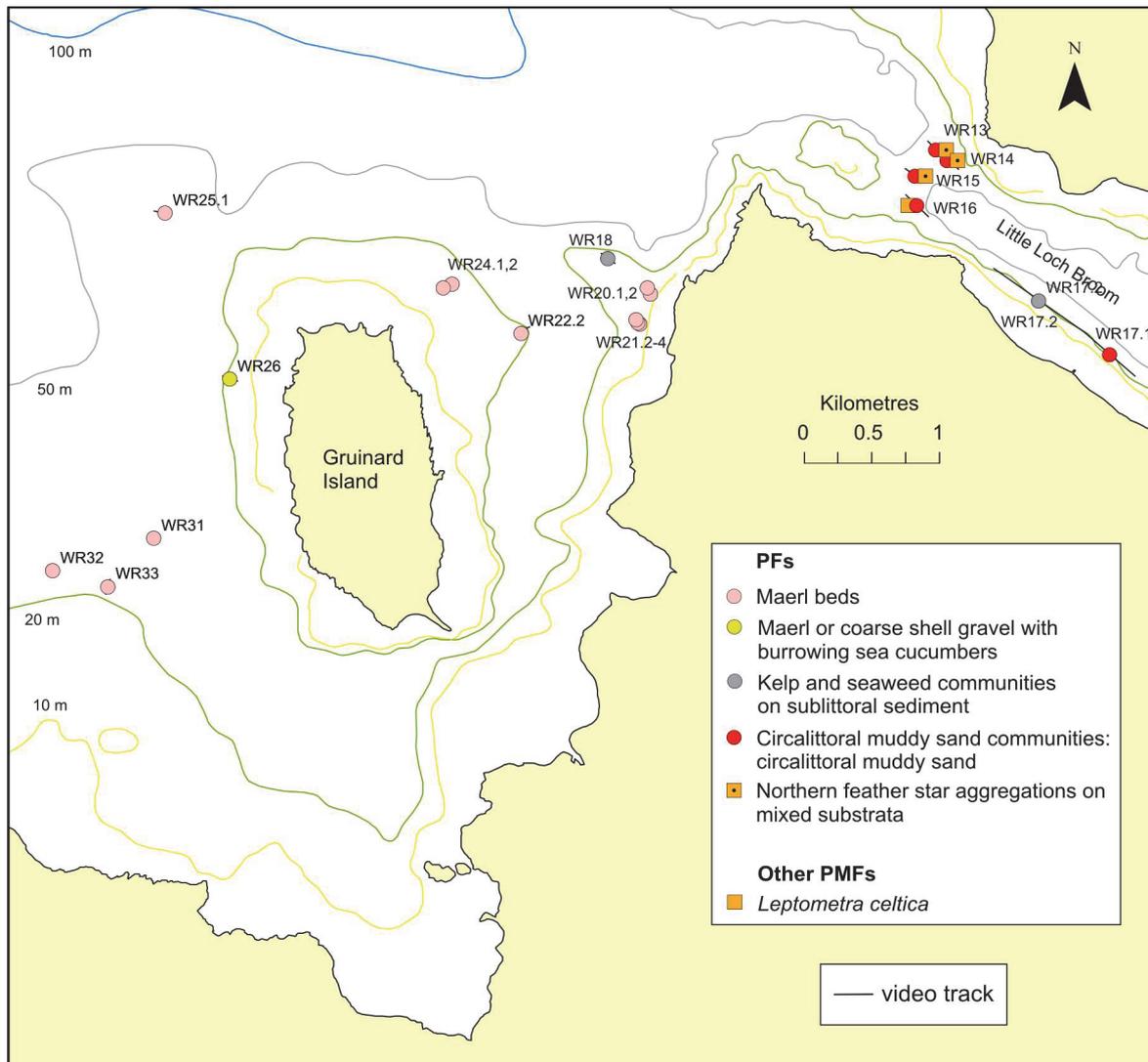
Figure 29. Distribution of records of PMFs in the Sound of Mull (north-western survey area).

#### 4.4 Loch Ailort 2017 SNH survey (Figure 14)

Four PMF biotopes were recorded within Loch Ailort. These included poor examples of **SS.SMp.KSwSS** and **SS.SMp.KSwSS.LsaR.Sa** present along two of the video runs and a tentative ascription to **IR.LIR.KVS** at a further site. The most interesting observation is that of aggregations of *Serpula vermicularis* (**SS.SBR.PoR.Ser**) at site LA260. However, the atypically small size of the aggregations and the corresponding paucity of an associated community renders them poor examples of the PMF at the current stage of their development.

#### 4.5 Wester Ross 2017 SNH/MSS survey (Figures 30 - 31)

Distributional information on six of the seven protected features designated for the Wester Ross MPA (see Annex 2) was obtained during the current survey work, the exception being burrowed mud.

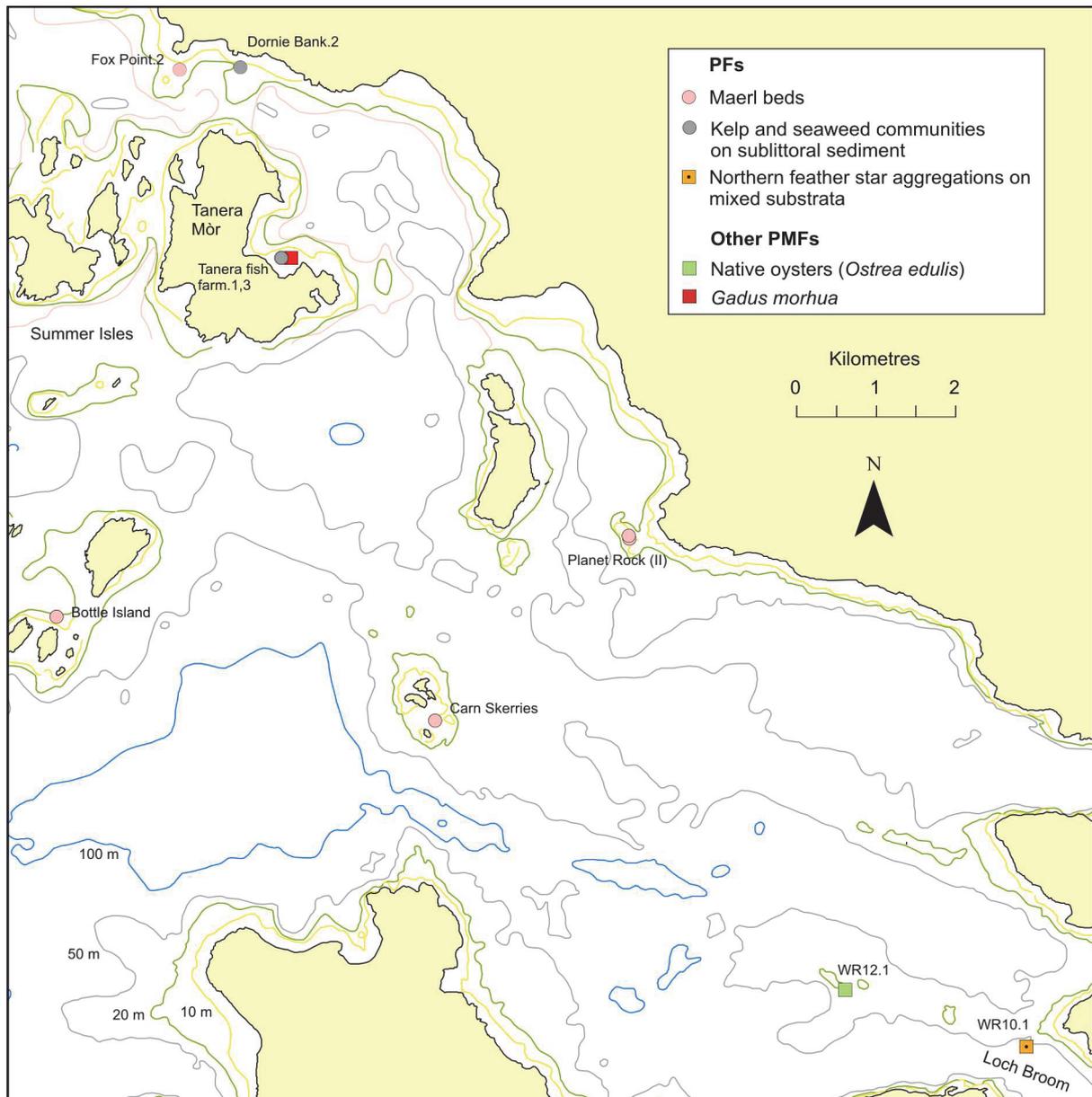


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**Figure 30.** Distribution of records of PFs and other PMFs in Little Loch Broom and around Gruinard Island).

The flame shell bed in Sruth Lagaidh Narrows, Loch Broom, previously mapped in 2010 (Moore *et al.*, 2011), was found to be still present (Figure 16). Comparison of the current 2017 imagery with that from the 2010 survey was suggestive of a temporal increase in the thickness and luxuriance of the byssal turf, which overtopped the bound pebbles and shells in 2017 but not in 2010. The south-eastern boundary of the bed appeared similar in both years (Figure 16). The bed extended farther north-east in 2017 than indicated by the 2010 distribution polygon, although a lack of sample points in this region in 2010 means that no temporal change should be inferred. Also, the bed was found to be poorly-developed over much of this peripheral region. In 2017 the bed was not shown to extend as far to the north-west as was found in 2010. However, in this region the habitat in 2017 was obscured by a dense cover of ophiuroids. There is no firm evidence for a temporal change in the extent of the feature.

The PMF *Arctica islandica* was recorded within the first segment of video run WR8 to the south-east of Sruth Lagaidh Narrows.



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Figure 31. Distribution of records of PFs and other PMFs in the approaches to Loch Broom.

The maerl bed PF was widely recorded around Gruinard Island (Figure 30) and amongst the islands in the outer region of the MPA (Figure 31). Live maerl density was generally low (c. 10 - 15% cover), although at Planet Rock (Figure 31) 30% coverage was achieved over an extensive area. A single example of the related PF 'maerl or coarse shell gravel with burrowing sea cucumbers' (**SS.SCS.CCS.Nmix**) was observed off Gruinard Island. There were also scattered records of the PF 'kelp and seaweed communities on sublittoral sediment' just within and outside Little Loch Broom (Figure 30) and around the Summer Isles (Figure 31). The circalittoral muddy sand PF was recorded at five sites near the mouth of Little Loch Broom (Figure 30), mostly supporting the PMF *Leptometra celtica*. Aggregations of the species (a PF) were present at most of these sites and at a further site at the mouth of Loch Broom (Figure 31).

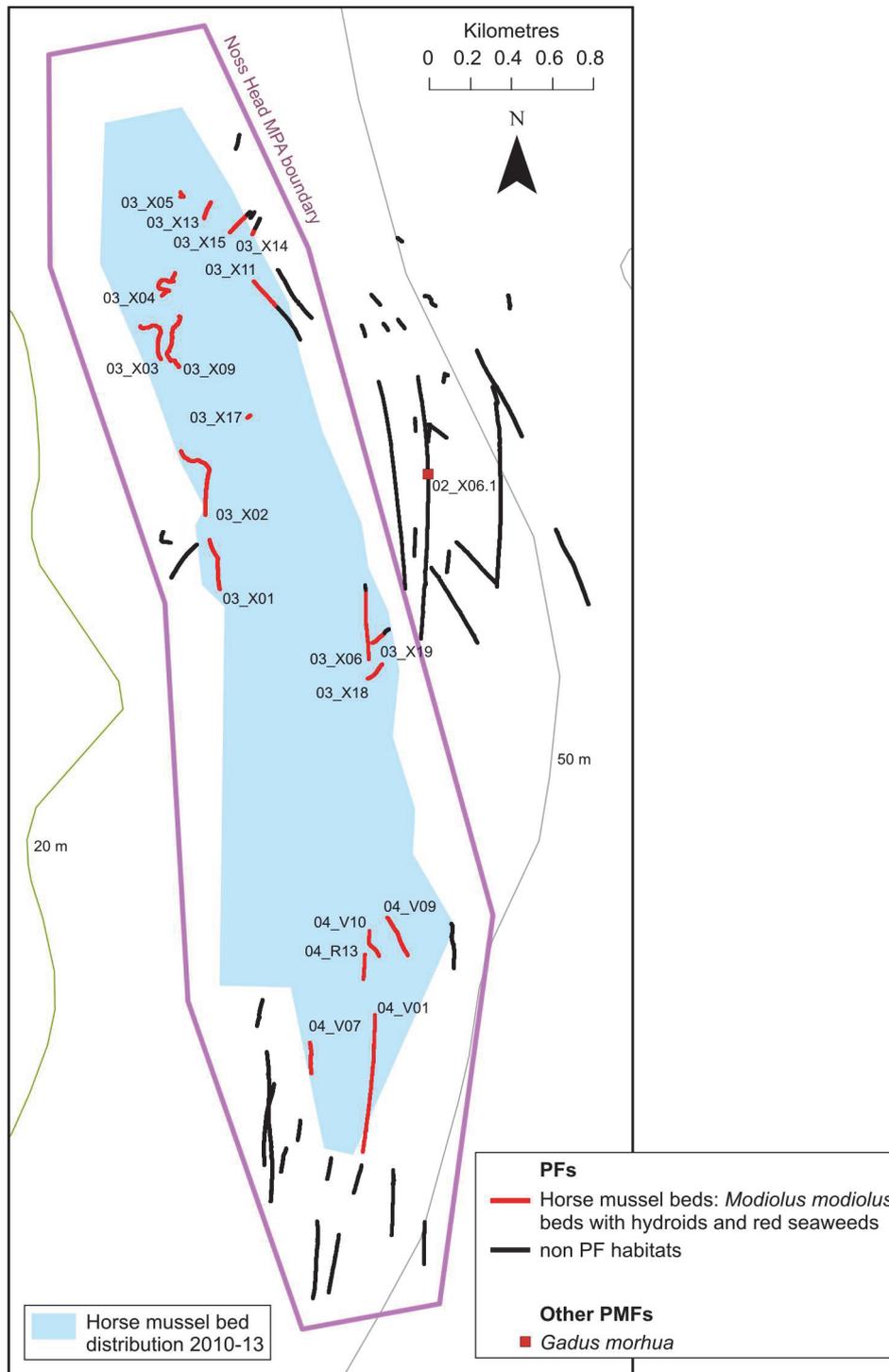
The only other PMFs noted were a shoal of juvenile *Gadus morhua* off Tanera Mòr (Figure 31) and a single *Ostrea edulis* off the mouth of Loch Broom (Figure 31).

#### 4.6 Wester Ross 2018 SNH/Skye & Wester Ross Fisheries Trust survey (Figure 19)

Nine of the 20 sites surveyed west of Melvaig supported a sufficient density of live maerl (viz. 10 - 20% cover) to be assigned to the PMF biotope **SS.SMp.Mrl.Pcal.Nmix**. This supports the suggestion of Moore & Atkinson (2012), based on previous records of maerl beds in the region (Moore *et al.*, 2011; Moore & Atkinson, 2012), that a maerl band may extend along this coastline from Rubha Reidh in the north to Applecross in the south, a distance of around 50 km.

#### 4.7 Noss Head 2017 SNH/MSS survey (Figures 32)

Horse mussel beds are the only protected feature within the Noss Head MPA. The component biotope **SS.SBR.SMus.ModT** was widely recorded in 2017 and was characterised by abundant *Modiolus modiolus* along most of the video runs through the bed (Figure 32). The distribution of the habitat was consistent with that of the previously mapped polygon based on records from 2010 to 2013 (Scottish Natural Heritage, 2014) (Figure 32). The only other PMF noted was one record of *Gadus morhua* to the east of the MPA.

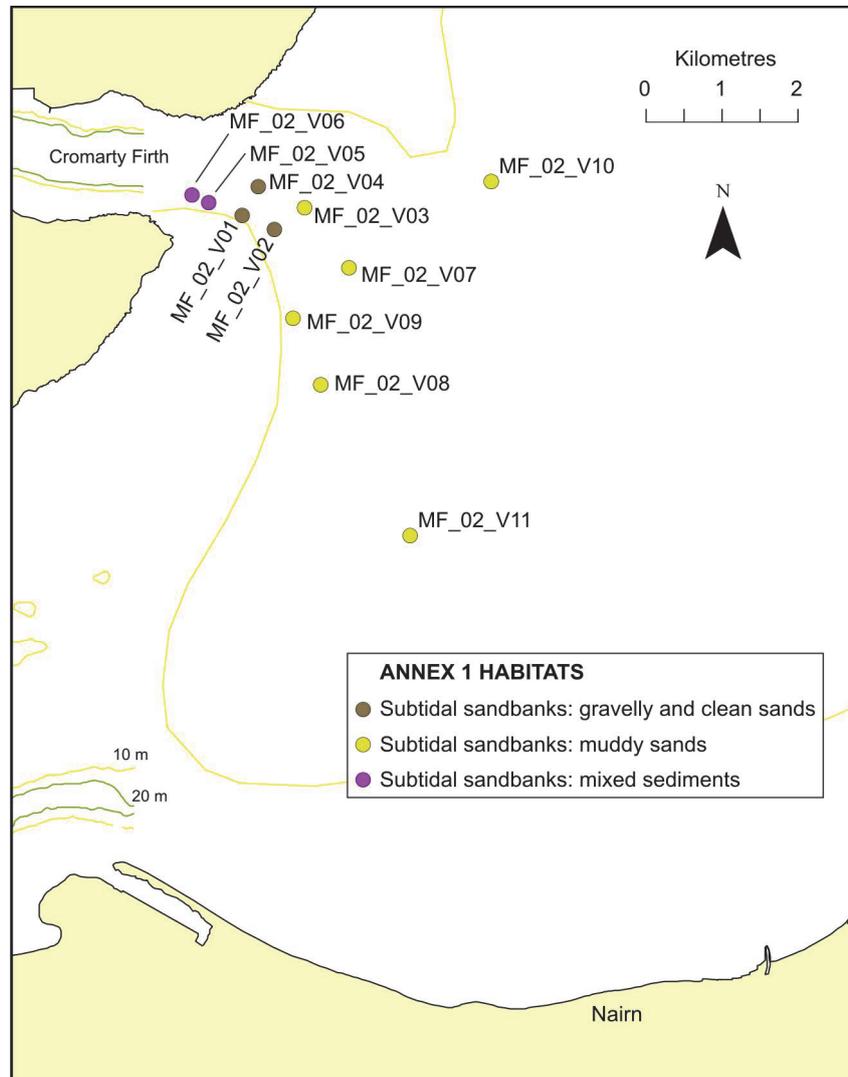


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Figure 32. Distribution of records of PFs and other PMFs off Noss Head. 'NH' site label prefix omitted for clarity.

#### 4.8 Moray Firth 2017 SNH/MSS survey (Figure 33)

All three designated Annex 1 subtidal sandbank sub-type habitats were observed in the Moray Firth 2017 survey. There was a progression of sub-types east of Cromarty Firth, from mixed sediments in the mouth of the Firth, through gravelly and clean sands, to an extensive area of muddy sands in less current-swept waters (Figure 33). Three fairly well-burrowed examples of the PMF burrowed mud biotope **SS.SMu.CFiMu.SpM** were recorded (Figure 22).

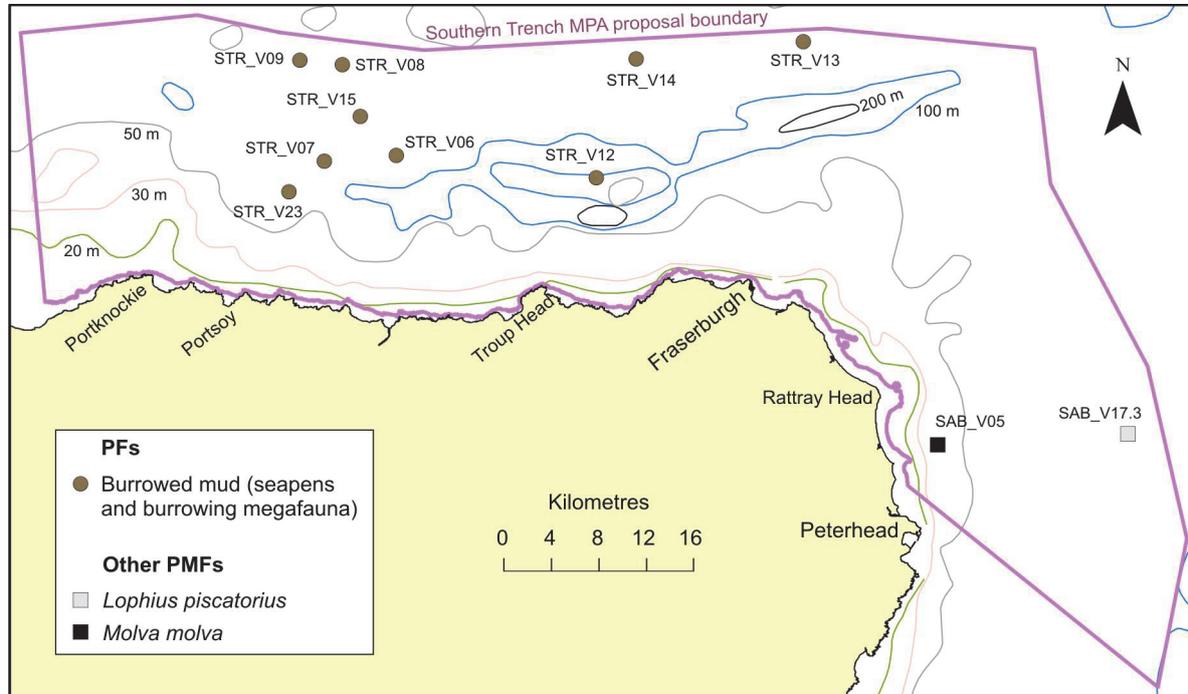


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Figure 33. Distribution of records of Annex 1 habitats in inner Moray Firth.

#### 4.9 Southern Trench 2017 SNH/MSS survey (Figure 34)

The PF burrowed mud was widely recorded in deep water of the Southern Trench MPA proposal, mostly in the form of soft mud, fairly well-burrowed by megafauna including *Nephrops norvegicus* and *Calocaris macandreae*, and supporting frequent *Pennatula phosphorea* (**SS.SMu.CFiMu.SpM**eg). No other PMFs were observed.



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Figure 34. Distribution of records of PFs and other PMFs in the Southern Trench proposed MPA. The Southern Trench survey sites are prefixed with 'STR' and the Rattray Head sites with 'SAB'.

#### 4.10 Rattray Head 2017 JNCC/MSS survey (Figure 34)

Two PMF species were recorded within the south-eastern arm of the Southern Trench MPA proposal between Fraserburgh and Peterhead: two small specimens of *Lophius piscatorius* at one site and a possible example of *Molva molva* at a second site (Figure 34).

In the same region of the MPA dense encrustations of *Sabellaria spinulosa* were encountered on rock at three inshore sites (**CR.MCR.CSab.Sspi.ByB**) and on mixed sediment at a further inshore site (**SS.SBR.PoR.SspiMx**; Figure 23). The latter biotope also appeared to be widespread in deeper water, although physical sampling of the habitat will be required to confirm this. These habitats appear to fall within the definition of *Sabellaria* reefs on OSPAR's List of Threatened and/or Declining Species and Habitats (OSPAR, 2013). The encrustations on rock can also be considered to lie within the currently accepted interpretation of a *Sabellaria* reef within the context of the EC Habitats Directive Annex I list, albeit with a low level of reefiness (defined by Gubbay (2007) as attaining a thickness of 2 - 5 cm). The low elevation of the mixed sediment crusts may exclude them from this qualification. Although *Sabellaria* tubes could not be clearly discerned as components of the offshore crusts, *Sabellaria* reefs have been reported from three sites in the same area following a 2015 survey (Moore, 2017) and single grab samples from just inside the eastern boundary of the MPA have revealed *Sabellaria* densities of 160 m<sup>-2</sup> (Axelsson *et al.*, 2016) and 1980 m<sup>-2</sup> (Hirst *et al.*, 2012).

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**ANNEX 1: QUALIFYING HABITATS DIRECTIVE ANNEX I HABITATS AND SUB-TYPES/FEATURES IN EACH OF THE TWO SACS SURVEYED**

Corresponding biotope codes are also given for each sub-type/feature (not all component biotopes being present in any one SAC).

<b>Qualifying Annex I habitats</b>	<b>Annex I sub-types/features</b>	<b>Sound of Barra SAC</b>	<b>Moray Firth SAC</b>	<b>Biotopes</b>
Reefs	Bedrock	•		<b>IR, LR and CR</b> biotopes on bedrock
Reefs	Stony	•		<b>IR, LR and CR</b> biotopes on stable boulders and cobbles (>10% cover) elevated from seabed by at least several cm and covering area >25 m <sup>2</sup>
Subtidal sandbanks	Gravelly & clean sands	•	•	<b>SS.SCS</b> (excluding <b>.OCS</b> ), <b>SS.SSa</b> (excluding <b>SS.SSa.IFiSa.TbAmPo, .IMuSa, .CMuSa. &amp; .OSa</b> )
Subtidal sandbanks	Kelp & seaweed	•		<b>SS.SMp.KSwSS</b> (excluding <b>.Tra &amp; .FilG</b> )
Subtidal sandbanks	Maerl beds	•		<b>SS.SMp.Mrl</b> + child biotopes
Subtidal sandbanks	Muddy sands	•	•	<b>SS.SSa.IMuSa, SS.SSa.CMuSa &amp; SS.SSa.IFiSa.TbAmPo</b>
Subtidal sandbanks	Mixed sediments	•	•	<b>SS.SMx</b> (excluding <b>.SMxLS &amp; .OMx</b> )
Subtidal sandbanks	Seagrass beds	•		<b>SS.SMp.SSgr</b> [subtidal]

## ANNEX 2: PROTECTED FEATURES OF THE SIX MPAS SURVEYED

MPA codes as follows: ECC (East Caithness Cliffs), LFG (Upper Loch Fyne and Loch Goil), LSJ (Loch Sunart to Sound of Jura), NOH (Noss Head), STR (Southern Trench), WER (Wester Ross). Only biodiversity features are listed.

MPA	Protected features	Component name	Component biotope code/ species name
LFG, WER, STR	Burrowed mud	Burrowing megafauna and <i>Maxmuelleria lankesteri</i> in circalittoral mud	<b>SS.SMu.CFiMu.MegMax</b>
		Seapens and burrowing megafauna in circalittoral fine mud	<b>SS.SMu.CFiMu.SpnMeg</b>
		Fireworks anemone	<i>Pachycerianthus multiplicatus</i>
		Tall seapen	<i>Funiculina quadrangularis</i>
WER	Kelp and seaweed communities on sublittoral sediment	Kelp and seaweed communities on sublittoral sediment	<b>SS.SMp.KSwSS</b>
WER	Maerl beds	Maerl beds	<b>SS.SMp.Mrl</b>
WER	Maerl or coarse shell gravel with burrowing sea cucumbers	<i>Neopentadactyla mixta</i> in circalittoral shell gravel or coarse sand	<b>SS.SCS.CCS.Nmix</b>
LFG	Ocean quahog aggregations	n/a	<i>Arctica islandica</i>
LFG, WER	Flame shell beds	<i>Limaria hians</i> beds in tide-swept sublittoral muddy mixed sediment	<b>SS.SMx.IMx.Lim</b>
LFG, NOH	Horse mussel beds	<i>Modiolus modiolus</i> beds with hydroids and red seaweeds on tide-swept circalittoral mixed substrata	<b>SS.SBR.SMus.ModT</b>
		<i>Modiolus modiolus</i> beds on open coast circalittoral mixed sediment	<b>SS.SBR.SMus.ModMx</b>
		<i>Modiolus modiolus</i> beds with fine hydroids and large solitary ascidians on very sheltered circalittoral mixed substrata	<b>SS.SBR.SMus.ModHAs</b>
		<i>Modiolus modiolus</i> beds with <i>Chlamys varia</i> , sponges, hydroids and bryozoans on slightly tide-swept very sheltered circalittoral mixed substrata	<b>SS.SBR.SMus.ModCvar</b>

ANNEX 2 continued

<b>MPA</b>	<b>Protected features</b>	<b>Component name</b>	<b>Component biotope code/ species name</b>
LFG	Sublittoral mud and specific mixed sediment communities	Circalittoral sandy mud	<b>SS.SMu.CSaMu</b>
		Sparse <i>Modiolus modiolus</i> , dense <i>Cerianthus lloydii</i> and burrowing holothurians on sheltered circalittoral stones and mixed sediment	<b>SS.SMx.CMx.CIlloModHo</b>
WER	Circalittoral muddy sand communities	Circalittoral muddy sand	<b>SS.SSa.CMuSa</b>
WER	Northern feather star aggregations on mixed substrata	n/a	<i>Leptometra celtica</i>
STR	Fronts	n/a	n/a
STR	Shelf deeps	n/a	n/a
STR	Minke whale	n/a	<i>Balaenoptera acutorostrata</i>
LSJ	Common skate	n/a	<i>Dipturus batis</i>
ECC	Black guillemot	n/a	<i>Cephus grylle</i>

### ANNEX 3: POSITIONAL AND TEMPORAL DETAILS OF VIDEO SEQUENCES RECORDED DURING THE SURVEYS

Where video runs at a site have been divided into segments of different habitats, the segments are coded Sample.x where x is the segment number.

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Barra 2017	B1.1	12/05/2017	06:47:06	06:48:32	56.970967	-7.397583	56.971117	-7.397717	23.7	24.5
Sound of Barra 2017	B1.2	12/05/2017	06:48:32	06:49:47	56.971117	-7.397717	56.971267	-7.397767	24.5	24.6
Sound of Barra 2017	B1.3	12/05/2017	06:49:47	06:52:22	56.971267	-7.397767	56.971483	-7.398250	24.6	23.7
Sound of Barra 2017	B10.1	12/05/2017	09:33:56	09:34:26	56.986483	-7.344133	56.986467	-7.344300	26.8	26.9
Sound of Barra 2017	B10.2	12/05/2017	09:34:26	09:39:27	56.986467	-7.344300	56.986333	-7.346050	26.9	3.1
Sound of Barra 2017	B11.1	12/05/2017	09:50:23	09:51:27	56.990083	-7.335450	56.990000	-7.335900	23.7	24.7
Sound of Barra 2017	B11.2	12/05/2017	09:51:27	09:52:03	56.990000	-7.335900	56.989950	-7.336167	24.7	25.1
Sound of Barra 2017	B11.3	12/05/2017	09:52:03	09:52:30	56.989950	-7.336167	56.989917	-7.336350	25.1	24.6
Sound of Barra 2017	B11.4	12/05/2017	09:52:30	09:53:31	56.989917	-7.336350	56.989800	-7.336783	24.6	26.2
Sound of Barra 2017	B11.5	12/05/2017	09:53:31	09:55:41	56.989800	-7.336783	56.989667	-7.337667	26.2	26.5
Sound of Barra 2017	B12.1	12/05/2017	10:05:55	10:08:53	56.991267	-7.344067	56.991133	-7.345067	24.4	24.8
Sound of Barra 2017	B12.2	12/05/2017	10:08:53	10:11:11	56.991133	-7.345067	56.991100	-7.345850	24.8	24.3
Sound of Barra 2017	B12.3	12/05/2017	10:11:11	10:11:31	56.991100	-7.345850	56.991100	-7.345967	24.3	24.5
Sound of Barra 2017	B13	12/05/2017	10:24:41	10:29:36	56.996633	-7.329783	56.996600	-7.331217	27.9	26.8
Sound of Barra 2017	B14.1	12/05/2017	11:21:06	11:21:58	56.994250	-7.327167	56.994233	-7.327533	28.2	27.7
Sound of Barra 2017	B14.2	12/05/2017	11:21:58	11:22:05	56.994233	-7.327533	56.994233	-7.327617	27.7	27.9
Sound of Barra 2017	B14.3	12/05/2017	11:22:05	11:23:08	56.994233	-7.327617	56.994150	-7.328067	27.9	27.3
Sound of Barra 2017	B14.4	12/05/2017	11:23:08	11:23:34	56.994150	-7.328067	56.994133	-7.328267	27.3	26.4
Sound of Barra 2017	B14.5	12/05/2017	11:23:34	11:24:24	56.994133	-7.328267	56.994100	-7.328617	26.4	27.5
Sound of Barra 2017	B14.6	12/05/2017	11:24:24	11:26:07	56.994100	-7.328617	56.994117	-7.329350	27.5	27.5
Sound of Barra 2017	B15	12/05/2017	11:35:57	11:41:34	56.986933	-7.337633	56.986633	-7.339600	24.3	27.2
Sound of Barra 2017	B16.1	11/05/2017	17:02:56	17:03:20	57.001450	-7.335050	57.001417	-7.334900	27.0	27.3
Sound of Barra 2017	B16.2	11/05/2017	17:03:20	17:05:58	57.001417	-7.334900	57.001400	-7.333750	27.3	27.9
Sound of Barra 2017	B16.3	11/05/2017	17:05:58	17:07:20	57.001400	-7.333750	57.001483	-7.333350	27.9	28.8
Sound of Barra 2017	B16.4	11/05/2017	17:07:20	17:08:31	57.001483	-7.333350	57.001567	-7.333133	28.8	28.7

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Barra 2017	B17	12/05/2017	11:52:54	11:58:03	56.976450	-7.347167	56.976650	-7.350450	24.1	24.3
Sound of Barra 2017	B18	12/05/2017	12:11:30	12:17:10	56.971150	-7.346950	56.971250	-7.348217	21.6	24.0
Sound of Barra 2017	B19.1	12/05/2017	12:44:41	12:45:23	57.007900	-7.318600	57.008000	-7.318783	26.2	25.3
Sound of Barra 2017	B19.2	12/05/2017	12:45:23	12:45:55	57.008000	-7.318783	57.008067	-7.318883	25.3	25.7
Sound of Barra 2017	B19.3	12/05/2017	12:45:55	12:49:52	57.008067	-7.318883	57.008433	-7.319817	25.7	27.5
Sound of Barra 2017	B2.1	12/05/2017	07:09:18	07:13:52	56.966083	-7.386867	56.966633	-7.387867	25.9	26.6
Sound of Barra 2017	B2.2	12/05/2017	07:13:52	07:14:18	56.966633	-7.387867	56.966700	-7.387950	22.5	25.6
Sound of Barra 2017	B2.3	12/05/2017	07:14:18	07:14:43	56.966700	-7.387950	56.966750	-7.388017	25.6	22.5
Sound of Barra 2017	B20.1	12/05/2017	13:02:22	13:06:32	57.013017	-7.299500	57.013317	-7.300017	38.6	37.6
Sound of Barra 2017	B20.2	12/05/2017	13:06:32	13:06:56	57.013317	-7.300017	57.013333	-7.300083	37.6	37.2
Sound of Barra 2017	B20.3	12/05/2017	13:06:56	13:07:34	57.013333	-7.300083	57.013367	-7.300217	37.2	36.8
Sound of Barra 2017	B21.1	11/05/2017	16:43:15	16:45:41	57.006083	-7.313717	57.006417	-7.313383	27.5	27.2
Sound of Barra 2017	B21.2	11/05/2017	16:45:41	16:45:58	57.006417	-7.313383	57.006467	-7.313350	27.2	26.8
Sound of Barra 2017	B21.3	11/05/2017	16:45:58	16:46:47	57.006467	-7.313350	57.006617	-7.313283	26.8	26.2
Sound of Barra 2017	B21.4	11/05/2017	16:46:47	16:47:21	57.006617	-7.313283	57.006733	-7.313200	26.2	26.8
Sound of Barra 2017	B21.5	11/05/2017	16:47:21	16:48:09	57.006733	-7.313200	57.006883	-7.313083	26.8	28.0
Sound of Barra 2017	B21.6	11/05/2017	16:48:09	16:48:53	57.006883	-7.313083	57.007033	-7.312950	28.0	28.4
Sound of Barra 2017	B22.1	11/05/2017	16:21:24	16:21:47	57.022300	-7.299617	57.022350	-7.299583	31.3	32.8
Sound of Barra 2017	B22.2	11/05/2017	16:21:47	16:23:35	57.022350	-7.299583	57.022533	-7.299417	32.8	33.6
Sound of Barra 2017	B22.3	11/05/2017	16:23:35	16:26:00	57.022533	-7.299417	57.022933	-7.299083	33.6	30.3
Sound of Barra 2017	B22.4	11/05/2017	16:26:00	16:26:19	57.022933	-7.299083	57.023000	-7.299033	30.3	28.8
Sound of Barra 2017	B22.5	11/05/2017	16:26:19	16:26:47	57.023000	-7.299033	57.023083	-7.298950	28.8	29.0
Sound of Barra 2017	B23.1	11/05/2017	16:04:59	16:07:50	57.021583	-7.319400	57.021983	-7.319483	25.3	25.7
Sound of Barra 2017	B23.2	11/05/2017	16:07:50	16:08:37	57.021983	-7.319483	57.022083	-7.319483	25.7	25.5
Sound of Barra 2017	B23.3	11/05/2017	16:08:37	16:10:10	57.022083	-7.319483	57.022267	-7.319500	25.5	25.7
Sound of Barra 2017	B24	11/05/2017	15:15:26	15:20:45	57.027683	-7.306700	57.027967	-7.308600	33.2	31.8
Sound of Barra 2017	B26	11/05/2017	14:51:09	14:56:48	57.043683	-7.269133	57.043467	-7.271033	19.0	19.8
Sound of Barra 2017	B27	11/05/2017	14:33:37	14:39:13	57.050217	-7.260633	57.050217	-7.262683	19.8	20.1

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Barra 2017	B28	11/05/2017	14:09:17	14:14:56	57.071200	-7.235867	57.071317	-7.237500	30.0	29.4
Sound of Barra 2017	B29.1	11/05/2017	13:46:40	13:51:21	57.087733	-7.249333	57.087400	-7.250750	17.8	20.8
Sound of Barra 2017	B29.2	11/05/2017	13:51:21	13:52:00	57.087400	-7.250750	57.087317	-7.251167	20.8	21.7
Sound of Barra 2017	B29.3	11/05/2017	13:52:00	13:52:17	57.087317	-7.251167	57.087317	-7.251200	21.7	21.5
Sound of Barra 2017	B3.1	12/05/2017	07:32:16	07:33:25	56.967033	-7.369867	56.967050	-7.370133	25.0	23.8
Sound of Barra 2017	B3.2	12/05/2017	07:33:25	07:37:29	56.967050	-7.370133	56.967333	-7.370817	23.8	22.2
Sound of Barra 2017	B30.1	11/05/2017	13:15:55	13:16:37	57.092383	-7.229383	57.092433	-7.229417	20.2	19.7
Sound of Barra 2017	B30.2	11/05/2017	13:16:37	13:17:09	57.092433	-7.229417	57.092467	-7.229417	19.7	19.9
Sound of Barra 2017	B30.3	11/05/2017	13:17:09	13:18:22	57.092467	-7.229417	57.092400	-7.229450	19.9	20.2
Sound of Barra 2017	B30.4	11/05/2017	13:18:22	13:18:46	57.092400	-7.229450	57.092367	-7.229533	20.2	21.0
Sound of Barra 2017	B30.5	11/05/2017	13:18:46	13:19:29	57.092367	-7.229533	57.092250	-7.229800	21.0	20.5
Sound of Barra 2017	B30.6	11/05/2017	13:19:29	13:20:44	57.092250	-7.229800	57.092267	-7.230483	20.5	19.1
Sound of Barra 2017	B30.7	11/05/2017	13:20:44	13:20:55	57.092267	-7.230483	57.092267	-7.230567	19.1	19.3
Sound of Barra 2017	B31	11/05/2017	13:30:38	13:35:50	57.091000	-7.239367	57.091250	-7.241183	18.4	14.6
Sound of Barra 2017	B4	12/05/2017	07:47:11	07:52:54	56.967650	-7.359833	56.968283	-7.360383	24.8	22.4
Sound of Barra 2017	B5	12/05/2017	08:11:17	08:16:30	56.980700	-7.338983	56.981183	-7.339950	30.9	30.6
Sound of Barra 2017	B6	12/05/2017	08:25:31	08:31:12	56.980650	-7.346683	56.980567	-7.348000	26.5	26.6
Sound of Barra 2017	B7.1	12/05/2017	08:39:49	08:40:38	56.980733	-7.358750	56.980733	-7.358967	16.7	17.4
Sound of Barra 2017	B7.2	12/05/2017	08:40:38	08:45:37	56.980733	-7.358967	56.980750	-7.360100	17.4	21.0
Sound of Barra 2017	B8.1	12/05/2017	08:53:46	08:53:59	56.976200	-7.360217	56.976217	-7.360283	17.7	17.5
Sound of Barra 2017	B8.2	12/05/2017	08:53:59	08:59:31	56.976217	-7.360283	56.976850	-7.360117	17.5	18.1
Sound of Barra 2017	B9.1	12/05/2017	09:13:35	09:18:23	56.974967	-7.340417	56.974133	-7.341550	29.9	27.3
Sound of Barra 2017	B9.2	12/05/2017	09:18:23	09:18:55	56.974133	-7.341550	56.974033	-7.341667	27.3	26.6
Sound of Barra 2018	V1.1	10/06/2018	10:13:18	10:14:08	57.024200	-7.315850	57.024217	-7.315983	26.1	26.2
Sound of Barra 2018	V1.2	10/06/2018	10:14:08	10:14:43	57.024217	-7.315983	57.024233	-7.316050	26.2	26.6
Sound of Barra 2018	V1.3	10/06/2018	10:14:43	10:17:10	57.024233	-7.316050	57.024633	-7.316067	26.6	25.4
Sound of Barra 2018	V1.4	10/06/2018	10:17:10	10:17:17	57.024633	-7.316067	57.024650	-7.316033	25.4	25.4
Sound of Barra 2018	V1.5	10/06/2018	10:17:17	10:19:46	57.024650	-7.316033	57.024883	-7.315467	25.4	24.5
Sound of Barra 2018	V1.6	10/06/2018	10:19:46	10:20:34	57.024883	-7.315467	57.024933	-7.315250	24.5	24.6

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Barra 2018	V1.7	10/06/2018	10:20:34	10:21:25	57.024933	-7.315250	57.024983	-7.315067	24.6	24.7
Sound of Barra 2018	V1.8	10/06/2018	10:21:25	10:22:55	57.024983	-7.315067	57.025033	-7.314783	24.7	24.8
Sound of Barra 2018	V10.1	10/06/2018	13:23:30	13:25:27	56.983450	-7.339867	56.983117	-7.340233	28.5	32.5
Sound of Barra 2018	V10.2	10/06/2018	13:25:27	13:27:44	56.983117	-7.340233	56.982867	-7.340667	32.5	32.7
Sound of Barra 2018	V10.3	10/06/2018	13:27:44	13:28:53	56.982867	-7.340667	56.982767	-7.340800	32.7	32.9
Sound of Barra 2018	V11.1	10/06/2018	13:38:49	13:44:18	56.984500	-7.346683	56.984983	-7.344950	28.9	27.9
Sound of Barra 2018	V11.2	10/06/2018	13:44:18	13:44:37	56.984983	-7.344950	56.985000	-7.344850	27.9	28.2
Sound of Barra 2018	V12.1	10/06/2018	13:56:36	13:59:18	56.979417	-7.351050	56.979700	-7.350017	25.9	25.3
Sound of Barra 2018	V12.2	10/06/2018	13:59:18	13:59:24	56.979700	-7.350017	56.979717	-7.350000	25.3	25.2
Sound of Barra 2018	V12.3	10/06/2018	13:59:24	13:59:57	56.979717	-7.350000	56.979750	-7.349833	25.2	25.4
Sound of Barra 2018	V12.4	10/06/2018	13:59:57	14:00:20	56.979750	-7.349833	56.979767	-7.349733	25.4	25.4
Sound of Barra 2018	V12.5	10/06/2018	14:00:20	14:00:58	56.979767	-7.349733	56.979800	-7.349550	25.4	25.5
Sound of Barra 2018	V12.6	10/06/2018	14:00:58	14:02:50	56.979800	-7.349550	56.979850	-7.348950	25.5	25.7
Sound of Barra 2018	V13.1	10/06/2018	09:20:08	09:23:59	57.016317	-7.301517	57.016500	-7.300350	27.2	27.3
Sound of Barra 2018	V13.2	10/06/2018	09:23:59	09:24:42	57.016500	-7.300350	57.016550	-7.300300	27.3	27.4
Sound of Barra 2018	V13.3	10/06/2018	09:24:42	09:25:44	57.016550	-7.300300	57.016700	-7.300183	27.4	27.4
Sound of Barra 2018	V14.1	09/06/2018	15:03:39	15:07:15	57.039717	-7.270983	57.040100	-7.270400	24.4	24.1
Sound of Barra 2018	V14.2	09/06/2018	15:07:15	15:08:11	57.040100	-7.270400	57.040217	-7.270267	24.1	24.0
Sound of Barra 2018	V14.3	09/06/2018	15:08:11	15:09:37	57.040217	-7.270267	57.040383	-7.270100	24.0	23.6
Sound of Barra 2018	V15.1	09/06/2018	14:29:20	14:30:05	57.061650	-7.244500	57.061683	-7.244250	26.3	26.5
Sound of Barra 2018	V15.2	09/06/2018	14:30:05	14:32:05	57.061683	-7.244250	57.061867	-7.243633	26.5	27.5
Sound of Barra 2018	V15.3	09/06/2018	14:32:05	14:34:54	57.061867	-7.243633	57.062183	-7.243033	27.5	25.2
Sound of Barra 2018	V16.1	09/06/2018	14:12:58	14:14:57	57.061283	-7.261700	57.061567	-7.262200	25.9	26.2
Sound of Barra 2018	V16.2	09/06/2018	14:14:57	14:15:22	57.061567	-7.262200	57.061617	-7.262267	26.2	25.5
Sound of Barra 2018	V16.3	09/06/2018	14:15:22	14:15:40	57.061617	-7.262267	57.061650	-7.262317	25.5	24.5
Sound of Barra 2018	V16.4	09/06/2018	14:15:40	14:17:29	57.061650	-7.262317	57.061950	-7.262567	24.5	25.2
Sound of Barra 2018	V16.5	09/06/2018	14:17:29	14:17:56	57.061950	-7.262567	57.062033	-7.262600	25.2	25.7
Sound of Barra 2018	V16.6	09/06/2018	14:17:56	14:19:05	57.062033	-7.262600	57.062200	-7.262683	25.7	23.4
Sound of Barra 2018	V16.7	09/06/2018	14:19:05	14:19:20	57.062200	-7.262683	57.062217	-7.262700	23.4	23.5

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Barra 2018	V17.1	09/06/2018	11:56:03	11:56:37	57.073867	-7.264400	57.073983	-7.264517	26.4	23.4
Sound of Barra 2018	V17.2	09/06/2018	11:56:37	11:57:08	57.073983	-7.264517	57.074067	-7.264600	26.4	26.4
Sound of Barra 2018	V17.3	09/06/2018	11:57:08	11:58:30	57.074067	-7.264600	57.074283	-7.264783	26.4	26.4
Sound of Barra 2018	V17.4	09/06/2018	11:58:30	12:01:54	57.074283	-7.264783	57.074800	-7.265133	26.4	26.4
Sound of Barra 2018	V18	09/06/2018	11:38:58	11:44:55	57.075700	-7.247817	57.076033	-7.248083	24.2	22.3
Sound of Barra 2018	V19.1	09/06/2018	14:51:47	14:53:58	57.047200	-7.265350	57.047467	-7.265133	19.5	13.3
Sound of Barra 2018	V19.2	09/06/2018	14:53:58	14:54:49	57.047467	-7.265133	57.047583	-7.265067	13.3	15.0
Sound of Barra 2018	V2.1	10/06/2018	12:48:53	12:49:26	57.003150	-7.331517	57.003050	-7.331367	25.7	27.3
Sound of Barra 2018	V2.2	10/06/2018	12:49:26	12:49:44	57.003050	-7.331367	57.003000	-7.331317	27.3	27.6
Sound of Barra 2018	V2.3	10/06/2018	12:49:44	12:50:42	57.003000	-7.331317	57.002850	-7.331183	27.6	28.5
Sound of Barra 2018	V2.4	10/06/2018	12:50:42	12:51:26	57.002850	-7.331183	57.002733	-7.331117	28.5	28.0
Sound of Barra 2018	V2.5	10/06/2018	12:51:26	12:51:59	57.002733	-7.331117	57.002667	-7.331117	28.0	28.8
Sound of Barra 2018	V2.6	10/06/2018	12:51:59	12:53:13	57.002667	-7.331117	57.002550	-7.331067	28.8	28.6
Sound of Barra 2018	V2.7	10/06/2018	12:53:13	12:54:32	57.002550	-7.331067	57.002383	-7.331183	28.6	28.7
Sound of Barra 2018	V2.8	10/06/2018	12:54:32	12:55:20	57.002383	-7.331183	57.002300	-7.331283	28.7	28.7
Sound of Barra 2018	V20.1	11/06/2018	11:55:06	11:58:42	56.945500	-7.396317	56.945283	-7.395733	20.2	22.7
Sound of Barra 2018	V20.2	11/06/2018	11:58:42	12:00:51	56.945283	-7.395733	56.945150	-7.394950	22.7	24.1
Sound of Barra 2018	V21.1	11/06/2018	12:10:00	12:13:56	56.949583	-7.401083	56.949550	-7.398833	20.1	26.1
Sound of Barra 2018	V21.2	11/06/2018	12:13:56	12:15:51	56.949550	-7.398833	56.949450	-7.397983	26.1	25.0
Sound of Barra 2018	V21.3	11/06/2018	12:15:51	12:16:21	56.949450	-7.397983	56.949433	-7.397783	25.0	24.6
Sound of Barra 2018	V22.1	10/06/2018	14:23:23	14:25:55	56.964700	-7.363183	56.964517	-7.362067	27.0	28.1
Sound of Barra 2018	V22.2	10/06/2018	14:25:55	14:26:12	56.964517	-7.362067	56.964500	-7.361967	28.1	28.2
Sound of Barra 2018	V22.3	10/06/2018	14:26:12	14:26:56	56.964500	-7.361967	56.964433	-7.361750	28.2	28.3
Sound of Barra 2018	V22.4	10/06/2018	14:26:56	14:27:19	56.964433	-7.361750	56.964417	-7.361633	28.3	28.4
Sound of Barra 2018	V22.5	10/06/2018	14:27:19	14:30:06	56.964417	-7.361633	56.964267	-7.360750	28.4	28.0
Sound of Barra 2018	V23	11/06/2018	12:52:51	12:58:29	56.934867	-7.448550	56.934317	-7.446967	17.5	19.6
Sound of Barra 2018	V24.1	11/06/2018	08:48:04	08:50:11	56.927100	-7.429250	56.926600	-7.429283	23.6	23.2
Sound of Barra 2018	V24.2	11/06/2018	08:50:11	08:51:02	56.926600	-7.429283	56.926433	-7.429250	23.2	23.8
Sound of Barra 2018	V24.3	11/06/2018	08:51:02	08:53:56	56.926433	-7.429250	56.925883	-7.429100	23.8	24.2

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Barra 2018	V25.1	10/06/2018	10:00:40	10:01:57	57.024900	-7.307283	57.025000	-7.307600	30.8	28.6
Sound of Barra 2018	V25.2	10/06/2018	10:01:57	10:02:20	57.025000	-7.307600	57.025033	-7.307683	28.6	29.2
Sound of Barra 2018	V25.3	10/06/2018	10:02:20	10:02:42	57.025033	-7.307683	57.025050	-7.307750	29.2	29.5
Sound of Barra 2018	V25.4	10/06/2018	10:02:42	10:05:05	57.025050	-7.307750	57.025083	-7.308000	29.5	30.8
Sound of Barra 2018	V25.5	10/06/2018	10:05:05	10:06:30	57.025083	-7.308000	57.025050	-7.308350	30.8	30.9
Sound of Barra 2018	V26.1	11/06/2018	12:27:50	12:28:54	56.944433	-7.408667	56.944417	-7.408267	21.8	22.2
Sound of Barra 2018	V26.2	11/06/2018	12:28:54	12:34:12	56.944417	-7.408267	56.944283	-7.406583	22.2	24.9
Sound of Barra 2018	V27	12/06/2018	17:48:30	17:55:00	57.142450	-7.246500	57.141967	-7.245133	32.6	34.3
Sound of Barra 2018	V28.1	12/06/2018	17:35:25	17:38:32	57.148783	-7.246900	57.148417	-7.247083	30.3	30.5
Sound of Barra 2018	V28.2	12/06/2018	17:38:32	17:38:37	57.148417	-7.247083	57.148383	-7.247100	30.5	30.4
Sound of Barra 2018	V28.3	12/06/2018	17:38:37	17:40:09	57.148383	-7.247100	57.148133	-7.247267	30.4	28.5
Sound of Barra 2018	V28.4	12/06/2018	17:40:09	17:40:21	57.148133	-7.247267	57.148100	-7.247283	28.5	28.6
Sound of Barra 2018	V28.5	12/06/2018	17:40:21	17:40:48	57.148100	-7.247283	57.148050	-7.247317	28.6	27.6
Sound of Barra 2018	V28.6	12/06/2018	17:40:48	17:40:54	57.148050	-7.247317	57.148033	-7.247333	27.6	27.4
Sound of Barra 2018	V29.1	12/06/2018	17:03:21	17:08:45	57.142100	-7.196150	57.142333	-7.195733	91.0	109.6
Sound of Barra 2018	V29.2	12/06/2018	17:08:45	17:12:45	57.142333	-7.195733	57.142933	-7.194917	109.6	134.9
Sound of Barra 2018	V29.3	12/06/2018	17:12:45	17:13:42	57.142933	-7.194917	57.143067	-7.194733	134.9	135.9
Sound of Barra 2018	V30	12/06/2018	16:25:36	16:36:02	57.109100	-7.194683	57.110667	-7.192767	129.1	123.9
Sound of Barra 2018	V31	12/06/2018	15:24:46	15:35:05	57.081350	-7.195300	57.081983	-7.192900	182.2	182.4
Sound of Barra 2018	V32	12/06/2018	14:52:27	15:02:39	57.068817	-7.201017	57.067750	-7.202850	196.4	194.9
Sound of Barra 2018	V33	12/06/2018	14:13:09	14:24:12	57.051317	-7.216317	57.050317	-7.216767	182.9	184.7
Sound of Barra 2018	V34	12/06/2018	13:38:09	13:48:27	57.040533	-7.226917	57.040017	-7.226917	187.3	189.2
Sound of Barra 2018	V5.1	10/06/2018	09:45:48	09:47:22	57.021733	-7.292917	57.021783	-7.292600	26.7	25.2
Sound of Barra 2018	V5.2	10/06/2018	09:47:22	09:48:00	57.021783	-7.292600	57.021867	-7.292517	25.2	27.3
Sound of Barra 2018	V5.3	10/06/2018	09:48:00	09:48:44	57.021867	-7.292517	57.021950	-7.292550	27.3	27.7
Sound of Barra 2018	V5.4	10/06/2018	09:48:44	09:50:32	57.021950	-7.292550	57.022083	-7.293067	27.7	29.2
Sound of Barra 2018	V5.5	10/06/2018	09:50:32	09:51:18	57.022083	-7.293067	57.022083	-7.293300	29.2	28.8
Sound of Barra 2018	V6.1	10/06/2018	09:33:21	09:35:21	57.020067	-7.299283	57.020250	-7.299033	29.9	30.4
Sound of Barra 2018	V6.2	10/06/2018	09:35:21	09:35:35	57.020250	-7.299033	57.020267	-7.298983	30.4	30.3

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Barra 2018	V6.3	10/06/2018	09:35:35	09:36:20	57.020267	-7.298983	57.020333	-7.298817	30.3	31.0
Sound of Barra 2018	V6.4	10/06/2018	09:36:20	09:36:27	57.020333	-7.298817	57.020333	-7.298800	31.0	31.0
Sound of Barra 2018	V6.5	10/06/2018	09:36:27	09:37:03	57.020333	-7.298800	57.020383	-7.298683	31.0	30.8
Sound of Barra 2018	V6.6	10/06/2018	09:37:03	09:37:50	57.020383	-7.298683	57.020433	-7.298450	30.8	31.0
Sound of Barra 2018	V6.7	10/06/2018	09:37:50	09:38:56	57.020433	-7.298450	57.020400	-7.298183	31.0	30.5
Sound of Barra 2018	V7.1	10/06/2018	09:05:56	09:08:26	57.012867	-7.315517	57.012833	-7.314650	24.8	27.7
Sound of Barra 2018	V7.2	10/06/2018	09:08:26	09:11:14	57.012833	-7.314650	57.012700	-7.313867	27.7	28.2
Sound of Barra 2018	V8.1	09/06/2018	15:25:57	15:26:59	57.021050	-7.292700	57.020967	-7.292333	24.2	26.2
Sound of Barra 2018	V8.2	09/06/2018	15:26:59	15:29:04	57.020967	-7.292333	57.020800	-7.291783	26.2	28.7
Sound of Barra 2018	V8.3	09/06/2018	15:29:04	15:30:24	57.020800	-7.291783	57.020717	-7.291533	28.7	25.6
Sound of Barra 2018	V8.4	09/06/2018	15:30:24	15:31:17	57.020717	-7.291533	57.020683	-7.291350	25.6	26.3
Sound of Barra 2018	V9	10/06/2018	13:05:36	13:11:24	56.993600	-7.334050	56.993983	-7.331617	25.7	26.2
Loch Fyne 2015	F10.1	11/07/2015	13:09:21	13:13:28	56.001154	-5.376210	56.000297	-5.377817	9.5	
Loch Fyne 2015	F10.2	11/07/2015	13:13:28	13:16:33	56.000297	-5.377817	55.999768	-5.379510		
Loch Fyne 2015	F10.3	11/07/2015	13:16:33	13:17:37	55.999768	-5.379510	55.999695	-5.380150		14.1
Loch Fyne 2015	F11.1	11/07/2015	13:31:05	13:40:46	56.008858	-5.372279	56.007144	-5.375800	12.6	
Loch Fyne 2015	F11.2	11/07/2015	13:40:46	13:42:02	56.007144	-5.375800	56.006852	-5.376002		11.0
Loch Fyne 2015	FD06	12/07/2015	14:05:08	14:10:00	56.009239	-5.352659	56.009480	-5.352962	2.3	6.1
Loch Fyne 2015	FD07	12/07/2015	14:28:05	14:33:31	56.005590	-5.353348	56.006148	-5.352731	15.5	7.7
Loch Fyne 2015	FD08	12/07/2015	14:44:08	14:49:21	55.999908	-5.349857	56.000257	-5.348708	18.9	11.1
Loch Fyne 2015	FD09	12/07/2015	14:58:25	15:04:28	55.996860	-5.351774	55.997264	-5.350697	17.5	13.9
Loch Fyne 2015	FD1	10/07/2015	14:06:57	14:12:56	56.018433	-5.350061	56.019739	-5.348262	15.1	12.6
Loch Fyne 2015	FD10	10/07/2015	15:17:36	15:22:04	56.010300	-5.330418	56.010616	-5.330600	17.3	18.4
Loch Fyne 2015	FD11	10/07/2015	15:29:27	15:34:20	56.011167	-5.337954	56.011822	-5.339089	16.9	19.0
Loch Fyne 2015	FD13	10/07/2015	15:43:25	15:47:51	56.011625	-5.347790	56.012070	-5.347258	28.0	28.3
Loch Fyne 2015	FD14	12/07/2015	15:36:20	15:41:43	55.999634	-5.365896	55.999969	-5.364978	56.3	48.1
Loch Fyne 2015	FD15	12/07/2015	15:14:27	15:20:44	55.998696	-5.356923	55.998999	-5.356813	53.4	49.3
Loch Fyne 2015	FD16.1	12/07/2015	13:33:00	13:36:00	56.008303	-5.360169	56.007774	-5.360326	65.2	
Loch Fyne 2015	FD16.2	12/07/2015	13:36:00	13:38:00	56.007774	-5.360326	56.007347	-5.360486		49.4

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Loch Fyne 2015	FD17.1	10/07/2015	16:13:55	16:15:57	56.014847	-5.348120	56.015246	-5.347355	51.6	
Loch Fyne 2015	FD17.2	10/07/2015	16:15:57	16:18:20	56.015246	-5.347355	56.015601	-5.346558		38.9
Loch Fyne 2015	FD18	10/07/2015	14:47:28	14:52:07	56.018023	-5.342117	56.018661	-5.340435	28.2	36.1
Loch Fyne 2015	FD19	10/07/2015	13:08:32	13:13:19	56.014942	-5.356090	56.015425	-5.355322	24.3	25.5
Loch Fyne 2015	FD2	10/07/2015	13:52:34	13:57:33	56.019990	-5.349681	56.020601	-5.349636	8.9	10.6
Loch Fyne 2015	FD20	12/07/2015	13:16:22	13:21:00	56.004120	-5.359526	56.004061	-5.359745	29.3	29.0
Loch Fyne 2015	FD21	10/07/2015	15:04:05	15:09:00	56.011842	-5.333356	56.012413	-5.333936	26.6	28.8
Loch Fyne 2015	FD22	12/07/2015	13:52:50	13:57:14	56.010714	-5.355300	56.010174	-5.356456	51.3	58.5
Loch Fyne 2015	FD23	12/07/2015	14:16:19	14:21:17	56.007413	-5.353292	56.007794	-5.352594	16.6	4.4
Loch Fyne 2015	FD3	10/07/2015	13:40:31	13:45:00	56.021301	-5.346410	56.022195	-5.344994	14.3	10.8
Loch Fyne 2015	FD4	10/07/2015	13:26:39	13:31:41	56.019168	-5.346744	56.019927	-5.345527	22.1	24.3
Loch Fyne 2015	FD5	10/07/2015	16:01:22	16:05:48	56.010730	-5.351680	56.011110	-5.351547	2.3	23.7
Loch Fyne 2015	FT1	11/07/2015	08:42:16	08:47:45	56.015459	-5.364617	56.015217	-5.365620	8.2	4.8
Loch Fyne 2015	FT12.1	11/07/2015	14:00:57	14:02:44	55.997831	-5.373871	55.997845	-5.374641	40.5	
Loch Fyne 2015	FT12.2	11/07/2015	14:02:44	14:07:33	55.997845	-5.374641	55.998458	-5.377353		
Loch Fyne 2015	FT12.3	11/07/2015	14:07:33	14:11:26	55.998458	-5.377353	55.998718	-5.379599		
Loch Fyne 2015	FT12.4	11/07/2015	14:11:26	14:16:35	55.998718	-5.379599	55.999231	-5.382333		14.8
Loch Fyne 2015	FT13	11/07/2015	14:23:31	14:31:48	56.000958	-5.384309	55.999210	-5.385959	10.6	10.4
Loch Fyne 2015	FT14.1	11/07/2015	14:43:03	14:43:48	55.995710	-5.378840	55.995743	-5.379151	25.2	
Loch Fyne 2015	FT14.2	11/07/2015	14:43:48	14:48:21	55.995743	-5.379151	55.996607	-5.381292		
Loch Fyne 2015	FT14.3	11/07/2015	14:48:21	14:49:55	55.996607	-5.381292	55.996907	-5.381923		18.3
Loch Fyne 2015	FT15.1	12/07/2015	15:57:53	16:09:34	55.988850	-5.387239	55.991523	-5.382866	22.1	
Loch Fyne 2015	FT15.2	12/07/2015	16:09:34	16:09:55	55.991523	-5.382866	55.991613	-5.382716		
Loch Fyne 2015	FT15.3	12/07/2015	16:09:55	16:12:48	55.991613	-5.382716	55.992161	-5.381290		22.8
Loch Fyne 2015	FT16	12/07/2015	16:22:00	16:37:00	55.992323	-5.390176	55.997114	-5.383489	21.6	19.0
Loch Fyne 2015	FT17.1	21/07/2015	13:11:30	13:17:33	56.001098	-5.379235	56.000414	-5.380520	6.6	
Loch Fyne 2015	FT17.2	21/07/2015	13:17:33	13:23:34	56.000414	-5.380520	55.999537	-5.381796		14.4
Loch Fyne 2015	FT18.1	21/07/2015	13:34:43	13:43:30	56.004521	-5.366444	56.004348	-5.370298	27.4	
Loch Fyne 2015	FT18.2	21/07/2015	13:39:18	14:08:31	56.004348	-5.370298	56.005030	-5.378412		

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Loch Fyne 2015	FT18.3	21/07/2015	14:08:31	14:10:31	56.005030	-5.378412	56.005188	-5.378829		6.1
Loch Fyne 2015	FT19.1	21/07/2015	14:18:00	14:25:30	56.006097	-5.367443	56.006616	-5.369403	14.0	
Loch Fyne 2015	FT19.2	21/07/2015	14:25:30	14:35:00	56.006616	-5.369403	56.007127	-5.372633		10.0
Loch Fyne 2015	FT2.1	11/07/2015	08:56:37	09:00:18	56.014749	-5.360571	56.014933	-5.361355	10.0	
Loch Fyne 2015	FT2.2	11/07/2015	09:00:18	09:05:00	56.014933	-5.361355	56.014592	-5.363779		
Loch Fyne 2015	FT2.3	11/07/2015	09:05:00	09:05:07	56.014592	-5.363779	56.014584	-5.363843		
Loch Fyne 2015	FT2.4	11/07/2015	09:05:07	09:06:53	56.014584	-5.363843	56.014414	-5.364844		
Loch Fyne 2015	FT2.5	11/07/2015	09:06:53	09:10:48	56.014414	-5.364844	56.013970	-5.367138		4.1
Loch Fyne 2015	FT3.1	11/07/2015	09:18:05	09:22:24	56.010985	-5.366109	56.010640	-5.368063	17.6	
Loch Fyne 2015	FT3.2	11/07/2015	09:22:24	09:22:56	56.010640	-5.368063	56.010565	-5.368411		
Loch Fyne 2015	FT3.3	11/07/2015	09:22:56	09:23:14	56.010565	-5.368411	56.010532	-5.368607		
Loch Fyne 2015	FT3.4	11/07/2015	09:23:14	09:29:26	56.010532	-5.368607	56.010100	-5.372516		
Loch Fyne 2015	FT3.5	11/07/2015	09:29:26	09:31:19	56.010100	-5.372516	56.009904	-5.373727		6.3
Loch Fyne 2015	FT4.1	11/07/2015	09:41:17	09:53:36	56.008083	-5.367993	56.007674	-5.369940	19.1	
Loch Fyne 2015	FT4.2	11/07/2015	09:53:36	09:56:00	56.007674	-5.369940	56.007521	-5.370915		13.1
Loch Fyne 2015	FT5	11/07/2015	10:03:14	10:09:06	56.009124	-5.373664	56.008541	-5.375507	9.0	3.7
Loch Fyne 2015	FT6.1	11/07/2015	10:25:06	10:27:41	56.002232	-5.370688	56.001901	-5.371775	13.9	
Loch Fyne 2015	FT6.2	11/07/2015	10:27:41	10:45:09	56.001901	-5.371775	56.001674	-5.382569		10.0
Loch Fyne 2015	FT7	11/07/2015	11:09:58	11:20:00	56.005468	-5.369675	56.006197	-5.376604	12.6	11.4
Loch Fyne 2015	FT8.1	11/07/2015	11:32:41	11:34:32	56.000970	-5.372746	56.001302	-5.373125	13.0	
Loch Fyne 2015	FT8.2	11/07/2015	11:34:32	11:48:00	56.001302	-5.373125	56.003067	-5.376133		6.2
Loch Fyne 2015	FT9	11/07/2015	12:45:10	12:50:41	56.003568	-5.378015	56.002284	-5.380483	9.8	6.3
Loch Fyne 2015	ST2	22/07/2015	10:00:16	10:20:19	56.235064	-5.062059	56.238094	-5.058841	41.7	43.7
Loch Fyne 2015	ST3	22/07/2015	10:28:25	10:48:04	56.239094	-5.055028	56.235400	-5.058562	45.6	58.5
Loch Fyne 2015	ST5	22/07/2015	10:58:45	11:18:00	56.241102	-5.050836	56.236923	-5.049802	33.4	30.3
Loch Fyne 2015	ST8	22/07/2015	09:34:20	09:50:59	56.225855	-5.067551	56.229075	-5.064880	34.7	42.7
Loch Fyne 2015	ST9	22/07/2015	09:05:51	09:22:07	56.225653	-5.065442	56.228311	-5.062189	64.5	76.6
Sound of Mull 2015	SoM-V01.1	24/09/2015	07:26:47	08:00:12	56.509467	-5.706217	56.509717	-5.698367	53.1	21.5
Sound of Mull 2015	SoM-V01.2	24/09/2015	08:00:12	08:03:41	56.509717	-5.698367	56.509550	-5.697700	21.5	19.3

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Mull 2015	SoM-V02.1	24/09/2015	08:20:30	08:52:33	56.508417	-5.706033	56.508450	-5.698617	51.8	20.2
Sound of Mull 2015	SoM-V02.2	24/09/2015	08:52:33	09:02:15	56.508450	-5.698617	56.508433	-5.696967	20.2	21.0
Sound of Mull 2015	SoM-V03.1	24/09/2015	09:24:48	09:25:59	56.507367	-5.705867	56.507417	-5.705700	52.8	51.2
Sound of Mull 2015	SoM-V03.10	24/09/2015	09:32:38	09:33:39	56.506967	-5.704167	56.507017	-5.703933	27.8	27.5
Sound of Mull 2015	SoM-V03.11	24/09/2015	09:33:39	09:36:42	56.507017	-5.703933	56.507067	-5.703300	27.5	23.8
Sound of Mull 2015	SoM-V03.12	24/09/2015	09:36:42	09:37:07	56.507067	-5.703300	56.507033	-5.703183	23.8	23.4
Sound of Mull 2015	SoM-V03.13	24/09/2015	09:37:07	09:37:14	56.507033	-5.703183	56.507000	-5.703133	23.4	23.1
Sound of Mull 2015	SoM-V03.14	24/09/2015	09:37:14	09:39:00	56.507000	-5.703133	56.506900	-5.702650	23.1	25.8
Sound of Mull 2015	SoM-V03.15	24/09/2015	09:39:00	09:49:54	56.506900	-5.702650	56.506350	-5.700083	25.8	18.0
Sound of Mull 2015	SoM-V03.16	24/09/2015	09:49:54	09:50:24	56.506350	-5.700083	56.506317	-5.699967	18.0	17.8
Sound of Mull 2015	SoM-V03.17	24/09/2015	09:50:24	09:54:57	56.506317	-5.699967	56.506017	-5.699033	17.8	15.0
Sound of Mull 2015	SoM-V03.2	24/09/2015	09:25:59	09:28:14	56.507417	-5.705700	56.507283	-5.705317	51.2	44.5
Sound of Mull 2015	SoM-V03.3	24/09/2015	09:28:14	09:28:47	56.507283	-5.705317	56.507250	-5.705217	44.5	40.7
Sound of Mull 2015	SoM-V03.4	24/09/2015	09:28:47	09:29:30	56.507250	-5.705217	56.507183	-5.705067	40.7	37.0
Sound of Mull 2015	SoM-V03.5	24/09/2015	09:29:30	09:30:50	56.507183	-5.705067	56.507083	-5.704717	37.0	30.6
Sound of Mull 2015	SoM-V03.6	24/09/2015	09:30:50	09:31:03	56.507083	-5.704717	56.507083	-5.704650	30.6	29.4
Sound of Mull 2015	SoM-V03.7	24/09/2015	09:31:03	09:31:23	56.507083	-5.704650	56.507050	-5.704567	29.4	28.7
Sound of Mull 2015	SoM-V03.8	24/09/2015	09:31:23	09:32:10	56.507050	-5.704567	56.506967	-5.704350	28.7	26.9
Sound of Mull 2015	SoM-V03.9	24/09/2015	09:32:10	09:32:38	56.506967	-5.704350	56.506967	-5.704167	26.9	27.8
Sound of Mull 2015	SoM-V04.1	24/09/2015	10:16:54	10:19:48	56.504550	-5.705450	56.504450	-5.704367	82.1	62.2
Sound of Mull 2015	SoM-V04.2	24/09/2015	10:19:48	10:22:23	56.504450	-5.704367	56.504550	-5.703750	62.2	35.7
Sound of Mull 2015	SoM-V04.3	24/09/2015	10:22:23	10:24:02	56.504550	-5.703750	56.504583	-5.703567	35.7	33.6
Sound of Mull 2015	SoM-V05.1	24/09/2015	11:18:22	11:26:12	56.481033	-5.700667	56.482233	-5.701233	40.5	38.8
Sound of Mull 2015	SoM-V05.10	24/09/2015	11:57:21	11:59:12	56.487533	-5.702467	56.487850	-5.702350	43.8	43.4
Sound of Mull 2015	SoM-V05.11	24/09/2015	11:59:12	12:05:09	56.487850	-5.702350	56.489150	-5.702483	43.4	31.4
Sound of Mull 2015	SoM-V05.12	24/09/2015	12:05:09	12:11:24	56.489150	-5.702483	56.490450	-5.702800	31.4	28.5
Sound of Mull 2015	SoM-V05.13	24/09/2015	12:11:24	12:11:45	56.490450	-5.702800	56.490517	-5.702817	28.5	29.3
Sound of Mull 2015	SoM-V05.14	24/09/2015	12:11:45	12:11:54	56.490517	-5.702817	56.490550	-5.702800	29.3	29.5
Sound of Mull 2015	SoM-V05.15	24/09/2015	12:11:54	12:11:56	56.490550	-5.702800	56.490567	-5.702800	29.5	29.6

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Mull 2015	SoM-V05.16	24/09/2015	12:11:56	12:12:04	56.490567	-5.702800	56.490600	-5.702817	29.6	29.7
Sound of Mull 2015	SoM-V05.17	24/09/2015	12:12:04	12:12:09	56.490600	-5.702817	56.490600	-5.702817	29.7	29.8
Sound of Mull 2015	SoM-V05.18	24/09/2015	12:12:09	12:14:17	56.490600	-5.702817	56.490967	-5.702783	29.8	26.7
Sound of Mull 2015	SoM-V05.19	24/09/2015	12:14:17	12:14:36	56.490967	-5.702783	56.491017	-5.702800	26.7	27.4
Sound of Mull 2015	SoM-V05.2	24/09/2015	11:26:12	11:37:40	56.482233	-5.701233	56.484283	-5.702017	38.8	36.0
Sound of Mull 2015	SoM-V05.20	24/09/2015	12:14:36	12:14:51	56.491017	-5.702800	56.491050	-5.702817	27.4	26.7
Sound of Mull 2015	SoM-V05.21	24/09/2015	12:14:51	12:15:02	56.491050	-5.702817	56.491083	-5.702833	26.7	26.4
Sound of Mull 2015	SoM-V05.22	24/09/2015	12:15:02	12:15:12	56.491083	-5.702833	56.491100	-5.702850	26.4	26.1
Sound of Mull 2015	SoM-V05.23	24/09/2015	12:15:12	12:15:33	56.491100	-5.702850	56.491150	-5.702883	26.1	25.7
Sound of Mull 2015	SoM-V05.24	24/09/2015	12:15:33	12:15:54	56.491150	-5.702883	56.491217	-5.702917	25.7	25.8
Sound of Mull 2015	SoM-V05.25	24/09/2015	12:15:54	12:15:59	56.491217	-5.702917	56.491233	-5.702933	25.8	26.2
Sound of Mull 2015	SoM-V05.26	24/09/2015	12:15:59	12:16:12	56.491233	-5.702933	56.491283	-5.702933	26.2	27.4
Sound of Mull 2015	SoM-V05.27	24/09/2015	12:16:12	12:16:22	56.491283	-5.702933	56.491317	-5.702933	27.4	28.5
Sound of Mull 2015	SoM-V05.28	24/09/2015	12:16:22	12:16:42	56.491317	-5.702933	56.491400	-5.702933	28.5	28.5
Sound of Mull 2015	SoM-V05.29	24/09/2015	12:16:42	12:17:59	56.491400	-5.702933	56.491700	-5.702900	28.5	32.7
Sound of Mull 2015	SoM-V05.3	24/09/2015	11:37:40	11:40:04	56.484283	-5.702017	56.484717	-5.701933	36.0	36.1
Sound of Mull 2015	SoM-V05.30	24/09/2015	12:17:59	12:18:17	56.491700	-5.702900	56.491750	-5.702883	32.7	33.2
Sound of Mull 2015	SoM-V05.31	24/09/2015	12:18:17	12:18:31	56.491750	-5.702883	56.491800	-5.702867	33.2	33.5
Sound of Mull 2015	SoM-V05.4	24/09/2015	11:40:04	11:43:04	56.484717	-5.701933	56.485183	-5.702033	36.1	35.6
Sound of Mull 2015	SoM-V05.5	24/09/2015	11:43:04	11:45:21	56.485183	-5.702033	56.485650	-5.702367	35.6	35.1
Sound of Mull 2015	SoM-V05.6	24/09/2015	11:45:21	11:45:45	56.485650	-5.702367	56.485717	-5.702367	35.1	35.2
Sound of Mull 2015	SoM-V05.7	24/09/2015	11:45:45	11:49:35	56.485717	-5.702367	56.486067	-5.702133	35.2	36.5
Sound of Mull 2015	SoM-V05.8	24/09/2015	11:49:35	11:50:17	56.486067	-5.702133	56.486200	-5.702133	36.5	36.9
Sound of Mull 2015	SoM-V05.9	24/09/2015	11:50:17	11:57:21	56.486200	-5.702133	56.487533	-5.702467	36.9	43.8
Sound of Mull 2015	SoM-V06.1	24/09/2015	12:43:23	12:50:58	56.495650	-5.729883	56.497433	-5.728383	25.1	20.1
Sound of Mull 2015	SoM-V06.10	24/09/2015	13:02:56	13:03:28	56.501017	-5.726667	56.501233	-5.726517	23.2	20.9
Sound of Mull 2015	SoM-V06.11	24/09/2015	13:03:28	13:04:13	56.501233	-5.726517	56.501483	-5.726267	20.9	21.7
Sound of Mull 2015	SoM-V06.12	24/09/2015	13:04:13	13:04:46	56.501483	-5.726267	56.501633	-5.726083	21.7	20.0
Sound of Mull 2015	SoM-V06.13	24/09/2015	13:04:46	13:05:35	56.501633	-5.726083	56.501900	-5.725850	20.0	25.7

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Mull 2015	SoM-V06.14	24/09/2015	13:05:35	13:07:33	56.501900	-5.725850	56.502467	-5.725150	25.7	20.7
Sound of Mull 2015	SoM-V06.15	24/09/2015	13:07:33	13:08:03	56.502467	-5.725150	56.502650	-5.724983	20.7	18.6
Sound of Mull 2015	SoM-V06.16	24/09/2015	13:08:03	13:09:03	56.502650	-5.724983	56.502983	-5.724567	18.6	17.8
Sound of Mull 2015	SoM-V06.17	24/09/2015	13:09:03	13:09:25	56.502983	-5.724567	56.503100	-5.724433	17.8	15.7
Sound of Mull 2015	SoM-V06.18	24/09/2015	13:09:25	13:09:59	56.503100	-5.724433	56.503283	-5.724183	15.7	21.2
Sound of Mull 2015	SoM-V06.19	24/09/2015	13:09:59	13:11:16	56.503283	-5.724183	56.503667	-5.723550	21.2	29.1
Sound of Mull 2015	SoM-V06.2	24/09/2015	12:50:58	12:51:25	56.497433	-5.728383	56.497533	-5.728350	20.1	19.7
Sound of Mull 2015	SoM-V06.20	24/09/2015	13:11:16	13:12:10	56.503667	-5.723550	56.503900	-5.723117	29.1	33.2
Sound of Mull 2015	SoM-V06.21	24/09/2015	13:12:10	13:12:16	56.503900	-5.723117	56.503967	-5.723050	33.2	34.0
Sound of Mull 2015	SoM-V06.22	24/09/2015	13:12:16	13:14:23	56.503967	-5.723050	56.504383	-5.722000	34.0	46.8
Sound of Mull 2015	SoM-V06.23	24/09/2015	13:14:23	13:14:42	56.504383	-5.722000	56.504450	-5.721833	46.8	48.8
Sound of Mull 2015	SoM-V06.24	24/09/2015	13:14:42	13:17:26	56.504450	-5.721833	56.504950	-5.720433	48.8	56.9
Sound of Mull 2015	SoM-V06.25	24/09/2015	13:17:26	13:17:28	56.504950	-5.720433	56.504967	-5.720400	56.9	57.1
Sound of Mull 2015	SoM-V06.26	24/09/2015	13:17:28	13:20:15	56.504967	-5.720400	56.505567	-5.719600	57.1	57.8
Sound of Mull 2015	SoM-V06.3	24/09/2015	12:51:25	12:52:57	56.497533	-5.728350	56.498017	-5.728233	19.7	22.4
Sound of Mull 2015	SoM-V06.4	24/09/2015	12:52:57	12:53:22	56.498017	-5.728233	56.498117	-5.728217	22.4	21.5
Sound of Mull 2015	SoM-V06.5	24/09/2015	12:53:22	12:54:42	56.498117	-5.728217	56.498450	-5.728017	21.5	23.8
Sound of Mull 2015	SoM-V06.6	24/09/2015	12:54:42	12:58:22	56.498450	-5.728017	56.499400	-5.727467	23.8	28.6
Sound of Mull 2015	SoM-V06.7	24/09/2015	12:58:22	12:59:56	56.499400	-5.727467	56.499850	-5.727267	28.6	43.6
Sound of Mull 2015	SoM-V06.8	24/09/2015	12:59:56	13:01:50	56.499850	-5.727267	56.500550	-5.726900	43.6	24.4
Sound of Mull 2015	SoM-V06.9	24/09/2015	13:01:50	13:02:56	56.500550	-5.726900	56.501017	-5.726667	24.4	23.2
Sound of Mull 2015	SoM-V07.1	24/09/2015	13:39:45	13:55:36	56.498283	-5.750533	56.499633	-5.744850	29.2	30.5
Sound of Mull 2015	SoM-V07.10	24/09/2015	14:13:45	14:15:49	56.502150	-5.739917	56.502483	-5.739417	50.3	53.1
Sound of Mull 2015	SoM-V07.11	24/09/2015	14:15:49	14:17:37	56.502483	-5.739417	56.502683	-5.738950	53.1	58.5
Sound of Mull 2015	SoM-V07.12	24/09/2015	14:17:37	14:19:21	56.502683	-5.738950	56.502917	-5.738433	58.5	62.5
Sound of Mull 2015	SoM-V07.13	24/09/2015	14:19:21	14:29:11	56.502917	-5.738433	56.504200	-5.735517	62.5	48.3
Sound of Mull 2015	SoM-V07.14	24/09/2015	14:29:11	14:35:51	56.504200	-5.735517	56.505267	-5.733083	48.3	45.0
Sound of Mull 2015	SoM-V07.15	24/09/2015	14:35:51	14:38:26	56.505267	-5.733083	56.505517	-5.731900	45.0	54.2
Sound of Mull 2015	SoM-V07.16	24/09/2015	14:38:26	14:40:14	56.505517	-5.731900	56.505717	-5.731117	54.2	48.4

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Mull 2015	SoM-V07.17	24/09/2015	14:40:14	14:42:44	56.505717	-5.731117	56.506167	-5.730050	48.4	53.6
Sound of Mull 2015	SoM-V07.18	24/09/2015	14:42:44	14:44:53	56.506167	-5.730050	56.506567	-5.729150	53.6	48.3
Sound of Mull 2015	SoM-V07.19	24/09/2015	14:44:53	14:50:41	56.506567	-5.729150	56.507650	-5.726917	48.3	67.9
Sound of Mull 2015	SoM-V07.2	24/09/2015	13:55:36	13:55:51	56.499633	-5.744850	56.499650	-5.744767	30.5	30.5
Sound of Mull 2015	SoM-V07.20	24/09/2015	14:50:41	14:53:08	56.507650	-5.726917	56.508233	-5.726100	67.9	71.0
Sound of Mull 2015	SoM-V07.3	24/09/2015	13:55:51	14:02:25	56.499650	-5.744767	56.500167	-5.742833	30.5	40.0
Sound of Mull 2015	SoM-V07.4	24/09/2015	14:02:25	14:03:15	56.500167	-5.742833	56.500233	-5.742633	40.0	40.5
Sound of Mull 2015	SoM-V07.5	24/09/2015	14:03:15	14:05:23	56.500233	-5.742633	56.500483	-5.741917	40.5	44.7
Sound of Mull 2015	SoM-V07.6	24/09/2015	14:05:23	14:07:35	56.500483	-5.741917	56.500867	-5.741283	44.7	43.3
Sound of Mull 2015	SoM-V07.7	24/09/2015	14:07:35	14:07:59	56.500867	-5.741283	56.500933	-5.741233	43.3	43.1
Sound of Mull 2015	SoM-V07.8	24/09/2015	14:07:59	14:12:29	56.500933	-5.741233	56.501850	-5.740300	43.1	50.3
Sound of Mull 2015	SoM-V07.9	24/09/2015	14:12:29	14:13:45	56.501850	-5.740300	56.502150	-5.739917	50.3	50.3
Sound of Mull 2015	SoM-V08.1	25/09/2015	09:18:33	09:30:40	56.643167	-6.076717	56.642550	-6.074567	31.2	28.3
Sound of Mull 2015	SoM-V08.2	25/09/2015	09:30:40	09:34:44	56.642550	-6.074567	56.642467	-6.073850	28.3	29.7
Sound of Mull 2015	SoM-V08.3	25/09/2015	09:34:44	09:35:20	56.642467	-6.073850	56.642433	-6.073750	29.7	29.9
Sound of Mull 2015	SoM-V08.4	25/09/2015	09:35:20	09:48:00	56.642433	-6.073750	56.642050	-6.071683	29.9	32.2
Sound of Mull 2015	SoM-V09.1	25/09/2015	09:58:44	10:06:05	56.644217	-6.076250	56.643817	-6.074983	30.9	29.8
Sound of Mull 2015	SoM-V09.10	25/09/2015	10:25:08	10:28:18	56.643133	-6.072283	56.643617	-6.071367	36.3	30.1
Sound of Mull 2015	SoM-V09.2	25/09/2015	10:06:05	10:06:20	56.643817	-6.074983	56.643817	-6.074917	29.8	30.3
Sound of Mull 2015	SoM-V09.3	25/09/2015	10:06:20	10:07:42	56.643817	-6.074917	56.643867	-6.074650	30.3	31.9
Sound of Mull 2015	SoM-V09.4	25/09/2015	10:07:42	10:08:09	56.643867	-6.074650	56.643867	-6.074583	31.9	32.1
Sound of Mull 2015	SoM-V09.5	25/09/2015	10:08:09	10:08:56	56.643867	-6.074583	56.643850	-6.074450	32.1	32.6
Sound of Mull 2015	SoM-V09.6	25/09/2015	10:08:56	10:15:54	56.643850	-6.074450	56.643217	-6.073583	32.6	29.3
Sound of Mull 2015	SoM-V09.7	25/09/2015	10:15:54	10:16:23	56.643217	-6.073583	56.643200	-6.073517	29.3	29.5
Sound of Mull 2015	SoM-V09.8	25/09/2015	10:16:23	10:24:08	56.643200	-6.073517	56.643000	-6.072550	29.5	31.4
Sound of Mull 2015	SoM-V09.9	25/09/2015	10:24:08	10:25:08	56.643000	-6.072550	56.643133	-6.072283	31.4	36.3
Sound of Mull 2015	SoM-V10.1	25/09/2015	11:21:48	11:23:17	56.639717	-6.060117	56.639933	-6.059717	48.3	48.1
Sound of Mull 2015	SoM-V10.10	25/09/2015	12:09:11	12:10:44	56.634300	-6.047533	56.634100	-6.046967	88.3	88.8
Sound of Mull 2015	SoM-V10.11	25/09/2015	12:10:44	12:12:18	56.634100	-6.046967	56.633850	-6.046550	88.8	87.1

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Mull 2015	SoM-V10.2	25/09/2015	11:23:17	11:24:23	56.639933	-6.059717	56.640150	-6.059317	48.1	50.4
Sound of Mull 2015	SoM-V10.3	25/09/2015	11:24:23	11:31:57	56.640150	-6.059317	56.639650	-6.057583	50.4	49.4
Sound of Mull 2015	SoM-V10.4	25/09/2015	11:31:57	11:39:53	56.639650	-6.057583	56.638650	-6.056783	49.4	57.2
Sound of Mull 2015	SoM-V10.5	25/09/2015	11:39:53	11:43:44	56.638650	-6.056783	56.638217	-6.055467	57.2	55.2
Sound of Mull 2015	SoM-V10.6	25/09/2015	11:43:44	11:58:17	56.638217	-6.055467	56.636117	-6.050683	55.2	78.1
Sound of Mull 2015	SoM-V10.7	25/09/2015	11:58:17	12:07:42	56.636117	-6.050683	56.634533	-6.048150	78.1	84.8
Sound of Mull 2015	SoM-V10.8	25/09/2015	12:07:42	12:07:59	56.634533	-6.048150	56.634467	-6.048000	84.8	85.7
Sound of Mull 2015	SoM-V10.9	25/09/2015	12:07:59	12:09:11	56.634467	-6.048000	56.634300	-6.047533	85.7	88.3
Sound of Mull 2015	SoM-V11.1	25/09/2015	12:30:38	12:31:45	56.639433	-6.060750	56.639233	-6.060433	47.8	48.1
Sound of Mull 2015	SoM-V11.10	25/09/2015	12:44:56	13:00:47	56.636833	-6.058233	56.633717	-6.055650	60.4	65.8
Sound of Mull 2015	SoM-V11.2	25/09/2015	12:31:45	12:32:11	56.639233	-6.060433	56.639150	-6.060350	48.1	48.5
Sound of Mull 2015	SoM-V11.3	25/09/2015	12:32:11	12:35:21	56.639150	-6.060350	56.638483	-6.059800	48.5	46.8
Sound of Mull 2015	SoM-V11.4	25/09/2015	12:35:21	12:36:11	56.638483	-6.059800	56.638317	-6.059633	46.8	46.6
Sound of Mull 2015	SoM-V11.5	25/09/2015	12:36:11	12:37:06	56.638317	-6.059633	56.638167	-6.059433	46.6	47.5
Sound of Mull 2015	SoM-V11.6	25/09/2015	12:37:06	12:38:07	56.638167	-6.059433	56.638033	-6.059283	47.5	47.3
Sound of Mull 2015	SoM-V11.7	25/09/2015	12:38:07	12:39:42	56.638033	-6.059283	56.637783	-6.059100	47.3	51.0
Sound of Mull 2015	SoM-V11.8	25/09/2015	12:39:42	12:44:10	56.637783	-6.059100	56.636983	-6.058350	51.0	59.8
Sound of Mull 2015	SoM-V11.9	25/09/2015	12:44:10	12:44:56	56.636983	-6.058350	56.636833	-6.058233	59.8	60.4
Sound of Mull 2016	SoM_2_V1.1	18/04/2016	14:44:11	14:46:18	56.643267	-6.066700	56.643450	-6.065367	36.0	32.5
Sound of Mull 2016	SoM_2_V1.10	18/04/2016	15:11:00	15:13:41	56.647683	-6.054650	56.648117	-6.053567	41.2	34.3
Sound of Mull 2016	SoM_2_V1.11	18/04/2016	15:13:41	15:14:29	56.648117	-6.053567	56.648267	-6.053233	34.3	30.5
Sound of Mull 2016	SoM_2_V1.12	18/04/2016	15:14:29	15:16:20	56.648267	-6.053233	56.648533	-6.052667	30.5	30.7
Sound of Mull 2016	SoM_2_V1.13	18/04/2016	15:16:20	15:18:12	56.648533	-6.052667	56.648767	-6.051933	30.7	33.8
Sound of Mull 2016	SoM_2_V1.14	18/04/2016	15:18:12	15:19:56	56.648767	-6.051933	56.649033	-6.051150	33.8	33.0
Sound of Mull 2016	SoM_2_V1.15	18/04/2016	15:19:56	15:20:00	56.649033	-6.051150	56.649050	-6.051133	33.0	31.8
Sound of Mull 2016	SoM_2_V1.16	18/04/2016	15:20:00	15:21:59	56.649050	-6.051133	56.649417	-6.050417	31.8	31.8
Sound of Mull 2016	SoM_2_V1.17	18/04/2016	15:21:59	15:22:35	56.649417	-6.050417	56.649500	-6.050200	31.8	32.0
Sound of Mull 2016	SoM_2_V1.18	18/04/2016	15:22:35	15:25:15	56.649500	-6.050200	56.649883	-6.049183	32.0	38.6
Sound of Mull 2016	SoM_2_V1.2	18/04/2016	14:46:18	14:54:15	56.643450	-6.065367	56.644867	-6.061900	32.5	33.8

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Mull 2016	SoM_2_V1.3	18/04/2016	14:54:15	14:56:57	56.644867	-6.061900	56.645433	-6.060883	33.8	32.7
Sound of Mull 2016	SoM_2_V1.4	18/04/2016	14:56:57	14:58:18	56.645433	-6.060883	56.645683	-6.060467	32.7	30.0
Sound of Mull 2016	SoM_2_V1.5	18/04/2016	14:58:18	14:58:35	56.645683	-6.060467	56.645733	-6.060367	30.0	31.1
Sound of Mull 2016	SoM_2_V1.6	18/04/2016	14:58:35	15:00:24	56.645733	-6.060367	56.646050	-6.059617	31.1	27.2
Sound of Mull 2016	SoM_2_V1.7	18/04/2016	15:00:24	15:02:03	56.646050	-6.059617	56.646300	-6.058717	27.2	28.4
Sound of Mull 2016	SoM_2_V1.8	18/04/2016	15:02:03	15:08:45	56.646300	-6.058717	56.647317	-6.055683	28.4	45.4
Sound of Mull 2016	SoM_2_V1.9	18/04/2016	15:08:45	15:11:00	56.647317	-6.055683	56.647683	-6.054650	45.4	41.2
Sound of Mull 2016	SoM_2_V2.1	18/04/2016	16:22:14	16:23:48	56.642583	-6.081533	56.642500	-6.080683	30.6	28.5
Sound of Mull 2016	SoM_2_V2.2	18/04/2016	16:23:48	16:26:30	56.642500	-6.080683	56.642383	-6.079117	28.5	28.2
Sound of Mull 2016	SoM_2_V2.3	18/04/2016	16:26:30	16:32:14	56.642383	-6.079117	56.642283	-6.075533	28.2	29.6
Sound of Mull 2016	SoM_2_V2.4	18/04/2016	16:32:14	16:35:49	56.642283	-6.075533	56.642433	-6.073700	29.6	30.1
Sound of Mull 2016	SoM_2_V2.5	18/04/2016	16:35:49	17:18:47	56.642433	-6.073700	56.642233	-6.055733	30.1	55.4
Sound of Mull 2016	SoM_3_V1.1	18/04/2016	11:41:00	11:47:50	56.544183	-5.933633	56.544983	-5.933050	42.4	38.4
Sound of Mull 2016	SoM_3_V1.2	18/04/2016	11:47:50	11:49:42	56.544983	-5.933050	56.544917	-5.932983	38.4	38.4
Sound of Mull 2016	SoM_3_V1.3	18/04/2016	11:49:42	11:58:34	56.544917	-5.932983	56.544933	-5.932983	38.4	38.5
Sound of Mull 2016	SoM_3_V1.4	18/04/2016	11:58:34	12:02:15	56.544933	-5.932983	56.545267	-5.932583	38.5	39.5
Sound of Mull 2016	SoM_3_V1.5	18/04/2016	12:02:15	12:03:21	56.545267	-5.932583	56.545400	-5.932483	39.5	39.7
Sound of Mull 2016	SoM_3_V2.1	18/04/2016	12:15:28	12:17:41	56.538883	-5.932467	56.539050	-5.932250	33.1	33.4
Sound of Mull 2016	SoM_3_V2.2	18/04/2016	12:17:41	12:22:13	56.539050	-5.932250	56.539850	-5.931617	33.4	28.2
Sound of Mull 2016	SoM_3_V2.3	18/04/2016	12:22:13	12:23:07	56.539850	-5.931617	56.539983	-5.931517	28.2	28.2
Sound of Mull 2016	SoM_3_V2.4	18/04/2016	12:23:07	12:25:44	56.539983	-5.931517	56.540317	-5.931350	28.2	27.6
Sound of Mull 2016	SoM_3_V2.5	18/04/2016	12:25:44	12:26:42	56.540317	-5.931350	56.540417	-5.931250	27.6	28.0
Sound of Mull 2016	SoM_3_V2.6	18/04/2016	12:26:42	12:47:35	56.540417	-5.931250	56.544567	-5.929967	28.0	39.3
Sound of Mull 2016	SoM_3_V2.7	18/04/2016	12:47:35	12:48:30	56.544567	-5.929967	56.544750	-5.929950	39.3	40.3
Sound of Mull 2016	SoM_3_V2.8	18/04/2016	12:48:30	12:48:48	56.544750	-5.929950	56.544800	-5.929917	40.3	40.1
Sound of Mull 2016	SoM_3_V3.1	18/04/2016	13:00:52	13:15:15	56.543350	-5.943233	56.545217	-5.941167	31.2	31.7
Sound of Mull 2016	SoM_3_V3.2	18/04/2016	13:15:15	13:20:39	56.545217	-5.941167	56.545867	-5.940300	31.7	37.1
Sound of Mull 2016	SoM_3_V3.3	18/04/2016	13:20:39	13:22:27	56.545867	-5.940300	56.546083	-5.940017	37.1	34.2
Sound of Mull 2016	SoM_3_V3.4	18/04/2016	13:22:27	13:23:00	56.546083	-5.940017	56.546133	-5.939900	34.2	33.8

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Sound of Mull 2016	SoM_3_V3.5	18/04/2016	13:23:00	13:33:03	56.546133	-5.939900	56.547217	-5.937617	33.8	37.4
Sound of Mull 2016	SoM_3_V3.6	18/04/2016	13:33:03	13:33:49	56.547217	-5.937617	56.547283	-5.937450	37.4	37.9
Sound of Mull 2016	SoM_3_V3.7	18/04/2016	13:33:49	13:34:38	56.547283	-5.937450	56.547367	-5.937250	37.9	37.8
Sound of Mull 2016	SoM_4_V1	18/04/2016	08:07:49	08:21:24	56.492200	-5.698267	56.489833	-5.692317	87.5	120.8
Sound of Mull 2016	SoM_4_V2.1	18/04/2016	08:44:33	09:04:06	56.491867	-5.712333	56.489850	-5.703400	36.6	27.6
Sound of Mull 2016	SoM_4_V2.10	18/04/2016	09:14:33	09:15:33	56.488283	-5.698117	56.488100	-5.697600	44.2	47.8
Sound of Mull 2016	SoM_4_V2.11	18/04/2016	09:15:33	09:17:47	56.488100	-5.697600	56.487567	-5.696600	47.8	62.0
Sound of Mull 2016	SoM_4_V2.2	18/04/2016	09:04:06	09:04:15	56.489850	-5.703400	56.489833	-5.703300	27.6	27.5
Sound of Mull 2016	SoM_4_V2.3	18/04/2016	09:04:15	09:09:03	56.489833	-5.703300	56.489133	-5.700833	27.5	31.7
Sound of Mull 2016	SoM_4_V2.4	18/04/2016	09:09:03	09:11:16	56.489133	-5.700833	56.488800	-5.699733	31.7	36.7
Sound of Mull 2016	SoM_4_V2.5	18/04/2016	09:11:16	09:11:48	56.488800	-5.699733	56.488733	-5.699483	36.7	40.3
Sound of Mull 2016	SoM_4_V2.6	18/04/2016	09:11:48	09:12:09	56.488733	-5.699483	56.488667	-5.699300	40.3	40.3
Sound of Mull 2016	SoM_4_V2.7	18/04/2016	09:12:09	09:13:35	56.488667	-5.699300	56.488433	-5.698567	40.3	38.7
Sound of Mull 2016	SoM_4_V2.8	18/04/2016	09:13:35	09:14:09	56.488433	-5.698567	56.488350	-5.698317	38.7	42.0
Sound of Mull 2016	SoM_4_V2.9	18/04/2016	09:14:09	09:14:33	56.488350	-5.698317	56.488283	-5.698117	42.0	44.2
Sound of Mull 2016	SoM_4_V3.1	18/04/2016	09:38:29	10:19:51	56.496450	-5.732500	56.496800	-5.728417	26.4	21.9
Sound of Mull 2016	SoM_4_V3.2	18/04/2016	10:19:51	10:20:18	56.496800	-5.728417	56.496867	-5.728367	21.9	22.2
Sound of Mull 2016	SoM_4_V3.3	18/04/2016	10:20:18	10:23:45	56.496867	-5.728367	56.497333	-5.727800	22.2	22.8
Loch Ailort 2017	LA246	27/04/2017	13:44:07	13:46:58	56.871690	-5.678070	56.871600	-5.678150	16.7	17.1
Loch Ailort 2017	LA248	27/04/2017	13:51:15	13:55:52	56.872190	-5.677600	56.872100	-5.677380	14.6	12.5
Loch Ailort 2017	LA250	27/04/2017	14:04:04	14:08:45	56.868550	-5.696560	56.868440	-5.696600	5.5	6.2
Loch Ailort 2017	LA252	27/04/2017	14:27:23	14:31:15	56.864910	-5.698150	56.864750	-5.698100		5.4
Loch Ailort 2017	LA254	27/04/2017	14:37:02	14:39:15	56.862980	-5.702410	56.862940	-5.702820	4.9	5.6
Loch Ailort 2017	LA256	27/04/2017	14:45:53	14:46:35	56.866020	-5.710720	56.866010	-5.710820	8.3	4.6
Loch Ailort 2017	LA258.1	27/04/2017	14:52:23		56.860340	-5.710380	56.860130	-5.714830	5.4	
Loch Ailort 2017	LA258.2	27/04/2017			56.860340	-5.710380	56.860130	-5.714830		
Loch Ailort 2017	LA258.3	27/04/2017		14:56:03	56.860340	-5.710380	56.860130	-5.714830		2.8
Loch Ailort 2017	LA260.1	27/04/2017	15:05:35		56.869530	-5.691120	56.869160	-5.691660	5.5	
Loch Ailort 2017	LA260.2	27/04/2017			56.869530	-5.691120	56.869160	-5.691660		

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Loch Ailort 2017	LA260.3	27/04/2017		15:12:02	56.869530	-5.691120	56.869160	-5.691660		2.8
Loch Ailort 2017	LA262.1	27/04/2017	15:14:25		56.868950	-5.692080	56.868900	-5.692190	0.9	
Loch Ailort 2017	LA262.2	27/04/2017		15:16:40	56.868950	-5.692080	56.868900	-5.692190		0.9
Wester Ross 2017	WR1.1	14/05/2017	07:59:33	08:35:16	57.878550	-5.133800	57.875750	-5.122150	21.0	18.6
Wester Ross 2017	WR1.2	14/05/2017	08:35:16	08:41:08	57.875750	-5.122150	57.875417	-5.120667	18.6	38.9
Wester Ross 2017	WR1.3	14/05/2017	08:41:08	08:42:38	57.875417	-5.120667	57.875350	-5.120333	38.9	40.3
Wester Ross 2017	WR1.4	14/05/2017	08:42:38	08:44:18	57.875350	-5.120333	57.875233	-5.119950	40.3	42.2
Wester Ross 2017	WR10.1	15/05/2017	06:41:00	06:43:01	57.922683	-5.230850	57.922717	-5.231450	52.1	48.6
Wester Ross 2017	WR10.2	15/05/2017	06:43:01	06:46:44	57.922717	-5.231450	57.923250	-5.232200	48.6	58.1
Wester Ross 2017	WR11	15/05/2017	06:59:48	07:05:33	57.924650	-5.248650	57.925000	-5.250600	45.4	43.7
Wester Ross 2017	WR12.1	15/05/2017	07:18:38	07:19:42	57.928417	-5.269733	57.928467	-5.270117	24.8	27.9
Wester Ross 2017	WR12.2	15/05/2017	07:19:42	07:23:55	57.928467	-5.270117	57.928783	-5.271550	27.9	26.3
Wester Ross 2017	WR13	15/05/2017	08:19:55	08:25:16	57.911483	-5.399450	57.912517	-5.401583	39.8	52.8
Wester Ross 2017	WR14	15/05/2017	08:37:03	08:44:05	57.910717	-5.397583	57.911917	-5.400467	45.1	47.2
Wester Ross 2017	WR15	15/05/2017	08:56:50	09:02:26	57.909783	-5.401733	57.910633	-5.404267	43.5	42.9
Wester Ross 2017	WR16	15/05/2017	09:12:55	09:19:20	57.907483	-5.401183	57.908900	-5.404117	46.3	34.6
Wester Ross 2017	WR17.1	15/05/2017	09:42:09	09:56:59	57.897267	-5.374617	57.900067	-5.381083	28.0	24.5
Wester Ross 2017	WR17.2	15/05/2017	09:56:59	10:21:17	57.900067	-5.381083	57.904167	-5.392800	24.5	25.5
Wester Ross 2017	WR18	15/05/2017	11:16:33	11:21:51	57.903583	-5.440100	57.904233	-5.441917	22.2	27.4
Wester Ross 2017	WR19	15/05/2017	11:30:22	11:35:57	57.904600	-5.447967	57.904883	-5.449850	30.5	32.1
Wester Ross 2017	WR2.1	14/05/2017	09:02:26	09:03:15	57.875017	-5.121483	57.875050	-5.121583	41.6	40.7
Wester Ross 2017	WR2.2	14/05/2017	09:03:15	09:10:01	57.875050	-5.121583	57.875117	-5.123150	40.7	30.3
Wester Ross 2017	WR2.3	14/05/2017	09:10:01	09:10:37	57.875117	-5.123150	57.875150	-5.123267	30.3	29.1
Wester Ross 2017	WR2.4	14/05/2017	09:10:37	09:11:32	57.875150	-5.123267	57.875183	-5.123467	29.1	27.0
Wester Ross 2017	WR2.5	14/05/2017	09:11:32	10:15:36	57.875183	-5.123467	57.878067	-5.137950	27.0	18.1
Wester Ross 2017	WR2.6	14/05/2017	10:15:36	10:20:00	57.878067	-5.137950	57.878283	-5.139417	17.8	18.9
Wester Ross 2017	WR20.1	15/05/2017	11:48:52	11:50:36	57.901550	-5.435333	57.901750	-5.435667	18.0	18.4
Wester Ross 2017	WR20.2	15/05/2017	11:50:36	11:54:10	57.901750	-5.435667	57.902333	-5.436200	18.4	19.7
Wester Ross 2017	WR21.1	15/05/2017	12:02:01	12:03:53	57.899467	-5.436200	57.899600	-5.436683	16.0	18.0

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Wester Ross 2017	WR21.2	15/05/2017	12:03:53	12:04:21	57.899600	-5.436683	57.899617	-5.436800	18.0	18.0
Wester Ross 2017	WR21.3	15/05/2017	12:04:21	12:05:29	57.899617	-5.436800	57.899733	-5.437050	18.0	18.3
Wester Ross 2017	WR21.4	15/05/2017	12:05:29	12:07:22	57.899733	-5.437050	57.900050	-5.437400	18.3	19.1
Wester Ross 2017	WR22.1	15/05/2017	12:17:56	12:19:17	57.899117	-5.450517	57.899033	-5.450883	28.8	27.8
Wester Ross 2017	WR22.2	15/05/2017	12:19:17	12:24:20	57.899033	-5.450883	57.898317	-5.452133	27.8	21.0
Wester Ross 2017	WR23	15/05/2017	12:33:45	12:38:54	57.892867	-5.458217	57.893883	-5.459133	19.9	17.3
Wester Ross 2017	WR24.1	15/05/2017	12:49:26	12:52:10	57.901917	-5.459767	57.901750	-5.460867	24.7	20.4
Wester Ross 2017	WR24.2	15/05/2017	12:52:10	12:55:10	57.901750	-5.460867	57.901350	-5.461967	20.4	18.7
Wester Ross 2017	WR25.1	15/05/2017	13:12:36	13:13:22	57.905867	-5.496417	57.905900	-5.496617	28.6	28.6
Wester Ross 2017	WR25.2	15/05/2017	13:13:22	13:15:48	57.905900	-5.496617	57.905933	-5.497183	28.6	28.3
Wester Ross 2017	WR25.3	15/05/2017	13:15:48	13:17:51	57.905933	-5.497183	57.906000	-5.497967	28.3	30.1
Wester Ross 2017	WR26	15/05/2017	13:33:43	13:38:56	57.894800	-5.486733	57.895083	-5.488650	20.1	23.5
Wester Ross 2017	WR27	15/05/2017	13:48:08	13:53:15	57.891433	-5.489067	57.892600	-5.489117	27.0	27.1
Wester Ross 2017	WR28	15/05/2017	14:04:02	14:09:14	57.888933	-5.484467	57.889933	-5.485817	19.8	21.9
Wester Ross 2017	WR29.1	15/05/2017	14:21:48	14:23:45	57.888500	-5.488900	57.888900	-5.489483	26.5	27.8
Wester Ross 2017	WR29.2	15/05/2017	14:23:45	14:26:55	57.888900	-5.489483	57.889617	-5.490133	27.8	29.0
Wester Ross 2017	WR3.1	14/05/2017	11:12:07	11:17:00	57.875750	-5.119450	57.875583	-5.120717	36.2	34.6
Wester Ross 2017	WR3.2	14/05/2017	11:17:00	11:29:19	57.875583	-5.120717	57.876267	-5.122950	34.6	19.9
Wester Ross 2017	WR3.3	14/05/2017	11:29:19	11:37:54	57.876267	-5.122950	57.876833	-5.124983	19.9	20.4
Wester Ross 2017	WR30	15/05/2017	14:38:53	14:43:56	57.885350	-5.488333	57.886550	-5.488433	27.4	27.1
Wester Ross 2017	WR31	15/05/2017	14:55:50	15:00:59	57.883700	-5.496083	57.884417	-5.496833	30.1	28.1
Wester Ross 2017	WR32	15/05/2017	15:13:39	15:18:51	57.881200	-5.509050	57.882050	-5.508883	26.6	28.0
Wester Ross 2017	WR33	15/05/2017	16:08:51	16:14:16	57.880167	-5.502233	57.881200	-5.501733	26.8	29.1
Wester Ross 2017	WR34	15/05/2017	16:29:12	16:34:36	57.881733	-5.484883	57.883100	-5.485050	29.9	26.5
Wester Ross 2017	WR35	15/05/2017	16:45:54	16:51:04	57.879650	-5.479100	57.880667	-5.479200	25.5	21.1
Wester Ross 2017	WR4.1	14/05/2017	11:53:41	11:55:43	57.875233	-5.120383	57.875083	-5.120883	41.7	40.3
Wester Ross 2017	WR4.2	14/05/2017	11:55:43	11:56:47	57.875083	-5.120883	57.875250	-5.121333	40.3	37.0
Wester Ross 2017	WR4.3	14/05/2017	11:56:47	12:01:03	57.875250	-5.121333	57.875533	-5.122467	37.0	20.4
Wester Ross 2017	WR4.4	14/05/2017	12:01:03	12:01:47	57.875533	-5.122467	57.875583	-5.122633	20.4	19.6

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Wester Ross 2017	WR4.5	14/05/2017	12:01:47	12:10:01	57.875583	-5.122633	57.876167	-5.125617	19.6	17.9
Wester Ross 2017	WR5.1	14/05/2017	12:22:38	12:24:33	57.876067	-5.119283	57.875967	-5.119867	32.6	34.3
Wester Ross 2017	WR5.2	14/05/2017	12:24:33	12:33:24	57.875967	-5.119867	57.876583	-5.122933	34.3	18.5
Wester Ross 2017	WR5.3	14/05/2017	12:33:24	12:39:53	57.876583	-5.122933	57.877300	-5.125033	18.5	20.0
Wester Ross 2017	WR6.1	14/05/2017	12:51:23	12:57:00	57.876467	-5.118033	57.876567	-5.119083	19.5	23.4
Wester Ross 2017	WR6.2	14/05/2017	12:57:00	13:13:03	57.876567	-5.119083	57.877200	-5.123817	23.4	19.3
Wester Ross 2017	WR6.3	14/05/2017	13:13:03	13:15:36	57.877200	-5.123817	57.877083	-5.124967	19.3	20.8
Wester Ross 2017	WR7.1	14/05/2017	13:30:32	13:35:02	57.874400	-5.122533	57.874650	-5.123750	39.1	37.3
Wester Ross 2017	WR7.2	14/05/2017	13:35:02	13:40:00	57.874650	-5.123750	57.875017	-5.124850	37.3	18.6
Wester Ross 2017	WR7.3	14/05/2017	13:40:00	13:45:24	57.875017	-5.124850	57.875717	-5.126317	18.6	15.8
Wester Ross 2017	WR8.1	14/05/2017	14:00:03	14:21:57	57.872767	-5.119117	57.874267	-5.124467	36.0	27.6
Wester Ross 2017	WR8.2	14/05/2017	14:21:57	14:24:13	57.874267	-5.124467	57.874650	-5.124817	27.6	23.8
Wester Ross 2017	WR8.3	14/05/2017	14:24:13	14:27:00	57.874650	-5.124817	57.875150	-5.125367	23.8	13.9
Wester Ross 2017	WR8.4	14/05/2017	14:27:00	14:30:32	57.875150	-5.125367	57.875733	-5.126350	13.9	16.2
Wester Ross 2017	WR9.1	14/05/2017	14:40:33	15:12:28	57.877000	-5.127983	57.878783	-5.136883	24.6	19.5
Wester Ross 2017	WR9.2	14/05/2017	15:12:28	15:18:43	57.878783	-5.136883	57.879467	-5.139000	19.5	28.0
Wester Ross 2016	Bottle Island	21/08/2016	10:43:00	11:15:00	57.967967	-5.440450	57.967950	-5.440717	19.0	
Wester Ross 2016	Carn Skerries	21/08/2016	13:00:00	13:44:00	57.957683	-5.359250	57.957617	-5.359333	13.1	
Wester Ross 2016	Dornie Bank.1	23/08/2016	12:35:00		58.030167	-5.406350	58.032550	-5.404933	18.3	
Wester Ross 2016	Dornie Bank.2	23/08/2016		13:18:00	58.030167	-5.406350	58.032550	-5.404933		0.9
Wester Ross 2016	Fox Point.1	25/08/2016	11:00:00		58.029856	-5.420821	58.031833	-5.416333	6.0	
Wester Ross 2016	Fox Point.2	25/08/2016		11:40:00	58.029856	-5.420821	58.031833	-5.416333		
Wester Ross 2016	Horse Island.1	22/08/2016	14:20:00		57.985267	-5.336950	57.985000	-5.337650	23.6	
Wester Ross 2016	Horse Island.2	22/08/2016			57.985267	-5.336950	57.985000	-5.337650		
Wester Ross 2016	Horse Island.3	22/08/2016			57.985267	-5.336950	57.985000	-5.337650		
Wester Ross 2016	Horse Island.4	22/08/2016		15:00:00	57.985267	-5.336950	57.985000	-5.337650		11.0
Wester Ross 2016	Martin Bank	22/08/2016	12:45:00	13:03:00	57.945550	-5.258233	57.945350	-5.258133	15.8	
Wester Ross 2016	Planet Rock	22/08/2016	10:40:00	11:52:00	57.979267	-5.319500	57.979083	-5.319200	8.5	

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Wester Ross 2016	Planet Rock (II)	24/08/2016	11:15:00	12:25:00	57.979267	-5.319500	57.979667	-5.319350	7.5	
Wester Ross 2016	Tanera fish farm.1	25/08/2016	12:40:00		58.009167	-5.395283	58.010383	-5.395550	6.8	
Wester Ross 2016	Tanera fish farm.2	25/08/2016			58.009167	-5.395283	58.010383	-5.395550		
Wester Ross 2016	Tanera fish farm.3	25/08/2016		13:09:00	58.009167	-5.395283	58.010383	-5.395550		
Wester Ross 2018	MHS1	26/02/2018	11:57:03	12:01:48	57.772352	-5.854253	57.772722	-5.853808	38.4	
Wester Ross 2018	MHS10	26/02/2018	13:51:52	13:56:40	57.802552	-5.847272	57.803465	-5.846402	21.2	
Wester Ross 2018	MHS11	26/02/2018	14:01:02	14:06:04	57.804415	-5.841712	57.805288	-5.840887	21.0	
Wester Ross 2018	MHS12	26/02/2018	14:09:00	14:14:00	57.804839	-5.836556	57.805491	-5.836029	20.0	
Wester Ross 2018	MHS13	26/02/2018	14:19:37	14:25:37	57.805588	-5.829853	57.806328	-5.829020	17.7	
Wester Ross 2018	MHS14	26/02/2018	14:32:06	14:37:36	57.802167	-5.828353	57.802918	-5.827395	17.3	
Wester Ross 2018	MHS15	26/02/2018	14:43:28	14:47:49	57.799358	-5.834007	57.799962	-5.833305	19.4	
Wester Ross 2018	MHS16	26/02/2018	14:52:02	14:57:21	57.798637	-5.836832	57.799422	-5.836088	20.5	
Wester Ross 2018	MHS17	26/02/2018	15:02:44	15:08:19	57.796160	-5.840312	57.797048	-5.839332	20.4	
Wester Ross 2018	MHS18	26/02/2018	15:15:51	15:21:19	57.792945	-5.846290	57.793778	-5.845643	21.0	19.4
Wester Ross 2018	MHS19	26/02/2018	15:26:17	15:31:19	57.792368	-5.847480	57.792998	-5.847000	24.6	
Wester Ross 2018	MHS2	26/02/2018	12:15:54	12:22:23	57.793775	-5.846370	57.794298	-5.845153	20.6	
Wester Ross 2018	MHS20	26/02/2018	15:34:54	15:40:53	57.791448	-5.847360	57.792197	-5.846872	24.3	
Wester Ross 2018	MHS3	26/02/2018	12:28:56	12:34:05	57.801493	-5.842888	57.801950	-5.842263	21.0	
Wester Ross 2018	MHS4	26/02/2018	12:40:08	12:45:09	57.800960	-5.850880	57.801505	-5.850375	22.4	
Wester Ross 2018	MHS5	26/02/2018	12:56:51	13:00:22	57.807962	-5.856595	57.808512	-5.856197	29.5	
Wester Ross 2018	MHS6	26/02/2018	13:06:10	13:10:35	57.812142	-5.855788	57.812917	-5.855502	25.0	
Wester Ross 2018	MHS7	26/02/2018	13:23:03	13:26:42	57.801277	-5.853770	57.801955	-5.853507	31.9	
Wester Ross 2018	MHS8	26/02/2018	13:33:01	13:36:51	57.798127	-5.854747	57.798817	-5.854650	37.8	
Wester Ross 2018	MHS9	26/02/2018	13:42:38	13:47:53	57.800505	-5.851685	57.801532	-5.851113	24.9	
Noss Head 2017	NH_01_V01	08/07/2017	07:16:09	07:27:52	58.600417	-3.022050	58.596600	-3.025783	46.4	41.3

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Noss Head 2017	NH_01_V02	08/07/2017	07:37:54	07:50:33	58.596750	-3.019683	58.593267	-3.023967	48.4	46.3
Noss Head 2017	NH_01_V03	08/07/2017	07:59:47	08:14:00	58.600350	-3.027467	58.601767	-3.028383	39.0	36.3
Noss Head 2017	NH_01_V04	08/07/2017	08:24:00	08:35:27	58.593317	-3.031000	58.594683	-3.030567	38.1	37.5
Noss Head 2017	NH_01_V05	08/07/2017	08:45:03	08:55:13	58.592817	-3.027817	58.595367	-3.028633	40.1	37.8
Noss Head 2017	NH_01_V06	08/07/2017	09:05:45	09:15:44	58.591583	-3.021850	58.593767	-3.023283	50.7	49.3
Noss Head 2017	NH_01_V07	08/07/2017	09:24:32	09:28:38	58.602167	-3.023700	58.604250	-3.023017	42.9	43.3
Noss Head 2017	NH_01_V08	08/07/2017	09:40:23	09:45:07	58.599100	-3.029983	58.601600	-3.028600	34.7	36.0
Noss Head 2017	NH_02_R01	10/07/2017	07:57:41	07:59:23	58.479450	-3.015100	58.479150	-3.014700	52.0	51.8
Noss Head 2017	NH_02_R03	10/07/2017	08:48:54	08:50:15	58.475283	-3.012450	58.474700	-3.012400	50.1	49.2
Noss Head 2017	NH_02_R04	10/07/2017	08:37:12	08:38:53	58.475017	-3.011167	58.474233	-3.011350	50.5	49.4
Noss Head 2017	NH_02_R05.1	10/07/2017	08:56:41	08:58:52	58.470367	-3.012433	58.469233	-3.012483	47.1	47.2
Noss Head 2017	NH_02_R05.2	10/07/2017	08:58:52	08:59:02	58.469233	-3.012483	58.469167	-3.012483	47.2	47.1
Noss Head 2017	NH_02_R06	10/07/2017	09:10:45	09:12:33	58.469383	-3.009583	58.468467	-3.009783	49.2	48.9
Noss Head 2017	NH_02_R09	10/07/2017	08:17:41	08:19:32	58.480683	-3.006300	58.480100	-3.004500	55.7	55.4
Noss Head 2017	NH_02_R10	10/07/2017	08:27:15	08:29:03	58.476667	-3.005967	58.475933	-3.005517	54.4	54.2
Noss Head 2017	NH_02_R11	10/07/2017	07:49:38	07:50:52	58.479617	-3.013883	58.479217	-3.013267	52.2	52.3
Noss Head 2017	NH_02_R27	10/07/2017	08:06:13	08:08:25	58.479383	-3.016933	58.478883	-3.016617	52.2	52.2
Noss Head 2017	NH_02_V18	09/07/2017	06:48:48	06:54:18	58.480650	-3.011667	58.480217	-3.010700	54.4	54.2
Noss Head 2017	NH_02_V19	09/07/2017	07:03:20	07:06:21	58.475050	-3.011417	58.474400	-3.009817	50.5	50.7
Noss Head 2017	NH_02_V21	09/07/2017	07:13:54	07:20:38	58.468000	-3.005717	58.469800	-3.009017	49.5	51.1
Noss Head 2017	NH_02_V23	09/07/2017	07:50:27	08:02:49	58.470367	-3.000717	58.467033	-2.997933	54.2	55.9
Noss Head 2017	NH_02_V25	10/07/2017	07:40:05	07:41:06	58.483233	-3.013933	58.483050	-3.013500	54.1	54.2
Noss Head 2017	NH_02_V26.1	10/07/2017	16:08:18	16:12:31	58.481200	-2.989200	58.483367	-2.989750	58.4	67.6
Noss Head 2017	NH_02_V26.2	10/07/2017	16:12:31	16:15:26	58.483367	-2.989750	58.484800	-2.990150	67.6	65.5
Noss Head 2017	NH_02_V27	09/07/2017	08:14:25	08:26:09	58.472883	-2.986717	58.469400	-2.985533	61.3	64.0
Noss Head 2017	NH_02_V28.1	09/07/2017	08:38:12	08:42:12	58.473583	-2.974950	58.472167	-2.974400	56.8	58.6
Noss Head 2017	NH_02_V28.2	09/07/2017	08:42:12	08:46:27	58.472167	-2.974400	58.470700	-2.973750	58.6	59.3
Noss Head 2017	NH_02_V29.1	10/07/2017	06:55:19	07:03:24	58.484417	-2.982400	58.485250	-2.981533	67.4	66.6
Noss Head 2017	NH_02_V29.2	10/07/2017	07:03:24	07:05:11	58.485250	-2.981533	58.485383	-2.981250	66.6	65.7

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Noss Head 2017	NH_02_V32.1	10/07/2017	06:28:02	06:33:15	58.482667	-2.992150	58.484300	-2.991717	58.0	68.5
Noss Head 2017	NH_02_V32.2	10/07/2017	06:33:15	06:34:26	58.484300	-2.991717	58.484617	-2.991550	68.5	68.3
Noss Head 2017	NH_02_V32.3	10/07/2017	06:34:26	06:43:26	58.484617	-2.991550	58.486100	-2.989750	68.3	67.2
Noss Head 2017	NH_02_V32.4	10/07/2017	06:43:26	06:44:37	58.486100	-2.989750	58.486217	-2.989533	67.2	67.1
Noss Head 2017	NH_02_X01	09/07/2017	06:35:23	06:40:58	58.476850	-3.010067	58.477250	-3.009967	52.9	53.2
Noss Head 2017	NH_02_X02.1	09/07/2017	07:30:50	07:38:00	58.468683	-3.011117	58.466100	-3.008033	48.0	49.2
Noss Head 2017	NH_02_X02.2	09/07/2017	07:38:00	07:40:07	58.466100	-3.008033	58.465350	-3.007217	49.2	50.3
Noss Head 2017	NH_02_X03	11/07/2017	08:16:18	08:17:50	58.480733	-3.016150	58.480250	-3.015333	52.4	52.4
Noss Head 2017	NH_02_X04	11/07/2017	08:24:20	08:35:45	58.478367	-3.007350	58.474467	-3.003500	54.6	54.4
Noss Head 2017	NH_02_X05.1	11/07/2017	08:46:47	08:56:04	58.477033	-3.015583	58.471633	-3.013950	50.1	47.4
Noss Head 2017	NH_02_X05.2	11/07/2017	08:56:04	09:02:30	58.471633	-3.013950	58.467717	-3.013267	47.4	46.3
Noss Head 2017	NH_02_X06.1	11/07/2017	09:17:57	09:33:50	58.477167	-3.012217	58.468433	-3.011600	52.1	47.6
Noss Head 2017	NH_02_X06.2	11/07/2017	09:33:50	09:39:01	58.468433	-3.011600	58.465550	-3.011950	47.6	46.9
Noss Head 2017	NH_02_X07.1	11/07/2017	09:55:53	10:04:20	58.475967	-3.005700	58.470783	-3.005300	54.3	52.4
Noss Head 2017	NH_02_X07.2	11/07/2017	10:04:20	10:09:45	58.470783	-3.005300	58.467800	-3.005583	52.4	51.0
Noss Head 2017	NH_03_X01	08/07/2017	16:30:23	16:36:18	58.467700	-3.028767	58.470033	-3.029650	38.4	41.2
Noss Head 2017	NH_03_X02	08/07/2017	16:43:00	16:55:37	58.471017	-3.029983	58.473833	-3.032017	42.1	41.5
Noss Head 2017	NH_03_X03	08/07/2017	17:02:16	17:13:40	58.477850	-3.033683	58.479350	-3.035417	41.8	39.5
Noss Head 2017	NH_03_X04	08/07/2017	17:20:39	17:33:26	58.480667	-3.033633	58.481683	-3.032500	42.7	43.2
Noss Head 2017	NH_03_X05	09/07/2017	06:19:49	06:21:03	58.485067	-3.032117	58.485283	-3.032083	43.5	43.4
Noss Head 2017	NH_03_X06.1	10/07/2017	15:03:05	15:08:50	58.464633	-3.016317	58.467683	-3.016583	45.2	45.0
Noss Head 2017	NH_03_X06.2	10/07/2017	15:08:50	15:09:14	58.467683	-3.016583	58.467900	-3.016600	45.0	44.7
Noss Head 2017	NH_03_X07	11/07/2017	06:32:24	06:46:03	58.468217	-3.032817	58.469667	-3.030667	36.7	40.2
Noss Head 2017	NH_03_X08	11/07/2017	06:51:36	06:59:24	58.469750	-3.032867	58.470233	-3.033500	38.1	38.0
Noss Head 2017	NH_03_X09	11/07/2017	07:09:10	07:27:23	58.477517	-3.032233	58.479767	-3.032200	43.2	43.4
Noss Head 2017	NH_03_X10.1	11/07/2017	07:38:17	07:42:38	58.481817	-3.023950	58.480167	-3.021900	46.5	48.0
Noss Head 2017	NH_03_X10.2	11/07/2017	07:42:38	07:43:05	58.480167	-3.021900	58.480017	-3.021667	48.0	48.1
Noss Head 2017	NH_03_X10.3	11/07/2017	07:43:05	07:44:06	58.480017	-3.021667	58.479700	-3.021067	48.1	48.5
Noss Head 2017	NH_03_X11.1	11/07/2017	07:54:45	07:57:36	58.481483	-3.026233	58.480167	-3.023983	46.0	46.2

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Noss Head 2017	NH_03_X11.2	11/07/2017	07:57:36	08:00:21	58.480167	-3.023983	58.478733	-3.022067	46.2	47.0
Noss Head 2017	NH_03_X12.1	12/07/2017	06:20:51	06:21:23	58.487167	-3.027450	58.487450	-3.027283	46.5	46.5
Noss Head 2017	NH_03_X12.2	12/07/2017	06:21:23	06:22:12	58.487450	-3.027283	58.487783	-3.027167	46.5	47.0
Noss Head 2017	NH_03_X13	12/07/2017	06:33:42	06:37:05	58.484067	-3.030117	58.484800	-3.029517	43.3	43.9
Noss Head 2017	NH_03_X14.1	12/07/2017	06:44:31	06:45:18	58.483333	-3.026117	58.483633	-3.025833	46.1	46.0
Noss Head 2017	NH_03_X14.2	12/07/2017	06:45:18	06:46:41	58.483633	-3.025833	58.484083	-3.025450	46.0	46.3
Noss Head 2017	NH_03_X15.1	12/07/2017	06:54:13	06:58:59	58.483467	-3.027950	58.484233	-3.026517	44.7	46.0
Noss Head 2017	NH_03_X15.2	12/07/2017	06:58:59	06:59:56	58.484233	-3.026517	58.484383	-3.026250	46.0	46.0
Noss Head 2017	NH_03_X16	12/07/2017	07:08:17	07:10:35	58.483983	-3.026317	58.484633	-3.025500	45.9	46.4
Noss Head 2017	NH_03_X17	12/07/2017	07:23:48	07:24:32	58.475300	-3.026500	58.475400	-3.026217	44.7	45.0
Noss Head 2017	NH_03_X18	12/07/2017	07:37:56	07:41:12	58.463767	-3.016450	58.464400	-3.015200	45.5	45.7
Noss Head 2017	NH_03_X19.1	12/07/2017	07:49:21	07:52:27	58.465317	-3.016083	58.465783	-3.015017	44.7	45.2
Noss Head 2017	NH_03_X19.2	12/07/2017	07:52:27	07:54:02	58.465783	-3.015017	58.465950	-3.014633	45.2	45.5
Noss Head 2017	NH_04_R13	10/07/2017	09:25:49	09:27:36	58.451600	-3.016633	58.450467	-3.016750	47.7	48.3
Noss Head 2017	NH_04_R14	10/07/2017	09:35:52	09:37:41	58.449600	-3.025167	58.448433	-3.025650	46.3	46.8
Noss Head 2017	NH_04_R15	10/07/2017	09:44:26	09:46:06	58.444283	-3.022017	58.443400	-3.022233	48.9	48.7
Noss Head 2017	NH_04_R16	10/07/2017	09:52:50	09:55:39	58.443033	-3.023183	58.442000	-3.023633	47.9	47.0
Noss Head 2017	NH_04_R17	10/07/2017	10:04:56	10:07:33	58.442267	-3.016883	58.441033	-3.017567	50.0	49.5
Noss Head 2017	NH_04_R28	10/07/2017	10:16:00	10:18:02	58.442617	-3.019450	58.441667	-3.019783	49.2	48.4
Noss Head 2017	NH_04_V01	09/07/2017	09:04:12	09:15:58	58.448933	-3.015800	58.442883	-3.016800	49.0	50.4
Noss Head 2017	NH_04_V06	09/07/2017	09:27:29	09:41:20	58.447317	-3.024833	58.440667	-3.024500	47.5	46.8
Noss Head 2017	NH_04_V07	09/07/2017	09:54:54	09:57:49	58.447733	-3.021233	58.446333	-3.021100	48.6	49.1
Noss Head 2017	NH_04_V08	09/07/2017	10:14:17	10:23:23	58.439800	-3.020633	58.436400	-3.020983	47.3	48.6
Noss Head 2017	NH_04_V09	12/07/2017	08:06:10	08:12:33	58.453217	-3.014767	58.451550	-3.013050	47.8	49.4
Noss Head 2017	NH_04_V11	12/07/2017	08:34:32	08:40:05	58.452967	-3.009400	58.450950	-3.009183	50.3	51.2
Noss Head 2017	NH_04_V12	12/07/2017	08:50:41	09:01:43	58.445933	-3.024200	58.442283	-3.025017	47.7	46.7
Noss Head 2017	NH_04_V13	12/07/2017	09:12:09	09:19:29	58.442083	-3.014267	58.439167	-3.014400	51.0	50.7
Noss Head 2017	NH_04_V14	12/07/2017	09:29:38	09:35:45	58.439400	-3.018783	58.436650	-3.019667	48.2	49.2
Noss Head 2017	NH_04_V15	12/07/2017	09:45:12	09:49:05	58.439817	-3.011600	58.437883	-3.011683	52.0	54.3

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Noss Head 2017	NH_05_N31.1	11/07/2017	11:17:26	11:24:39	58.411933	-3.059683	58.409467	-3.063667	42.0	41.9
Noss Head 2017	NH_05_N31.2	11/07/2017	11:24:39	11:29:14	58.409467	-3.063667	58.408367	-3.066167	41.9	41.0
Noss Head 2017	NH_05_N32	11/07/2017	11:40:44	11:50:53	58.410150	-3.047250	58.406250	-3.052117	50.7	49.2
Noss Head 2017	NH_05_N70	11/07/2017	12:13:41	12:28:50	58.365283	-3.099017	58.360000	-3.104333	42.3	43.1
Noss Head 2017	NH_05_N80	12/07/2017	10:22:34	10:27:14	58.389467	-3.080050	58.387467	-3.080433	37.6	38.2
Noss Head 2017	NH_05_N81	12/07/2017	11:06:51	11:10:06	58.382183	-3.078417	58.380817	-3.078967	43.5	43.3
Noss Head 2017	NH_05_N82	12/07/2017	11:18:52	11:23:00	58.372500	-3.083717	58.371133	-3.084517	47.3	48.2
Noss Head 2017	NH_05_R18	10/07/2017	11:17:39	11:20:05	58.412900	-3.053183	58.411950	-3.053983	41.5	42.1
Noss Head 2017	NH_05_R19	10/07/2017	11:25:48	11:27:37	58.407967	-3.057217	58.407367	-3.058267	45.0	44.6
Noss Head 2017	NH_05_R20	10/07/2017	11:52:19	11:53:49	58.400500	-3.063167	58.400117	-3.063567	40.8	40.7
Noss Head 2017	NH_05_R21	10/07/2017	12:00:17	12:01:12	58.396133	-3.071200	58.395850	-3.071633	40.2	40.4
Noss Head 2017	NH_05_R22	10/07/2017	12:06:30	12:07:41	58.392850	-3.076333	58.392417	-3.076600	38.1	38.5
Noss Head 2017	NH_05_R23	10/07/2017	12:14:00	12:17:00	58.386183	-3.076650	58.385433	-3.077467	41.9	41.9
Noss Head 2017	NH_05_R24	10/07/2017	12:26:05	12:26:56	58.379283	-3.085950	58.379117	-3.086000	39.9	40.1
Noss Head 2017	NH_05_R25	10/07/2017	11:34:21	11:35:22	58.409150	-3.071983	58.409100	-3.072467	35.1	33.9
Noss Head 2017	NH_05_R29	10/07/2017	11:07:47	11:10:11	58.416417	-3.061533	58.416300	-3.062167	41.0	40.5
Noss Head 2017	NH_05_R30	10/07/2017	11:41:44	11:43:33	58.406133	-3.072983	58.405867	-3.073600	36.2	35.4
Noss Head 2017	NH_05_R31.1	10/07/2017	12:34:45	12:35:57	58.374783	-3.090117	58.374617	-3.090783	39.6	40.6
Noss Head 2017	NH_05_R31.2	10/07/2017	12:35:57	12:36:45	58.374617	-3.090783	58.374417	-3.091183	40.6	40.5
Noss Head 2017	NH_05_R32	10/07/2017	12:42:27	12:44:15	58.372517	-3.094500	58.372100	-3.095050	39.5	38.9
Noss Head 2017	NH_05_R33	10/07/2017	12:51:12	12:53:35	58.370050	-3.087467	58.370283	-3.087683	45.6	44.6
Noss Head 2017	NH_05_R34	10/07/2017	13:03:15	13:05:33	58.376317	-3.080200	58.376800	-3.079583	47.2	47.3
Noss Head 2017	NH_05_R35	10/07/2017	13:15:21	13:19:37	58.383950	-3.072533	58.383517	-3.073000	47.8	47.6
Noss Head 2017	NH_05_R36	10/07/2017	13:28:41	13:32:35	58.388117	-3.068417	58.387667	-3.069217	48.1	47.7
Noss Head 2017	NH_05_R37	10/07/2017	13:44:36	13:48:08	58.395500	-3.060200	58.395083	-3.060950	49.6	48.9
Noss Head 2017	NH_05_R38	10/07/2017	13:59:32	14:03:14	58.405283	-3.058233	58.404483	-3.058167	43.2	44.0
Noss Head 2017	NH_05_R39	10/07/2017	14:16:22	14:18:39	58.402650	-3.066400	58.403317	-3.066317	40.5	41.0
Noss Head 2017	NH_05_V01	09/07/2017	11:07:20	11:24:57	58.405383	-3.050517	58.401183	-3.052300	51.5	53.4
Noss Head 2017	NH_05_V02	09/07/2017	11:38:51	11:55:21	58.399933	-3.060500	58.397750	-3.061217	45.5	47.0

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Noss Head 2017	NH_05_V03	09/07/2017	12:06:53	12:22:13	58.395383	-3.069433	58.391100	-3.070450	41.8	43.1
Noss Head 2017	NH_05_V04	09/07/2017	12:30:52	12:46:05	58.388733	-3.073450	58.384833	-3.077467	42.6	42.4
Noss Head 2017	NH_05_V05	09/07/2017	12:57:42	13:03:48	58.379117	-3.079983	58.377050	-3.079050	43.6	47.7
Noss Head 2017	NH_05_V06	09/07/2017	13:20:47	13:36:37	58.379433	-3.078967	58.375533	-3.079217	44.2	48.9
Noss Head 2017	NH_05_V07	09/07/2017	13:47:39	13:54:27	58.368167	-3.083167	58.369183	-3.082117	52.4	52.7
Noss Head 2017	NH_05_V08	09/07/2017	14:11:25	14:28:15	58.368300	-3.083117	58.373317	-3.079067	52.5	52.1
Noss Head 2017	NH_05_V09	09/07/2017	14:38:26	14:53:27	58.368400	-3.076633	58.371333	-3.071350	56.1	57.8
Noss Head 2017	NH_05_V10	09/07/2017	15:03:04	15:18:47	58.374383	-3.071067	58.377000	-3.064933	56.8	59.5
Noss Head 2017	NH_05_V11.1	09/07/2017	16:10:30	16:12:10	58.381050	-3.069033	58.381350	-3.068233	55.2	55.7
Noss Head 2017	NH_05_V11.2	09/07/2017	16:12:10	16:25:59	58.381350	-3.068233	58.383500	-3.063000	55.7	57.4
Noss Head 2017	NH_05_V12.1	09/07/2017	16:34:29	16:44:02	58.388833	-3.063183	58.390433	-3.059867	53.1	55.3
Noss Head 2017	NH_05_V12.2	09/07/2017	16:44:02	16:49:25	58.390433	-3.059867	58.391150	-3.058250	55.3	56.3
Noss Head 2017	NH_06_N43.1	11/07/2017	13:41:03	13:45:00	58.338733	-3.123300	58.337950	-3.124683	45.1	44.3
Noss Head 2017	NH_06_N43.2	11/07/2017	13:45:00	13:57:54	58.337950	-3.124683	58.336250	-3.128783	44.3	40.4
Noss Head 2017	NH_06_N44	11/07/2017	13:03:30	13:13:54	58.339850	-3.129267	58.337383	-3.133850	38.3	38.8
Noss Head 2017	NH_06_N45.1	11/07/2017	14:07:47	14:10:36	58.336017	-3.121567	58.335633	-3.123133	47.5	47.0
Noss Head 2017	NH_06_N45.2	11/07/2017	14:10:36	14:29:05	58.335633	-3.123133	58.334350	-3.128300	47.0	44.1
Noss Head 2017	NH_06_N46	11/07/2017	14:37:27	14:53:24	58.332550	-3.120783	58.330150	-3.122467	50.1	50.7
Noss Head 2017	NH_06_N51	11/07/2017	13:20:01	13:28:30	58.333783	-3.137850	58.331167	-3.143083	41.6	38.7
Noss Head 2017	NH_06_N52	12/07/2017	11:47:21	11:52:08	58.332267	-3.134783	58.331517	-3.137100	43.2	43.1
Noss Head 2017	NH_06_N53.1	11/07/2017	16:14:30	16:15:12	58.330683	-3.127750	58.331000	-3.127517	49.4	49.3
Noss Head 2017	NH_06_N53.2	11/07/2017	16:15:12	16:25:38	58.331000	-3.127517	58.334100	-3.125450	49.3	46.7
Noss Head 2017	NH_06_N56	12/07/2017	11:58:45	12:04:02	58.330367	-3.139167	58.329483	-3.140450	42.3	42.0
Noss Head 2017	NH_06_N57	12/07/2017	12:34:18	12:43:14	58.325883	-3.135233	58.323917	-3.138450	46.8	45.2
Noss Head 2017	NH_06_N58	11/07/2017	15:01:45	15:08:33	58.324233	-3.128133	58.323550	-3.129967	51.7	50.9
Noss Head 2017	NH_06_N59	12/07/2017	12:10:41	12:15:39	58.328033	-3.147017	58.327467	-3.148450	40.3	39.9
Noss Head 2017	NH_06_N60	12/07/2017	12:22:03	12:26:53	58.325450	-3.144133	58.324667	-3.144833	40.9	42.1
Noss Head 2017	NH_06_N62	11/07/2017	15:14:19	15:29:26	58.323333	-3.130950	58.321233	-3.134600	50.6	50.0
Noss Head 2017	NH_06_N63	12/07/2017	13:01:14	13:06:51	58.323650	-3.153867	58.323467	-3.155467	39.2	39.6

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Noss Head 2017	NH_06_N64	12/07/2017	13:16:05	13:19:41	58.316167	-3.165917	58.316217	-3.166750	40.8	40.9
Noss Head 2017	NH_06_N65	12/07/2017	13:26:57	13:32:36	58.313117	-3.158683	58.312767	-3.159250	41.0	41.2
Noss Head 2017	NH_06_N66	12/07/2017	13:39:56	13:46:05	58.309083	-3.165050	58.308850	-3.166933	42.1	42.3
Noss Head 2017	NH_06_N68	12/07/2017	12:49:36	12:54:09	58.320633	-3.142350	58.320067	-3.143583	45.7	44.8
Noss Head 2017	NH_06_N69	11/07/2017	12:38:49	12:57:03	58.349500	-3.117133	58.343717	-3.123567	39.6	42.3
Noss Head 2017	NH-04_V10	12/07/2017	08:22:57	08:26:03	58.452650	-3.016250	58.451517	-3.015433	46.8	48.3
Moray Firth 2017	MF_01_X01	13/07/2017	11:59:29	12:03:19	57.649200	-3.904550	57.649217	-3.904683	25.2	25.0
Moray Firth 2017	MF_01_X02	13/07/2017	12:16:00	12:20:57	57.651483	-3.908167	57.651450	-3.907867	24.4	24.3
Moray Firth 2017	MF_01_X03	13/07/2017	12:27:59	12:32:54	57.647450	-3.907250	57.647583	-3.907183	25.0	25.1
Moray Firth 2017	MF_02_V01	13/07/2017	08:51:33	08:55:00	57.680083	-3.978450	57.680117	-3.977400	46.3	47.2
Moray Firth 2017	MF_02_V02	13/07/2017	08:38:11	08:41:19	57.678433	-3.970917	57.678417	-3.970733	33.2	33.0
Moray Firth 2017	MF_02_V03	13/07/2017	08:15:59	08:19:15	57.681133	-3.964383	57.681050	-3.963983	26.5	26.3
Moray Firth 2017	MF_02_V04	13/07/2017	09:35:29	09:43:19	57.683633	-3.974367	57.683500	-3.974417	23.8	24.3
Moray Firth 2017	MF_02_V05	13/07/2017	09:02:46	09:10:40	57.681733	-3.985933	57.681350	-3.984583	27.2	29.1
Moray Firth 2017	MF_02_V06	13/07/2017	09:17:59	09:27:24	57.682650	-3.990167	57.682333	-3.987883	23.6	26.6
Moray Firth 2017	MF_02_V07	13/07/2017	10:18:18	10:26:15	57.674183	-3.953433	57.673817	-3.954917	19.8	19.6
Moray Firth 2017	MF_02_V08	13/07/2017	11:15:52	11:20:48	57.659967	-3.959900	57.660183	-3.960350	18.7	18.8
Moray Firth 2017	MF_02_V09	13/07/2017	11:00:51	11:05:53	57.667833	-3.965950	57.667933	-3.966683	18.0	17.7
Moray Firth 2017	MF_02_V10	13/07/2017	09:57:20	10:03:15	57.684817	-3.923750	57.684417	-3.922483	18.1	18.3
Moray Firth 2017	MF_02_V11	13/07/2017	11:37:42	11:43:40	57.642417	-3.939650	57.642133	-3.940183	20.0	20.2
Moray Firth 2017	MF_02_V12	13/07/2017	14:12:59	14:18:25	57.625983	-3.946167	57.626917	-3.946033	21.7	21.7
Moray Firth 2017	MF_02_V13	13/07/2017	14:29:40	14:35:19	57.614683	-3.922117	57.615367	-3.920850	19.1	19.4
Moray Firth 2017	MF_02_V14	13/07/2017	15:21:19	15:28:02	57.632067	-3.841483	57.633333	-3.839583	23.4	24.0
Moray Firth 2017	MF_02_V21	13/07/2017	14:46:20	14:52:13	57.631317	-3.918250	57.632217	-3.915317	25.4	26.0
Moray Firth 2017	MF_02_V22	13/07/2017	16:09:14	16:13:18	57.648600	-3.780150	57.649433	-3.778600	27.3	28.0
Moray Firth 2017	MF_02_V23	13/07/2017	16:29:50	16:35:14	57.665067	-3.725667	57.666183	-3.723017	27.3	27.6
Moray Firth 2017	MF_02_V24	13/07/2017	17:07:03	17:12:27	57.698933	-3.628333	57.699633	-3.625133	27.6	27.8
Moray Firth 2017	MF_02_V27	13/07/2017	15:06:18	15:11:39	57.635667	-3.870767	57.636767	-3.869300	30.9	31.4
Moray Firth 2017	MF_02_V38	13/07/2017	17:37:53	17:42:28	57.724583	-3.525633	57.725350	-3.522583	32.1	31.3

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Southern Trench 2017	STR_Sab_V02	15/07/2017	06:34:57	06:49:32	57.712783	-1.873650	57.714700	-1.874417	41.7	42.7
Southern Trench 2017	STR_V01	14/07/2017	09:50:00	10:00:00	57.820468	-2.871618	57.819933	-2.869767	48.0	46.9
Southern Trench 2017	STR_V02	14/07/2017	09:09:00	09:19:00	57.794967	-2.985333	57.794083	-2.981367	42.0	38.0
Southern Trench 2017	STR_V03.1	15/07/2017	13:51:29	14:03:21	57.723050	-2.826850	57.725400	-2.826967	27.9	30.8
Southern Trench 2017	STR_V03.2	15/07/2017	14:03:21	14:05:13	57.725400	-2.826967	57.725833	-2.826850	30.8	31.4
Southern Trench 2017	STR_V04	15/07/2017	14:28:09	14:42:15	57.711450	-2.746717	57.713817	-2.742317	31.9	32.5
Southern Trench 2017	STR_V05	14/07/2017	08:23:00	08:33:00	57.721383	-2.948200	57.720417	-2.944417	26.9	26.9
Southern Trench 2017	STR_V06	15/07/2017	11:32:57	11:44:48	57.795533	-2.499683	57.797817	-2.500817	86.0	91.9
Southern Trench 2017	STR_V07	14/07/2017	12:57:00	13:13:00	57.794200	-2.606017	57.791817	-2.599083	83.4	82.3
Southern Trench 2017	STR_V08	14/07/2017	11:41:00	11:56:00	57.866750	-2.578250	57.866117	-2.575050	75.2	77.0
Southern Trench 2017	STR_V09	14/07/2017	11:08:00	11:23:00	57.870283	-2.638367	57.869300	-2.635500	71.5	73.3
Southern Trench 2017	STR_V10	15/07/2017	16:35:50	16:49:15	57.728517	-2.255133	57.729167	-2.243550	43.3	41.9
Southern Trench 2017	STR_V12	15/07/2017	10:05:00	10:21:00	57.776783	-2.215800	57.779645	-2.218353	95.9	105.9
Southern Trench 2017	STR_V13	14/07/2017	16:07:00	16:26:00	57.880800	-1.923850	57.878483	-1.917783	93.5	93.6
Southern Trench 2017	STR_V14	14/07/2017	14:59:00	15:12:00	57.869733	-2.162783	57.866933	-2.155617	80.6	80.5
Southern Trench 2017	STR_V15	14/07/2017	12:18:00	12:33:00	57.827350	-2.553183	57.825750	-2.549267	87.8	88.6
Southern Trench 2017	STR_V16	15/07/2017	15:17:45	15:28:41	57.725250	-2.587100	57.724483	-2.578833	58.3	59.8
Southern Trench 2017	STR_V17.1	15/07/2017	13:06:15	13:10:59	57.747400	-2.726650	57.748083	-2.726333	45.3	48.0
Southern Trench 2017	STR_V17.2	15/07/2017	13:10:59	13:20:24	57.748083	-2.726333	57.749650	-2.724983	48.0	51.9
Southern Trench 2017	STR_V23	15/07/2017	12:27:30	12:41:02	57.768367	-2.652967	57.769600	-2.653183	92.5	92.9
Ratray Head 2017	SAB_V01	08/11/2017	08:56:09	09:16:25	57.713285	-1.874258	57.710667	-1.869500	39.0	
Ratray Head 2017	SAB_V02	07/11/2017	20:32:51	20:52:59	57.686833	-1.620167	57.683167	-1.619167	93.2	
Ratray Head 2017	SAB_V03.1	07/11/2017	23:23:14	23:29:32	57.649462	-1.498180	57.649509	-1.500472	79.5	
Ratray Head 2017	SAB_V03.2	07/11/2017	23:29:32	23:41:26	57.649509	-1.500472	57.649171	-1.506082		
Ratray Head 2017	SAB_V03.3	07/11/2017	23:41:26	23:42:48	57.649171	-1.506082	57.649137	-1.506454		
Ratray Head 2017	SAB_V03.4	07/11/2017	23:42:48	23:43:10	57.649137	-1.506454	57.649102	-1.506827		
Ratray Head 2017	SAB_V04.1	08/11/2017	01:56:51	02:09:46	57.576333	-1.519500	57.577789	-1.521030	76.9	
Ratray Head 2017	SAB_V04.2	08/11/2017	02:09:46	02:14:35	57.577789	-1.521030	57.578501	-1.521842		
Ratray Head 2017	SAB_V04.3	08/11/2017	02:14:35	02:16:53	57.578501	-1.521842	57.578667	-1.522167		

Annex 3 continued

Survey	Video sample	Date	Time start (UT)	Time end (UT)	Start latitude	Start longitude	End latitude	End longitude	Depth CD start (m)	Depth CD end (m)
Ratray Head 2017	SAB_V05	08/11/2017	11:34:59	11:55:25	57.572500	-1.741000	57.568833	-1.741000	43.5	
Ratray Head 2017	SAB_V07	08/11/2017	04:42:47	05:03:13	57.491725	-1.496035	57.495500	-1.494833	76.2	
Ratray Head 2017	SAB_V08	08/11/2017	12:34:31	12:54:55	57.535500	-1.715667	57.531650	-1.711927	49.9	
Ratray Head 2017	SAB_V10.1	08/11/2017	10:36:01	10:53:59	57.648167	-1.784167	57.644374	-1.780088	39.1	
Ratray Head 2017	SAB_V10.2	08/11/2017	10:53:59	10:55:05	57.644374	-1.780088	57.644226	-1.779877		
Ratray Head 2017	SAB_V10.3	08/11/2017	10:55:05	10:56:23	57.644226	-1.779877	57.644027	-1.779540		
Ratray Head 2017	SAB_V11	08/11/2017	09:39:40	10:00:51	57.696460	-1.843165	57.693593	-1.838727	44.2	
Ratray Head 2017	SAB_V12	08/11/2017	08:03:43	08:28:13	57.722035	-1.914197	57.720333	-1.908000	44.5	
Ratray Head 2017	SAB_V13	07/11/2017	21:33:00	21:53:10	57.681333	-1.549333	57.677647	-1.548443	80.3	
Ratray Head 2017	SAB_V14.1	07/11/2017	22:28:10	22:34:43	57.652988	-1.576157	57.651529	-1.573953	97.0	
Ratray Head 2017	SAB_V14.2	07/11/2017	22:34:43	22:48:12	57.651529	-1.573953	57.648743	-1.570427		
Ratray Head 2017	SAB_V15	08/11/2017	00:11:55	00:32:15	57.620965	-1.521063	57.622333	-1.525833	79.9	
Ratray Head 2017	SAB_V16	08/11/2017	01:03:29	01:23:38	57.615500	-1.472833	57.617835	-1.476192	82.4	
Ratray Head 2017	SAB_V17.1	08/11/2017	02:47:45	02:49:43	57.573548	-1.472623	57.573631	-1.472587	75.3	
Ratray Head 2017	SAB_V17.2	08/11/2017	02:49:43	02:59:17	57.573631	-1.472587	57.574949	-1.472436		
Ratray Head 2017	SAB_V17.3	08/11/2017	02:59:17	03:08:31	57.574949	-1.472436	57.576687	-1.471802		
Ratray Head 2017	SAB_V18	08/11/2017	03:47:33	04:07:29	57.513862	-1.457630	57.516500	-1.457667	79.1	
Ratray Head 2017	SAB_V19	08/11/2017	05:32:51	05:53:13	57.495637	-1.455173	57.498575	-1.454095	80.6	

#### ANNEX 4: PHYSICAL AND BIOLOGICAL DESCRIPTIONS OF THE SURVEY SITES, WITH INDICATORS OF CONSERVATION IMPORTANCE OF HABITATS AND SPECIES

Sample codes correspond with those in Annex 3. PMF codes (in black) and PF codes (in red) and Habitat Directive Annex I codes are defined in Annex 6. Uncertain biotope assignments are italicized.

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B1.1	Bedrock with occasional boulders (<1%) and sand patches (<1%)	Rock supporting dense turf of hydroids and bryozoans? (S) and some red algae (P) and <i>Dictyota dichotoma</i> (R), as well as dense ascidians including solitary species (A) such as <i>Ascidia virginea</i> , <i>A. mentula</i> and <i>Ascidiella aspersa?</i> , and <i>Clavelina lepadiformis</i> (F). <i>Suberites</i> sp. (R), yellow encrusting sponge (R), <i>Aplysia punctata</i> (P), <i>Luidia ciliaris</i> (P), <i>Asterias rubens</i> (O), <i>Echinus esculentus</i> (F), sparse kelp plants (O). Small patches of non-turfed rock support encrusting pink coralline algae (O) and <i>Caryophyllia smithii</i> (P).	<i>CR.HCR.XFa</i>	RF:BR	
B1.2	Shell gravel (68%), coarse sand (30%), shells, including <i>Ensis</i> , and larger broken shell material (2%) and occasional cobbles (<1%), locally in megaripples	Very sparse thalli of <i>Phymatolithon calcareum</i> (R - <1%) and encrusting pink coralline algae (R). <i>Pecten maximus</i> (P).	SS.SCS.CCS	SB:GS	
B1.3	Bedrock with occasional sand patches (<1%)	Rock supporting dense turf of hydroids and bryozoans? (A - S) and some red algae (P) and <i>Dictyota dichotoma</i> (locally F), as well as ascidians including solitary species such as <i>Ascidia virginea</i> (P), and <i>Clavelina lepadiformis</i> (locally C). <i>Suberites</i> sp. (R), orange encrusting sponge (P), <i>Polymastia boletiformis</i> (P), <i>Pecten maximus</i> (P), <i>Marthasterias glacialis</i> (O), <i>Henricia</i> sp. (R), <i>Echinus esculentus</i> (F), much dead kelp but also sparse small, live <i>Laminaria hyperborea</i> (O). Rock encrusted with pink coralline algae (O) and <i>Caryophyllia smithii</i> (locally F).	<i>CR.HCR.XFa</i>	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B10.1	Sand-dusted bedrock	Rock with dense turf of hydroids and bryozoans (S) and some algae including foliose reds (O) and <i>Dictyota dichytoma</i> (O). Much kelp debris. Turf-free rock encrusted with pink coralline algae (O), yellow sponge/ <i>Parasmittina trispinosa</i> (R) and <i>Caryophyllia smithii</i> (C, at least locally). <i>Antedon</i> sp. (locally A), <i>Luidia ciliaris</i> (P).	CR.HCR.XFa.FluCoAs	RF:BR	
B10.2	Shell gravel (55%) and coarse sand (40%) with shells (5%) including <i>Ensis</i> , locally in form of megaripples	Sparsely scattered thalli of <i>Phymatolithon calcareum</i> (R, <1%), pink encrusting algae (R), <i>Pecten maximus?</i> (P), <i>Asciidiella aspersa</i> (R).	SS.SCS.CCS	SB:GS	
B11.1	Megaripples of shell gravel (75%) and maerl gravel (15%) with shells (5%) and live maerl (5%) concentrated in troughs	Sparse <i>Phymatolithon calcareum</i> (O, c.5%) in troughs. <i>Marthasterias glacialis</i> (P).	SS.SCS.CCS	SB:GS	
B11.2	Heavily-scoured bedrock with probably superficial pockets of shell gravel (15%)	Rock with dense hydroid and bryozoan turf (S) including <i>Flustra foliacea</i> (P). <i>Alcyonium digitatum</i> (R), <i>Aequipecten opercularis</i> (P), <i>Aplysia punctata?</i> (P), pink encrusting coralline algae (R), live <i>Phymatolithon calcareum</i> (R), small <i>Laminaria hyperborea</i> (O).	CR.HCR.XFa.FluCoAs	RF:BR	
B11.3	Gravel with shells (5%) and live maerl (c.5%)	Visibility poor but live <i>Phymatolithon calcareum</i> apparently around 5% cover (O). Pink encrusting coralline algae (R).	SS.SCS.CCS	SB:GS	
B11.4	Heavily-scoured bedrock with superficial cover of shell gravel initially (10%)	Rock with dense hydroid and bryozoan turf (S) including <i>Flustra foliacea</i> (locally C). Pink encrusting coralline algae (R), foliose red algae (O), live <i>Phymatolithon calcareum</i> (R overall), small <i>Laminaria hyperborea</i> (O), <i>Antedon</i> sp. (locally A).	CR.HCR.XFa.FluCoAs	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
B11.5	Megaripples of shell gravel (25%) and maerl gravel (65%) with shells (5%) and live maerl (c.5%)	Sparse <i>Phymatolithon calcareum</i> (O, c.5%). <i>Chaetopterus variopedatus?</i> (P), <i>Asterias rubens</i> (P), pink encrusting coralline algae (R).	SS.SCS.CCS	SB:GS	
B12.1	Apparently superficial mix of maerl gravel (45%), shell gravel (15%), live maerl (3%), and pebbles (22%) on fine sand (15%)	Live <i>Phymatolithon calcareum</i> (c.3%, R), pink encrustine coralline algae (O), foliose red algae (R), short turf of hydroids? (O), <i>Urticina felina</i> (P), <i>Chaetopterus variopedatus?</i> (P), bivalve siphons (P), Gobiidae sp. (P).	SS.SMx.CMx	SB:MX	
B12.2	Sand-scoured bedrock with small sand/gravel patch (<1%)	Rock with dense hydroid and bryozoan turf (S). Turf appears animal dominated but red algae present (possibly F, C locally) and <i>Dictyota dichotoma</i> (locally O). Small <i>Laminaria hyperborea</i> (O, F locally towards the end of the run segment. <i>Cliona celata</i> (R), <i>Caryophyllia smithii</i> (P), <i>Antedon</i> sp. (locally C), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (O).	CR.HCR.XFa.FluCoAs	RF:BR	
B12.3	Megaripples of maerl gravel (4%), shell gravel (45%), live maerl (5%) and shells (5%)	<i>Phymatolithon calcareum</i> (c.10%, F) concentrated in troughs, foliose red algae (R), hydroids (R), <i>Lanice conchilega</i> (P), <i>Flustra foliacea</i> (R)	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
B13	Shell gravel (80%) and maerl gravel (10%) with live maerl (5%) and shells (5%), locally in form of megaripples	Live <i>Phymatolithon calcareum</i> (c.5%, O), pink encrustine coralline algae (R), short small tufts of hydroids/bleached algae? (O), <i>Henricia</i> sp.? (R).	SS.SCS.CCS	SB:GS	
B14.1	Sand-dusted bedrock	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (locally C), with foliose red algae (O). <i>Cliona celata</i> (R), <i>Sagartia elegans?</i> (P), <i>Caryophyllia smithii</i> (P), <i>Cancer pagurus?</i> (P), <i>Antedon</i> sp. (locally A), <i>Echinus esculentus</i> (P).	CR.HCR.XFa.FluCoAs	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
B14.2	Megaripples of coarse sediment (probably mainly gravel)	No biota observed	SS.SCS.CCS	SB:GS	
B14.3	Sand-dusted and scoured bedrock with sand/gravel patches (1%)	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (P), with foliose red algae (O) and <i>Saccharina latissima</i> sporelings (P). Pink encrusting coralline algae (R), <i>Clyona celata</i> (R), <i>Caryophyllia smithii</i> (P), <i>Polycera faeroensis?</i> (P), <i>Antedon</i> sp. (P), <i>Luidia ciliaris</i> (R).	CR.HCR.XFa.FluCoAs	RF:BR	
B14.4	Megaripples of coarse sediment (probably mainly gravel)	No biota observed	SS.SCS.CCS	SB:GS	
B14.5	Sediment-dusted bedrock (85%) with patches of gravelly sediment (15%), possibly superficial	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (locally C), with foliose red algae (R). Sparse live thalli of <i>Phymatolithon calcareum</i> (R, <1%), Ascidiacea sp. (P), Pectiniidae sp. (P).	CR.HCR.XFa.FluCoAs	RF:BR	
B14.6	Maerl gravel (37%), shell gravel (37%), coarse sand (18%), live maerl (3%) and shells (5%)	Live <i>Phymatolithon calcareum</i> (c.3%, R), pink encrustine coralline algae (R), bivalve siphons (P).	SS.SCS.CCS	SB:GS	
B15	Megaripples of maerl gravel (30%), live maerl (5%), shell gravel (45%), coarse sand (15%) and shells (5%)	Live <i>Phymatolithon calcareum</i> (c.5%, O), pink encrustine coralline algae (R), short small tufts of hydroids/bleached algae? (O), <i>Alcyonium digitatum</i> (R).	SS.SCS.CCS	SB:GS	
B16.1	Sand scoured and dusted bedrock	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (locally F) and <i>Securiflustra securifrons?</i> (P), with a red algal component (C). Pink encrusting coralline algae (R), brown encrusting alga (O), <i>Ophiura albida</i> (P).	CR.HCR.XFa.FluCoAs	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
B16.2	Megaripples of maerl gravel (10%), shell gravel (50%) and coarse sand (25%) with live maerl (10%) and shells (5%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> (c.10%, F, locally C), pink encrusting coralline algae (R), short small tufts of hydroids/bleached algae? (O), <i>Antedon</i> sp. (P), <i>Marthasterias glacialis</i> (P).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
B16.3	Sediment scoured bedrock with patches of coarse sand/gravel (5%)	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (locally F), also with a red algal component (C). <i>Cliona celata?</i> (R), <i>Marthasterias glacialis</i> (R), <i>Luidia ciliaris?</i> (R), pink encrusting coralline algae (R), <i>Laminaria hyperborea</i> (R), <i>Saccharina latissima?</i> (R).	CR.HCR.XFa.FluCoAs	RF:BR	
B16.4	Megaripples of maerl gravel (40%) and shell gravel (45%), with live maerl (10%) and shells (5%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> (possibly c.10%, at least locally), pink encrustine coralline algae (R), short small tufts of hydroids/bleached algae? (O).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
B17	Megaripples of maerl gravel (10%), shell gravel (45%) and coarse sand (25%) with live maerl (15%) and shells (5%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> (c.10%, F, locally C), pink encrusting coralline algae (R), short small tufts of bleached algae/hydroids? (O), fliform red algae (R), <i>Asterias rubens</i> (P), <i>Henricia</i> sp. (P), <i>Ascidrella aspersa</i> (P).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
B18	Bedrock (probably scoured) with small pockets and channels (<1%) of coarse sand/gravel	<i>Laminaria hyperborea</i> forest (A) with understory of foliose red algae (R), <i>Dictyota dichotoma</i> (F locally) and turf of hydroids/bryozoans (P). Kelp stipes with foliose red algae and fronds with <i>Obelia geniculata</i> . <i>Cliona celata</i> (R), <i>Antedon</i> sp. (locally A). Sediment pockets with <i>Luidia ciliaris</i> (O) and probably <i>Phymatolithon calcareum</i> (P).	IR.HIR.KSed.XKScrR	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B19.1	Megaripples of shell gravel (50%), coarse sand (45%) and shells (5%)	Live <i>Phymatolithon calcareum</i> (possibly c.1%, R), pink encrusting coralline algae (R), short small tufts of bleached algae/hydroids? (O).	SS.SCS.CCS	SB:GS	
B19.2	Sediment dusted and scoured bedrock	Park of small <i>Laminaria hyperborea</i> (F) and <i>Saccharina latissima</i> (P), with understorey of hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (P) and red algal turf (C).	IR.HIR.KSed.XKScrR	RF:BR	
B19.3	Shell gravel (75%) and maerl gravel (15%) with live maerl (5%) and shells (5%), locally in form of megaripples	Live <i>Phymatolithon calcareum</i> (c.5%, O), pink encrusting coralline algae (R), short small tufts of hydroids/bleached algae? (O), <i>Henricia</i> sp.? (R).	SS.SCS.CCS	SB:GS	
B2.1	Basically slightly silty fine sand (80%) with scattered pebbles (5%), cobbles (5%), boulders (<1%) and shells (<1%) including <i>Ensis</i> , but with varying additions of shell gravel (overall 10% but locally 50%)	Stones encrusted with pink coralline algae (R) and supporting sparse clumps of hydroids and bryozoans (R) and algae (R). <i>Clione celata</i> (R), <i>Suberites</i> sp. (R), <i>Asterias rubens</i> (P), <i>Antedon</i> sp.? (P).	SS.SSa.CFiSa	SB:GS	
B2.2	Sand-scoured and dusted bedrock with small pockets of sand (<1%)	Rock supporting dense faunal turf (S - probably hydroids and bryozoans) with <i>Cliona celata</i> ? (R) and <i>Marthasterias glacialis</i> ? (P).	CR.HCR.XFa.FluCoAs	RF:BR	
B2.3	Slightly silty fine sand, possibly a veneer over rock in places	Scattered hydroids and bryozoans (O), some of which is probably drift material from adjacent rock and some may be attached to shallow subsurface rock, <i>Suberites</i> sp. (P), <i>Actiniaria</i> sp. (P), <i>Pecten maximus</i> (P).	SS.SSa.CFiSa	SB:GS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B20.1	Shell gravel (50%) and maerl gravel (45%) with live maerl (3%) and shells (2%), locally with dusting of silt. Small rock outcrops and boulders (<1%)	Live <i>Phymatolithon calcareum</i> (c.3%, R), pink encrusting coralline algae (R), short small tufts of hydroids/bleached algae? (O), <i>Antedon</i> sp.? (R), <i>Porania pulvillus</i> (R), Gobiidae sp. (P), small teleost sp. (P). Rock with hydroid/bryozoan turf and <i>Cliona celata</i> (R).	SS.SCS.CCS	SB:GS	
B20.2	Sediment dusted and scoured bedrock with narrow channels of gravel (2%)	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (locally F); foliose red algal component (R). Pink encrusting coralline algae (R), <i>Luidia ciliaris</i> (P), <i>Porania pulvillus</i> (R)	CR.HCR.XFa.FluCoAs	RF:BR	
B20.3	Shell gravel (50%) and maerl gravel (45%) with live maerl (3%) and shells (2%), with dusting of silt	Live <i>Phymatolithon calcareum</i> (c.3%, R), short small tufts of hydroids/bleached algae? (O).	SS.SCS.CCS	SB:GS	
B21.1	Shell gravel (60%) and maerl gravel (30%) with live maerl (5%) and shells (5%), locally in form of megaripples	Live <i>Phymatolithon calcareum</i> (c.5%, O), short small tufts of hydroids/bleached algae? and some longer hydroid tufts (O). <i>Henricia</i> sp. (P)	SS.SCS.CCS	SB:GS	
B21.2	Bedrock with around 50% covered by heavy dusting/pockets of gravel	Dense hydroid/bryozoan turf (S). <i>Phymatolithon calcareum</i> present at low density (R).	CR.HCR.XFa.FluCoAs	RF:BR	
B21.3	Shell gravel (75%) and maerl gravel (15%) with live maerl (5%) and shells (5%)	Live <i>Phymatolithon calcareum</i> (c.5%, O), short small tufts of hydroids/bleached algae.	SS.SCS.CCS	SB:GS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B21.4	Bedrock with around 40% covered by heavy dusting/pockets of gravel	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (locally F). Foliose red algae (C).	CR.HCR.XFa.FluCoAs	RF:BR	
B21.5	Shell gravel (80%) and maerl gravel (5%) with live maerl (10%) and shells (5%). Camera skirts around edge of bedrock reef	Live <i>Phymatolithon calcareum</i> (c.10%, F), short small tufts of hydroids/bleached algae.	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
B21.6	Bedrock with dusting of gravel and gravel pockets (<1%)	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (locally F). <i>Antedon</i> sp. (P), <i>Marthasterias glacialis</i> (P), pink encrusting coralline algae (R), foliose red algae (O).	CR.HCR.XFa.FluCoAs	RF:BR	
B22.1	Fine-medium sand with scattering of shell gravel (10%), coarse sand (10), shells (<1%), pebbles (<1%) and cobbles (<1%)	Small tufts of hydroids/bleached algae (O) and much debris material (probably from nearby turfs); encrusting pink coralline algae (R).	SS.SSa.CFiSa	SB:GS	
B22.2	Bedrock with dusting of gravel and gravel pockets (<1%)	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (F), pink encrusting coralline algae (R), red algae (R), <i>Cliona celata</i> (R), <i>Caryophyllia smithii</i> (P), <i>Luidia ciliaris</i> (R).	CR.HCR.XFa.FluCoAs	RF:BR	
B22.3	Megaripples of silty shell gravel (96%) with live maerl (2%) and shells (2%)	Small tufts of hydroids (O) and much debris material (probably from nearby turfs); <i>Phymatolithon calcareum</i> (2%, R), encrusting pink coralline algae (R).	SS.SCS.CCS	SB:GS	
B22.4	Bedrock with dusting of gravel and gravel pockets (<1%)	Dense hydroid/bryozoan turf (S) including <i>Flustra foliacea</i> (P), pink encrusting coralline algae (R), <i>Cliona celata?</i> (R).	CR.HCR.XFa.FluCoAs	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B22.5	Megaripples of silty shell gravel (97%) with live maerl (<1%) and shells (3%)	Small tufts of hydroids (O) and much debris material (probably from nearby turfs); <i>Phymatolithon calcareum</i> (<1%, R), encrusting pink coralline algae (R).	SS.SCS.CCS	SB:GS	
B23.1	Flat, silty, fine-medium sand with surface veneer of varying concentrations of coarse sand, shell gravel and shells including <i>Ensis</i>	Much algal and hydroid? detritus. <i>Phymatolithon calcareum</i> (<1%, R), pink encrusting coralline algae (R)	SS.SMx.CMx	SB:MX	
B23.2	Bedrock with extensive dusting of sand	Dense hydroid/bryozoan turf (S), <i>Marthasterias glacialis</i> (P).	CR.HCR.XFa.FluCoAs	RF:BR	
B23.3	Flat, silty, fine-medium sand with surface veneer of coarse sand (50%), shell gravel (20%) and shells (2%)	Much algal and hydroid? detritus. <i>Phymatolithon calcareum</i> (<1%, R), pink encrusting coralline algae (R)	SS.SMx.CMx	SB:MX	
B24	Fine sand with some scattered gravel (2%); occasional boulders (<1%)	Sediment surface littered with algal debris and detritus. Errant polychaete (P), Paguridae sp. (P), <i>Turritella communis</i> (R, possibly occupied), <i>Pecten maximus</i> (P), <i>Aequipecten opercularis</i> (R).	SS.SSa.CFiSa	SB:GS	
B26	Sand-dusted bedrock with small coarse sand pockets (<1%)	<i>Laminaria hyperborea</i> forest (A) with stipes supporting red algae and <i>Alcyonium digitatum</i> (R). Understorey of red algal turf (C) with filamentous and foliose species including <i>Callophyllis laciniata</i> (P) and rock encrusted with pink coralline algae (O) and <i>Aglaozonia</i> (P). <i>Clione celata?</i> (R), cream encrusting sponge (P), <i>Caryophyllia smithii</i> (P), <i>Stichastrella rosea</i> (P), <i>Luidia ciliaris</i> (P), <i>Antedon</i> sp. on stipes and in sparse patches (R overall but A locally), <i>Echinus esculentus</i> (F).	IR.HIR.KSed.XKScrR	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B27	Megaripples of maerl gravel (30%), live maerl (15%), shell gravel (30%), coarse sand (20%) and shells (5%)	<i>Phymatolithon calcareum</i> concentrated in megaripple troughs (15% overall - F, locally C), much of it in medallion form. <i>Saccharina latissima</i> (F but some possibly drift material).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
B28	Fine-medium sand with shell gravel (5%), pebbles (5%) and shells (1%) including <i>Ensis</i>	Sediment with diatomaceous film (F) and scattered algal tufts (R) and very sparse thalli of <i>Phymatolithon calcareum</i> (<1%, R). Serpulid worms (R), algal debris.	SS.SSa.CFiSa	SB:GS	
B29.1	Sand-dusted bedrock (99%) with pockets of coarse sand (1%)	<i>Laminaria hyperborea</i> forest (A) with stipes supporting foliose red algae and <i>Alcyonium digitatum</i> (R). Understorey of red algal turf (C) with filamentous and foliose species including <i>Callophyllis laciniata</i> (P). <i>Clione celata</i> (R), <i>Hyas</i> sp.? (P), <i>Asterias rubens</i> (P), <i>Marthasterias glacialis</i> (P), <i>Echinus esculentus</i> (F).	IR.HIR.KSed.XKScrR	RF:BR	
B29.2	Medium sand (99%) with scattered shells (1%) including <i>Ensis</i>	Sediment with diatomaceous film (A) and scattered algal tufts (R). Algal debris.	SS.SSa.IMuSa.EcorEns	SB:MS	
B29.3	Sand-dusted bedrock	<i>Laminaria hyperborea</i> forest (A).	IR.HIR.KSed.XKScrR	RF:BR	
B3.1	Poorly mixed coarse sediment with shell gravel (55%), sand (30%), pebbles (10%) and shells (5%) including <i>Ensis</i>	Stones encrusted with pink coralline algae and supporting sparse tufts of hydroids/bryozoans (O), clumps of <i>Asciella aspersa</i> (F) and foliose red algae (R). <i>Marthasterias glacialis</i> (P). Sparse thalli of <i>Phymatolithon calcareum</i> (R, <1%).	SS.SCS.CCS	SB:GS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B3.2	Bedrock	Park of small <i>Laminaria hyperborea</i> (C, locally F and A) and <i>Saccharina latissima</i> (P), with understory of red algal turf containing filamentous (A) and foliose (C) species, <i>Dictyota dichotoma</i> (C), and some hydroids (P). <i>Cliona celata</i> (R), <i>Alcyonium digitatum</i> (R), <i>Urticina felina</i> (P), <i>Caryophyllia smithii</i> (P), <i>Balanus</i> spp. (P), <i>Antedon</i> sp. (P), <i>Marthasterias glacialis</i> (F), <i>Luidia ciliaris</i> (F), <i>Ophiura albida</i> (locally A), <i>Echinus esculentus</i> (F), <i>Asciella aspersa</i> (P), <i>Corella parallelogramma</i> (P), pink encrusting coralline algae (O).	IR.HIR.KSed.XKScrR	RF:BR	
B30.1	Sand-scoured bedrock (90%) with pockets of coarse sand with gravel and pebbles	Mixed kelp forest dominated by <i>Laminaria hyperborea</i> (A) with <i>Saccharina latissima</i> (P). Rock with mixed turf (S) of red algae (possibly C) with probably hydroids and bryozoans. Yellow encrusting/cushion sponge (R), <i>Clavelina lepadiformis</i> ? (P).	IR.HIR.KSed.XKScrR	RF:BR	
B30.2	Megaripples of coarse sand (50%) and shell gravel (50%)	Sparse algal tufts (R).	SS.SCS.CCS	SB:GS	
B30.3	Sand-scoured and dusted bedrock	Mixed kelp forest dominated by <i>Laminaria hyperborea</i> (A) with <i>Obelia geniculata</i> , and <i>Saccharina latissima</i> (P). Rock with mixed turf of foliose red algae with possibly hydroids and bryozoans.	IR.HIR.KSed.XKScrR	RF:BR	
B30.4	Megaripples of coarse sand (50%) and gravel (45%) with shells (5%) and dead maerl (<1%)	Sparse algal tufts (R), <i>Ammodytes</i> sp. ? (1 or 2 possible specimens).	SS.SCS.CCS	SB:GS	SE
B30.5	Sand-scoured and dusted bedrock (80%) with sand pockets	Mixed kelp forest dominated by <i>Laminaria hyperborea</i> (A) with <i>Obelia geniculata</i> , and <i>Saccharina latissima</i> (P). Rock with turf of foliose red algae with possibly hydroids and bryozoans.	IR.HIR.KSed.XKScrR	RF:BR	
B30.6	Megaripples, and locally smaller ripples, of coarse sand (50%) and gravel (45%) with shells (5%) and small bedrock outcrops	Sediment with sparsely scattered kelp plants, <i>Luidia ciliaris</i> (P) and possibly very sparse live maerl thalli (<1%, R). Rock outcrops with <i>Laminaria hyperborea</i> and <i>Saccharina latissima</i> .	SS.SCS.CCS	SB:GS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B30.7	Sand-scoured and dusted bedrock (100%)	Mixed kelp forest dominated by <i>Laminaria hyperborea</i> (A) with <i>Saccharina latissima</i> (P). Rock probably with turf of red algae with possibly hydroids and bryozoans. Yellow encrusting/cushion sponge (R).	IR.HIR.KSed.XKScrR	RF:BR	
B31	Faintly rippled medium sand (97%) with scattered shell gravel (2%) and shells (1%), mostly <i>Ensis</i>	Sediment with diatomaceous film (C) and scattered algal tufts (R). Algal debris.	SS.SSa.IMuSa.EcorEns	SB:MS	
B4	Megaripples of shell (50%) and maerl (15%) gravel with coarse sand (20%), with shells including <i>Ensis</i> (5%) and live maerl (10%) concentrated in troughs	Fairly poorly developed maerl bed with <i>Phymatolithon calcareum</i> (around 10% overall, F) concentrated in troughs with shells encrusted with pink coralline algae (R). Bivalve siphons (P).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
B5	Megaripples of shell (40%) and maerl (10%) gravel, live maerl (5%) and coarse sand (37%), with shells including <i>Ensis</i> (8%) concentrated in troughs	Around 5% cover of <i>Phymatolithon calcareum</i> . Pink encrusting algae (R), <i>Henricia</i> sp.? (R).	SS.SCS.CCS	SB:GS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
B6	Megaripples of shell (40%) and maerl (20%) gravel, live maerl (10%) and sand (25%), with shells including <i>Ensis</i> (5%) concentrated in troughs	Patchy maerl bed with <i>Phymatolithon calcareum</i> concentrated in troughs (10%, F overall, but highly variable); Many thalli bound by short turf of possibly filamentous algae or hydroids. Pink encrusting algae (R), filamentous red algae (P), small <i>Dictyota dichotoma?</i> (R), <i>Lanice conchilega</i> (P), <i>Asterias rubens</i> (O), <i>Neopentadactyla mixta</i> (P), <i>Asciidiella aspersa</i> in dense patches, some extensive (S locally, C - A overall)	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
B7.1	Sand-scoured boulders and bedrock, possibly roughly in equal measure	<i>Laminaria hyperborea</i> forest (A) with understory of red algal turf (A locally S) comprising filamentous red algae (locally S), <i>Delesseria sanguinea</i> (locally A) and <i>Callophyllis laciniata</i> (P), as well as <i>Dictyota dichotoma</i> (P). Rock encrusted with pink coralline algae (O) and <i>Aglaozonia</i> (P). <i>Alcyonium digitatum</i> (R), <i>Echinus esculentus</i> (F), teleost sp. (P).	IR.HIR.KSed.XKScrR	RF:BR, RF:ST	
B7.2	Megaripples of maerl gravel (50%) with shell gravel (15%) and coarse sand (10%) and with live maerl (15%) and shells including <i>Ensis</i> (10%) concentrated in troughs	Maerl bed with <i>Phymatolithon calcareum</i> around 15% cover (F). Sparse erect algae including filiform and filamentous reds (R), foliose reds (R) and <i>Dictyota dichotoma</i> (R), serpulid worms (F), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (F), <i>Asciidiella aspersa</i> (F).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
B8.1	Sand-scoured bedrock	<i>Laminaria hyperborea</i> forest (A) with <i>Saccharina latissima</i> (P). <i>Echinus esculentus</i> (P). Poor visibility and no stills.	IR.HIR.KSed.XKScrR	RF:BR	
B8.2	Megaripples of dead maerl/maerl gravel (72%) with live maerl (20%) and shells including <i>Ensis</i> (8%) concentrated in troughs	Fairly dense maerl bed for the biotope with medallions of <i>Phymatolithon calcareum</i> (20%, C). Sparse algae include foliose (R) and filamentous/filiform reds (R), <i>Dictyota dichotoma</i> (R) and <i>Saccharina latissima</i> (O but possibly largely drift). <i>Asterias rubens</i> (F), <i>Neopentadactyla mixta</i> (P).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
B9.1	Shell gravel (47%) and coarse sand (47%) with live maerl (1%) and shells (5%), in megaripples locally	Sparsely scattered live thalli of <i>Phymatolithon calcareum</i> (1%, R). Pink encrusting coralline algae (R), bivalve siphons (P).	SS.SCS.CCS	SB:GS	
B9.2	Sand-scoured bedrock	Rock with dense turf of hydroids and bryozoans (S) including some <i>Flustra foliacea</i> (P). Foliose red algae (O), small <i>Saccharina latissima?</i> (O), orange encrusting sponge (R), <i>Caryophyllia smithii</i> (locally F), <i>Balanus</i> spp. (P), <i>Antedon</i> sp. (locally C).	CR.HCR.XFa.FluCoAs	RF:BR	
V1.1	Maerl gravel (35%), live maerl (15%), shell gravel (20%), coarse sand (25%), shells (5%)	Live <i>Phymatolithon calcareum</i> around 15% cover (F).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V1.2	Sand-dusted bedrock	Rock supporting sparse, small <i>Saccharina latissima</i> (O) and turf (S) including red algae (A - S). <i>Antedon</i> spp. (P), <i>Marthasterias glacialis</i> (P).	IR.HIR.KFaR.FoR	RF:BR	
V1.3	Maerl gravel (45%), live maerl (20%), shell gravel (20%), coarse sand (10%), shells (5%)	Live <i>Phymatolithon calcareum</i> around 20% cover, locally 30% (C). <i>Antedon</i> sp. (R), foliose red algae (R).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V1.4	Mosaic of bedrock (50%) and coarse sediment (50%) with sediment comprising around 20% live maerl	Live <i>Phymatolithon calcareum</i> around 20% cover (C) in sediment patches. Rock supporting turf including red algae (A).	SS.SMp.Mrl.Pcal.Nmix, IR.HIR.KFaR.FoR	RF:BR, SB:MB	MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V1.5	Maerl gravel (45%), live maerl (20%), shell gravel (20%), coarse sand (10%), shells (5%). Small patches of outcropping bedrock (<1%)	Live <i>Phymatolithon calcareum</i> around 20% cover, locally 30% (C). <i>Antedon</i> sp. (R), foliose red algae (R).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V1.6	Mosaic of bedrock (50%) and coarse sediment (50%) with sediment comprising around 20% live maerl	Live <i>Phymatolithon calcareum</i> around 20% cover (C) in sediment patches. Rock supporting turf including filamentous/filiform red algae (C - A), foliose red algae (P), <i>Dictyota dichotoma</i> (P) and small <i>Saccharina latissima</i> (O). Rock encrusted with <i>Balanus</i> spp. (P), pink coralline (P) and brown (P) algae.	SS.SMp.Mrl.Pcal.Nmix, IR.HIR.KFaR.FoR	RF:BR, SB:MB	MB
V1.7	Megaripples of coarse gravelly sediment (75%) with shells (5%) and live maerl (20%)	Live <i>Phymatolithon calcareum</i> around 20% cover, locally 30% (C).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V1.8	Mosaic of sand-scoured bedrock (80%) and coarse sediment (20%) with sediment comprising maerl gravel (45%), live maerl (20%), shell gravel (20%), coarse sand (10%) and shells (5%).	Live <i>Phymatolithon calcareum</i> around 20% cover (C) in sediment patches. Rock supporting turf including red algae (A) with <i>Saccharina latissima</i> (F) and <i>Laminaria hyperborea</i> (O). <i>Cliona celata</i> (R), <i>Nemertesia ramosa</i> (P), <i>Urticina</i> sp. (P), <i>Marthasterias glacialis</i> (P).	SS.SMp.Mrl.Pcal.Nmix, IR.HIR.KSed.XKScrR	RF:BR, SB:MB	MB
V10.1	Heavily sand-dusted bedrock with patches of coarse sediment (2%) partly in megaripples; boulders (<1%)	Rock with faunal/algal turf (probably A - S), <i>Cliona celata</i> (R), <i>Marthasterias glacialis</i> (P), <i>Luidia ciliaris</i> (F), and <i>Echinus esculentus</i> (O).	CR.HCR.XFa.FluCoAs	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V10.2	Megaripples of coarse sand (18%), shell gravel (55%) and maerl gravel (25%), with live maerl (<1%) and shells (2%) including <i>Ensis</i>	Scattered thalli of <i>Phymatolithon calcareum</i> (<1%) and filamentous red algae (R). <i>Pecten maximus</i> (P), <i>Ophiura</i> sp. (P).	SS.SCS.CCS	SB:GS	
V10.3	Fine-medium sand (83%) with scattered gravel (15%) and shells (2%)	<i>Cerithus lloydii</i> (F), <i>Lanice conchilega</i> (P), <i>Antedon</i> sp.? (R), diatom film (F), <i>Phymatolithon calcareum</i> (<1%, R), pink encrusting coralline algae (R).	SS.SSa.CFiSa	SB:GS	
V11.1	Slightly silty fine sand (89%) with scattered gravel (10%, locally much denser) and shells (1%) including <i>Ensis</i>	<i>Cerithus lloydii</i> (P), diatom film (C - A), <i>Urticina</i> sp. (P), serpulid worms (R), Paguridae sp. (R), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (P), <i>Phymatolithon calcareum</i> (<1%, R), pink encrusting coralline algae (R), small burrow and many small mounds.	SS.SSa.IMuSa	SB:MS	
V11.2	Megaripples of coarse sediment	No biota discernible.	SS.SCS.CCS	SB:GS	
V12.1	Megaripples of coarse sand (53%), shell gravel (25%) and maerl gravel (15%), with live maerl (5%) and shells (2%) including <i>Ensis concentrated in troughs</i>	Live <i>Phymatolithon calcareum</i> around 5% cover (O). Pink (R) and red (R) encrusting algae. Much kelp debris.	SS.SCS.CCS	SB:GS	
V12.2	Heavily sediment dusted bedrock	Dense turf (A - S) including at least red algae and hydroids. Sparse kelp possibly attached. Pink encrusting coralline algae (O).	IR.HIR.KSed.XKScrR	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V12.3	Coarse sand (15%), shell gravel (37%) and maerl gravel (30%), with live maerl (15%) and shells (3%)	Live <i>Phymatolithon calcareum</i> around 15% cover (F).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V12.4	Mosaic of sand-dusted bedrock (60%) and coarse sediment (40%)	Dense turf (A - S) including at least red algae and <i>Flustra foliacea</i> (P). Sparse <i>Saccharina latissima</i> possibly attached	IR.HIR.KSed.XKScrR, SS.SCS.CCS	RF:BR, SB:GS	
V12.5	Heavily sediment dusted bedrock with small sand patches (2%)	Rock supporting mixed kelp park of <i>Laminaria hyperborea</i> (F) and <i>Saccharina latissima</i> (F) with turf (S) including filamentous/filiform red algae (A - S) and foliose red algae (P). <i>Urticina</i> sp. (P), shoal of small teleosts.	IR.HIR.KSed.XKScrR	RF:BR	
V12.6	Megaripples of coarse sand (10%), shell gravel (35%) and maerl gravel (35%), with live maerl (15%) and shells (5%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> around 15% cover (F). <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (P), pink (R) and red (R) encrusting algae.	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V13.1	Megaripples of maerl gravel (50%), live maerl (10%), shell gravel (35%), shells (5%)	Live <i>Phymatolithon calcareum</i> around 10% cover, locally 15% (F), concentrated in troughs.	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V13.2	Bedrock (50%) heavily sediment dusted and with patches of coarse sediment (50%) of which around half (45%) is maerl gravel and half shell gravel (45%) with around 10% live maerl	Rock supports turf including red algae (C) and hydroids (P) including <i>Nemertesia ramosa</i> and <i>N. antennina</i> ? <i>Crossaster papposus</i> (P), <i>Ophiura albida</i> (P). Gravel patches with <i>Phymatolithon calcareum</i> (c.10%, F).	SS.SMp.Mrl.Pcal.Nmix, IR.HIR.KFaR.FoR	RF:BR, SB:MB	MB
V13.3	Maerl gravel (70%), live maerl (10%), shell gravel (15%), shells (5%)	Live <i>Phymatolithon calcareum</i> around 15% cover (F). Scattered algal clumps (O), shells encrusted with pink coralline algae (R).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V14.1	Megaripples of maerl gravel (70%), shell gravel (10%), shells (5%) and live maerl (15%)	Live <i>Phymatolithon calcareum</i> around 15% cover (F), concentrated in troughs. Foliose red algae (R)	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V14.2	Sand-scoured bedrock with small patches of coarse sand/gravel (2%)	Park of small <i>Saccharina latissima</i> (F) and <i>Laminaria hyperborea</i> (O) with turf of foliose and filamentous/filiform red algae (A), <i>Dictyota dichotoma</i> (P) and hydroids/bryozoans (C). Rock encrusted with <i>Balanus</i> spp. (P). <i>Henricia</i> sp.? (P), shoal of small teleosts. Coarse sediment patches with <i>Phymatolithon calcareum</i> (c.15%, F).	IR.HIR.KSed.XKScrR, SS.SMp.Mrl.Pcal.Nmix	RF:BR, SB:MB	MB
V14.3	Megaripples of maerl gravel (65%), shell gravel (15%), shells (5%) and live maerl (15%)	Live <i>Phymatolithon calcareum</i> around 15% cover (F), concentrated in troughs. Foliose red algae (R)	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V15.1	Sand-scoured bedrock	Park of <i>Laminaria hyperborea</i> (C) with algal and/or faunal turf. <i>Echinus esculentus</i> (F).	IR.HIR.KSed.XKScrR	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V15.2	Coarse sand (88%) with gravel (5%), scattered shells (5%) including <i>Ensis</i> , and live maerl (2%)	Scattered live thalli of <i>Phymatolithon calcareum</i> (c.2%, R). <i>Pecten maximus</i> (P).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V15.3	Sand-scoured bedrock	Forest and park of <i>Laminaria hyperborea</i> (A, locally F) with red algal turf (A) of foliose and filamentous/filiform species, and <i>Dictyota dichotoma</i> (P); <i>Saccharina latissima</i> (O). Kelp fronds with dense <i>Obelia geniculata</i> (P). Hydroids (P) including <i>Nemertesia ramosa</i> , <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus?</i> (R), <i>Echinus esculentus</i> (O), shoal of small teleosts, pink encrusting coralline algae (R).	IR.HIR.KSed.XKScrR	RF:BR	
V16.1	Low amplitude megaripples of maerl gravel and coarse sand with live maerl around 5% and shells (1%)	Overall live <i>Phymatolithon calcareum</i> around 5% cover (O), although possibly attaining 10% (F) locally.	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V16.2	Heavily sand-dusted, low lying bedrock (95%) with pockets of coarse sand (5%)	Rock with turf of filamentous/filiform red algae (C) and occasional hydroids including <i>Nemertesia ramosa</i> . Sand pockets with sparse <i>Phymatolithon calcareum</i> (<1%, R). Kelp debris.	IR.HIR.KSed	RF:BR	
V16.3	Coarse sand and/or gravel	Sparsely scattered thalli of <i>Phymatolithon calcareum</i> (possibly c.5%, O)	SS.SCS.CCS	SB:GS	
V16.4	Sand-scoured bedrock with small sand patches (<1%)	Sparse park of <i>Laminaria hyperborea</i> (F or O) and <i>Saccharina latissima</i> (R) with understorey of filamentous/filiform red algae (A) and foliose reds (R) with <i>Dictyota dichotoma</i> (P), <i>Cliona celata</i> (R), <i>Nemertesia ramosa</i> (P), <i>Cancer pagurus</i> (P), <i>Antedon</i> spp. (P), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (P), <i>Ophiura albida</i> (P) and <i>Echinus esculentus</i> (P). <i>Phymatolithon calcareum</i> (<1%, R).	IR.HIR.KSed.XKScrR	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V16.5	Megaripples of gravel (35%) and coarse sand (50%) with shells (5%) and live maerl (10%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> around 10% cover (F).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V16.6	Sand-scoured bedrock	Park of <i>Laminaria hyperborea</i> (F) with understorey of filamentous/filiform red algae (S) and foliose reds (O). <i>Cliona celata</i> (R), hydroids (F) including <i>Nemertesia ramosa</i> (P), <i>Munida rugosa?</i> (P), <i>Antedon</i> spp. (P).	IR.HIR.KSed.XKScrR	RF:BR	
V16.7	Megaripples of gravel and coarse sand with shells (5%) and live maerl (10%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> around 10% cover (F).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V17.1	Sand-dusted, low lying bedrock	Rock supports park of small <i>Laminaria hyperborea</i> (F) with extensive algal/faunal turf (S) and <i>Antedon</i> spp. (P), <i>Asterias rubens</i> (P).	IR.HIR.KSed.XKScrR	RF:BR	
V17.2	Megaripples of gravel (80%) and sand (10%) with dead (3%) and live (2%) maerl and shells (5%)	Sparse live thalli of <i>Phymatolithon calcareum</i> (possibly 5% - O).	SS.SCS.CCS	SB:GS	
V17.3	Heavily sand-dusted, low lying bedrock (95%) with pockets of sand (5%)	Rock supports park of small <i>Laminaria hyperborea</i> (F) with extensive algal/faunal turf (S) probably mostly of red algae but including <i>Nemertesia ramosa</i> (P) and <i>Flustra foliacea</i> (O). <i>Cliona celata</i> (R), <i>Aplysia punctata</i> (P), <i>Antedon</i> spp. (A locally), <i>Luidia ciliaris</i> (F). Sediment patches with sparse <i>Phymatolithon calcareum</i> (<1%, R).	IR.HIR.KSed.XKScrR	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V17.4	Fine sand with sparsely scattered shells (<1%) including <i>Ensis</i>	Extensive diatomaceous fim (A) revealing many animal tracks and traces including probably those of echiuroid proboscises. Also polychaete casts, emergent infaunal tubes and many small mounds. <i>Cancer pagurus</i> (P), <i>Pecten maximus</i> (O), <i>Phymatolithon calcareum</i> thalli (<1%, R).	SS.SSa.IMuSa	SB:MS	
V18	Sand-scoured bedrock	Rock supporting dense mixed park of <i>Laminaria hyperborea</i> (C) supporting <i>Obelia geniculata</i> , and <i>Saccharina latissima</i> (F) with understorey of abundant bryozoan/hydroid/algal turf including <i>Flustra foliacea</i> (P), foliose red algae (F) and <i>Dictyota dichotoma</i> (F). <i>Cliona celata</i> (R), <i>Alcyonium digitatum</i> (R), <i>Necora puber</i> (P), <i>Gibbula cineraria</i> (P), <i>Antedon</i> spp. (locally A), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (C), <i>Clavelina lepadiformis</i> (P). Areas devoid of turf encrusted with pink coralline algae (R), brown algae (P) and <i>Balanus</i> spp. (P).	IR.HIR.KSed.XKScrR	RF:BR	
V19.1	Mixed coarse sediment of maerl gravel (40%), shell gravel (35%), shells (5%) and live maerl (20%)	Live <i>Phymatolithon calcareum</i> around 20% cover (C). <i>Saccharina latissima</i> (F), <i>Laminaria hyperborea</i> (O), although much of kelp may be drift material. Sparse tufts of red algae (R).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V19.2	Sand-scoured bedrock	Forest of <i>Laminaria hyperborea</i> (A) with red algal turf (A) of foliose and filamentous/filiform species including <i>Delesseria sanguinea</i> . Kelp fronds with dense <i>Obelia geniculata</i> (P). <i>Echinus esculentus</i> (P).	IR.HIR.KSed.XKScrR	RF:BR	
V2.1	Bedrock (100%) with small patches of coarse sediment (<1%) and boulders (<1%)	Rock with faunal/algal turf, <i>Cliona celata</i> (R), <i>Urticina</i> sp. (P), <i>Marthasterias glacialis</i> (P) and <i>Echinus esculentus</i> (O).	CR.HCR.XFa.FluCoAs	RF:BR	
V2.2	Megaripples of coarse sediment	No biota discernible	SS.SCS.CCS	SB:GS	
V2.3	Bedrock (100%) with small patches of coarse sediment (<1%)	Rock with faunal/algal turf, <i>Cliona celata</i> (R), <i>Luidia ciliaris</i> (O), <i>Saccharina latissima</i> (R), <i>Laminaria hyperborea</i> (R, possibly drift).	CR.HCR.XFa.FluCoAs	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V2.4	Medium sand (83%), coarse sand (10%), gravel (5%), shells (2%), cobbles (<1%)	Diatomaceous film (F), <i>Pecten maximus</i> (P).	SS.SSa.CFiSa	SB:GS	
V2.5	Megaripples of coarse sediment	No biota clearly discernible apart from encrusting pink coralline algae (P).	SS.SCS.CCS	SB:GS	
V2.6	Heavily sand-dusted bedrock with small patches of sand (<1%) and boulders (<1%)	Rock supporting turf including red algae (F - C, at least locally), <i>Dictyota dichotoma</i> (F locally), bryozoans including <i>Flustra foliacea</i> (O) and probably hydroids. Rock encrusted with pink coralline (P) and <i>Cliona celata</i> (R)	CR.HCR.XFa.FluCoAs	RF:BR	
V2.7	Megaripples of coarse sand (15%), shell gravel (60%) and maerl gravel (15%), with live maerl (5%) and shells (5%)	Live <i>Phymatolithon calcareum</i> around 5% cover (O).	SS.SCS.CCS	SB:GS	
V2.8	Heavily sand-dusted bedrock	Rock supporting turf (A - S) including foliose red algae (F), <i>Dictyota dichotoma</i> (P), bryozoans including <i>Flustra foliacea</i> (F) and hydroids. Rock encrusted with pink coralline (R) and with small Hexacorallia sp. (P), <i>Urticina</i> sp. (P), <i>Caryophyllia smithii</i> (C locally), <i>Favorinus blianus?</i> (P), nudibranch egg string (P), <i>Ophiura albida</i> (P), Ophiuroidea sp. (P).	CR.HCR.XFa.FluCoAs	RF:BR	
V20.1	Heavily sediment-dusted bedrock with small coarse sediment patches (1%)	Forest of <i>Laminaria hyperborea</i> (A) with <i>Obelia geniculata</i> , and <i>Saccharina latissima</i> (P), with dense turf understorey including at least foliose red algae (P). <i>Cliona celata</i> (R), clumps of <i>Antedon</i> spp. (locally A), shoals of small teleosts.	IR.HIR.KSed.XKScrR	RF:BR	
V20.2	Megaripples of shell gravel (20%) and maerl gravel (65%), with live maerl (10%) and shells (5%) including <i>Ensis</i>	Live <i>Phymatolithon calcareum</i> around 10% cover at least locally (F). Pink (R) and red (R) encrusting algae on shells	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V21.1	Sediment-dusted bedrock	For most of run forest of <i>Laminaria hyperborea</i> (A) with <i>Obelia geniculata</i> , and <i>Saccharina latissima</i> (P), thinning down to park. Dense algal/faunal turf understorey (S). <i>Cliona celata</i> (R), <i>Marthasterias glacialis?</i> (P), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (O), <i>Echinus esculentus</i> (O), small teleosts (P).	SS.SCS.CCS	SB:GS	
V21.2	Megaripples of coarse sand (53%), shell gravel (20%) and maerl gravel (10%), with live maerl (2%), pebbles (5%), cobbles (<1%) and shells (10%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> around 2% (R). <i>Cancer pagurus</i> (P). Foliose red algae (R) and pink (R) brown (R) and red (R) encrusting algae on shells and pebbles, together with sparse serpulid worms (O).	SS.SCS.CCS	SB:GS	
V21.3	Heavily sediment-dusted bedrock	Park of <i>Laminaria hyperborea</i> (F). <i>Cancer pagurus</i> (P).	IR.HIR.KSed.XKScrR	RF:BR	
V22.1	Megaripples of coarse sand (10%), shell gravel (40%) and maerl gravel (40%), with live maerl (5%) and shells (5%) including <i>Ensis</i> concentrated in troughs	Live <i>Phymatolithon calcareum</i> around 5% cover (O). <i>Antedon</i> sp. (R), <i>Henricia</i> sp. (P), pink encrusting algae (R).	SS.SCS.CCS	SB:GS	
V22.2	Sand-scoured bedrock	Rock with faunal/algal turf (P) and encrusting pink coralline algae (O). <i>Cliona celata</i> (R), <i>Urticina</i> sp. (P), clumps of <i>Antedon</i> spp. (A locally), <i>Asterias rubens?</i> (P)	CR.HCR.XFa.FluCoAs	RF:BR	
V22.3	Coarse sand (40%), shell gravel (50%) and maerl gravel (8%), and shells (2%) including <i>Ensis</i>	Live <i>Phymatolithon calcareum</i> <1% cover (R). <i>Cerianthus lloydii</i> (locally F), <i>Luidia ciliaris</i> (P)	SS.SCS.CCS	SB:GS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V22.4	Sand-scoured bedrock	Rock with turf (A) including at least hydroids including <i>Nemertesia ramosa</i> and bryozoans including <i>Flustra foliacea</i> . <i>Cliona celata</i> (R), clumps of <i>Antedon</i> spp. (A locally), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (P), shoal of small teleosts.	CR.HCR.XFa.FluCoAs	RF:BR	
V22.5	Megaripples of shell gravel (60%) and maerl gravel (36%), with live maerl (2%) and shells (2%) including <i>Ensis</i>	Live <i>Phymatolithon calcareum</i> around 2% cover (R). <i>Luidia ciliaris</i> (P), shoal of small teleosts, pink (R) and red (R) encrusting algae.	SS.SCS.CCS	SB:GS	
V23	Faintly rippled fine sand with scattered shells (2%) including many <i>Ensis</i>	Much algal debris. Sparse <i>Arenicola marina</i> (P), <i>Brachyura</i> sp. (P), <i>Ensis</i> sp.? depressions (P). Small tufts of filamentous red algae (R), as well as <i>Ulva lactuca</i> ? (R, possibly drift) and <i>Saccharina latissima</i> (O, possibly drift).	SS.SSa.IMuSa	SB:MS	
V24.1	Fine-medium sand (98%) with scattered shell gravel (2%) and shells (<1%) including <i>Ensis</i>	Sediment with brown diatomaceous film (C), <i>Luidia ciliaris</i> (O), foliose red algae (R).	SS.SSa.IMuSa	SB:MS	
V24.2	Sand-scoured bedrock	Rock supporting park of <i>Laminaria hyperborea</i> (C) and <i>Saccharina latissima</i> (O), with turf (S) including at least foliose red algae (P). <i>Cliona celata</i> (R), <i>Alcyonium digitatum</i> (R), <i>Marthasterias glacialis</i> (O), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (O), shoal of small teleosts.	IR.HIR.KSed.XKScrR	RF:BR	
V24.3	Fine-medium sand (98%) with scattered shell gravel (2%) and shells (<1%) including <i>Ensis</i>	Sediment with brown diatomaceous film (C).	SS.SSa.IMuSa	SB:MS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V25.1	Megaripples of coarse sand (30%), shell gravel (30%) and maerl gravel (30%), with live maerl (5%) and shells (5%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> around 5% cover (O). <i>Ophiura ophiura</i> (P).	SS.SCS.CCS	SB:GS	
V25.2	Sand-scoured bedrock with small coarse sediment patches (1%)	Rock with dense turf (S) including bryozoans with <i>Flustra foliacea</i> (R) and probably hydroids. <i>Antedon</i> spp. (P).	CR.HCR.XFa.FluCoAs	RF:BR	
V25.3	Megaripples of coarse sand (32%), shell gravel (32%) and maerl gravel (30%), with live maerl (3%) and shells (3%)	Live <i>Phymatolithon calcareum</i> around 3% cover (R)	SS.SCS.CCS	SB:GS	
V25.4	Sand-scoured bedrock with coarse sediment patches (5%)	Rock with dense turf (A - S) including hydroids (A-S) and bryozoans including <i>Flustra foliacea</i> (F) and <i>Alcyonidium diaphanum</i> (C locally). <i>Cliona celata</i> (R), <i>Caryophyllia smithii</i> (P), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (O), pink encrusting coralline algae (R), <i>Phymatolithon calcareum</i> (<1%, R).	CR.HCR.XFa.FluCoAs, SS.SCS.CCS	RF:BR, SB:GS	
V25.5	Megaripples of coarse sand (10%), shell gravel (54%) and maerl gravel (30%), with live maerl (3%) and shells (3%)	Live <i>Phymatolithon calcareum</i> around 3% cover (R)	SS.SCS.CCS	SB:GS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V26.1	Boundary of sediment-dusted bedrock and megaripples of coarse sediment	Camera tracks along boundary of bedrock with <i>Laminaria hyperborea</i> forest (A) and coarse sediment megaripples with apparently low cover of <i>Phymatolithon calcareum</i> (but possibly reaching 10% locally, - F, judging by subsequent run segment with better visibility) in troughs. <i>Henricia</i> sp. (P).	SS.SMp.Mrl.Pcal.Nmix, IR.HIR.KSed.XKScrR	RF:BR, SB:MB	MB
V26.2	Megaripples of shell gravel (62%) and maerl gravel (20%), with live maerl (10%) and shells (8%)	Live <i>Phymatolithon calcareum</i> possibly reaching 10% cover at least locally (F). <i>Marthasterias glacialis</i> (O), <i>Henricia</i> sp. (P). Camera briefly skirts <i>Laminaria hyperborea</i> forest on bedrock at end of run.	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V27	Mud	Mud with mounds (c.10 cm in diameter) and is fairly lightly burrowed by megafauna apart from <i>Nephrops norvegicus</i> (C); <i>Calocaris macandreae</i> ? (P). <i>Suberites</i> sp. (P), <i>Pennatula phosphorea</i> (R), <i>Sagartiogeton laceratus</i> ? (P), worm casts (P), burrowed Ophiuroidea sp. (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
V28.1	Mud	Sediment with diatomaceous film (C), many mounds (c.10 cm in diameter) and moderate development of megafaunal burrows including <i>Nephrops norvegicus</i> (C), although some entrances occupied by <i>Munida rugosa</i> (O). <i>Sagartiogeton laceratus</i> (F), <i>Porella compressa</i> (R)	SS.SMu.CFiMu.SpnMeg		BM:SB
V28.2	Silted bedrock	Rock apparently with a turf of hydroids (C) and sparse foliose red algae (R). <i>Pentapora foliacea</i> ? (P), <i>Asterias rubens</i> (P).	CR.HCR.XFa	RF:BR	
V28.3	Mud	Sediment with diatomaceous film (C), many mounds (c.10 cm in diameter) and moderate development of megafaunal burrows including <i>Nephrops norvegicus</i> (C). Hydroid clumps (P), <i>Sagartiogeton laceratus</i> (F).	SS.SMu.CFiMu.SpnMeg		BM:SB
V28.4	Sediment-dusted bedrock and boulders	Poor visibility but rock probably with hydroid turf, <i>Porella compressa</i> ? (P) and possibly sparse <i>Axinella infundibuliformis</i> (R).	CR.HCR.XFa	RF:BR, RF:ST	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V28.5	Sandy mud with scattered gravel (10%) and shells (2%) including <i>Ensis</i>	Sparse small burrows including possibly those of small <i>Nephrops norvegicus</i> . <i>Suberites</i> sp. (P), <i>Cerianthus lloydii</i> (P), <i>Sagartiogeton laceratus</i> (F), <i>Chaetopterus variopedatus?</i> (P), <i>Munida rugosa</i> (O), <i>Porella compressa</i> (P), <i>Asterias rubens</i> (P).	SS.SMu.CSaMu		
V28.6	Silted bedrock	Poor visibility but rock apparently with hydroid/bryozoan turf (A) including <i>Flustra foliacea</i> (O).	CR.HCR.XFa	RF:BR	
V29.1	Slope of silted boulders on silted bedrock or muddy sediment	Rock supports patchy turf of hydroids (C) including <i>Tubularia indivisa?</i> (locally A) and <i>Lytocarpia coriacea</i> (P), <i>Axinella infundibuliformis</i> (F, locally C), <i>Cliona celata</i> (R), <i>Clathrina coriacea?</i> (P), <i>Swiftia pallida</i> (F, locally C), <i>Caryophyllia smithii?</i> (P), <i>Porella compressa</i> (F, locally C) and ascidians including <i>Ascidia mentula</i> (P), Polyclinidae sp. (R) and <i>Diazona violacea</i> (F). <i>Cancer pagurus</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Stichastrella rosea?</i> (O), <i>Porania pulvillus</i> (O), <i>Agonus cataphractus?</i> (P).	CR.HCR.XFa.SwiLgAs	RF:ST	NS:MT, NS:SP
V29.2	Scattered cobbles (5%) and boulders (1%) on muddy sediment	Stones support hydroid patches (P), <i>Axinella infundibuliformis</i> (R) and <i>Swiftia pallida</i> (R). <i>Cerianthus lloydii?</i> (P), <i>Munida</i> sp. (O), <i>Pecten maximus?</i> (P), <i>Luidia ciliaris</i> (P), <i>Porania pulvillus</i> (P). Possible <i>Pachycerianthus multiplicatus</i> at 00:07:35 on HD video but poor visibility.	CR.HCR.XFa.SwiLgAs, SS.SMu		NS:MT, NS:SP, BM:PM?
V29.3	Shelly, sandy mud or muddy sand with scattered gravel (5%)	<i>Ophiura ophiura</i> (O)	SS.SMu		
V30	Mixed substrate of fine-medium sand (30%), shell and stone gravel (60%), maerl gravel (2%), pebbles (7%), cobbles (1%), boulders (<1%). Proportions highly variable	Stones supporting hydroids (O) including <i>Nemertesia ramosa</i> (R) and serpulid worms (R). Hexacorallia spp. (R), <i>Munida</i> sp. (R), <i>Porania pulvillus?</i> (R), <i>Trisopterus</i> sp. (P).	SS.SMx.CMx	SB:MX	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V31	Mud with sparsely scattered boulders (<1%)	Mud densely burrowed by <i>Calocaris macandreae</i> (C) with <i>Nephrops norvegicus</i> burrows also present. <i>Virgularia mirabilis</i> (O), <i>Sagartiogeton</i> sp.? (O), <i>Bolocera tuediae</i> ? (R), burrowing Hexacorallia sp. (R), <i>Cerianthus lloydii</i> (R), <i>Sabella pavonina</i> (O), Caridea sp. (P), <i>Munida</i> sp. (R), <i>Luidia ciliaris</i> (P), <i>Ophiura ophiura</i> (O), <i>Trisopterus</i> sp. (P). Stones with hydroids (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
V32	Mud with scattered, silted boulders (1%), cobbles (<1%) and gravel (<1%)	Mud moderately well burrowed by megafauna locally including <i>Calocaris macandreae</i> ? (locally F) and <i>Nephrops norvegicus</i> (P, 2 small animals possibly seen) and with smaller burrows/holes. <i>Virgularia mirabilis</i> (O), <i>Sagartiogeton</i> sp.? (F), <i>Cerianthus lloydii</i> (R), Sabellidae sp.? (R), Caridea sp. (P), Paguridae sp. (R), <i>Amphiura</i> spp. (locally A), <i>Ophiura ophiura</i> (O), <i>Trisopterus</i> sp. (P), Pleuronectiformes sp. (P). Boulders with hydroid turf, white globular sponge (F on rock), <i>Bolocera tuediae</i> (R), <i>Munida</i> sp.(O), <i>Antedon</i> spp. (R), <i>Asterias rubens</i> ? (P).	SS.SMu.CFiMu.SpnMeg, CR.LCR		BM:SB
V33	Mud	Well burrowed mud by <i>Calocaris macandreae</i> ? (C) and <i>Nephrops norvegicus</i> (C, 3 animals seen). <i>Virgularia mirabilis</i> (O), <i>Sagartiogeton</i> sp.? (R), <i>Ophiura ophiura</i> (O), teleost sp. (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
V34	Cohesive muddy sand or sandy mud	<i>Nephrops norvegicus</i> burrows (C, 2 animals seen) but otherwise megafaunal burrowing community poorly developed, although many small burrows/holes. Cream cushion sponge? (R), <i>Sagartiogeton</i> sp.? (F), burrowing Hexacorallia sp. (P), Paguridae spp. (F), <i>Amphiura</i> spp. (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
V5.1	Megaripples of coarse sand (10%) with shell gravel (42%) and maerl gravel (42%), with live maerl (3%) and shells (2%) concentrated in troughs. Small bedrock outcrops (1%)	Live <i>Phymatolithon calcareum</i> around 3% cover (R). <i>Antedon</i> sp. (R), <i>Marthasterias glacialis</i> (P), <i>Luidia ciliaris</i> (P), foliose red algae (R).	SS.SCS.CCS	SB:GS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V5.2	Mosaic of bedrock (50%) and shell gravel (49%) and live maerl (1%), with sediment probably superficial locally	Live <i>Phymatolithon calcareum</i> around 1% cover (R). Rock supporting turf including red algae (A), small <i>Saccharina latissima</i> (R) and hydroids including <i>Nemertesia ramosa</i> (F). <i>Cliona celata</i> (R), <i>Luidia ciliaris</i> (P)	IR.HIR.KFaR.FoR, SS.SCS.CCS	RF:BR, SB:GS	
V5.3	Shell gravel (85%), maerl gravel (10%), live maerl (5%)	Live <i>Phymatolithon calcareum</i> around 5% cover (O). <i>Luidia ciliaris</i> (P).	SS.SCS.CCS	SB:GS	
V5.4	Sand-scoured bedrock (99%) with sand pockets (1%)	Rock supporting sparse, small kelp (R) and turf (S) including red algae (C - A), <i>Dictyota dichotoma</i> (P), hydroids including <i>Nemertesia ramosa</i> (F) and bryozoans including <i>Flustra foliacea</i> (R). <i>Cliona celata</i> (R), <i>Stelligera stuposa?</i> (P), <i>Alcyonium digitatum</i> (R), <i>Urticina</i> sp. (P), <i>Caryophyllia smithii</i> (locally C), <i>Munida rugosa</i> (P), <i>Antedon</i> spp. (locally C), <i>Luidia ciliaris</i> (O), <i>Henricia</i> sp. (P), shoal of small teleosts, pink encrusting algae (R).	IR.HIR.KFaR.FoR	RF:BR	
V5.5	Megaripples of shell gravel (53%) and maerl gravel (40%), with live maerl (5%) and shells (2%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> around 5% cover (O), foliose red algae (R)	SS.SCS.CCS	SB:GS	
V6.1	Megaripples of coarse sand, medium sand, shells (2%), maerl and shell gravel and live maerl (10%) concentrated in troughs; occasional boulders (<1%)	Live <i>Phymatolithon calcareum</i> around 10% cover (F), locally denser. Hydroids (R), <i>Urticina</i> sp. (P), <i>Pecten maximus</i> (P), shoal of small teleosts.	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V6.2	Sand-scoured bedrock	Rock supports dense turf (S) including red algae (P), hydroids (P) including <i>Nemertesia ramosa</i> , and bryozoans including <i>Flustra foliacea</i> (O).	CR.HCR.XFa.FluCoAs	RF:BR	
V6.3	Megaripples of maerl gravel (67%), live maerl (15%), shell gravel (15%), shells (3%) including <i>Ensis</i>	Live <i>Phymatolithon calcareum</i> around 15% cover (F). Bivalve siphon (P).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V6.4	Sand-scoured bedrock	Rock supports dense turf (S) including red algae (P), and bryozoans including <i>Flustra foliacea</i> (O) and <i>Pentapora foliacea</i> (R).	CR.HCR.XFa.FluCoAs	RF:BR	
V6.5	Megaripples of coarse sediment with live maerl (10%) and shells (5%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> around 10% cover (F). <i>Pecten maximus</i> (P).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
V6.6	Mosaic of bedrock (65%), partly sediment coated, and coarse sediment patches with live maerl 10% in patches	Rock covered with turf (S) including at least red algae and bryozoans including <i>Flustra foliacea</i> (O). Sediment with <i>Phymatolithon calcareum</i> (around 10%, F). <i>Munida rugosa</i> (P).	SS.SMp.Mrl.Pcal.Nmix, CR.HCR.XFa.FluCoAs	RF:BR, SB:MB	MB
V6.7	Megaripples of coarse sand (58%) with shell gravel (15%) and maerl gravel (15%), with live maerl (10%) and shells (2%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> around 10% cover (F). <i>Pecten maximus</i> ? (P).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V7.1	Mosaic of sand-scoured bedrock (50%) and patches of coarse sediment (50%) comprising shell gravel (65%), coarse sand (30%) and shells (5%)	Rock covered with turf including at least hydroids and apparently abundant algae with at least foliose reds and browns, but detail of the turf cannot be clearly discerned. <i>Cliona celata</i> (R), <i>Antedon</i> spp. (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (O), shoal of small teleosts, small <i>Laminaria hyperborea</i> (O). Sediment with burrowing anemone (P) and scattered thalli of <i>Phymatolithon calcareum</i> (<1%, R).	IR.HIR.KFaR.FoR, SS.SCS.CCS	RF:BR, SB:GS	
V7.2	Mosaic of sand-scoured bedrock (50%) and patches of fine sand (48%) with scattered cobbles (<1%) and shells (2%)	Rock covered with turf including apparently abundant algae with at least foliose reds and browns, but detail of the turf cannot be clearly discerned. <i>Cliona celata</i> (R), <i>Antedon</i> spp. (locally A), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (O), <i>Saccharina latissima</i> (R). Sediment with <i>Pecten maximus</i> (R), <i>Ophiura</i> sp. (P).	IR.HIR.KFaR.FoR, SS.SSa.CFiSa	RF:BR, SB:GS	
V8.1	Sand-scoured bedrock with small sand pockets (1%)	Turf of foliose red algae (F), <i>Dictyota dichotoma</i> (F - C), hydroids including <i>Nemertesia ramosa</i> (F) and bryozoans including <i>Flustra foliacea</i> (P) and <i>Alcyonidium diaphanum</i> (P). <i>Cliona celata</i> (R), <i>Caryophyllia smithii</i> (P), <i>Antedon</i> spp. (locally C), <i>Luidia ciliaris</i> (P), <i>Ophiura</i> sp. (P), <i>Ophiuroidea</i> sp. (C locally), pink encrusting coralline algae (R), Small <i>Saccharina latissima</i> (R).	IR.HIR.KFaR.FoR.Dic	RF:BR	
V8.2	Megaripples of dead maerl (40%), live maerl (5%), shell gravel (25%), coarse sand (25%), shells (5%)	Live <i>Phymatolithon calcareum</i> around 5% cover (O), possibly more locally. <i>Henricia</i> sp. (P).	SS.SCS.CCS	SB:GS	
V8.3	Sand-scoured bedrock with small sand pockets (1%)	Turf of foliose red algae (F), <i>Dictyota dichotoma</i> (F - C), hydroids including <i>Nemertesia ramosa</i> (P) and bryozoans including <i>Alcyonidium diaphanum</i> (P). <i>Cliona celata</i> (R), <i>Balanus</i> spp. (P), <i>Antedon</i> spp. (P), <i>Asterias rubens</i> (P), <i>Botryllus schlosseri</i> ? (R), shoal of small teleosts.	IR.HIR.KFaR.FoR.Dic	RF:BR	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
V8.4	Megaripples of dead maerl (33%), live maerl (5%), shell gravel (60%), shells (2%)	Live <i>Phymatolithon calcareum</i> around 5% cover (O). <i>Antedon</i> spp. (F).	SS.SCS.CCS	SB:GS	
V9	Megaripples of shell gravel (35%) and maerl gravel (55%), with live maerl (8%) and shells (2%); bedrock skirted (<1%)	Live <i>Phymatolithon calcareum</i> probably around 8% cover overall (O) but possibly 10% (F) locally. <i>Henricia</i> sp. (O).	SS.SMp.Mrl.Pcal.Nmix	SB:MB	MB
F10.1	Silty sandy gravel with scattered shells probably densely concentrated in small patches where occluded by faunal and floral turf	Probably sparse, patchy flame shell bed with turf and shells supporting hydroids (P) including <i>Nemertesia antennina</i> (P), and foliose red algae (F). <i>Limaria hians</i> turf possibly around 10 - 20% cover overall. Turf and mixed substrate supports <i>Alcyonium digitatum</i> (R) and dense <i>Ophiocomina nigra</i> (S), with <i>Ophiothrix fragilis</i> (locally S). <i>Cerianthus lloydii</i> (A locally), <i>Chaetopterus variopedatus</i> (P), <i>Liocarcinus depurator</i> (P), <i>Aequipecten opercularis</i> (P). Boundary between this habitat and subsequent habitat along run uncertain.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
F10.2	Mixed, variable substrate of silty sand (55%), gravel (35%), pebbles (3%) and shells (7%)	Stones and shells encrusted with pink coralline algae (R) and support hydroids (O), <i>Alcyonium digitatum</i> (R), Polyplacophora sp. (P) and sparse foliose red algae (R), filamentous red algae (R) and filamentous brown algae (R). <i>Cerianthus lloydii</i> (A), <i>Asterias rubens</i> (P), <i>Ophiocomina nigra</i> (S), <i>Ophiothrix fragilis</i> (P), <i>Ophiura albida?</i> (P), <i>Echinus esculentus</i> (P), Holothuroidea spp. (P) including <i>Thyone</i> sp.?, <i>Scyliorhinus</i> sp. (P).	SS.SMx.CMx.OphMx		
F10.3	Mixed substrate of silty sand (40%), gravel (40%), pebbles (12%) and shells (8%) including <i>Modiolus</i>	Sediment supports dense <i>Cerianthus lloydii</i> (A), with stones encrusted with pink coralline algae (O). <i>Aequipecten opercularis?</i> (P), <i>Asterias rubens</i> (F).	SS.SMx.CMx.CIlOmx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
F11.1	Silty gravelly sand with scattered shells probably densely concentrated in patches where occluded by faunal turf	Probably patchy flame shell bed with turf and shells supporting hydroids (O) including <i>Nemertesia antennina</i> (P), and foliose (O) and filamentous/fine filiform red algae (C) and filamentous brown algae (P). <i>Limaria hians</i> turf possibly around 20 - 40% cover overall. Turf supports dense <i>Ophiocomina nigra</i> (S), with <i>Ophiura albida?</i> (P). <i>Cerianthus lloydii</i> (A locally), Paguridae spp. (P), <i>Buccinum undatum</i> (P), bivalve siphons (P), <i>Aequipecten opercularis</i> (O), <i>Marthasterias glacialis</i> (C), <i>Luidia cilairis</i> (F), <i>Echinus esculentus</i> (F). Pink encrusting coralline algae (R).	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
F11.2	Silty gravelly sand with scattered shells probably densely concentrated in patches where occluded by faunal turf	Probably patchy flame shell bed with turf and shells supporting hydroids (O) and foliose (O) and filamentous/fine filiform red algae (C) and filamentous brown algae (P). <i>Limaria hians</i> turf possibly around 20% cover overall. <i>Balanus balanus</i> (P), <i>Crossaster papposus</i> (P), <i>Marthasterias glacialis</i> (P), <i>Echinus esculentus</i> (F). Pink encrusting coralline algae (R).	SS.SMx.IMx.Lim		FS:LH
FD06	Mixed substrate of silty sand (20%) and gravel (20%) with pebbles (30%), cobbles (10%), boulders (10%) and shells (10%) including <i>Modiolus</i> ; cobbles and boulders initially denser	Stones encrusted with pink coralline algae (O, locally C) and supporting <i>Alcyonium digitatum</i> (R) and sparse red algae (O). Ophiuroid bed with <i>Ophiothrix fragilis</i> (A) and <i>Ophiocomina nigra</i> (S). <i>Cerianthus lloydii</i> (locally A), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (P).	SS.SMx.CMx.OphMx		
FD07	Mixed substrate of silty sand (43%) and gravel (30%) with pebbles (20%), cobbles (2%) and shells (5%)	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (C) including <i>Spirobranchus</i> spp., and <i>Balanus</i> spp. (P), and supporting sparse foliose red algae (O), hydroids (O) and <i>Metridium dianthus</i> (O). Ophiuroid bed, with <i>Ophiocomina nigra</i> (S, locally sparse). <i>Cerianthus lloydii</i> (P), <i>Carcinus maenas</i> (P), <i>Aequipecten opercularis?</i> (P), <i>Marthasterias glacialis</i> (F), <i>Echinus esculentus</i> (C), <i>Thyonidium drummondii?</i> (P), <i>Pholis gunnellus</i> (P).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FD08	Mixed substrate of silty sand (38%) and gravel (37%) with pebbles (20%), cobbles (<1%) and shells (5%)	Stones and shells encrusted with pink coralline algae (R), bryozoan sp. (R), <i>Balanus</i> spp. (O) and serpulid worms (O) including <i>Spirobranchus</i> spp. (P), and supporting sparse red algae (R), filamentous brown algae (O), <i>Asperococcus</i> sp. (R), filamentous green algae (R), <i>Saccharina latissima</i> (O, possibly drift) and hydroids (R). <i>Cerianthus lloydii</i> (P), <i>Aequipecten opercularis?</i> (P), <i>Marthasterias glacialis</i> (P), <i>Porania pulvillus</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
FD09	Mixed substrate of silty sand (20%) and gravel (50%) with pebbles (25%), cobbles (<1%) and shells (5%)	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (C) including <i>Spirobranchus</i> spp. (P), and supporting sparse foliose (O) and filamentous/filiform (O) red algae, filamentous brown algae (R), <i>Desmarestia</i> spp. (R) and <i>Saccharina latissima</i> (R), hydroids (O) and <i>Metridium dianthus</i> (P). <i>Cerianthus lloydii</i> (C, locally A), <i>Munida rugosa</i> (O), Paguridae sp. (P), <i>Liocarcinus depurator</i> (O), <i>Cancer pagurus</i> (P), <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (O), <i>Porania pulvillus</i> (O), <i>Echinus esculentus</i> (F), <i>Scyliorhinus canicula</i> (P).	SS.SMx.CMx		
FD1	Silty, gravelly (35%) sand (55%), with pebbles (5%), shells (3%) and cobbles (2%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (S) and possibly <i>Ophiura albida</i> (P). Hydroids (O) including <i>Halecium halecinum?</i> (P), <i>Cerianthus lloydii</i> (A), <i>Metridium dianthus</i> (O, locally A), <i>Alcyonium digitatum</i> (R, locally O), serpulid worms (R), <i>Cancer pagurus</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (P), <i>Marthasterias glacialis</i> (F), <i>Echinus esculentus</i> (F), filamentous/filiform red algae (O), foliose red algae (R), encrusting pink coralline algae (R).	SS.SMx.CMx.OphMx		
FD10	Muddy fine sand (88%) with scattered shells including <i>Modiolus modiolus</i> (12%)	Shells support sparse serpulid worms (O). Paguridae spp. (F), <i>Munida rugosa</i> (F), <i>Aequipecten opercularis</i> (P), Holothuroidea sp. (P), small teleost sp. (P), filamentous red algae (R), filamentous green algae (R).	SS.SSa.CMuSa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FD11	Muddy fine sand (81%) with pebbles (2%) and scattered shells including <i>Modiolus modiolus</i> (12%) and broken shell (5%)	Patchy ophiuroid bed with <i>Ophiocomina nigra</i> (A, locally S), <i>Ophiothrix fragilis</i> (A, locally S) and <i>Ophiura albida</i> (locally A). Shells support sparse hydroids (O), <i>Alcyonium digitatum</i> (R) and serpulid worms (O). Possible sparse clumps of <i>Modiolus modiolus</i> (R at most), <i>Pecten maximus</i> (P), <i>Aequipecten opercularis</i> (P), <i>Marthasterias glacialis</i> (P), <i>Porania pulvillus</i> (P), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (F), <i>Scyliorhinus</i> sp. (P), filamentous green algae (R), small kelp plant (R).	SS.SMx.CMx.OphMx		
FD13	Mixed and variable substrate of silty sand (60%), gravel (20%) and pebbles (20%)	Dense ophiuroid bed with <i>Ophiocomina nigra</i> (A), <i>Ophiothrix fragilis</i> (S) and <i>Ophiura albida</i> (P). Shells support sparse hydroids (O), <i>Alcyonium digitatum</i> (R) and serpulid worms (O). <i>Cerianthus lloydii</i> (P), <i>Urticina</i> spp. (P), <i>Aequipecten opercularis</i> (P), <i>Marthasterias glacialis</i> (P), <i>Echinus esculentus</i> (C), Holothuroidea spp. (F) including <i>Thyonidium drummondii</i> ? (P).	SS.SMx.CMx.OphMx		
FD14	Slightly silted cobbles (50%), boulders (5%) and pebbles (35%) on silty gravelly (5%) sand (10%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (P) and Anomiidae spp. (locally C) and supporting sparse hydroids (O) including <i>Rhizocaulus verticillatus</i> , and <i>Bolocera tuediae</i> (O). Caridea sp. (P), <i>Munida rugosa</i> (C), <i>Pagurus bernhardus</i> (P), <i>Aequipecten opercularis</i> (P), <i>Modiolus modiolus</i> (O), <i>Henricia</i> sp. (P), <i>Porania pulvillus</i> (P), Ophiuroidea spp. (R), <i>Echinus esculentus</i> (F). <i>Saccharina latissima</i> (drift material).	CR.LCR.BrAs		
FD15	Slightly shelly sandy mud	Sparse visible fauna. <i>Virgularia mirabilis</i> (O), <i>Munida rugosa</i> (F), <i>Arctica islandica</i> siphons (P, 1 seen), small teleost spp. (O).	SS.SMu.CSaMu		SM:CS, AI
FD16.1	Cobbles (45%) and boulders (5%) on mixed sediment of sand (15%), gravel (15%), pebbles (15%) and shells (5%)	Stones encrusted with serpulid worms (C) and supporting hydroid turf (A) including <i>Nemertesia ramosa</i> (C) and <i>Urticina</i> spp. (O). Ophiuroids (A) between cobbles, possibly chiefly <i>Ophiopholis aculeata</i> . <i>Munida rugosa</i> (C), <i>Aequipecten opercularis</i> (P), <i>Crossaster papposus</i> (P), <i>Asteriodea</i> sp. (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (C).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FD16.2	Cobbles (60%) and boulders (5%) on mixed sediment of sand (12%), gravel (11%), pebbles (10%) and shells (2%)	Stones encrusted with serpulid worms (C) and supporting hydroid turf (A) including <i>Nemertesia ramosa</i> (P). Ophiuroid bed strongly dominated by <i>Ophiothrix fragilis</i> (S). <i>Munida rugosa</i> (C), <i>Pagurus bernhardus</i> (P), <i>Antedon</i> spp. (P), <i>Marthasterias glacialis</i> (O), <i>Luidia ciliaris</i> (P), <i>Porania pulvillus</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
FD17.1	Mixed and variable substrate of silty sand (32%), gravel (32%), pebbles (26%) and shells (10%)	Sparse patches of ophiuroids including <i>Ophiocomina nigra</i> (F), <i>Ophiothrix fragilis</i> (F), <i>Ophiura albida</i> (P) and <i>Ophiopholis aculeata</i> (P). Stones encrusted with serpulid worms (R) and support, together with <i>Chaetopterus variopedatus</i> tubes (locally A), hydroid clumps (O). <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (O), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (O), Holothuroidea spp. (P), Gobiidae sp. (P). Euphausiacea sp./Mysidacea sp. in water column.	SS.SMx.CMx		
FD17.2	Mixed and variable substrate of silty sand (15%), gravel (60%), pebbles (20%) and shells (5%)	Ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (A), with <i>O. nigra</i> dominating initially. Hydroid clumps (O), <i>Urticina</i> sp. (P), <i>Chaetopterus variopedatus</i> (C locally), serpulid worms (R), <i>Munida rugosa</i> (F), <i>Pagurus bernhardus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (P).	SS.SMx.CMx.OphMx		
FD18	Mixed and variable substrate of silty sand (20%) and gravel (40%) with pebbles (30%) and cobbles (10% but locally denser)	Patchy ophiuroid bed with <i>Ophiocomina nigra</i> (S but absent locally), <i>Ophiothrix fragilis</i> (S but absent locally) and <i>Ophiura albida</i> (P). Hydroids (F) including <i>Rhizocaulus verticillatus</i> (P), <i>Metridium dianthus</i> (R), <i>Urticina</i> spp. (F), <i>Alcyonium digitatum</i> (R), serpulid worms (F), <i>Munida rugosa</i> (P), <i>Aequipecten opercularis</i> (F), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
FD19	Mixed and variable substrate of sand (30%) and gravel (30%) with pebbles (15%), shells (5%), cobbles (20%) and boulders (<1%)	Stones encrusted with serpulid worms (P) and pink coralline algae (R) and supporting hydroid clumps (F, locally C), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (R) and solitary ascidians (P). <i>Asterias rubens</i> (P), <i>Crossaster papposus</i> (F), <i>Marthasterias glacialis</i> (F), <i>Solaster endeca</i> (F), small patch of <i>Ophiocomina nigra</i> (locally S), <i>Echinus esculentus</i> (C), Holothuroidea spp. (F).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FD2	Mixed substrate of silty sand (46%) and gravel (46%) with pebbles (3%), shells (4%) and cobbles (1%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (S). Hydroids (O) including <i>Halecium halecinum?</i> (P), <i>Cerianthus lloydii</i> (P), <i>Alcyonium digitatum</i> (R), Paguridae sp. (P), <i>Cancer pagurus?</i> (P), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (F), <i>Scyliorhinus canicula</i> (P), filamentous/filiform red algae (F), encrusting pink coralline algae (R), <i>Desmarestia</i> spp. (R), <i>Ulva lactuca?</i> (R). Flame shell nests possibly present but no reasonable evidence, although much of seabed occluded by dense ophiuroids.	SS.SMx.CMx.OphMx		
FD20	Mixed substrate of silty sand (25%), gravel (25%), pebbles (43%), cobbles (2%) and shells including many <i>Modiolus</i> (5%)	Stones and shells encrusted with pink coralline algae (R), serpulid worms (C) including <i>Spirobranchus</i> spp. (C), and <i>Balanus</i> spp. (R), and supporting hydroids (F) including <i>Rhizocaulus verticillatus</i> (P), <i>Alcyonium digitatum</i> (R), Anthozoa sp. (P), sparse filamentous brown (R) and green (R) algae. Patchy ophiuroid bed, with <i>Ophiocomina nigra</i> (locally S), <i>Ophiothrix fragilis</i> (locally S) and <i>Ophiura albida</i> (locally A). <i>Munida rugosa</i> (P), Paguridae spp. (P), <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (O), Holothuroidea spp. (F) including <i>Thyonidium drummondii</i> (P), teleost sp. (P).	SS.SMx.CMx.OphMx, SS.SMx.CMx		
FD21	Silty sand (90%) with shell gravel (5%) and whole shells (5%)	Very patchy ophiuroid bed with <i>Ophiocomina nigra</i> (A), <i>Ophiothrix fragilis</i> (A locally) and <i>Ophiura albida</i> (P). Hydroids (O), serpulid worms (P), <i>Munida rugosa</i> (F), Paguridae sp. (P), <i>Modiolus modiolus</i> (apparently sparse - only two specimens seen), <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (O), Holothuroidea spp. (F) including <i>Psolus phantapus?</i> (P), <i>Scyliorhinus canicula</i> (P), <i>Callionymus</i> sp.? (P), <i>Saccharina latissima</i> (drift material).	SS.SMx.CMx.OphMx		
FD22	Mixed substrate of silty sand (14%) and gravel (14%) with pebbles (50%), cobbles (20%) and shells (2%)	Stones encrusted with serpulid worms (F) and supporting hydroid turf (C-A) including <i>Sertularia</i> sp.? (P) and <i>Urticina</i> spp. (O). Ophiuroid bed strongly dominated by <i>Ophiothrix fragilis</i> (S), with <i>Ophiocomina nigra</i> (P) and <i>Ophiopholis aculeata?</i> (P). <i>Munida rugosa</i> (C), <i>Hyas</i> sp. (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (F), <i>Thyonidium drummondii</i> (F).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FD23	Mixed, variable substrate of silty sand (30%), gravel (45%), pebbles (20%), cobbles (<1%) and shells (5%)	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (C) and supporting sparse filamentous brown algae (R). Ophiuroid bed, with <i>Ophiocomina nigra</i> (S). <i>Cerianthus lloydii</i> (P), <i>Marthasterias glacialis</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
FD3	Mosaic of bedrock outcrops with some vertical faces, boulders and cobbles (c. 60% rock in total) with patches of gravelly sand with scattered shells, especially <i>Ensis</i>	Poor video imagery and no stills. Rock encrusted with pink coralline algae (F) and supporting park of <i>Saccharina latissima</i> (F), with patchy red algal turf (C), <i>Desmarestia</i> spp. (R) and <i>Ulva lactuca?</i> (R). Other sessile forms include clumps of solitary ascidians (locally A), hydroids (P) and possibly crinoids (P). <i>Cancer pagurus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (C), <i>Scyliorhinus</i> sp. (P).	IR.LIR.K.Lsac.Pk, SS.SSa		
FD4	Mixed and variable substrate of sand (30%) and gravel (30%) with pebbles (15%), shells (5%), cobbles (20%) and boulders (<1%)	Stones encrusted with serpulid worms (P) and supporting hydroids (F) including <i>Rhizocaulus verticillatus</i> (P) and <i>Halecium halecinum?</i> (P), and filamentous/filiform red algae (R). <i>Chaetopterus variopedatus?</i> (P), <i>Pagurus bernhardus</i> (P), <i>Hyas araneus</i> (P), <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (P), <i>Crossaster papposus</i> (F), <i>Luidia ciliaris</i> (P), <i>Ophiocomina nigra</i> (S), <i>Ophiothrix fragilis</i> (locally S), <i>Echinus esculentus</i> (F), <i>Holothuroidea</i> spp. (P).	SS.SMx.CMx.OphMx		
FD5	Mixed and variable substrate of silty sand (33%), gravel (40%), pebbles (20%), cobbles (5%) and shells (2%)	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (A). Stones encrusted with pink coralline algae (R) and serpulid worms (O). Paguridae sp. (P), <i>Carcinus maenas</i> (P), <i>Crossaster papposus</i> (P), <i>Marthasterias glacialis</i> (C), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FT1	Basically a silty sand substrate (60%) but with varying amounts of gravel (30%), pebbles (5%) and shells (5%)	Scattered <i>Saccharina latissima</i> (F) supporting <i>Electra pilosa</i> , with patchy turf of filamentous/filiform red algae (C), foliose red algae (F), <i>Desmarestia</i> spp. (O), filamentous green algae (R) and <i>Ulva lactuca?</i> (R). <i>Cerianthus lloydii</i> (P), <i>Carcinus maenas</i> (P), <i>Liocarcinus depurator</i> (P), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (F), teleost spp. (O).	SS.SMp.KSwSS.LsacR. Sa		KS
FT12.1	Slightly silted cobbles (35%) and boulders (15%) scattered over substrate of silty sand (20%), gravel (15%) and pebbles (15%)	Stones encrusted with pink coralline algae (R), <i>Parasmittina trispinosa?</i> (R) and serpulid worms (F) including <i>Spirobranchus</i> spp. (P) and supporting clumps of hydroids (F) including <i>Kirchenpaueria pinnata?</i> (P), <i>Antedon</i> spp. (P) and Anomiidae sp. (P). Caridea sp. (P), <i>Munida rugosa</i> (F), <i>Aequipecten opercularis</i> (P), Ophiuroidea spp. (P), <i>Echinus esculentus</i> (C), Holothuroidea spp. (P).	CR.LCR.BrAs, SS.SMx.CMx		
FT12.2	Mixed substrate of silty sand (45%), gravel (40%), pebbles (5%), shells (5%) and cobbles (5%)	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (F) including <i>Spirobranchus</i> spp. (P) and supporting clumps of hydroids (O) including <i>Kirchenpaueria pinnata?</i> (P), and <i>Alcyonium digitatum</i> (R). <i>Cerianthus lloydii</i> (A), <i>Munida rugosa</i> (O), <i>Inachus</i> sp. (P), bivalve siphons (P), <i>Aequipecten opercularis</i> (O), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis?</i> (P), <i>Ophiocomina nigra</i> (locally A in small patch), <i>Echinus esculentus</i> (F), <i>Thyonidium drummondii</i> (F).	SS.SMx.CMx.ClloModHo		SM:MM
FT12.3	Mixed substrate of silty sand (45%), gravel (33%), pebbles (15%), shells (5%) and cobbles (2%)	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (P) and supporting clumps of hydroids (O), and <i>Alcyonium digitatum</i> (R). <i>Cerianthus lloydii</i> (A), Paguridae sp. (P), <i>Inachus</i> sp. (P), <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P), <i>Ophiocomina nigra</i> (A), <i>Ophiothrix fragilis</i> (R), <i>Echinus esculentus</i> (P), <i>Thyonidium drummondii</i> (F).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FT12.4	Mixed substrate of silty sand (40%), gravel (33%), pebbles (20%), shells (5%) and cobbles (2%)	Stones and shells encrusted with pink coralline algae (O) and serpulid worms (F) including <i>Spirobranchus</i> spp. (P) and supporting clumps of hydroids (O) including <i>Hydrallmania falcata?</i> (P), <i>Alcyonium digitatum</i> (R), foliose red algae (R), filamentous brown algae (R) and <i>Saccharina latissima</i> (O, but possibly drift). <i>Cerianthus lloydii</i> (A), <i>Munida rugosa</i> (P), <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (O), <i>Echinus esculentus</i> (O), <i>Thyonidium drummondii</i> (F).	SS.SMx.CMx.CiloModHo		SM:MM
FT13	Silty sand (68%), gravel (10%), pebbles (15%), shells including many <i>Ensis</i> (5%) and cobbles (2%), but composition variable and fairly mixed in places	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (R) and supporting sparse foliose red algae (R) and filamentous/filiform red algae (O, locally F), <i>Desmarestia</i> spp. (R) and <i>Saccharina latissima</i> (O, possibly partly drift material). <i>Cerianthus lloydii?</i> (P), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (P), <i>Echinus esculentus</i> (F).	SS.SSa.IMuSa.EcorEns		
FT14.1	Mixed substrate of silty sand (40%), gravel (50%), pebbles (5%) and shells (5%)	<i>Cerianthus lloydii</i> (P), <i>Munida rugosa</i> (P), <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		
FT14.2	Mixed substrate of silty sand (40%), gravel (50%), pebbles (5%), cobbles (<1%) and shells (5%)	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (O) and supporting sparse filamentous brown algae (R). Patchy, thin ophiuroid bed, with <i>Ophiocomina nigra</i> (A). <i>Cerianthus lloydii</i> (A), Paguridae sp. (P), <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (O), <i>Thyonidium drummondii</i> (F).	SS.SMx.CMx.OphMx		
FT14.3	Mixed substrate of silty sand (25%), gravel (60%), pebbles (5%) and shells (10%)	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (P). <i>Cerianthus lloydii</i> (P), <i>Hyas</i> sp. (P), <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (F), <i>Thyonidium drummondii</i> (F).	SS.SMx.CMx.CiloModHo		SM:MM

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
FT15.1	Sandy mud with gravel (15%), shells (5%), pebbles (2%) and sparse cobbles (<1%). Gravel and shell content increases towards end of run	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (R) and supporting sparse red algae (R), hydroids (R) and <i>Alcyonium digitatum</i> (R); <i>Saccharina latissima</i> (R, probably drift). <i>Virgularia mirabilis</i> (P), <i>Cerianthus lloydii</i> (A), Terebellidae sp. (P), Bonellidae sp. (C), <i>Munida rugosa</i> (P), <i>Liocarcinus depurator</i> (P), <i>Aequipecten opercularis</i> (O), <i>Mya</i> sp. siphons? (P), <i>Asterias rubens</i> (C), <i>Solaster endeca</i> (P), <i>Echinus esculentus</i> (O), <i>Ophiura albida</i> (P), <i>Ophiura ophiura</i> (P), Holothuroidea spp. (F) including possibly <i>Thyonidium drummondii</i> (P), <i>Scyliorhinus canicula</i> (O), Pleuronectiformes sp. (P).	SS.SMu.CSaMu.VirOphP max		SM:CS
FT15.2	Sandy mud or muddy sand with cover of gravel (60%) and shells (5%)	Patch of <i>Ophiocomina nigra</i> (A). <i>Cerianthus lloydii</i> (A), <i>Aequipecten opercularis</i> (P), Holothuroidea spp. (P).	SS.SMx.CMx.OphMx		
FT15.3	Sandy mud or muddy sand with cover of gravel (60%) and shells (5%); dead maerl (<1%)	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (R) and supporting sparse red algae (R), <i>Cerianthus lloydii</i> (A), <i>Ophiura albida</i> (P), Holothuroidea spp. (P) including possibly <i>Thyonidium drummondii</i> (P) or <i>Psolus phantapus</i> (P).	SS.SMu.CSaMu.VirOphP max		SM:CS
FT16	Mixed and variable substrate of silty sand (45%) and gravel (40%) with pebbles (5%), cobbles (<1%), boulders (<1%) and shells (10%)	Stones and shells encrusted with pink coralline algae (R) and serpulid worms (F) including <i>Spirobranchus</i> spp. (P), and supporting sparse foliose and filamentous/filiform red algae (R), filamentous brown algae (R), filamentous green algae (R), hydroids (R) including <i>Kirchenpaueria pinnata</i> , <i>Alcyonium digitatum</i> (R) and <i>Cellaria</i> sp. (P). <i>Virgularia mirabilis</i> (P), <i>Cerianthus lloydii</i> (C), <i>Munida rugosa</i> (P), <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (P), <i>Astropecten irregularis</i> (P), Holothuroidea spp. (P).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FT17.1	Mixed substrate of silty sand and gravel with pebbles and shells partially occluded by dense ophiuroids and biotic turf	Probably sparse, patchy flame shell bed, possibly of the order of 10% cover. <i>Cerianthus lloydii</i> (A?), bivalve siphons (P), foliose red algae (O), pink encrusting coralline algae (R), <i>Aequipecten opercularis</i> (P), <i>Ophiocomina nigra</i> (S), <i>Ascidia virginea</i> (P). Boundary with subsequent habitat uncertain.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
FT17.2	Mixed substrate of silty sand (37%) and gravel (37%) with pebbles (18%), cobbles (1%) and shells (7%)	Stones and shells encrusted with pink coralline algae (F) and serpulid worms (F) including <i>Spirobranchus</i> spp. (P) and supporting sparse hydroids (R) and <i>Alcyonium digitatum</i> (R). <i>Cerianthus lloydii</i> (A), <i>Munida rugosa</i> (R), <i>Inachus</i> sp. (P), <i>Aequipecten opercularis</i> (O), <i>Asteroidea</i> sp. juv. (P), <i>Marthasterias glacialis</i> (P), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (R), Holothuroidea spp. (F, locally C) including <i>Thyonidium drummondii</i> (P), <i>Echinus esculentus</i> (O), <i>Scyliorhinus</i> sp. (P).	SS.SMx.CMx.CiloModHo		SM:MM
FT18.1	Mixed substrate of silty sand (20%) and gravel (50%) with pebbles (25%), shells (5%) and occasional boulders (<1%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (locally S) and <i>Ophiothrix fragilis</i> (S). Hydroids (F) including <i>Rhizocaulus verticillatus</i> (locally C), <i>Alcyonium digitatum</i> (R), <i>Cerianthus lloydii</i> (P), serpulid worms (P), Terebellidae sp. (P), <i>Munida rugosa</i> (P), <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (O), Holothuroidea spp. (F) including <i>Thyonidium drummondii</i> ? (P), encrusting pink coralline algae (R). Location of boundary with subsequent habitat uncertain.	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FT18.2	Mixed substrate of silty sand and gravel with pebbles and shells largely occluded by biotic turf	Patchy flame shell bed with turf and shells supporting hydroids (F-C) including <i>Nemertesia antennina</i> (P), <i>Rhizocaulus verticillatus</i> (P) and <i>Kirchenpaueria pinnata?</i> (P), and foliose (O) and filamentous/fine filiform red algae (C), with <i>Desmarestia</i> spp (R) towards end of run including <i>D. ligulata</i> and <i>D. viridis?</i> . <i>Limaria hians</i> turf possibly around 40% cover overall. Turf supports dense <i>Ophiocomina nigra</i> (S), with <i>Ophiothrix fragilis</i> (locally S). <i>Suberites</i> sp.? (P), <i>Alcyonium digitatum</i> (R), <i>Eupolymnia nebulosa</i> (P), Paguridae spp. (P), <i>Hyas araneus</i> (P), <i>Carcinus maenas</i> (P), <i>Cancer pagurus</i> (P), <i>Buccinum undatum</i> (P), <i>Aequipecten opercularis</i> (O), <i>Crossaster papposus</i> (P), <i>Marthasterias glacialis</i> (C), <i>Luidia cilairis</i> (F), <i>Echinus esculentus</i> (F), Holothuroidea spp. (P) including <i>Thyonidium drummondii?</i> (P). Pink encrusting coralline algae (R). Start and end boundary of habitat uncertain.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
FT18.3	Very mixed and variable substrate of silty sand (35%) and gravel (35%) with pebbles (15%), cobbles (10%) and shells (5%)	Scattered <i>Saccharina latissima</i> (F) supporting <i>Electra pilosa</i> (P), with patchy algal turf of foliose (O) and filamentous/filiform red algae (A) with <i>Desmarestia</i> spp. (F) including <i>D. ligulata</i> and <i>D. viridis?</i> Stones and shells encrusted with pink coralline algae (R) and serpulid worms (P). <i>Buccinum undatum</i> (P), <i>Henricia</i> sp. (P), <i>Echinus esculentus</i> (O). Location of start of habitat uncertain, as transitional with previous habitat.	SS.SMp.KSwSS.LsacR. Gv		KS
FT19.1	Mixed substrate of silty sand (35%) and gravel (45%) with pebbles (10%), shells (5%) and particularly initially scattered cobbles (5%), boulders (<1%) and small bedrock outcrops (<1%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (S) and <i>Ophiothrix fragilis</i> (locally S). Hydroids (F, at least locally) including <i>Rhizocaulus verticillatus</i> (locally C), <i>Alcyonium digitatum</i> (R), <i>Munida rugosa</i> (P), <i>Aequipecten opercularis</i> (F), <i>Marthasterias glacialis</i> (O), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (C locally), Holothuroidea spp. (F) including <i>Thyonidium drummondii?</i> (P), encrusting pink coralline algae (R), foliose red algae (R). Location of boundary with subsequent habitat very uncertain.	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FT19.2	Mixed substrate of silty sand and gravel with pebbles and shells partially occluded by dense ophiuroids and biotic turf; occasional cobbles	Patchy flame shell bed with turf and shells supporting hydroids (P) including <i>Nemertesia antennina</i> (P) and <i>Rhizocaulus verticillatus</i> (P), and foliose (O) and filamentous/fine filiform red algae (F). <i>Limaria hians</i> turf sparse initially but attaining c.50% locally later on - perhaps 10 - 20% overall. Dense <i>Ophiocomina nigra</i> (S), with <i>Ophiothrix fragilis</i> (locally S). <i>Cerianthus lloydii</i> (P), <i>Urticina</i> sp. (P), <i>Alcyonium digitatum</i> (R), Paguridae sp. (P), <i>Hyas araneus</i> (P), <i>Buccinum undatum</i> (P), <i>Aequipecten opercularis</i> (F), <i>Henricia</i> sp. (P), <i>Marthasterias glacialis</i> (F), <i>Echinus esculentus</i> (F), Holothuroidea spp. (P) including <i>Thyonidium drummondii?</i> (P), <i>Scyliorhinus</i> sp. (P). Pink encrusting coralline algae (R). Start location of habitat uncertain.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
FT2.1	Mixed and variable substrate of silty sand (43%) and gravel (35%) with maerl gravel (2%), pebbles (10%) and shells (10%)	Stones and shells encrusted with pink coralline algae (R) and <i>Balanus</i> spp. (O) and supporting hydroids (O) including <i>Nemertesia antennina</i> and <i>Kirchenpaueria pinnata?</i> , <i>Cellaria</i> sp. (R) and sparse filamentous/filiform red algae (R). <i>Ophiocomina nigra</i> (A), <i>Cerianthus lloydii</i> (P), <i>Munida rugosa</i> (P) <i>Buccinum undatum</i> (P), <i>Aequipecten opercularis</i> (F), bivalve siphons (P), <i>Asterias rubens</i> (P), <i>Marthasterias glacialis</i> (P), <i>Henricia</i> sp. (P), <i>Porania pulvillus</i> (P), <i>Echinus esculentus</i> (F), Holothuroidea spp. (F) including <i>Thyonidium drummondii?</i> (F).	SS.SMx.CMx.OphMx		
FT2.2	Mixed and variable substrate of silty sand (40%) and gravel (35%) with maerl gravel (<1%), pebbles (12%), cobbles (<1%), boulders (<1%) and shells (13%)	Stones and shells encrusted with pink coralline algae (R) and <i>Balanus</i> spp. (O) and supporting hydroids (O) including <i>Nemertesia antennina</i> and <i>Kirchenpaueria pinnata?</i> , <i>Alcyonium digitatum</i> (R), <i>Cellaria</i> sp. (R) and filamentous/filiform red algae (R). <i>Cerianthus lloydii</i> (A locally), <i>Munida rugosa</i> (F), <i>Pagurus bernhardus</i> (P), <i>Buccinum undatum</i> (P), <i>Aequipecten opercularis</i> (F), <i>Asterias rubens</i> (C), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (F), Holothuroidea spp. (F) including <i>Thyonidium drummondii?</i> (F), <i>Saccharina latissima</i> (O).	SS.SMx.CMx		
FT2.3	Mixed substrate of sand, gravel and stones	Dense ophiuroid bed with <i>Ophiocomina nigra</i> (S). <i>Asterias rubens</i> (P). Poor visibility and no still photos.	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FT2.4	Mixed and variable substrate of silty sand (40%) and gravel (35%) with pebbles (15%) and shells (15%)	Stones and shells encrusted with pink coralline algae (R), serpulid worms (P) and <i>Balanus</i> spp. (P) and supporting hydroids (O), filamentous/filiform red algae (R), foliose red algae (R), <i>Desmarestia aculeata</i> (R) and <i>Saccharina latissima</i> (R). <i>Cerianthus lloydii</i> (A locally), <i>Brachyura</i> sp. (P), <i>Aequipecten opercularis?</i> (P), <i>Nudibranchia</i> sp. (P), <i>Asterias rubens</i> (C), <i>Marthasterias glacialis?</i> (P), <i>Ophiocomina nigra</i> (R), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		
FT2.5	Mixed and variable substrate of silty sand (25%) and gravel (40%) with pebbles (20%) and shells (15%)	Scattered <i>Saccharina latissima</i> (F) supporting <i>Electra pilosa</i> , with patchy turf of filamentous/filiform red algae (C), foliose red algae (O) and <i>Desmarestia</i> spp. (O). Stones and shells encrusted with pink coralline algae (R), serpulid worms (C locally) including <i>Spirobranchus</i> spp. (C locally) and <i>Balanus</i> spp. (P). Hydroids (O), <i>Cerianthus lloydii</i> (P), <i>Liocarcinus depurator</i> (P), <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (F), <i>Luidia ciliaris</i> (P), <i>Porania pulvillus</i> (P), <i>Echinus esculentus</i> (F).	SS.SMp.KSwSS.LsacR. Gv		KS
FT3.1	Silty gravelly (15%) sand (80%) with scattered shells (5%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (S). Hydroid clumps (O) including <i>Nemertesia antennina</i> , <i>Cerianthus lloydii</i> (A), <i>Metridium dianthus?</i> (R), <i>Cancer pagurus</i> (P), <i>Aequipecten opercularis</i> (R), <i>Mya</i> sp. siphons? (P), <i>Crossaster papposus</i> (P), <i>Marthasterias glacialis</i> (O), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (O), Holothuroidea spp. (F) including <i>Thyonidium drummondii?</i> (F), solitary ascidian sp. (P), encrusting pink coralline algae (R), filamentous/filiform red algae (R).	SS.SMx.CMx.OphMx		
FT3.2	Poorly mixed silty sand (80%) with gravel (15%) and dead (<1%) and live maerl (<1%), and scattered pebbles (5%)	Shells encrusted with pink coralline algae (R) and <i>Balanus</i> spp. (P) and supporting hydroids (O), filamentous/filiform red algae (O) and foliose red algae (R). <i>Cerianthus lloydii</i> (A), <i>Metridium dianthus</i> (R), <i>Marthasterias glacialis</i> (P), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FT3.3	Poorly mixed silty sand (75%) with gravel (15%) and dead (1%) and live maerl (<1%), and scattered shells (5%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (S). <i>Cerianthus lloydii</i> (P), serpulid worms (R), <i>Marthasterias glacialis</i> (P), <i>Echinus esculentus</i> (P), Holothuroidea spp. (F), encrusting pink coralline algae (R), filamentous/filiform red algae (O).	SS.SMx.CMx.OphMx		
FT3.4	Mixed and variable substrate of silty sand (47%) and gravel (40%) with pebbles (5%), cobbles (<1%) and shells (5%) with maerl gravel (3%) and live maerl (<1%)	Stones and shells encrusted with pink coralline algae (R) and <i>Spirobranchus</i> spp. (F) and supporting hydroids (O) including <i>Kirchenpaueria pinnata?</i> , and a patchy turf of filamentous/filiform red algae (C), foliose red algae (R), <i>Desmarestia</i> sp. (R) and <i>Dictyota dichotoma</i> (R). <i>Cerianthus lloydii</i> (A), <i>Metridium dianthus</i> (R), <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Aequipecten opercularis</i> (F), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (F), <i>Porania pulvillus</i> (R), <i>Echinus esculentus</i> (F), <i>Ascidia virginea</i> (P). Live maerl overall <1% (R) but attaining c.1% locally. Location of transition with next habitat uncertain.	SS.SMp.KSwSS		KS
FT3.5	Mixed and variable substrate of silty sand (53%) and gravel (20%) with pebbles (20%), cobbles (2%) and shells (5%)	Stones and shells encrusted with pink coralline algae (R) and <i>Spirobranchus</i> spp. (P) and supporting turf of filamentous/filiform red algae (A), foliose red algae (O), <i>Desmarestia ligulata</i> (P), <i>D. aculeata</i> (P) and <i>Dictyota dichotoma</i> (P); <i>Saccharina latissima</i> (F). <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Aequipecten opercularis</i> (F), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F). Location of transition with previous habitat uncertain.	SS.SMp.KSwSS.LsacR. Sa		KS

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FT4.1	Mixed and variable substrate of silty sand (30%) and gravel (55%) with pebbles (5%), shells (5%) and scattered cobbles (5%) and boulders (<1%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (S) and <i>Ophiothrix fragilis</i> (P), though ophiuroids sparse initially. Hydroid clumps (F) including <i>Rhizocaulus verticillatus</i> , <i>Alcyonium digitatum</i> (R), <i>Cerianthus lloydii</i> (P), <i>Chaetopterus variopedatus?</i> (P), serpulid worms (P), Balanidae spp. (R), <i>Munida rugosa</i> (P), <i>Hyas araneus</i> (P), <i>Buccinum undatum</i> (P), <i>Aequipecten opercularis</i> (O), small infaunal bivalves (P), <i>Marthasterias glacialis</i> (P), <i>Astropecten irregularis</i> (P), <i>Echinus esculentus</i> (F), Holothuroidea spp. (O) including <i>Thyonidium drummondii?</i> (P), solitary ascidian sp. (P), encrusting pink coralline algae (R). Single megafaunal burrow into subsurface muddy sediment, similar in appearance to that of <i>Nephrops norvegicus</i> . Location of boundary with subsequent habitat very uncertain.	SS.SMx.CMx.OphMx		
FT4.2	Silty sandy gravel with pebbles and shells and occasional cobbles and boulders. Possible bound clumps of pebbles and shells	Possibly sparse flame shell bed (10% cover or less) with patches of nests. Scattered hydroids (P), including <i>Nemertesia antennina</i> (P) and <i>Halecium halecinum?</i> (P), <i>Alcyonium digitatum</i> (R), dense <i>Ophiocomina nigra</i> (S), <i>Cerianthus lloydii</i> (P), <i>Aequipecten opercularis</i> (FP), <i>Limaria hians</i> shells (P), <i>Henricia</i> sp. (P), <i>Echinus esculentus</i> (F), Holothuroidea spp. (F) including <i>Thyonidium drummondii?</i> , pink encrusting coralline algae (R). Location of start of habitat highly uncertain.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
FT5	Variable substrate of sandy gravel and gravelly sand. Overall - sand (50%), gravel (40%), pebbles (5%), shells (5%), cobbles (<1%)	Park of <i>Saccharina latissima</i> (C) on sediment, with fronds supporting <i>Obelia geniculata</i> , <i>Electra pilosa</i> and initially profuse <i>Ophiocomina nigra</i> (locally S). Algal turf of filamentous/filiform red algae (C) including <i>Plocamium cartilagineum</i> , foliose red algae (P), brown algae including <i>Dictyota dichotoma</i> (P) and <i>Desmarestia</i> spp. (F) including <i>D. aculeata</i> and <i>D. ligulata</i> , and <i>Ulva lactuca?</i> (R). Stones and shells encrusted with pink coralline algae (R) and <i>Spirobranchus</i> spp. (P). <i>Pagurus bernhardus</i> (P), <i>Buccinum undatum</i> (P), <i>Aequipecten opercularis</i> (P), <i>Antedon</i> sp. (P), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (F).	SS.SMp.KSwSS.LsacR. Gv		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
FT6.1	Gravelly (35%) sand (60%) with shells (5%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (S) and <i>Ophiothrix fragilis</i> (P). Hydroids (O), <i>Cerianthus lloydii</i> (A), <i>Metridium dianthus?</i> (P), <i>Aequipecten opercularis</i> (P), <i>Crossaster papposus</i> (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (O), encrusting pink coralline algae (R). Location of boundary with subsequent habitat uncertain.	SS.SMx.CMx.OphMx		
FT6.2	Silty gravelly sand with scattered shells, cobbles and boulders, and dense shell patches consolidated by byssal turf	Flame shell bed with perhaps c.30% cover overall but reaching c.60% around the middle of the run. Bed supports hydroids (O) including <i>Nemertesia antennina</i> (P), <i>Alcyonium digitatum</i> (R), filamentous/filiform red algae including possibly brown-bleached material (but could be brown algae), foliose red algae (C locally) and dense <i>Ophiocomina nigra</i> (S) with <i>Ophiothrix fragilis</i> (locally S) and <i>Ophiura albida</i> (R). <i>Cerianthus lloydii</i> (locally A), <i>Urticina</i> sp. (P), Paguridae spp. (P), <i>Aequipecten opercularis</i> (P), <i>Limaria hians</i> shells (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (F), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (C), Holothuroidea spp. (P) including <i>Thyonidium drummondii?</i> , <i>Scyliorhinus</i> sp. (P), pink encrusting coralline algae (R), filamentous green algae (R). Location of start of habitat uncertain.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
FT7	Silty gravel and coarse sand with patches of shells largely occluded by faunal turf and ophiuroids	Probable flame shell bed with patches of shells (including <i>Limaria hians</i> ) apparently bound by turf supporting hydroids (F) including <i>Rhizocaulus verticillatus</i> (P) and <i>Nemertesia antennina</i> (P), and foliose (O) and filamentous (O, locally F) red algae. <i>Limaria hians</i> turf patchy, locally possibly around 50% cover but overall of the order of 20% or less. Flame shell bed habitat may not be present for entire duration of video run. Turf supports dense ophiuroids dominated by <i>Ophiocomina nigra</i> (S), with <i>Ophiothrix fragilis</i> (locally A). Sedentary fauna includes <i>Cerianthus lloydii</i> (A locally), <i>Alcyonium digitatum</i> (R), <i>Eupolymnia nebulosa</i> (P) and holothurians including possibly <i>Paracucumaria hyndmani</i> (P). Motile forms include Paguridae spp. (P), <i>Hyas araneus</i> (P), <i>Buccinum undatum</i> (P), <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (P), <i>Marthasterias glacialis</i> (C), <i>Luidia cilairis</i> (P), <i>Henricia</i> sp.? (P), <i>Echinus esculentus</i> (O). Pink encrusting coralline algae (R).	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
FT8.1	Mixed, variable substrate of silty sand (45%), gravel (45%), pebbles (5%) and shells (5%), cobbles (<1%) and boulders (<1%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (S) and <i>Ophiothrix fragilis</i> (locally S). Hydroids (O), <i>Alcyonium digitatum</i> (R), <i>Cerianthus lloydii</i> (P), serpulid worms (O), encrusting pink coralline algae (R). Location of boundary with subsequent habitat uncertain.	SS.SMx.CMx.OphMx		
FT8.2	Silty gravelly sand with pebbles and shells and occasional cobbles and boulders. Much of the substrate probably concentrated pebbles and shells but occluded by byssal turf	Flame shell bed with extensive cover (100%) in later part of run but overall perhaps c.60%. Bed supporting hydroids (O-F) including <i>Nemertesia antennina</i> (F locally), red algal turf (C) of filamentous/filiform and foliose species, and <i>Desmarestia</i> spp. (locally C) including <i>D. ligulata</i> ? (P) and <i>D. viridis</i> ? (locally C). <i>Ophiocomina nigra</i> (S), <i>Ophiothrix fragilis</i> (locally S). <i>Alcyonium digitatum</i> (R), <i>Cerianthus lloydii</i> (locally A), <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (P), <i>Luidia ciliaris</i> (O), <i>Echinus esculentus</i> (F), Holothuroidea spp. (P) including <i>Thyonidium drummondii</i> ? (P), <i>Ascidia virginea</i> ? (P), <i>Ciona intestinalis</i> (P), pink encrusting coralline algae (R). Location of start of habitat uncertain due to patchiness of flame shell bed and camera speed.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
FT9	Silty gravelly sand and possibly sandy gravel with scattered shells probably densely concentrated in patches where occluded by faunal turf	Flame shell bed with perhaps 50 - 70% cover overall supporting hydroids (O), filamentous red algae (F, locally C), foliose red algae (O) and <i>Desmarestia</i> spp. (O, locally C) including <i>D. aculeata</i> , <i>D. ligulata</i> and possibly <i>D. viridis</i> , and dense <i>Ophiocomina nigra</i> (S). Paguridae sp. (P), <i>Hyas araneus</i> (P), <i>Buccinum undatum</i> (P), <i>Pecten maximus</i> (P), <i>Limaria hians</i> shells (P), <i>Asterias rubens</i> (P), <i>Marthasterias glacialis</i> (C), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (F), pink encrusting coralline algae (R).	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
ST2	Soft mud	Mud burrowed by <i>Calocaris macandreae</i> (F) and <i>Nephrops norvegicus</i> (C, 26 animals seen). Presence of mounds difficult to discern due to camera angle. <i>Virgularia mirabilis</i> (R), <i>Pachycerianthus multiplicatus</i> (F, 6 seen), <i>Munida rugosa</i> (R), teleost spp. (R) including <i>Pleuronectiformes</i> sp. (R).	SS.SMu.CFiMu.SpMmeg		BM:SB, BM:PM

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
ST3	Soft mud	Mud burrowed by <i>Calocaris macandreae</i> (F) and <i>Nephrops norvegicus</i> (C, 16 animals seen). Presence of mounds difficult to discern due to camera angle. <i>Virgularia mirabilis</i> (R), <i>Pachycerianthus multiplicatus</i> (F, 13 seen), Paguridae sp. (R), <i>Scylliorhinus</i> sp. (P), teleost spp. (R).	SS.SMu.CFiMu.SpnMeg		BM:SB, BM:PM
ST5	Soft mud	Mud with fairly sparse small megafaunal burrows including those of <i>Calocaris macandreae</i> (P) and larger ones of <i>Nephrops norvegicus</i> (C, 6 animals seen). Presence of mounds difficult to discern due to camera angle. <i>Pachycerianthus multiplicatus</i> (F, 5 seen), <i>Munida rugosa</i> (R), Paguridae sp. (R) including <i>Pagurus bernhardus</i> (R), <i>Munida rugosa</i> (R), Pectiniidae sp. (R), <i>Asterias rubens</i> (P), <i>Scylliorhinus</i> sp. (P), teleost spp. (R) including Pleuronectiformes sp.. Drift kelp towards end of run.	SS.SMu.CFiMu.SpnMeg		BM:SB, BM:PM
ST8	Soft mud with occasional cobbles	Mud with fairly sparse small megafaunal burrows including those of <i>Calocaris macandreae</i> (R - O) and larger ones of <i>Nephrops norvegicus</i> (C, 16 animals seen). Presence of mounds difficult to discern due to camera angle, but proboscis marks of <i>Maxmuelleria lankesteri</i> possibly present. <i>Pachycerianthus multiplicatus</i> (F, 18 seen), Paguridae sp. (R), <i>Munida rugosa</i> (R), teleost spp. (R). One creel, possibly containing <i>Nephrops</i> .	SS.SMu.CFiMu.MegMax		BM:MM, BM:PM
ST9	Soft mud	Mud burrowed by <i>Calocaris macandreae</i> (F, locally C) and <i>Nephrops norvegicus</i> (8 animals seen). Presence of mounds difficult to discern due to camera angle, but proboscis marks of <i>Maxmuelleria lankesteri</i> possibly present. <i>Pachycerianthus multiplicatus</i> (F, 8 seen), Paguridae sp. (R), teleost spp. (O) including Pleuronectiformes sp. (O).	SS.SMu.CFiMu.MegMax		BM:MM, BM:PM
SoM-V01.1	Cohesive muddy sand or possibly sandy mud with sparsely scattered shells including <i>Turritella communis</i> (<1%)	Fairly lightly burrowed by megafauna including <i>Nephrops norvegicus</i> (F). Hydroids (R), <i>Pennatula phosphorea</i> (O), <i>Alcyonium digitatum</i> (R), <i>Sagartia troglodytes</i> (F), <i>Metridium dianthus</i> (O), <i>Cerianthus lloydii</i> (F, locally C), polychaete casts (P), <i>Munida rugosa</i> (F), Paguridae spp. (O) including <i>Pagurus bernhardus</i> (O) and occupants of <i>Turritella</i> shells, <i>Liocarcinus depurator</i> (O), <i>Cancer pagurus</i> (P), <i>Buccinum undatum</i> (R), <i>Pecten maximus</i> (R), Crinoidea spp. (R), <i>Crossaster papposus</i> (P), <i>Anseropoda placenta</i> (F), <i>Asterias rubens</i> (F), <i>Astropecten irregularis</i> (R), <i>Ophiura ophiura</i> (F), <i>Callionymus</i> sp.? (P). Gradual transition to subsequent biotope.	SS.SMu.CFiMu.SpnMeg		BM:SB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V01.2	Cohesive muddy sand or possibly sandy mud with sparsely scattered shells including <i>Turritella communis</i> (<1%)	Sparse megafaunal burrows including possible single burrow of <i>Nephrops norvegicus</i> , and small holes, some of which possibly from bivalve siphons. Hydroids (R), <i>Sagartia troglodytes</i> (F), <i>Metridium dianthus</i> (O), <i>Cerianthus lloydii</i> (F), <i>Munida rugosa</i> (O), Paguridae spp. (P), <i>Liocarcinus depurator</i> (P), <i>Pecten maximus</i> (P), <i>Anseropoda placenta</i> (P), <i>Asterias rubens</i> (C), <i>Astropecten irregularis</i> (P), teleost sp. (P). Gradual transition from previous biotope.	SS.SMu.CSaMu		
SoM-V02.1	Cohesive muddy sand or possibly sandy mud with scattered shells including <i>Turritella communis</i> (<1%)	Lightly burrowed by megafauna including <i>Nephrops norvegicus</i> (F). Hydroids (R), <i>Virgularia mirabilis</i> (R), <i>Pennatula phosphorea</i> (R), <i>Alcyonium digitatum</i> (R), <i>Sagartia troglodytes</i> (F), <i>Metridium dianthus</i> (F), <i>Cerianthus lloydii</i> (F, locally C), polychaete casts (P), <i>Munida rugosa</i> (F), Paguridae spp. (O) including <i>Pagurus bernhardus</i> (O), <i>Liocarcinus depurator</i> (R), <i>Inachus</i> sp. (P), <i>Pecten maximus</i> (O), Crinoidea spp. (R), <i>Anseropoda placenta</i> (O), <i>Asterias rubens</i> (F), <i>Astropecten irregularis</i> (R), <i>Ophiura ophiura</i> (F), <i>Echinus esculentus</i> (O), <i>Callionymus</i> sp. (R). Gradual transition to subsequent biotope.	SS.SMu.CFiMu.SpnMeg		BM:SB
SoM-V02.2	Cohesive muddy sand or possibly sandy mud with sparsely scattered shells including <i>Turritella communis</i> (c.2%)	Sparse megafaunal burrows including those of <i>Nephrops norvegicus</i> (P), and small holes, some of which possibly from bivalve siphons. Hydroids (R), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (O), <i>Cerianthus lloydii</i> (F), <i>Munida rugosa</i> (O), Paguridae spp. (R) including occupants of <i>Turritella</i> shells, <i>Liocarcinus depurator</i> (O), <i>Anseropoda placenta</i> (O), <i>Asterias rubens</i> (F), <i>Astropecten irregularis</i> (O), <i>Ophiura ophiura</i> (P). Gradual transition from previous biotope.	SS.SMu.CSaMu		
SoM-V03.1	Silted, steep bedrock slope (65%) with pockets (35%) of muddy sand with scattered stones, possibly superficial	Rock supporting patches of hydroids/bryozoans (O - F) including <i>Securiflustra securifrons</i> (O) with <i>Swiftia pallida</i> (C), lophon sp.? (R), <i>Metridium dianthus</i> (C, locally A) and <i>Caryophyllia smithii</i> (P). <i>Munida rugosa</i> (F), <i>Liocarcinus</i> sp. (P), Crinoidea spp. (F) including <i>Leptometra celtica</i> (P), <i>Asterias rubens</i> (O), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (C).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP, LC

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V03.10	Silted bedrock	Rock supporting patchy turf of hydroids and bryozoans (C, locally A) including <i>Abietinaria abietina</i> (P) and <i>Securiflustra securifrons</i> (C locally), with <i>Metridium dianthus</i> (C, locally S) and <i>Caryophyllia smithii</i> (P). Crinoidea spp. (F) including <i>Antedon</i> spp. (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (A locally), <i>Echinus esculentus</i> (F) and pink encrusting coralline algae (O).	CR.LCR		
SoM-V03.11	Cohesive muddy sand with scattered pebbles (10%), gravel (5%) and shells (5%)	Stones and shells with sparse hydroids (R), <i>Alcyonium digitatum</i> (R) and <i>Metridium dianthus</i> (C). <i>Cerianthus lloydii</i> (C), <i>Sagartia troglodytes</i> (O), <i>Munida rugosa</i> (F), <i>Buccinum undatum</i> (P), <i>Pecten maximus</i> (P), Crinoidea spp. (O) including <i>Antedon</i> spp. (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (P), sparse small burrows.	SS.SMx.CMx		
SoM-V03.12	Silted bedrock (85%) with pockets of muddy sand	Rock supporting patchy turf of hydroids and bryozoans (F) with <i>Metridium dianthus</i> (A) and <i>Sagartia troglodytes</i> (R). <i>Munida rugosa</i> (F), <i>Pecten maximus</i> (P), Crinoidea spp. (F) and pink encrusting coralline algae (R).	CR.LCR		
SoM-V03.13	Cohesive muddy sand with sparsely scattered pebbles (2%) and shell material (1%)	<i>Metridium dianthus</i> (C), <i>Cerianthus lloydii</i> (F), <i>Sagartia troglodytes</i> (O), <i>Alcyonium digitatum</i> (R), <i>Pecten maximus</i> (P).	SS.SMu.CSaMu		
SoM-V03.14	Silted bedrock (85%) with pockets of muddy sand	Rock supporting patchy turf of hydroids and bryozoans (C) including <i>Securiflustra securifrons</i> ?, with <i>Swiftia pallida</i> (R - O), <i>Metridium dianthus</i> (C, locally A) and <i>Sagartia troglodytes</i> (O). <i>Cerianthus lloydii</i> (P), <i>Munida rugosa</i> (P), <i>Liocarcinus</i> sp.? (P), <i>Pecten maximus</i> (O), Crinoidea spp. (F) and pink encrusting coralline algae (O).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V03.15	Cohesive muddy sand with scattered shell material (2%)	Shells with sparse hydroids/bryozoans (R) including <i>Securiflustra securifrons</i> (R), <i>Alcyonium digitatum</i> (R) and <i>Metridium dianthus</i> (F, locally C). <i>Cerianthus lloydii</i> (C), <i>Sagartia troglodytes</i> (O), <i>Munida rugosa</i> (F), <i>Liocarcinus depurator</i> (O), <i>Turritella communis</i> (P), <i>Pecten maximus</i> (O), Crinoidea spp. (P) including <i>Antedon</i> spp. (P), <i>Asterias rubens</i> (C), <i>Astropecten irregularis</i> (O), <i>Anseropoda placenta</i> (O), <i>Solaster endeca</i> (F), <i>Ophiura ophiura</i> (F), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (P), worm casts, fairly sparse small burrows including <i>Goneplax rhomboides</i> .	SS.SMu.CSaMu		
SoM-V03.16	Silted bedrock skirting muddy sand	Rock supporting patchy turf of hydroids and bryozoans (F) with <i>Metridium dianthus</i> (A). <i>Munida rugosa</i> (F), <i>Liocarcinus depurator</i> (P), Crinoidea spp. (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (P), small teleost sp. (P).	CR.LCR		
SoM-V03.17	Cohesive muddy sand with scattered shell material (2%)	Shells with sparse foliose red algae (R), hydroids (R) and <i>Metridium dianthus</i> (F). <i>Cerianthus lloydii</i> (A), <i>Munida rugosa</i> (F), <i>Liocarcinus depurator</i> (O), <i>Pecten maximus</i> (O), <i>Asterias rubens</i> (F), <i>Anseropoda placenta</i> (P), small teleost sp. (P), sparse small burrows.	SS.SMu.CSaMu		
SoM-V03.2	Cohesive muddy sand or possibly sandy mud with sparsely scattered shells (c.1%)	Muddy sediment fairly lightly burrowed by megafauna including <i>Goneplax rhomboides</i> (P, probably F). <i>Cerianthus lloydii</i> (F), <i>Metridium dianthus</i> (P), <i>Munida rugosa</i> (F), <i>Sepia officinalis</i> (P), <i>Securiflustra securifrons</i> (R), Crinoidea spp. (O) including <i>Leptometra celtica</i> (P), <i>Astropecten irregularis</i> (P), <i>Crossaster papposus</i> (P), <i>Anseropoda placenta</i> (F).	SS.SMu.CFiMu.SpnMeg		BM:SB, LC
SoM-V03.3	Mixed substrate of muddy sand (60%) with scattered shells (25%), pebbles (10%) and gravel (5%).	Hydroids (O), <i>Alcyonium digitatum</i> (R), <i>Cerianthus lloydii</i> (C), <i>Metridium dianthus</i> (C), <i>Munida rugosa</i> (F), <i>Pecten maximus</i> (P), <i>Securiflustra securifrons</i> (R), Crinoidea spp. (F), <i>Ophiura albida</i> (P), sparse small burrows.	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V03.4	Silted bedrock (65%) with pockets (35%) of muddy sand with scattered stones, possibly superficial	Rock supporting patches of hydroids/bryozoans (F) including <i>Halecium halecinum</i> (P) and <i>Securiflustra securifrons</i> (O, locally C) with <i>Swiftia pallida</i> (O), lophon sp.? (R), <i>Cerianthus lloydii</i> (P), <i>Metridium dianthus</i> (A) and <i>Caryophyllia smithii</i> (P). <i>Munida rugosa</i> (F), <i>Necora puber</i> (P), Crinoidea spp. (F) including <i>Leptometra celtica</i> (P) and <i>Antedon</i> spp., <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (P).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP, LC
SoM-V03.5	Mixed substrate of muddy sand (65%) with scattered shells (15%), pebbles (15%) and gravel (5%).	Hydroid/bryozoan patches (F) including <i>Halecium halecinum</i> and <i>Securiflustra securifrons</i> , <i>Cerianthus lloydii</i> (C), <i>Metridium dianthus</i> (C), <i>Sagartia troglodytes</i> (R), <i>Munida rugosa</i> (F), Crinoidea spp. (F) including <i>Leptometra celtica</i> , <i>Crossaster papposus</i> (P), <i>Solaster endeca</i> (P), <i>Ophiura albida</i> (locally C), <i>Echinus esculentus</i> (F), <i>Callionymus</i> sp. (P).	SS.SMx.CMx		LC
SoM-V03.6	Silted bedrock and boulders	Rock supporting patches of hydroids (O) including <i>Halecium halecinum</i> (P), and <i>Metridium dianthus</i> (A). <i>Munida rugosa</i> (P), <i>Necora puber</i> (P), <i>Echinus esculentus</i> (C).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP
SoM-V03.7	Mixed substrate of muddy sand (60%) with scattered pebbles (30%) and gravel (10%).	Hydroid/bryozoan patches (O) including <i>Halecium halecinum</i> and <i>Securiflustra securifrons</i> , <i>Alcyonium digitatum</i> (R), <i>Cerianthus lloydii</i> (C), <i>Metridium dianthus</i> (C), <i>Sagartia troglodytes?</i> (R), <i>Munida rugosa</i> (F), <i>Pecten maximus</i> (P), <i>Ophiura albida</i> (locally C).	SS.SMx.CMx		
SoM-V03.8	Silted bedrock	Patchy ophiuroid bed with <i>Ophiocomina nigra</i> (A overall, locally S) and <i>Ophiura albida</i> (locally A). Rock supporting patches of hydroids/bryozoans (F) including <i>Securiflustra securifrons</i> with <i>Swiftia pallida</i> (R - 1 colony seen), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (C). <i>Munida rugosa</i> (F), <i>Necora puber</i> (P), Crinoidea spp. (P), <i>Echinus esculentus</i> (F) pink encrusting coralline algae (R).	CR.LCR.BrAs.AmenCio. Bri		NS:SP

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V03.9	Silted bedrock	Rock supporting patchy turf of hydroids and bryozoans (C, locally A) including <i>Abietinaria abietina</i> (P) and <i>Securiflustra securifrons</i> (F locally), with <i>Swiftia pallida</i> (F), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (F) and <i>Caryophyllia smithii</i> (F locally). Crinoidea spp. (F) including <i>Leptometra celtica</i> (P), <i>Asterias rubens</i> (P), <i>Henricia</i> sp. (P), <i>Ophiocomina nigra</i> (C), <i>Ophiura albida</i> (A locally), <i>Echinus esculentus</i> (F), orange encrusting bryozoan (R) and pink encrusting coralline algae (O).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP, LC
SoM-V04.1	Dense shell material including <i>Modiolus</i> (85%) on muddy, gravelly (5%) sand (10%)	Shells sparsely encrusted with serpulid worms (R), <i>Balanus</i> spp. (R) and supporting sparse hydroids (O), <i>Alcyonium digitatum</i> (R), Actiniaria sp. (O) and digitiform yellow sponge? (R). <i>Cerianthus lloydii</i> (F), <i>Munida rugosa</i> (F), Paguridae sp. (P), <i>Liocarcinus</i> sp. (O), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (P), very sparse megafaunal burrows.	SS.SMx.CMx		
SoM-V04.2	Bedrock cliff	Rock with turf of hydroids/bryozoans (C, locally S) including clumps of <i>Tubularia indivisa</i> ? (locally S), <i>Alcyonium digitatum</i> (O), <i>Metridium dianthus</i> (C) and white sponge sp. (P). <i>Munida rugosa</i> (P), <i>Liocarcinus</i> sp. (P), Crinoidea spp. (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (C), <i>Ctenolabrus rupestris</i> (P).	CR.HCR.FaT.CTub.Adig		
SoM-V04.3	Bedrock and boulders	Rock encrusted with <i>Spirobranchus</i> spp. (C) and supporting occasional hydroids, dense <i>Alcyonium digitatum</i> (A), <i>Metridium dianthus</i> (C) and Actiniaria sp. (P). <i>Munida rugosa</i> (P), Crinoidea spp. (F) including <i>Antedon</i> spp. (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAlCr.A dig		
SoM-V05.1	Fine-medium sand with sparsely scattered shells (1%)	Sediment with <i>Arenicola</i> -like casts (P) and small depressions. Hydroids (R), <i>Alcyonium digitatum</i> (R), <i>Munida rugosa</i> (O), Paguridae spp. (O), <i>Cancer pagurus</i> (P), <i>Ophiura ophiura</i> (F), <i>Ophiura albida</i> (F), <i>Ophiocomina nigra</i> (R), <i>Ophiothrix fragilis</i> (R overall but small clumps), <i>Asterias rubens</i> (F), <i>Astropecten irregularis</i> (O), <i>Echinus esculentus</i> (P), <i>Callionymus</i> sp. (P).	SS.SSa.CFiSa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V05.10	Mixed substrate of sand (20%), gravel (60%) and pebbles (20%)	<i>Alcyonium digitatum</i> (R), <i>Ophiocomina nigra</i> (A), <i>Asterias rubens</i> (C).	SS.SMx.CMx.OphMx		
SoM-V05.11	Mixed substrate of sand (40%), gravel (30%), pebbles (25%) and cobbles (5%)	Hydroids (R), <i>Urticina</i> sp.? (R), <i>Alcyonium digitatum</i> (R), <i>Balanus</i> spp. (P), <i>Munida rugosa</i> (F), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (F), teleost sp. (P).	SS.SMx.CMx		
SoM-V05.12	Highly variable mixed substrate of sand with gravel, pebbles and cobbles, as well as boulders and bedrock outcrops	Boulders and bedrock encrusted with pink coralline algae (O - F), <i>Parasmittina trispinosa</i> ? (R - O) and supporting patches of hydroids (O). Hydroid/bryozoan turf (F) in more mixed areas including <i>Halecium halecinum</i> ?, <i>Abietinaria abietina</i> ? and <i>Securiflustra securifrons</i> . <i>Alcyonium digitatum</i> (R), <i>Munida rugosa</i> (F), <i>Antedon</i> spp. (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (C), <i>Solaster endeca</i> (P), <i>Echinus esculentus</i> (C), teleost spp. (P).	SS.SMx.CMx, CR.MCR.EcCr.FaAlCr		
SoM-V05.13	Sand-dusted bedrock with sand pockets (25%)	Patchy hydroid turf (F) including <i>Abietinaria abietina</i> ?, <i>Ophiocomina nigra</i> (A), <i>Alcyonium digitatum</i> (R), <i>Asterias rubens</i> (P), pink encrusting coralline algae (R).	CR.MCR.EcCr.FaAlCr.Br i		
SoM-V05.14	Ledge of sand (65%) with gravel (20%) and scattered cobbles (10%) and boulders (5%). Probably superficial cover over bedrock	Crinoidea sp. (P), <i>Parasmittina trispinosa</i> ? (R), pink encrusting coralline algae (R)	SS.SMx.CMx		
SoM-V05.15	Small, steep, sand-dusted, bedrock slope	Dense hydroid turf (S) including <i>Abietinaria abietina</i> ? (P). <i>Asterias rubens</i> (P).	CR.HCR.XFa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V05.16	Ledge of sand (55%) with gravel (30%), pebbles (5%), cobbles (5%) and shells (5%). Probably superficial cover over bedrock	Hydroids (R), <i>Ascidia mentula?</i> (R)	SS.SMx.CMx		
SoM-V05.17	Small, sand-dusted, bedrock slope	Dense hydroid turf (A) including <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R), <i>Urticina felina</i> (P), <i>Parasmittina trispinosa?</i> (R), Crinoidea sp. (P), <i>Echinus esculentus</i> (P), pink encrusting coralline algae (R).	CR.HCR.XFa		
SoM-V05.18	Mixed substrate of sand (40%), gravel (30%), pebbles (25%) and cobbles (5%)	Hydroids (O), <i>Alcyonium digitatum</i> (R), <i>Munida rugosa</i> (P), <i>Aequipecten opercularis?</i> (P), <i>Asterias rubens</i> (F), small teleost spp. (P).	SS.SMx.CMx		
SoM-V05.19	Bedrock and boulders with mixed sediment patches	Boulders and bedrock encrusted with serpulid worms (P), pink coralline algae (R) and <i>Parasmittina trispinosa?</i> (R) and supporting patches of hydroids (F). Crinoidea sp. (P), <i>Asterias rubens</i> (P), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (P)	CR.MCR.EcCr.FaAlCr		
SoM-V05.2	Silty, shelly sand with scattered shells (5%) and pebbles (1%)	Sediment with <i>polychaete</i> casts (P). Hydroids (R), <i>Metridium dianthus</i> (R), <i>Urticina</i> sp.? (R), <i>Munida rugosa</i> (O, locally F), Paguridae spp. (R), <i>Liocarcinus</i> sp. (O), <i>Inachus</i> sp. (P), <i>Buccinum undatum</i> (O), <i>Aequipecten opercularis</i> (R), <i>Ophiura ophiura</i> (F), <i>Ophiura albida</i> (C, at least locally), <i>Ophiocomina nigra</i> (A), <i>Ophiothrix fragilis</i> (R), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (P), <i>Callionymus</i> sp. (O).	SS.SMx.CMx.OphMx		
SoM-V05.20	Mixed substrate of sand, gravel and pebbles	Hydroids (O), <i>Munida rugosa</i> (P).	SS.SMx.CMx		
SoM-V05.21	Bedrock	Rock encrusted with serpulid worms (P), pink coralline algae (R) and <i>Parasmittina trispinosa?</i> (R) and supporting patches of hydroids (F). <i>Alcyonium digitatum</i> (R), <i>Echinus esculentus</i> (P)	CR.MCR.EcCr.FaAlCr		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V05.22	Sand (60%), gravel (5%) and pebbles (5%) with scattered cobbles (20%) and boulders (10%)	Hydroids (R), <i>Munida rugosa</i> (P), <i>Asterias rubens</i> (P), small teleost spp. (P).	SS.SMx.CMx		
SoM-V05.23	Sand-dusted bedrock	Rock supporting hydroid/bryozoan turf (F, at least locally) including <i>Securiflustra securifrons</i> (F, at least locally, and <i>Alcyonium digitatum</i> (O). Crinoidea sp. (P), <i>Asterias rubens</i> (P), <i>Crossaster papposus</i> (F), <i>Echinus esculentus</i> (F)	CR.MCR.EcCr.FaAlCr.Sec		
SoM-V05.24	Mixed coarse sediment with cobbles (30%) and boulders (10%)	Patchy hydroid/bryozoan turf (O - F), <i>Echinus esculentus</i> (P), small teleost spp. (P).	SS.SMx.CMx		
SoM-V05.25	Coarse sand	<i>Alcyonium digitatum</i> (R).	SS.SCS.CCS		
SoM-V05.26	Sand-dusted bedrock	Rock supporting <i>Parasmittina trispinosa</i> ? (R) and apparently fairly sparse hydroid/bryozoan turf patches possibly including <i>Securiflustra securifrons</i> (P). <i>Echinus esculentus</i> (P)	CR.MCR.EcCr.FaAlCr		
SoM-V05.27	Sand-dusted bedrock	<i>Ophiocomina nigra</i> (A), <i>Asterias rubens</i> (F).	CR.MCR.EcCr.FaAlCr.Br i		
SoM-V05.28	Bedrock	Rock supporting dense <i>Alcyonium digitatum</i> (A). <i>Urticina</i> sp.? (P), <i>Asterias rubens</i> (C), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (F).	CR.MCR.EcCr.FaAlCr.A dig		
SoM-V05.29	Variable substrate including bedrock and fairly dense boulders and cobbles on coarse, silty mixed sediment	Patchy hydroid/bryozoan turf (F, locally A), <i>Alcyonium digitatum</i> (R, locally O), <i>Parasmittina trispinosa</i> ? (R), <i>Munida rugosa</i> (O), Crinoidea spp. (R), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F), teleost spp. (P).	CR.MCR.EcCr.FaAlCr		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V05.3	Mixed sediment of silty sand (40%), gravel (50%), pebbles (5%) and shells (5%)	Hydroids (R), <i>Munida rugosa</i> (O), <i>Ophiura albida</i> (C, at least locally), <i>Ophiocomina nigra</i> (F, locally C), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (P), <i>Raja clavata</i> (P), <i>Scyriorhinus canicula</i> (P).	SS.SMx.CMx		
SoM-V05.30	Partially sand-dusted bedrock	<i>Ophiocomina nigra</i> (A), <i>Ophiothrix fragilis</i> (large patch where S), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (F).	CR.MCR.EcCr.FaAlCr.Br i		
SoM-V05.31	Scattered boulders (10%) and cobbles (15%) on coarse, mixed sediment	<i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F), teleost sp. (P).	SS.SMx.CMx		
SoM-V05.4	Mixed sediment of silty sand (40%), gravel (50%), pebbles (5%) and shells (5%)	Hydroids (R), <i>Munida rugosa</i> (P), <i>Ophiocomina nigra</i> (A), <i>Asterias rubens</i> (A), <i>Echinus esculentus</i> (F), <i>Raja clavata</i> (P).	SS.SMx.CMx.OphMx		
SoM-V05.5	Mixed sediment of silty sand (45%), gravel (30%), pebbles (15%), cobbles (5%) and shells (5%)	<i>Alcyonium digitatum</i> (R), <i>Actinaria</i> sp. (R), <i>Munida rugosa</i> (F), <i>Pecten maximus</i> (O), <i>Ophiura albida</i> (P), <i>Ophiocomina nigra</i> (R), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (P), <i>Callionymus</i> sp. (P)	SS.SMx.CMx		
SoM-V05.6	Mixed sediment of silty sand (45%), gravel (30%), pebbles (15%), cobbles (5%) and shells (5%)	<i>Munida rugosa</i> (P), <i>Ophiocomina nigra</i> (A), <i>Asterias rubens</i> (P).	SS.SMx.CMx.OphMx		
SoM-V05.7	Mixed sediment of silty sand (55%), gravel (20%), pebbles (20%), cobbles (5%) and boulders (<1%)	Hydroids (R), <i>Alcyonium digitatum</i> (R), <i>Balanus</i> spp. (R), <i>Munida rugosa</i> (F), <i>Brachyura</i> sp. (P), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (F), <i>Solaster endeca</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V05.8	Mixed sediment of silty sand (55%), gravel (20%), pebbles (20%), cobbles (5%)	<i>Ophiocomina nigra</i> (S), <i>Asterias rubens</i> (P).	SS.SMx.CMx.OphMx		
SoM-V05.9	Mixed substrate of silty sand (29%), gravel (25%), pebbles (30%), cobbles (10%), shells (5%), boulders (1%) and small bedrock outcrops (<1%)	Hydroids (R), orange encrusting sponge? (R), Actiniaria sp. (R), <i>Alcyonium digitatum</i> (R), <i>Spirobranchus</i> spp. (locally A), <i>Munida rugosa</i> (F), <i>Brachyura</i> sp. (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (C).	SS.SMx.CMx		
SoM-V06.1	Mixed substrate of coarse sand (40%), gravel (40%) and pebbles (14%) with scattered cobbles (5%, but denser locally) and boulders (1%)	Stones encrusted with pink coralline algae (R), serpulid worms (O), <i>Balanus</i> spp. (R) and <i>Parasmittina trispinosa</i> (R) and supporting hydroids (O) and <i>Alcyonium digitatum</i> (O). <i>Cerianthus lloydii</i> (F, locally C), Actiniaria sp. (R), <i>Munida rugosa</i> (P), <i>Asterias rubens</i> (C), <i>Solaster endeca</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
SoM-V06.10	Mixed substrate of coarse sand (30%) with dense gravel (40%) and pebbles (25%) and scattered cobbles (5%, locally denser)	Stones with <i>Alcyonium digitatum</i> (R), serpulid worms (P), <i>Balanus</i> spp. (O) and pink encrusting coralline algae (R). <i>Munida rugosa</i> (F), Crinoidea spp. (O), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		
SoM-V06.11	Bedrock (85%) and boulders (15%)	Rock encrusted with pink coralline algae (C), <i>Spirobranchus</i> spp. (locally C) and <i>Parasmittina trispinosa</i> (R) and supporting filamentous/filiform red algal turf (A) and <i>Alcyonium digitatum</i> (R). <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C).	IR.HIR.KFaR.FoR		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V06.12	Sand (30%) with gravel (30%), pebbles (25%) and scattered cobbles (15%)	Stones supporting patches of red algae. <i>Asterias rubens</i> (P).	SS.SMx.CMx		
SoM-V06.13	Bedrock (75%) and boulders (25%)	Rock encrusted with pink coralline algae (C), <i>Spirobranchus</i> spp. (P) and <i>Parasmittina trispinosa</i> (R) and supporting patchy filamentous/filiform red algal turf (A) and <i>Alcyonium digitatum</i> (R), and <i>Metridium dianthus</i> (R). <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C).	IR.HIR.KFaR.FoR		
SoM-V06.14	Sand (55%) with gravel (20%), pebbles (20%) and scattered cobbles (5%) and boulders (<1%)	Rock encrusted with pink coralline algae (R), <i>Spirobranchus</i> spp. (C locally) and <i>Parasmittina trispinosa</i> (R) and supporting sparse hydroids (R), <i>Alcyonium digitatum</i> (R), and <i>Metridium dianthus</i> (R). <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
SoM-V06.15	Bedrock (85%) and boulders (15%)	Rock encrusted with pink coralline algae (C) and <i>Parasmittina trispinosa</i> (R) and supporting filamentous/filiform red algal patches (F), hydroids (O) and <i>Alcyonium digitatum</i> (R). <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAlCr		
SoM-V06.16	Bedrock (90%) and boulders (5%) with mixed sand patches (5%)	Rock encrusted with pink coralline algae (F) and <i>Parasmittina trispinosa</i> (R) and supporting filamentous/filiform red algal turf (A), <i>Alcyonium digitatum</i> (R) and <i>Metridium dianthus</i> (R). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C).	IR.HIR.KFaR.FoR		
SoM-V06.17	Sand (60%) with gravel (25%), pebbles (12%) and scattered cobbles (3%) and boulders (<1%)	Rock encrusted with pink coralline algae (R) and supporting sparse hydroids (R), <i>Alcyonium digitatum</i> (R), and <i>Metridium dianthus</i> (R). Teleost sp. (P).	SS.SMx.CMx		
SoM-V06.18	Bedrock (90%) and boulders (5%) with sand patches (5%)	Rock encrusted with pink coralline algae (C) and <i>Parasmittina trispinosa</i> (R) and supporting filamentous/filiform red algal turf (A), <i>Alcyonium digitatum</i> (R) and <i>Metridium dianthus</i> (R). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C).	IR.HIR.KFaR.FoR		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V06.19	Apparently scattered gravel, pebbles and cobbles on silty sand with small bedrock outcrop becoming less stony	Visibility very poor for most of run segment. <i>Asterias rubens</i> (P), teleost sp. (P).	SS.SMx.CMx		
SoM-V06.2	Sand-dusted bedrock with sand pockets (10%)	Rock encrusted with pink coralline algae (C), <i>Spirobranchus</i> spp. (C) and <i>Parasmittina trispinosa</i> (O) and supporting hydroids (R), <i>Alcyonium digitatum</i> (R) and <i>Caryophyllia smithii</i> (P). <i>Urticina</i> sp. (R), Crinoidea sp. (R), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAlCr.Pom		
SoM-V06.20	Apparently silty sand with sparse scatter of gravel (2%), shells (1%) and boulders (<1%)	Boulders with <i>Spirobranchus</i> spp. (locally C). <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (P), small shoal of small teleosts.	SS.SSa.CMuSa		
SoM-V06.21	Bedrock (95%) and boulders (5%)	Rock apparently with fairly dense hydroid/bryozoan turf (C - A). <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (P). Boundary with subsequent biotope uncertain due to poor visibility	CR.HCR.XFa		
SoM-V06.22	Sand (60%) with gravel (20%), pebbles (20%) and scattered cobbles (<1%) and boulders (<1%)	<i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
SoM-V06.23	Largely sediment-scoured bedrock (80%) with adjacent patch of sand with scattered stones	<i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (P).	CR.MCR.EcCr.FaAlCr, SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V06.24	Sand (50%) with varying proportions of gravel (overall 20%), pebbles (overall 30%), cobbles (<1%) and boulders (<1%)	<i>Alcyonium digitatum</i> (R), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (F), small teleost sp. (P).	SS.SMx.CMx		
SoM-V06.25	Bedrock outcrop	Rock with fairly dense hydroid/bryozoan turf (C - A). <i>Munida rugosa</i> (P), <i>Echinus esculentus</i> (P).	CR.HCR.XFa		
SoM-V06.26	Sand (30%) with gravel (60%), pebbles (10%) and boulders (<1%)	Hydroids (R), <i>Alcyonium digitatum</i> (R), <i>Munida rugosa</i> (P), <i>Pagurus bernhardus</i> (R), <i>Asterias rubens</i> (F), <i>Ophiocomina nigra</i> (R), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
SoM-V06.3	Mixed substrate of coarse sand (40%), gravel (40%) and pebbles (14%) with scattered cobbles (5%, but denser locally) and boulders (1%)	Stones encrusted with pink coralline algae (R), serpulid worms (O) and <i>Parasmittina trispinosa</i> (R) and supporting hydroids (R) and <i>Alcyonium digitatum</i> (R). <i>Munida rugosa</i> (P), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
SoM-V06.4	Bedrock	Rock encrusted with pink coralline algae (A), <i>Spirobranchus</i> spp. (F) and <i>Parasmittina trispinosa</i> (O) and supporting patchy red algal turf (O), <i>Alcyonium digitatum</i> (O) and <i>Caryophyllia smithii</i> (P). Crinoidea sp. (R), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAlCr		
SoM-V06.5	Largely bedrock (90%) with boulders (2%) and patches of coarse, mixed sediment (8%)	Rock encrusted with pink coralline algae (C), <i>Balanus</i> spp. (R) and <i>Parasmittina trispinosa</i> (R) and supporting filamentous/filiform red algal turf (A, locally S), hydroids (O) and <i>Alcyonium digitatum</i> (O). <i>Munida rugosa</i> (P), Crinoidea sp. (O), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C).	IR.HIR.KFaR.FoR		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V06.6	Highly variable mixed substrate of coarse sand and gravelly sand with varying amounts of pebbles, cobbles, boulders and small bedrock outcrops	Stones encrusted with pink coralline algae (R), serpulid worms (P) and <i>Parasmittina trispinosa</i> (R) and supporting sparse hydroids (R) and <i>Alcyonium digitatum</i> (R). <i>Munida rugosa</i> (P), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (F), small teleost spp. (P).	SS.SMx.CMx		
SoM-V06.7	Silted boulders (50%) and bedrock (50%)	Rock supporting hydroid patches (O), <i>Caryophyllia smithii</i> (F, locally C), <i>Alcyonium digitatum</i> (F, locally C), <i>Swiftia pallida</i> (locally F), <i>Porella compressa</i> (P) and white cushion sponge (R). <i>Cancer pagurus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C), <i>Labrus mixtus</i> (P).	CR.MCR.EcCr.CarSwi.L gAs		NS:CS, NS:SP
SoM-V06.8	Sand (16%) with dense gravel (40%) and pebbles (40%) and scattered cobbles (2%) and shells (2%)	Stones with hydroids (R), serpulid worms (P) and <i>Balanus</i> spp. (R). <i>Munida rugosa</i> (F), <i>Asterias rubens</i> (C).	SS.SMx.CMx		
SoM-V06.9	Areas of bedrock (30%), boulders (30%) and cobbles (30%) with patches of mixed sandy substrate (10%)	Rock encrusted with pink coralline algae (F, locally C) and <i>Parasmittina trispinosa</i> (R) and supporting patchy hydroids (O) and <i>Alcyonium digitatum</i> (R). Crinoidea sp. (R), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAlCr		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V07.1	Mixed substrate of silty sand with varying amounts of gravel, pebbles, cobbles and occasional boulders	Stones encrusted with serpulid worms (P), <i>Balanus</i> spp. (P), <i>Parasmittina trispinosa</i> (R) and pink coralline encrusting algae (R) and supporting sparse hydroids (R) and bryozoans (R) including <i>Securiflustra securifrons</i> . <i>Alcyonium glomeratum?</i> (R) at 00:15:50 (HD video), <i>Swiftia pallida</i> (R), <i>Cerianthus lloydii</i> (P), <i>Metridium dianthus</i> (R), <i>Caryophyllia smithii</i> (R), <i>Munida rugosa</i> (F, at least locally), <i>Liocarcinus depurator</i> (O), <i>Aequipecten opercularis</i> (R), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F), teleost spp. (P), <i>Scyliorhinus canicula</i> (P). <i>Leptometra celtica</i> (C) for much of run, <i>Antedon</i> spp. (P).	SS.SMx.CMx		LC, NS:SP
SoM-V07.10	Silted bedrock, and boulders and cobbles on cohesive muddy sand or sandy mud	Rock supporting <i>Axinella infundibuliformis</i> (R), hydroid and bryozoan patches (O - F) including <i>Securiflustra securifrons</i> (P), <i>Caryophyllia smithii</i> (C), <i>Swiftia pallida</i> (C), <i>Metridium dianthus</i> (C) and <i>Parasmittina trispinosa</i> (R). <i>Munida rugosa</i> (F), Crinoidea spp. (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C). Seabed not visible for lengthy periods during run.	CR.MCR.EcCr.CarSwi.L gAs		NS:CS, NS:SP
SoM-V07.11	Cohesive muddy sand or sandy mud (85%) with sparsely scattered gravel (7%), pebbles (7%) and cobbles (1%)	Stones support hydroids (O) and <i>Metridium dianthus</i> (P). <i>Cerianthus lloydii</i> (F), <i>Munida rugosa</i> (F), <i>Asterias rubens</i> (P).	SS.SMx.CMx		
SoM-V07.12	Silted bedrock (20%) and boulders (35%) and cobbles (10%) and pebbles (5%) on cohesive muddy sand or sandy mud (30%)	Rock supporting <i>Axinella infundibuliformis</i> (R), white cushion sponge (R), hydroid and bryozoan patches (O - F) including <i>Securiflustra securifrons</i> (P), <i>Caryophyllia smithii</i> (F), <i>Swiftia pallida</i> (C) and <i>Metridium dianthus</i> (O). <i>Munida rugosa</i> (F), <i>Liocarcinus</i> spp. (O), <i>Cancer pagurus</i> (P), Crinoidea spp. (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C), teleost sp. (P).	CR.MCR.EcCr.CarSwi.L gAs		NS:CS, NS:SP

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V07.13	Highly variable mixed substrate ranging from scattered gravel on muddy sediment to dense cobbles and boulders on muddy sediment	Stones supporting hydroid and bryozoan tufts (O - F) including <i>Flustra foliacea</i> (R). White branching erect sponge (R), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (R), <i>Urticina</i> spp. (R), <i>Cerianthus lloydii</i> (F), <i>Munida rugosa</i> (F), <i>Liocarcinus</i> sp. (P), <i>Necora puber</i> (P), <i>Parasmittina trispinosa</i> (R), <i>Crossaster papposus</i> (O), <i>Solaster endeca</i> (P), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (R), <i>Echinus esculentus</i> (F, locally C), <i>Scyliorhinus</i> sp. (O), teleost spp. (P).	SS.SMx.CMx		
SoM-V07.14	Silted bedrock outcrops interspersed with silted boulders and cobbles	Rock supporting <i>Axinella infundibuliformis</i> (R), patchy and often thin hydroid turf (F, locally C), <i>Caryophyllia smithii</i> (C locally), <i>Porella compressa?</i> (R) and sparse <i>Swiftia pallida</i> (R); <i>Alcyonium digitatum</i> generally sparse but dense (A) in large areas on bedrock. <i>Munida rugosa</i> (F), <i>Liocarcinus</i> spp. (O), <i>Cancer pagurus</i> (O), Crinoidea spp. (O), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (C), <i>Solaster endeca</i> (O), <i>Echinus esculentus</i> (C), <i>Labrus mixtus</i> (P), teleost sp. (P).	CR.LCR, CR.MCR.EcCr.FaAlCr.A dig		NS:SP
SoM-V07.15	Mostly gravel (60%) and pebbles (15%) on silt sand (20%) with cobbles (5%, initially 60%)	Stones support <i>Alcyonium digitatum</i> (R) and very sparse <i>Swiftia pallida</i> (R). <i>Munida rugosa</i> (F), <i>Pecten maximus?</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (F), teleost sp. (P).	SS.SMx.CMx		NS:SP
SoM-V07.16	Silted bedrock	Rock supporting patchy hydroids (O - F), <i>Caryophyllia smithii</i> (C), <i>Metridium dianthus</i> (R), <i>Swiftia pallida</i> (R) and <i>Alcyonium digitatum</i> (F, locally C). <i>Munida rugosa</i> (F), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C). Small patch of small, white anemones, possibly <i>Parazoanthus anguicomus</i> (R) at 00:59:34 (HD).	CR.MCR.EcCr.FaAlCr.A dig		PA?, NS:SP
SoM-V07.17	Mostly gravel (40%) and pebbles (25%) on silt sand (30%) with occasional cobbles (5%)	Stones support <i>Alcyonium digitatum</i> (R). <i>Cerianthus lloydii</i> (P), <i>Munida rugosa</i> (F), <i>Crossaster papposus</i> (P), <i>Solaster endeca</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (O).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V07.18	Silted bedrock outcrops (60%) interspersed with mixed substrate of pebbles, cobbles and boulders on silty sediment	Rock surfaces supporting patchy hydroids (F), bryozoans including <i>Securiflustra securifrons</i> (P) and <i>Parasmittina trispinosa</i> (R), <i>Metridium dianthus</i> (R), and <i>Alcyonium digitatum</i> (F, locally C). <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAICr.A dig, SS.SMx.CMx		
SoM-V07.19	Mainly silty sand (40%) with gravel (30%) and shell material 30%), with some scattered cobbles and pebbles initially	Hydroids (R, except at start), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (O), <i>Urticina</i> sp.? (R), <i>Munida rugosa</i> (P), <i>Pecten maximus</i> (P), <i>Securiflustra securifrons</i> (R), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F), teleost spp. (P).	SS.SMx.CMx		
SoM-V07.2	Silted bedrock outcrop	<i>Caryophyllia smithii</i> (C), <i>Swiftia pallida</i> (F), <i>Munida rugosa</i> (P), Crinoidea spp. (C) including <i>Leptometra celtica</i> (C), <i>Echinus esculentus</i> (P).	CR.MCR.EcCr.CarSwi.L gAs		NS:CS, NS:SP, LC
SoM-V07.20	Silted bedrock outcrops (60%) interspersed with mixed substrate of pebbles, cobbles and boulders on silty sediment	Rock surfaces supporting patchy hydroids (O, locally C), <i>Metridium dianthus</i> (F), and <i>Alcyonium digitatum</i> (R, locally O). <i>Munida rugosa</i> (F), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C).	CR.LCR, SS.SMx.CMx		
SoM-V07.3	Mixed substrate of silty sand with varying amounts of gravel, pebbles, cobbles and occasional boulders	Stones encrusted with <i>Balanus</i> spp. (P), <i>Parasmittina trispinosa</i> (R) and pink coralline encrusting algae (R) and supporting sparse hydroids (R). <i>Alcyonium digitatum</i> (R), <i>Swiftia pallida</i> (R), <i>Metridium dianthus</i> (R), <i>Caryophyllia smithii</i> (R), Actiniaria sp. (R), <i>Munida rugosa</i> (F, at least locally), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F), teleost spp. (P). <i>Leptometra celtica</i> (C) for first half of run.	SS.SMx.CMx		LC, NS:SP

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V07.4	Silted bedrock (80%) and scattered cobbles (5%) and boulders (<1%) on silty sand (10%) with gravel (2%) and pebbles (3%)	<i>Axinella infundibuliformis/Phakellia ventilabrum</i> (R), hydroid clumps (O), <i>Alcyonium digitatum</i> (R), <i>Caryophyllia smithii</i> (C), <i>Swiftia pallida</i> (C), <i>Metridium dianthus</i> (F), <i>Munida rugosa</i> (P), <i>Liocarcinus</i> sp. (P), <i>Parasmittina trispinosa</i> (R), Crinoidea spp. (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.CarSwi.L gAs		NS:CS, NS:SP
SoM-V07.5	Silty sand (85%) with scattered cobbles (5%), gravel (5%) and pebbles (5%)	Stones supporting hydroids (O), <i>Swiftia pallida</i> (R), <i>Caryophyllia smithii</i> (R) and <i>Metridium dianthus</i> (C), <i>Munida rugosa</i> (F), <i>Cancer pagurus</i> (P), <i>Liocarcinus</i> sp. (P), Crinoidea spp. (O), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F), <i>Scyliorhinus</i> sp. (P), teleost spp. (P).	SS.SMx.CMx		NS:SP
SoM-V07.6	Silted bedrock (55%) and scattered cobbles (5%) and boulders (5%) on silty sand (30%) with gravel (2%) and pebbles (3%)	Patches of hydroids (O) and bryozoans including <i>Securiflustra securifrons</i> (locally F), <i>Alcyonium digitatum</i> (R), <i>Caryophyllia smithii</i> (C on bedrock), <i>Swiftia pallida</i> (C, locally F), <i>Metridium dianthus</i> (C), <i>Munida rugosa</i> (F), <i>Liocarcinus</i> sp. (P), Crinoidea spp. (C) including <i>Leptometra celtica</i> (C on bedrock and locally on boulders and cobbles on sediment), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F), teleost sp. (P).	CR.MCR.EcCr.CarSwi.L gAs		NS:CS, NS:SP, LC
SoM-V07.7	Silty sand (85%) with scattered cobbles (5%), gravel (5%) and pebbles (5%)	Stones supporting hydroids (O) and <i>Swiftia pallida</i> (O). <i>Cerianthus lloydii</i> (P), <i>Munida rugosa</i> (F), <i>Asterias rubens</i> (P).	SS.SMx.CMx		NS:SP
SoM-V07.8	Silted bedrock (20%) and boulders (15%) and cobbles (10%) and pebbles (5%) on cohesive muddy sand or sandy mud (50%)	Rock supporting <i>Axinella infundibuliformis/Phakellia ventilabrum</i> (R), hydroid clumps (O - F), <i>Balanus</i> spp. (R), <i>Securiflustra securifrons</i> (F locally), <i>Alcyonium digitatum</i> (R), <i>Caryophyllia smithii</i> (F), <i>Swiftia pallida</i> (C) and <i>Metridium dianthus</i> (F). <i>Cerianthus lloydii</i> (P), <i>Munida rugosa</i> (F), Crinoidea spp. (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Echinus esculentus</i> (F), teleost spp. (P). Sediment with sparse, small megafaunal burrows.	CR.MCR.EcCr.CarSwi.L gAs		NS:CS, NS:SP

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V07.9	Cohesive muddy sand or sandy mud (90%) with sparsely scattered gravel (5%), pebbles (2%) and cobbles (3%)	Cobbles support <i>Metridium dianthus</i> (C). <i>Munida rugosa</i> (F), <i>Liocarcinus</i> spp. (O), <i>Echinus esculentus</i> (P), very sparse small megafaunal burrows.	SS.SMu.CSaMu		
SoM-V08.1	Shelly, cohesive, muddy sand with sparsely scattered boulders (<1%) and cobbles (<1%)	Fairly lightly burrowed by megafauna including <i>Goneplax rhomboides</i> (F) and possibly small <i>Nephrops norvegicus</i> . <i>Suberites carnosa?</i> (R), <i>Cerianthus lloydii</i> (P), Paguridae sp. in <i>Turritella</i> shell (P), <i>Cancer pagurus</i> (O), <i>Calliostoma zizyphinum</i> (R), <i>Ophiura albida</i> (P), <i>Ophiura ophiura</i> (O). Stones support hydroids (R overall) including <i>Halecium halecinum</i> , <i>Alcyonium digitatum</i> (R), <i>Caryophyllia smithii</i> (R), <i>Metridium dianthus</i> (O) and filamentous red algae (R). Gradual transition with following biotope.	SS.SMu.CFiMu.SpMmeg		BM:SB
SoM-V08.2	Shelly, muddy sand with sparsely scattered boulders (<1%) and cobbles (<1%)	Sediment with small holes probably including those of bivalve siphons. <i>Suberites carnosa?</i> (R), Paguridae sp. (R), <i>Ophiura ophiura</i> (O). Stones support hydroids (R overall) including <i>Nemertesia antennina</i> , <i>Metridium dianthus</i> (O), <i>Urticina</i> sp.? (R), <i>Balanus</i> spp. (R), <i>Parasmittina trispinosa?</i> (R) and pink encrusting coralline algae (R). Gradual transition with previous biotope.	SS.SSa.CMuSa		
SoM-V08.3	Heavily sand-dusted bedrock	Rock supports turf of hydroids/bryozoans (C) including <i>Halecium halecinum</i> , <i>Nemertesia antennina</i> (F), <i>Omalosecosa ramulosa?</i> and <i>Securiflustra securifrons</i> . <i>Alcyonium digitatum</i> (R), <i>Urticina</i> sp.? (P), <i>Caryophyllia smithii</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Parasmittina trispinosa?</i> (R), <i>Echinus esculentus</i> (P), <i>Callionymus</i> sp. (P), foliose red algae (R).	CR.HCR.XFa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V08.4	Shelly, muddy sand with scattered boulders (3%) and cobbles (2%)	Stones support often dense hydroids (but R overall) including <i>Nemertesia antennina</i> and <i>Halecium halecinum</i> , <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (R), <i>Caryophyllia smithii</i> (R) <i>Spirobranchus</i> spp. (locally A), <i>Balanus</i> spp. (R), <i>Parasmittina trispinosa</i> (R), <i>Omalosecosa ramulosa?</i> (R), <i>Polycarpa pomaria?</i> (R), filamentous (R) and foliose (R) red algae and pink encrusting coralline algae (R). <i>Munida rugosa</i> (R), <i>Goneplax rhomboides</i> (1 seen on surface), <i>Calliostoma zizyphinum</i> (R), <i>Pecten maximus</i> (O), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (R), <i>Ophiura albida</i> (P), <i>Callionymus</i> sp. (P), teleost spp.(O).	SS.SSa.CMuSa		
SoM-V09.1	Shelly, cohesive, muddy sand with scattered cobbles (5%) and boulders (5%)	Stones support often dense hydroids (S locally) including <i>Nemertesia antennina</i> and <i>Halecium halecinum</i> , <i>Metridium dianthus</i> (P), <i>Caryophyllia smithii</i> (R), <i>Parasmittina trispinosa</i> (R) and <i>Omalosecosa ramulosa?</i> (R). <i>Funiculina quadrangularis</i> (P, 2 seen), <i>Cerianthus lloydii</i> (P), <i>Munida rugosa</i> (P), <i>Goneplax rhomboides</i> (1 seen on surface), <i>Pecten maximus</i> (O), <i>Asterias rubens</i> (P), <i>Henricia</i> sp. (R), <i>Callionymus</i> sp. (P), teleost spp.(O). Sparse burrows including probably those of <i>Goneplax rhomboides</i> . Regarded as mosaic of VirOphPmax.HAs with XFa on boulders.	SS.SMu.CSaMu.VirOphPmax.HAs, CR.HCR.XFa		BM:FQ
SoM-V09.10	Shelly muddy sand (82%) with gravel (15%) and pebbles (3%) and scattered cobbles (<1%) and boulders (<1%)	Fairly sparse stones support hydroids (overall R but locally S on boulders). <i>Pecten maximus</i> (P).	SS.SMu.CSaMu.VirOphPmax.HAs		
SoM-V09.2	Silted bedrock (80%) with patches of mixed sediment	Dense hydroid turf (S) including <i>Nemertesia antennina</i> , <i>Iophon</i> sp.? (P), <i>Luidia ciliaris</i> (P), <i>Ophiura ophiura</i> (P).	CR.HCR.XFa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V09.3	Shelly, muddy sand (30%) with gravel (30%) and pebbles (5%) and scattered cobbles (12%) and boulders (18%) and small bedrock outcrops (5%)	Stones support often dense hydroids and bryozoans (S locally) including <i>Securiflustra securifrons</i> (P), <i>Parasmittina trispinosa</i> (R) and <i>Omalosecosa ramulosa?</i> (R), <i>lophon</i> sp.? (O), <i>Balanus</i> spp. (P) and <i>Caryophyllia smithii</i> (R). <i>Echinus esculentus</i> (P). Regarded as mosaic of VirOphPmax.HAs with XFa on boulders.	SS.SMx.CMx, CR.HCR.XFa		
SoM-V09.4	Silted bedrock	Dense hydroid and bryozoan turf (S) including <i>Nemertesia antennina</i> , <i>Lytocarpia myriophyllum</i> and <i>Securiflustra securifrons</i> and <i>Omalosecosa ramulosa?</i> (R), <i>lophon</i> sp.? (P), <i>Suberites carnosus</i> (R), <i>Caryophyllia smithii</i> (P). <i>Calliostoma zizyphinum</i> (P), pink encrusting coralline algae (R).	CR.HCR.XFa		
SoM-V09.5	Silted boulders	Patchy hydroids (F), <i>Swiftia pallida</i> (O), <i>Metridium dianthus</i> (O), <i>Caryophyllia smithii</i> (P), <i>Echinus esculentus</i> (F), small shoal of <i>Labrus mixtus</i> . Lost fishing? cable.	CR.MCR.EcCr.CarSwi.LgAs		NS:CS, NS:SP
SoM-V09.6	Mixed sediment of dense gravel (30%) and muddy sand (30%) with pebbles (10%) and scattered cobbles (15%) and boulders (15%)	Stones support patches of dense hydroids and bryozoans (A on rock) including <i>Halecium halecinum</i> , <i>Nemertesia antennina</i> and <i>Securiflustra securifrons</i> , <i>Parasmittina trispinosa</i> (R) and <i>Omalosecosa ramulosa?</i> (R), <i>lophon</i> sp.? (P), orange sponge (R), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (P), <i>Caryophyllia smithii</i> (P), <i>Ascidia virginea</i> (P) and pink encrusting coralline algae (R). <i>Munida rugosa</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster pappus</i> (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (F), <i>Callionymus</i> sp. (P). Regarded as mosaic of CMx with XFa on boulders.	SS.SMx.CMx, CR.HCR.XFa		
SoM-V09.7	Silted bedrock	Dense hydroid and bryozoan turf (S) including <i>Nemertesia antennina</i> (C), <i>Halecium halecinum</i> , <i>Lytocarpia myriophyllum</i> and <i>Securiflustra securifrons</i> . Paguridae sp. (P), <i>Pecten maximus</i> (O), <i>Parasmittina trispinosa</i> (R), solitary ascidians (P). Single <i>Swiftia pallida</i> seen.	CR.HCR.XFa		NS:SP

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V09.8	Shelly muddy sand (65%) with gravel (10%) and pebbles (5%) and scattered cobbles (10%) and boulders (10%)	Stones support hydroids (C on cobbles and boulders) including <i>Nemertesia antennina</i> , <i>N. ramosa</i> and <i>Halecium halecinum</i> , <i>Alcyonium digitatum</i> (R), <i>Iophon</i> sp.? (R), <i>Suberites carnosus</i> ? (R), <i>Caryophyllia smithii</i> (R), <i>Spirobranchus</i> spp. (P), <i>Balanus</i> spp. (P), <i>Parasmittina trispinosa</i> (R) and pink encrusting coralline algae (R). <i>Munida rugosa</i> (P), <i>Liocarcinus</i> sp. (P), <i>Cancer pagurus</i> (P), <i>Pecten maximus</i> (O), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (O). Sparse small burrows. Regarded as mosaic of VirOphPmax.HAs with XFa on boulders.	SS.SMu.CSaMu.VirOphPmax.HAs, CR.HCR.XFa		
SoM-V09.9	Silted bedrock (85) and boulders (15%)	Dense hydroid and bryozoan turf (S) including <i>Nemertesia antennina</i> and <i>Securiflustra securifrons</i> , <i>Iophon</i> sp.? (O), <i>Axinella infundibuliformis</i> ? (R), <i>Alcyonium digitatum</i> (R), <i>Caryophyllia smithii</i> (P), <i>Necora puber</i> (P), <i>Luidia ciliaris</i> ? (P), <i>Echinus esculentus</i> (F), shoal of small teleosts.	CR.HCR.XFa		
SoM-V10.1	Mixed silty sand (30%) with dense gravel (50%), small pebbles (20%, and sparse cobbles (<1%)	Stones with serpulid worms (F) and sparse hydroids (O). <i>Inachus</i> sp. (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (P), <i>Ophiocomina nigra</i> (F, locally C), <i>Lophius piscatorius</i> (P).	SS.SMx.CMx		LP
SoM-V10.10	Silted, locally heavily-silted, bedrock (20%) and boulders (30%) on silty sand (30%) with gravel (5%), pebbles (5%) and cobbles (10%)	Stones with hydroid clumps (O) and Crinoidea spp. (O). <i>Salmacina dysteri</i> ? (R), <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (P), <i>Ophiocomina nigra</i> (locally C), <i>Echinus esculentus</i> (F). Sparse <i>Swiftia pallida</i> possibly present. Visibility poor.	CR.LCR, SS.SMx.CMx		NS:SP?
SoM-V10.11	Mixed muddy sediment with gravel, pebbles and shells	Sparse megafaunal burrows including possibly <i>Nephrops norvegicus</i> . <i>Munida rugosa</i> (P), Paguridae spp. (F), <i>Aequipecten opercularis</i> (F), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (P).	SS.SMu.CSaMu.VirOphPmax.HAs		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V10.2	Muddy sand (50%) and gravel (20%) with scattered cobbles (15%) and boulders (15%)	Stones with serpulid worms (P) and hydroid patches (O, locally C) including <i>Nemertesia antennina</i> , and supporting dense <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigea</i> (C). <i>Alcyonium digitatum</i> ? (R), solitary ascidians (O), <i>Luidia ciliaris</i> (P), <i>Echinus esculntus</i> (F).	SS.SMx.CMx.OphMx		
SoM-V10.3	Silty sand (35%) and gravel (30%) and pebbles (15%) with scattered cobbles (10%) and boulders (10%)	Stones with serpulid worms (P) and hydroid patches (O, locally S) including <i>Nemertesia antennina</i> , with a few boulders supporting dense <i>Ophiothrix fragilis</i> (largely absent, but S in small patches), <i>Ophiocomina nigra</i> (F, locally C). <i>Alcyonium digitatum</i> (R), Paguridae sp. (P), <i>Aequipecten opercularis</i> (R), <i>Ciona intestinalis</i> (R), <i>Crossaster papposus</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
SoM-V10.4	Shelly sand (60%) with gravel (10%) and pebbles (5%) and scattered cobbles (10%) and boulders (15%)	Stones with serpulid worms (P) and hydroid patches (O) including <i>Nemertesia antennina</i> , with boulders and cobbles supporting dense <i>Ophiothrix fragilis</i> (S); <i>Ophiocomina nigra</i> (C). <i>Alcyonium digitatum</i> (R), <i>Munida rugosa</i> (P), <i>Liocarcinus depurator</i> (P), <i>Cancer pagurus</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F), <i>Scyliorhinus</i> sp. (P), teleost spp. (P).	SS.SMx.CMx.OphMx		
SoM-V10.5	Silty sand (30%) and gravel (35%) and pebbles (15%) with scattered cobbles (10%) and boulders (10%, locally denser)	Stones with serpulid worms (P) and hydroid patches (O) including <i>Nemertesia antennina</i> . <i>Alcyonium digitatum</i> (R), Paguridae sp. (P), <i>Munida rugosa</i> (O), <i>Inachus</i> sp. (P), <i>Cancer pagurus</i> (P), <i>Pecten maximus</i> (O), <i>Aequipecten opercularis</i> (R), <i>Luidia ciliaris</i> (P), <i>Ophiocomina nigra</i> (F, locally C), <i>Echinus esculentus</i> (F), <i>Scyliorhinus</i> sp. (P).	SS.SMx.CMx		
SoM-V10.6	Silty sand (45%) and gravel (15%) and pebbles (10%) with scattered cobbles (15%) and boulders (15%, locally denser)	Stones with serpulid worms (P) and hydroid patches (O) including <i>Nemertesia antennina</i> and <i>N. ramosa</i> , with dense <i>Ophiothrix fragilis</i> (S) concentrated on boulders and cobbles; <i>Ophiocomina nigra</i> (C). <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (R), <i>Salmacina dysteri</i> ? (R, locally O), <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Aequipecten opercularis</i> (P), <i>Parasmittina trispinosa</i> (R), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (F), teleost spp. (P). Discarded fishing net.	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V10.7	Silty sand (35%) and gravel (40%) and pebbles (20%) with scattered cobbles (5%, locally much denser) and boulders (<1%, locally denser)	Stones with sparse hydroid patches (O) and <i>Alcyonium digitatum</i> (R). <i>Chaetopterus variopedatus?</i> (P), Paguridae spp. (O), <i>Munida rugosa</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P), <i>Ophiocomina nigra</i> (F), <i>Ophiothrix fragilis</i> (O), <i>Echinus esculentus</i> (F), teleost sp. (P).	SS.SMx.CMx		
SoM-V10.8	Silty sand (35%) and gravel (20%) and pebbles (5%) with scattered cobbles (10%) and boulders (30%)	Stones with hydroid patches (O) with dense <i>Ophiothrix fragilis</i> (S) concentrated on boulders and cobbles; <i>Ophiocomina nigra</i> (C). <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
SoM-V10.9	Scattered cobbles (30%), boulders (5%) and pebbles (5%) on silty sediment	<i>Salmacina dysteri?</i> (R), <i>Munida rugosa</i> (F), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (F),	SS.SMx.CMx		
SoM-V11.1	Dense pebbles (50%) on gravelly (30%), silty sand (20%) with sparse cobbles and boulders (both <1%)	Larger stones encrusted with <i>Parasmittina trispinosa?</i> (R) and supporting hydroids (O) including <i>Nemertesia antennina</i> , and <i>Alcyonium digitatum?</i> (R). <i>Suberites carnosus?</i> (R), <i>Aequipecten opercularis</i> (P), <i>Ophiocomina nigra</i> (F), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		
SoM-V11.10	Silty sand (60%), gravel (35%) and shell (5%) with sparsely scattered pebbles, cobbles and boulders (all <1%)	Hydroids (O) including <i>Nemertesia antennina</i> , <i>Alcyonium digitatum</i> (R), <i>Munida rugosa</i> (R), <i>Cancer pagurus</i> (O), <i>Aequipecten opercularis</i> (O), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (F), <i>Porania pulvillus</i> (R), <i>Luidia ciliaris</i> (O), <i>Ophiura albida</i> (P), <i>Ophiocomina nigra</i> (O, locally C), <i>Ophiothrix fragilis</i> (R), <i>Echinus esculentus</i> (F), <i>Scyliorhinus canicula</i> (O), teleost sp. (R), <i>Callionymus</i> sp.? (R).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
SoM-V11.2	Pebbles (40%) on gravelly (20%), silty sand (25%) with scattered shells (5%), cobbles (5%) and boulders (5%)	Patchy bed of <i>Ophiothrix fragilis</i> (S).	SS.SMx.CMx.OphMx		
SoM-V11.3	Pebbles (40%) on gravelly (20%), silty sand (25%) with scattered shells (5%), cobbles (5%) and boulders (5%)	Larger stones encrusted with serpulid worms (P) and <i>Parasmittina trispinosa?</i> (R) and supporting hydroids (O), and <i>Alcyonium digitatum?</i> (R). <i>Suberites carnosus?</i> (R), <i>Munida rugosa</i> (P), <i>Crossaster papposus?</i> (P), <i>Luidia ciliaris</i> (P), <i>Ophiocomina nigra</i> (F, locally C), <i>Ophiothrix fragilis</i> (generally absent, but small patches on boulders), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
SoM-V11.4	Pebbles (20%) on gravelly (20%), silty sand (40%) with scattered shells (5%), cobbles (10%) and boulders (5%)	Patchy bed of <i>Ophiothrix fragilis</i> (S) with <i>Ophiocomina nigra</i> (C). Hydroids (O), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
SoM-V11.5	Pebbles (15%), gravel (25%) and silty sand (40%) with scattered shells (5%), cobbles (10%) and boulders (5%)	Larger stones encrusted with serpulid worms (P) and supporting hydroids (O), <i>Alcyonium digitatum</i> (R) and solitary ascidians (P). <i>Urticina</i> sp. (P), <i>Ophiocomina nigra</i> (C), <i>Ophiothrix fragilis</i> (generally absent, but small patch on boulder), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
SoM-V11.6	Mixed substrate of silty sand with gravel, pebbles, cobbles and boulders, largely obscured	Dense ophiuroid bed of <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C, at least locally). Hydroids (P), <i>Alcyonium digitatum</i> (R), <i>Urticina</i> sp. (P), <i>Munida rugosa</i> (P), <i>Echinus esculentus</i> (P).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM-V11.7	Mixed substrate of silty sand (30), gravel (45%), pebbles (10%), cobbles (10%) and boulders (5%)	Larger stones encrusted with serpulid worms (P) and <i>Parasmittina trispinosa</i> (R) and supporting hydroids (O - F) including <i>Nemertesia antennina</i> and <i>N. ramosa</i> , <i>Alcyonium digitatum</i> (R) and solitary ascidians (P). <i>Ophiocomina nigra</i> (C), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
SoM-V11.8	Mixed substrate of silty, gravelly sand with varying concentrations of pebbles, cobbles and boulders, dense in places	Larger stones encrusted with serpulid worms (P, locally A) and <i>Parasmittina trispinosa</i> (R) and supporting sparse sponges including <i>Cliona celata?</i> (R) and <i>Iophon</i> sp.? (R), hydroids (F), <i>Alcyonium digitatum</i> (R overall but F locally) and <i>Caryophyllia smithii</i> (F locally). <i>Crossaster papposus</i> (F) <i>Asterias rubens</i> (F), <i>Ophiocomina nigra</i> (F, locally C), <i>Echinus esculentus</i> (F, locally C), <i>Labrus mixtus</i> (P).	CR.MCR.EcCr.FaAlCr, SS.SMx.CMx		
SoM-V11.9	Substrate largely obscured but apparently gravelly, silty sand with scattered pebbles, cobbles and occasional boulders	Dense ophiuroid bed of <i>Ophiothrix fragilis</i> (S) with <i>Ophiocomina nigra</i> (P). <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (P), <i>Callionymus</i> sp. (P).	SS.SMx.CMx.OphMx		
SoM_2_V1.1	Silty coarse sand (60%) with gravel (35%), pebbles (5%) and sparse cobbles (<1%) and boulders (<1%)	<i>Alcyonium digitatum</i> (R), <i>Balanus</i> sp. (R), <i>Pecten maximus</i> (P), <i>Asterias rubens?</i> (P), <i>Luidia ciliaris</i> (P).	SS.SMx.CMx		
SoM_2_V1.10	Silty, gravelly (40%) sand (43%) with varying densities of silted pebbles (10%), cobbles (5%) and boulders (2%)	Stones supporting hydroid patches (P) and <i>Alcyonium digitatum</i> (R). <i>Pecten maximus?</i> (P), Crinoidea sp. (O), <i>Asterias rubens</i> (F).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_2_V1.11	Silted boulders (5%) and bedrock (95%)	Rock supporting hydroid and bryozoan turf (P) including <i>Securiflustra securifrons</i> (P), <i>Iophon</i> sp.? (R), <i>Alcyonium digitatum</i> (R), <i>Caryophyllia smithii</i> (locally C), <i>Swiftia pallida</i> (F, at least locally), <i>Parasmittina trispinosa</i> (R) and <i>Diazona violacea</i> (F). Crinoidea spp. (O), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP
SoM_2_V1.12	Silty, gravelly (40%) sand (35%) with varying densities of silted pebbles (10%), cobbles (10%) and boulders (5%)	Rock supporting hydroids (P), <i>Alcyonium digitatum</i> (R), <i>Caryophyllia smithii</i> (P) and <i>Diazona violacea</i> (P). <i>Aequipecten opercularis</i> (P), <i>Parasmittina trispinosa</i> (R), Crinoidea sp. (F) including <i>Leptometra celtica</i> (locally C), <i>Luidia ciliaris</i> (P), <i>Ophiura albida</i> (P), <i>Ophiocomina nigra</i> (locally C), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		LC
SoM_2_V1.13	Silted bedrock (50%), boulders (5%) and cobbles (35%) with patches of silty, gravelly (5%) sand (5%)	Rock encrusted with <i>Parasmittina trispinosa</i> (R) and pink coralline algae (R) and supporting hydroid and bryozoan turf (C, locally S) including <i>Securiflustra securifrons</i> (P), <i>Alcyonium digitatum</i> (R), <i>Caryophyllia smithii</i> (locally C), <i>Swiftia pallida</i> (F) and <i>Iophon</i> sp.? (R). Paguridae sp. (P), <i>Pecten maximus</i> ? (P), Crinoidea spp. (F) including <i>Leptometra celtica</i> (P), <i>Henricia</i> sp. (F), <i>Echinus esculentus</i> (F).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP, LC
SoM_2_V1.14	Silty, gravelly (40%) sand (35%) with varying densities of silted pebbles (10%), cobbles (10%) and boulders (5%)	Stones supporting hydroids (P) and <i>Salmacina dysteri</i> ? (R). Crinoidea spp. (O), <i>Asterias rubens</i> (F).	SS.SMx.CMx		
SoM_2_V1.15	Silted bedrock	Rock supporting hydroid turf (A) and <i>Swiftia pallida</i> (P).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_2_V1.16	Silty, gravelly (25%) sand (50%) with varying densities of silted pebbles (5%), cobbles (15%) and boulders (5%)	Stones encrusted with <i>Parasmittina trispinosa</i> (R) and supporting hydroid patches (P), <i>Caryophyllia smithii</i> (P), Actinaria sp. (P) and <i>Iophon</i> sp.? (R). <i>Munida rugosa</i> (P), Paguridae sp. (P), Crinoidea spp. (F), <i>Ophiura albida</i> (locally C).	SS.SMx.CMx		
SoM_2_V1.17	Largely silted bedrock	Rock supporting hydroid turf (at least locally A) and <i>Swiftia pallida</i> (P). Crinoidea spp. (O), <i>Asterias rubens</i> (P).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP
SoM_2_V1.18	Silty, gravelly (15%) sand (64%) with scattered pebbles (5%), cobbles (15%) and boulders (2%)	Stones supporting <i>Alcyonium digitatum</i> (R). Crinoidea sp. (P), <i>Asterias rubens</i> (P).	SS.SMx.CMx		
SoM_2_V1.2	Highly variable mixed substrate of silty sand with varying proportions of gravel, pebbles, and silted cobbles and boulders, with cobbles and boulders dense in patches; small bedrock outcrop	Stones sparsely encrusted with serpulid worms (R) and <i>Parasmittina trispinosa</i> ? (R) and supporting hydroid turf (F, locally A), <i>Caryophyllia smithii</i> (C locally), Actinaria sp. (P), <i>Iophon</i> sp.? (R), <i>Alcyonium digitatum</i> (R) and <i>Ciona intestinalis</i> (P). <i>Salmacina dysteri</i> ? (R), <i>Munida rugosa</i> (O), Paguridae spp. (P), <i>Macropodia</i> sp. (P), <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (O), <i>Echinus esculentus</i> (F).	SS.SMx.CMx, CR.LCR		
SoM_2_V1.3	Mostly fairly dense, silted cobbles (25%) and boulders (25%) on silty, gravelly (10%) sand (30%) with bedrock outcrops (10%)	Rock sparsely encrusted with serpulid worms (R), <i>Balanus</i> spp. (R), <i>Parasmittina trispinosa</i> (R) and pink coralline algae (R) and supporting hydroid and bryozoan turf (C, locally S) including <i>Securiflustra securifrons</i> , <i>Swiftia pallida</i> (O, locally F), <i>Caryophyllia smithii</i> (C locally), <i>Iophon</i> sp.? (R, locally O), <i>Ciona celata</i> (R), <i>Alcyonium digitatum</i> (R) and <i>Metridium dianthus</i> (R). Crinoidea sp. (R), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (F), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F). Patches of <i>Leptometra celtica</i> (locally C).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP, LC

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
SoM_2_V1.4	Silty sand (32%) with gravel (32%), pebbles (32%) and cobbles (4%)	<i>Pecten maximus</i> (P), <i>Leptometra celtica</i> (locally C)	SS.SMx.CMx		LC
SoM_2_V1.5	Silted bedrock	Rock sparsely encrusted with pink coralline algae (R) and supporting hydroid turf (C), <i>Suberites carnosa?</i> (P), <i>Swiftia pallida</i> (O - F), <i>Caryophyllia smithii</i> (F locally) and <i>Alcyonium digitatum</i> (R). <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (P), <i>Ophiocomina nigra</i> (A locally).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP
SoM_2_V1.6	Silty sand (50%) with gravel (10%), pebbles (25%), and cobbles (10%) and boulders (5%)	Rock sparsely encrusted with <i>Parasmittina trispinosa</i> (R) and supporting hydroids (F) and <i>Alcyonium digitatum</i> (R). <i>Virgularia mirabilis</i> (P), <i>Munida rugosa</i> (P), Paguridae sp. (P), Crinoidea sp. (O) including <i>Leptometra celtica</i> (P), <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (P), <i>Ophiura ophiura</i> (P).	SS.SMx.CMx		LC
SoM_2_V1.7	Steep slope and flatter areas of silted bedrock (50%), boulders (15%) and cobbles (15%) with patches of silty, gravelly (10%) sand (10%)	Rock encrusted with pink coralline algae (R) and supporting hydroid and bryozoan turf (P) including <i>Securiflustra securifrons</i> , <i>Swiftia pallida</i> (P, at least locally), <i>Caryophyllia smithii</i> (P), <i>Iophon</i> sp.? (R), <i>Alcyonium digitatum</i> (locally A) and foliose red algae (R). Crinoidea sp. (R), <i>Asterias rubens</i> (F), <i>Ophiocomina nigra</i> (locally A), <i>Echinus esculentus</i> (F), <i>Diazona violacea</i> (P).	CR.HCR.XFa.SwiLgAs, CR.MCR.EcCr.FaAlCr.A dig		NS:MT, NS:SP
SoM_2_V1.8	Silty, gravelly (30%) sand (54%) with varying densities of silted pebbles (10%), cobbles (5%) and boulders (1%)	Stones supporting hydroid patches (P), <i>Iophon</i> sp.? (R), <i>Alcyonium digitatum</i> (R). <i>Munida rugosa</i> (P), Paguridae sp. (P), Crinoidea sp. (P) including at least one patch of <i>Leptometra celtica</i> (where C), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (O).	SS.SMx.CMx		LC
SoM_2_V1.9	Silted bedrock (50%), boulders (5%) and cobbles (35%) with patches of silty, gravelly (5%) sand (5%)	Rock supporting hydroid patches (P), <i>Alcyonium digitatum</i> (O), <i>Caryophyllia smithii</i> (locally C), <i>Swiftia pallida</i> (P) and <i>Diazona violacea</i> (P). <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_2_V2.1	Shelly, cohesive, muddy sand or sandy mud with sparsely scattered boulders (<1%) and cobbles (<1%)	Sediment moderately burrowed by megafauna including possibly <i>Nephrops norvegicus</i> . <i>Cerianthus lloydii</i> (P), <i>Turritella communis</i> (locally C), <i>Pecten maximus</i> (P). Stones encrusted with pink coralline algae (R) and support hydroids (R overall), <i>Alcyonium digitatum</i> (R) and <i>Metridium dianthus</i> (P). Gradual transition with following biotope.	SS.SMu.CFiMu.SpnMeg		BM:SB
SoM_2_V2.2	Muddy sand (50%) with gravel (15%), scattered cobbles (5%) and boulders (5%) and silted bedrock (25%)	Rock supports hydroids (overall density unclear but S locally), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (F), <i>Iophon</i> sp.? (R), <i>Salmacina dysteri</i> ? (R) and pink encrusting coralline algae (R). <i>Munida rugosa</i> (R), <i>Echinus esculentus</i> (F), teleost sp.(P). Sparse small burrows.	SS.SSa.CMuSa, CR.LCR		
SoM_2_V2.3	Shelly, cohesive, muddy sand or sandy mud with sparsely scattered boulders (<1%) and cobbles (<1%)	Sediment moderately burrowed by megafauna including possibly <i>Nephrops norvegicus</i> . <i>Turritella communis</i> shells including probably live specimens (P), <i>Asterias rubens</i> (P), <i>Henricia</i> sp.? (P), <i>Luidia ciliaris</i> (P), <i>Ophiura ophiura</i> (P). Stones encrusted with pink coralline algae (R) and serpulid worms (P) and support hydroids (R overall), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (P) and <i>Calliostoma zizyphinum</i> (P). Discarded rope. Gradual transition with previous and following biotopes.	SS.SMu.CFiMu.SpnMeg		BM:SB
SoM_2_V2.4	Muddy sand (80%) with shell gravel (15%), scattered cobbles (3%) and boulders (3%)	Stones support hydroids (R) and <i>Parasmittina trispinosa</i> ? (R). <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (P). Gradual transition with following biotope.	SS.SSa.CMuSa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_2_V2.5	Mixed substrate predominantly of silty sand (65%) with gravel (20%) and pebbles (5%) and scattered silted cobbles (5%) and boulders (5% but locally dense)	Stones sparsely encrusted with serpulid worms (R), <i>Parasmittina trispinosa</i> (R) and pink coralline algae (R) and supporting patchy hydroid turf (F, locally A), <i>Caryophyllia smithii</i> (C locally), cream digitiform sponge (R), <i>Alcyonium digitatum</i> (R). <i>Munida rugosa</i> (O), Paguridae spp. (P), <i>Cancer pagurus</i> (P), <i>Buccinum undatum</i> eggs? (R), <i>Turritella communis</i> shells (P), <i>Pecten maximus</i> ? (P), Crinoidea sp. (R) including <i>Leptometra celtica</i> (locally F), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (F), <i>Henricia</i> sp.? (P), <i>Luidia ciliaris</i> (O), <i>Echinus esculentus</i> (F), teleost sp. (P).	SS.SMx.CMx, CR.LCR		LC
SoM_3_V1.1	Shelly (5% shell gravel) muddy sand (94%) with scattered cobbles (1%) and boulders (<1%)	Stones encrusted with serpulid worms (P) and <i>Parasmittina trispinosa</i> (R) and supporting sparse hydroids (R) and <i>Alcyonium digitatum</i> (R). Sediment with small holes, <i>Toxisarcon alba</i> (P), <i>Cerianthus lloydii</i> (O - F), <i>Munida rugosa</i> (P), Paguridae spp. (O), <i>Hyas araneus</i> (P), <i>Arctica islandica</i> (F), <i>Pecten maximus</i> (P), <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (F), <i>Crossaster papposus</i> (P), <i>Ophiura ophiura</i> (O), <i>Ophiura albida</i> (F), Holothuroidea sp. (P).	SS.SSa.CMuSa		AI
SoM_3_V1.2	Silted boulders (30%) and cobbles (20%) on muddy sand (50%)	Stones encrusted with <i>Parasmittina trispinosa</i> (R) and supporting patchy hydroid turf (F) and <i>Securiflustra securifrons</i> ? (P). <i>Munida rugosa</i> (P), <i>Calliostoma zizyphinum</i> (P).	CR.LCR.BrAs, SS.SSa.CMuSa		
SoM_3_V1.3	Shelly (5% shell gravel) muddy sand (93%) with scattered cobbles (1%) and pebbles (1%)	Stones supporting sparse hydroids (R). Sediment with small holes, Paguridae spp. (O), <i>Pecten maximus</i> (P), <i>Aequipecten opercularis</i> (P), Crinoidea sp. (P), <i>Asterias rubens</i> (F), <i>Ophiura ophiura</i> (O), <i>Ophiura albida</i> (P).	SS.SSa.CMuSa		
SoM_3_V1.4	Shelly (5% shell gravel) muddy sand (63%) with scattered, silted cobbles (10%), pebbles (2%), boulders (5%) and bedrock (15%)	Stones encrusted with <i>Parasmittina trispinosa</i> (R) and supporting patchy hydroid turf (F), <i>Swiftia pallida</i> (O), <i>Securiflustra securifrons</i> (locally O) and <i>Alcyonium digitatum</i> (R). <i>Munida rugosa</i> (O), Paguridae spp. (O), <i>Calliostoma zizyphinum</i> (P), Crinoidea sp. (P), <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (P), <i>Ophiothrix fragilis</i> (P).	CR.MCR.EcCr.CarSwi.LgAs, SS.SSa.CMuSa		NS:CS, NS:SP

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_3_V1.5	Shelly (10% shell gravel) muddy sand (89%) with scattered cobbles (1%)	Hydroids (R), Paguridae spp. (P), <i>Inachus</i> sp.? (P), <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (P), <i>Ophiura albida</i> (P).	SS.SSa.CMuSa		
SoM_3_V2.1	Scattered, silted cobbles (15%), boulders (10%) and bedrock (5%) on gravelly (10%) muddy sand (60%)	Bedrock and stones encrusted with <i>Parasmittina trispinosa</i> (R) and pink coralline algae (R) and supporting patchy hydroid turf (F locally C), <i>Alcyonium digitatum</i> (R) and <i>Caryophyllia smithii</i> (P). <i>Calliostoma zizyphinum</i> (P), <i>Aequipecten opercularis</i> (P), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (F), <i>Ophiura albida</i> (C locally).	CR.HCR.XFa, SS.SSa.CMuSa		
SoM_3_V2.2	Gravelly (5%) muddy sand (93%) with sparsely scattered cobbles (1%) and boulders (1%)	Stones encrusted with <i>Parasmittina trispinosa</i> (R) and supporting patchy hydroids (R overall). Actiniaria sp. (R), <i>Inachus</i> sp.? (P), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (P), <i>Ophiura albida</i> (C locally), <i>Ophiura ophiura</i> (P).	SS.SSa.CMuSa		
SoM_3_V2.3	Gravelly (10%) muddy sand (60%) with scattered, silted cobbles (5%), boulders (5%) and bedrock (20%)	Bedrock and stones encrusted with <i>Parasmittina trispinosa</i> (R) and supporting patchy hydroid turf (F locally C). Crinoidea sp. (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (P).	CR.HCR.XFa, SS.SSa.CMuSa		
SoM_3_V2.4	Gravelly (20%) muddy sand (80%) with sparsely scattered cobbles (<1%) and boulders (<1%)	Stones encrusted with <i>Parasmittina trispinosa</i> (R) and supporting sparse hydroids (R). <i>Asterias rubens</i> (P) <i>Ophiura albida</i> (P).	SS.SSa.CMuSa		
SoM_3_V2.5	Largely sand-dusted/covered bedrock with sparse boulders (<1%)	Rock encrusted with pink coralline algae (R) and supporting patchy hydroid turf (A) and <i>lophon</i> sp.? (P). <i>Aequipecten opercularis</i> (P), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiura albida</i> (C locally).	CR.HCR.XFa		

## Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_3_V2.6	Gravelly (20%) muddy sand (78%) with sparsely scattered cobbles (1%) and boulders (1%)	Stones encrusted with <i>Parasmittina trispinosa</i> (R) and pink coralline algae (R) and supporting hydroids (R overall) and <i>Alcyonium digitatum</i> (R). <i>Cerianthus lloydii</i> (P), <i>Lanice conchilega</i> (P), <i>Munida rugosa</i> (P), Paguridae spp. (P), <i>Inachus</i> sp. (P), <i>Aequipecten opercularis</i> (O), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (O), <i>Ophiura albida</i> (C locally), <i>Ophiura ophiura</i> (P), <i>Callionymus</i> sp. (P). Sediment locally with small holes and very sparse small burrows.	SS.SSa.CMuSa		
SoM_3_V2.7	Largely sand-dusted/covered bedrock with sparse boulders (<1%)	Rock supporting patchy hydroid turf (A). <i>Calliostoma zizyphinum</i> (P), <i>Asterias rubens</i> (P).	CR.HCR.XFa		
SoM_3_V2.8	Gravelly muddy sand	No biota discernible.	SS.SSa.CMuSa		
SoM_3_V3.1	Muddy sand with sparsely scattered cobbles (<1%) and boulders (<1%)	Sediment with moderate density of small burrows and some emergent infaunal tubes. <i>Toxisarcon alba</i> (P), hydroids (R), Bonellidae sp. (P), <i>Munida rugosa</i> (P), <i>Pagurus bernhardus</i> (P), <i>Turritella communis</i> shells (P, some possibly occupied), <i>Arctica islandica</i> (F, locally C), <i>Pecten maximus</i> (O), <i>Aequipecten opercularis</i> (R), <i>Asterias rubens</i> (F), <i>Ophiura ophiura</i> (O), <i>Ophiura albida</i> (F), solitary ascidian (P).	SS.SMu.CSaMu		AI
SoM_3_V3.2	Shelly (10% shell gravel) muddy sand (82%) with scattered pebbles (2%), cobbles (4%) and boulders (2%)	Stones encrusted with <i>Parasmittina trispinosa</i> (R) and supporting hydroids (R overall), <i>Caryophyllia smithii</i> (R) and <i>Alcyonium digitatum</i> (R). <i>Aequipecten opercularis</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (P), <i>Ophiura albida</i> (P),	SS.SSa.CMuSa		
SoM_3_V3.3	Muddy sand with sparsely scattered cobbles (<1%) and boulders (<1%)	Sediment with moderate density of small burrows. Hydroids (R), <i>Arctica islandica</i> (P), <i>Asterias rubens</i> (F), <i>Ophiura ophiura</i> (O).	SS.SMu.CSaMu		AI

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_3_V3.4	Sediment dusted bedrock	Rock supporting hydroid turf (A) and <i>Swiftia pallida</i> (O).	CR.HCR.XFa.SwiLgAs		NS:MT, NS:SP
SoM_3_V3.5	Shelly (15% shell gravel) muddy sand (82%) with scattered pebbles (2%), cobbles (5%) and boulders (5%)	Stones encrusted with <i>Parasmittina trispinosa</i> (R) and supporting hydroids (F on rock) including <i>Nemertesia ramosa</i> (R), and <i>Alcyonium digitatum</i> (R). <i>Munida rugosa</i> (P), Paguridae spp. (O), <i>Hyas araneus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Aequipecten opercularis</i> (O), <i>Antedon</i> sp. (P), <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (C locally), <i>Callionymus</i> sp. (P).	SS.SSa.CMuSa, CR.MCR.EcCr.FaAlCr		
SoM_3_V3.6	Dense boulders (35%) and cobbles (35%) on muddy sand	Stones encrusted with <i>Parasmittina trispinosa</i> (R) and supporting sparse <i>Alcyonium digitatum</i> (R). <i>Antedon</i> spp. (P), <i>Asterias rubens</i> (F).	CR.MCR.EcCr.FaAlCr		
SoM_3_V3.7	Shelly (15% shell gravel) muddy sand (81%) with scattered pebbles cobbles (2%) and boulders (2%)	Stones supporting hydroids (R overall, A on stones). <i>Aequipecten opercularis</i> (O), <i>Echinus esculentus</i> (P).	SS.SSa.CMuSa		
SoM_4_V1	Mixed substrate of coarse sand and gravel with varying densities of pebbles and cobbles, locally dense, and sparse boulders	Stones supporting sparse sponges including <i>cream digitiform species</i> (R) and <i>lophon</i> sp.? (R), hydroids (F), <i>Alcyonium digitatum</i> (C locally) and <i>Polycarpa pomaria</i> ? (P). <i>Cerianthus lloydii</i> (locally C), <i>Urticina</i> sp. (P), <i>Caridea</i> sp. (P), <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Hyas</i> sp. (P), <i>Cancer pagurus</i> (P), <i>Buccinum undatum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Solaster endeca</i> (P), <i>Henricia</i> sp. (P), <i>Ophiocomina nigra</i> (P), <i>Echinus esculentus</i> (F), <i>Holothuroidea</i> sp. (P), teleost sp. (P).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_4_V2.1	Mixed substrate predominantly of coarse sand (35%), gravel (35%) and pebbles (24%) with cobbles (5%, locally dense) and boulders (1%)	Stones supporting hydroids (O), <i>Alcyonium digitatum</i> (O) and serpulid worms (P). <i>Urticina</i> sp. (P), <i>Munida rugosa</i> (O), Crinoidea spp. (R) including <i>Leptometra celtica</i> , <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Echinus esculentus</i> (O), <i>Neopentadactyla mixta?</i> (P).	SS.SMx.CMx		LC
SoM_4_V2.10	Coarse sand (30%) with pebbles (10%), cobbles (40%) and boulders (20%)	<i>Caryophyllia smithii</i> (P), <i>Munida rugosa</i> (C), Anomiidae spp. (P), <i>Antedon</i> spp. (C), <i>Leptometra celtica</i> (A), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (P), <i>Echinus esculentus</i> (C).	SS.SMx.CMx		LC
SoM_4_V2.11	Mixed substrate of silty sand (35%), gravel (10%) and pebbles (25%), cobbles (25%) and boulders (5%)	Stones supporting hydroids (O), <i>Alcyonium digitatum?</i> (R) and serpulid worms (P). <i>Munida rugosa</i> (C), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (C).	SS.SMx.CMx		
SoM_4_V2.2	Mostly bedrock (50%) and boulders (25%) with patches of coarse, mixed sediment with cobbles	Rock encrusted with pink coralline algae (R) and supporting <i>Alcyonium digitatum</i> (R) and hydroids (P, coverage uncertain). <i>Echinus esculentus</i> (F)	CR.MCR.EcCr.FaAICr		
SoM_4_V2.3	Mixed substrate predominantly of coarse sand (35%), gravel (29%) and pebbles (24%) with cobbles (10%, locally dense) and boulders (2%)	Stones encrusted with pink coralline algae (R), serpulid worms (P), <i>Balanus</i> spp. (P) and <i>Parasmittina trispinosa</i> (R), and supporting <i>Alcyonium digitatum</i> (R) and patchy turf of hydroids and bryozoans (O - F) including <i>Securiflustra securifrons</i> . <i>Munida rugosa</i> (P), <i>Leptometra celtica</i> (R), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Solaster endeca?</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		LC

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_4_V2.4	Mostly bedrock (50%) and boulders (15%) with patches (35%) of coarse, mixed sediment with cobbles	Rock encrusted with serpulid worms (P) and <i>Parasmittina trispinosa</i> (R), and supporting <i>Alcyonium digitatum</i> (R) and patchy turf of hydroids and bryozoans (F) including <i>Securiflustra securifrons</i> . <i>Munida rugosa</i> (P), Crinoidea spp. (R), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAICr, SS.SMx.CMx		
SoM_4_V2.5	Mixed substrate of coarse sand (40%), gravel (10%) and pebbles (20%) with cobbles (30%) and boulders (<1%)	Stones encrusted with serpulid worms (P) and <i>Parasmittina trispinosa</i> ? (R). <i>Munida rugosa</i> (P).	SS.SMx.CMx		
SoM_4_V2.6	Sand-dusted bedrock	Rock supports turf of hydroids/bryozoans (F - C) and dense ophiuroids (A) including <i>Ophiocomina nigra</i> (A) and <i>Ophiothrix fragilis</i> (P). <i>Echinus esculentus</i> (F).	CR.MCR.EcCr.FaAICr.Br		
SoM_4_V2.7	Mixed substrate of coarse sand (50%), gravel (10%) and pebbles (25%) with cobbles (10%) and boulders (5%)	<i>Munida rugosa</i> (P), <i>Antedon</i> spp. (O), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (F). Small patches of <i>Ophiocomina nigra</i> (locally A) with <i>Ophiothrix fragilis</i> (P).	SS.SMx.CMx		
SoM_4_V2.8	Largely bedrock (75%) with some boulders (5%) and cobbles (10%) on coarse sand (10%)	Rock supports scattered hydroids (O), <i>Caryophyllia smithii</i> (locally F) and Anomiidae sp. (P). Paguridae sp. (P), <i>Antedon</i> spp. (O), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (F). A few boulders with dense clumps of ophiuroids.	CR.MCR.EcCr.FaAICr		
SoM_4_V2.9	Coarse sand (40%) with pebbles (10%), cobbles (40%) and boulders (10%)	<i>Munida rugosa</i> (P), Anomiidae spp. (P), Crinoidea spp. (O), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SoM_4_V3.1	Coarse sand (55%) with gravel (10%), pebbles (30%), cobbles (5%), boulders (<1%) and small bedrock outcrop (<1%)	Stones encrusted with pink coralline algae (R) and serpulid worms (O) and supporting sparse hydroids (R) and <i>Alcyonium digitatum</i> (F). <i>Cerianthus lloydii</i> (F, locally C), <i>Lanice conchilega</i> (P), <i>Pecten maximus?</i> (P), <i>Asterias rubens</i> (F), <i>Crossaster papposus</i> (F), <i>Echinus esculentus</i> (O).	SS.SMx.CMx		
SoM_4_V3.2	Bedrock outcrop (65%) with boulders (15%) and mixed sand patches (20%)	Rock encrusted with pink coralline algae (F) and <i>Parasmittina trispinosa</i> (R) and supporting patchy hydroid turf (F), <i>Metridium dianthus</i> (P), Actinaria sp. (R) and <i>Alcyonium digitatum</i> (R). Serpulid worms (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAlCr		
SoM_4_V3.3	Coarse sand (55%) with gravel (10%), pebbles (30%), cobbles (5%), boulders (<1%) and small bedrock outcrop (<1%)	Stones encrusted with pink coralline algae (R) and serpulid worms (P) and supporting sparse hydroids (R) and <i>Alcyonium digitatum</i> (O). <i>Cerianthus lloydii</i> (C), <i>Munida rugosa</i> (P), <i>Asterias rubens</i> (P), <i>Crossaster papposus</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
LA246	Sandy mud or muddy sand	Sediment with small emergent arms, probably those of <i>Amphiura</i> spp. (S), which may also be responsible for the many small holes. <i>Ophiura ophiura</i> (C), <i>Protanthea simplex</i> (R), <i>Arenicola marina</i> cast (P), <i>Philine aperta</i> (O), <i>Asterias rubens</i> (F), sparse megafaunal burrows including possibly <i>Nephrops norvegicus</i> . Algal detritus.	SS.SMu.IFiMu.PhiVir		
LA248	Sandy mud or muddy sand with dense shells (locally 40%) towards end of run	Sediment with many small holes. <i>Protanthea simplex</i> (R), burrowing anemone (P), Paguridae spp. (F), <i>Philine aperta</i> (F), <i>Asterias rubens</i> (F), sparse megafaunal burrows. Algal detritus.	SS.SMu.IFiMu.PhiVir		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
LA250	Shelly, silty sand (50%) with gravel (20%), pebbles (20%), shells (5%) and small, silted bedrock outcrop (5%)	Ophiuroid bed with <i>Ophiocomina nigra</i> (A) and <i>Ophiothrix fragilis</i> (locally S). Rock and stones encrusted with pink coralline algae (R) and supports clumps of <i>Chaetopterus variopedatus</i> (locally A) with <i>Protanthea simplex</i> (O, locally A), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (R) and <i>Corella parallelogramma</i> (F). <i>Kirchenpaueria pinnata?</i> (R), <i>Cerianthus lloydii</i> (C), Paguridae spp. (O), <i>Carcinus maenas</i> (P), <i>Aequipecten opercularis</i> (F), <i>Asterias rubens</i> (F), <i>Psammechinus miliaris</i> (F), <i>Ascidia virginea</i> (R), filamentous red algae (R).	CR.LCR.BrAs.AmenCio. Bri		
LA252	Sandy mud	Sediment with fairly sparse, small megafaunal burrows and <i>Arenicola marina</i> casts (F). <i>Amphiura</i> spp. (A), <i>Ophiura ophiura</i> (C), <i>Suberites ficus</i> (R), small patch of hydroids (P), <i>Cerianthus lloydii</i> (C), <i>Chaetopterus variopedatus</i> (O), <i>Myxicola</i> sp. (P), Paguridae spp. (O), <i>Inachus</i> sp. (P), <i>Philine aperta</i> (O, locally F), <i>Asterias rubens</i> (F), clumps of solitary ascidians (F) including <i>Ascidia mentula</i> and <i>Ascidella aspersa?</i> , filamentous red algae (R).	SS.SMu.IFiMu.PhiVir		
LA254	Sandy mud	Sediment with megafaunal burrows, mostly small, but including possibly <i>Nephrops norvegicus</i> , and <i>Arenicola marina</i> casts (F). <i>Amphiura</i> spp. (A), <i>Ophiura ophiura</i> (F), hydroids (O), <i>Protanthea simplex</i> (R), <i>Cerianthus lloydii</i> (C), <i>Chaetopterus variopedatus</i> (O), Paguridae spp. (O), <i>Philine aperta</i> (O), <i>Asterias rubens</i> (C), clumps of solitary ascidians (C) including <i>Ascidia mentula</i> , <i>A. virginea</i> (R) and <i>Ascidella aspersa?</i> , filamentous red algae (R), <i>Saccharina latissima</i> (R).	SS.SMu.IFiMu.PhiVir		
LA256	Silted boulders (70%) on muddy sand	Rock encrusted with pink coralline algae (C) and <i>Aglaozonia?</i> (R) and supporting <i>Chaetopterus variopedatus</i> (C) and <i>Ascidia mentula</i> (P).	CR.LCR.BrAs.AmenCio		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
LA258.1	Fine-medium sand (65%) with surface scatter of pebbles (20%), gravel (10%) and shells (5%)	Stones support patchy turf of filamentous red algae (F), brown filiform algae (R), <i>Saccharina latissima</i> (R) and <i>Ulva lactuca?</i> (R). Dense patches of solitary ascidians (A) including apparently <i>Ascidia mentula</i> and <i>Ascidiella aspersa</i> . Sediment with <i>Arenicola marina</i> (P) and <i>Cerianthus lloydii</i> (F). <i>Chaetopterus variopedatus</i> (P), Paguridae sp. (P), <i>Marthasterias glacialis</i> (P).	SS.SMp.KSwSS.LsacR.Sa		KS
LA258.2	Silted bedrock	Rock encrusted with pink coralline algae (F) and supporting dense solitary ascidians (S) including <i>Ascidiella aspersa</i> , <i>Ascidia mentula</i> , <i>Ascidia virginea</i> and <i>Corella parallelogramma</i> , and filamentous red algae (C). <i>Suberites</i> sp. (P), hydroids (O), Paguridae sp. (P), <i>Marthasterias glacialis</i> (P), <i>Echinus esculentus</i> (F), <i>Saccharina latissima</i> (R).	CR.LCR.BrAs.AmenCio		
LA258.3	Gravelly sand with scattered boulders	Patchy turf of filamentous red algae (C), <i>Saccharina latissima</i> (C) and <i>Ulva lactuca?</i> (O). <i>Asterias rubens</i> (P), solitary ascidians (A).	SS.SMp.KSwSS.LsacR.Sa		KS
LA260.1	Silty, shelly sand (60%) with dense scatter of pebbles (30%), as well as gravel (5%), cobbles (5%), shells (<1%) including <i>Ensis</i> , and boulders (<1%)	Stones encrusted with pink coralline algae (R) and support sparse algal tufts (O) including filamentous reds (O) and filamentous greens/browns (R). <i>Suberites ficus</i> (R), <i>Arenicola marina</i> (P), <i>Chaetopterus variopedatus</i> (R), Paguridae spp. (R) including <i>Pagurus bernhardus</i> , <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (O), <i>Henricia</i> sp. (P).	SS.SSa.IMuSa		
LA260.2	Silted boulders (55%) and cobbles (5%) on shelly muddy sand	Stones encrusted with pink coralline algae (F) and support sparse filamentous red algae (R). Hydroids (P), <i>Alcyonium digitatum?</i> (R), <i>Chaetopterus variopedatus</i> (C), <i>Aequipecten opercularis</i> (R), <i>Asterias rubens</i> (O), <i>Echinus esculentus</i> (P), <i>Ophiothrix fragilis</i> (C), solitary ascidians (F) including <i>Corella parallelogramma</i> (F).	CR.LCR.BrAs.AmenCio		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
LA260.3	Silted boulders (60%) and cobbles (10%) on shelly muddy sand	Stones encrusted with pink coralline algae (F, locally C) and support filamentous red algae (O, locally F) and towards the end of run <i>Saccharina latissima</i> (O). Hydroids (P), orange sponge (R, <i>Suberites?/Haliclona urceolus?</i> ), <i>Chaetopterus variopedatus</i> (C), Paguridae sp. (P), <i>Buccinum undatum?</i> (P), <i>Aequipecten opercularis</i> (R), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (C), solitary ascidians (F) including <i>Corella parallelogramma</i> (P) and <i>Ascidia mentula</i> and/or <i>Ascidiella aspersa</i> (P). Stones also support small aggregations of <i>Serpula vermicularis</i> (C) covering around 5% of seabed. Worm tubes perhaps up to c.10 cm in height and forming clusters of up to c.50 individuals, probably of the same age class.	SS.SBR.PoR.Ser		SA
LA262.1	Silty, shelly sand (45%) with densely scattered pebbles (30%) and gravel (25%)	Stones support patchy turf of filamentous algae (C) including reds (P).	SS.SMp.KSwSS		KS
LA262.2	Silted boulders (75%) and cobbles (5%) on silty sand (20%)	Stones encrusted with pink coralline algae (F) and support filamentous red algae (F, locally A), <i>Halidrys siliquosa</i> (R) and <i>Saccharina latissima</i> (A). <i>Psammechinus miliaris</i> (P).	IR.LIR.KVS		LS:KP
WR1.1	Silty shelly sand with scattered gravel, pebbles, cobbles and boulders, though largely obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (C) and <i>Ophiura albida</i> (P). Stones encrusted with pink coralline algae (R) and serpulid worms (P) and support hydroids (R), <i>Metridium dianthus</i> (R) and <i>Protanthea simplex</i> (locally C). <i>Munida rugosa</i> (P), Paguridae spp. (P) including <i>Pagurus bernhardus</i> (P), <i>Pecten maximus</i> (R), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (F), <i>Luidia ciliaris</i> (O), <i>Porania pulvillus</i> (R), <i>Echinus esculentus</i> (F), <i>Pholis gunnellus</i> (P). Possibly <i>Limaria hians</i> present towards end of run	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR1.2	Flame shell turf (75%) covering concentrations of shells and pebbles with small patches of silty sand (20%) and pockets of boulders (3%) and cobbles (2%), locally covering around 65% of seabed	Well-developed flame shell bed with turf covering overall 75% of seabed (locally 100%) forming typical mosaic with sand patches, although turf coverage reduced in areas of dense boulders and cobbles; some dead <i>Limaria hians</i> shells visible. Turf with dense gallery apertures and supporting hydroid turf (C - A) including <i>Nemertesia ramosa</i> (C), <i>Rhizocaulus verticillatus</i> (P), <i>Kirchenpaueria pinnata?</i> (P) and <i>Halecium halecinum</i> (P), <i>Alcyonium digitatum</i> (R), and solitary ascidians (P). <i>Haliclona urceolus?</i> (P), <i>Munida rugosa</i> (F), <i>Hyas araneus</i> (P), <i>Buccinum undatum</i> (P), <i>Pecten maximus</i> (P), small Pectiniidae sp. (P), <i>Antedon</i> spp. (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (C), <i>Marthasterias glacialis</i> (P), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiura albida</i> (locally C), <i>Echinus esculentus</i> (C), foliose red algae (R), pink encrusting coralline algae (R), <i>Saccharina latissima</i> (O). Silted boulders and cobbles with <i>Ciona intestinalis</i> (where F - C).	SS.SMx.IMx.Lim, CR.LCR.BrAs.AmenCio		FS:LH
WR1.3	Mixed substrate of silty coarse sand (40%) with pebbles (40%) and scattered gravel (15%) and cobbles (5%)	Stones encrusted with <i>serpulid</i> worms (F) and <i>Balanus</i> spp. (P) and supporting hydroids (F) including <i>Nemertesia ramosa</i> (P), <i>Alcyonium digitatum</i> (R) and <i>Protanthea simplex</i> (C). <i>Munida rugosa</i> (P), Polyplacophora sp. (P), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (F), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
WR1.4	Mixed substrate of sand (35%) and gravel (20%) with pebbles (40%) and cobbles (5%)	Stones encrusted with serpulid worms (F) and supporting hydroids (F) and <i>Protanthea simplex</i> (A). Thin ophiuroid bed with <i>Ophiothrix fragilis</i> (A, locally S), <i>Ophiocomina nigra</i> (locally C) and <i>Ophiura albida</i> (locally C)	SS.SMx.CMx.OphMx		
WR10.1	Muddy sand (55%) with scattered pebbles (20%), cobbles (15%), boulders (5%) and gravel (5%)	Stones with serpulid worms (F) and supporting sparse hydroids (R), <i>Novocrania anomala</i> (locally C) and dense <i>Leptometra celtica</i> (A). <i>Munida rugosa</i> (O), <i>Antedon</i> sp. (P), <i>Porania pulvillus</i> (P), <i>Ophiothrix fragilis</i> (P)	SS.SMx.CMx		LA, LC

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR10.2	Muddy sand (40%) with scattered pebbles (30%), cobbles (20%), boulders (5%) and gravel (5%)	Stones with serpulid worms (F) and <i>Balanus</i> spp. (R), and supporting sparse hydroids (O) including <i>Rhizocaulus verticillatus</i> (P). <i>Cerianthus lloydii</i> (P), Terebellidae sp. (P), Paguridae sp. (P), <i>Munida rugosa</i> (F), <i>Crinoidea</i> spp. (O on boulders), <i>Marthasterias glacialis</i> (P), <i>Luidia ciliaris</i> (F), <i>Porania pulvillus</i> (O), <i>Ophiothrix fragilis</i> (P), <i>Echinus esculentus</i> (P), <i>Pholis gunnellus</i> (P), small burrows (R).	SS.SMx.CMx		
WR11	Mixed substrate of muddy sand (40%) with gravel (15%), pebbles (35%), cobbles (10%) and boulders (<1%)	Stones with serpulid worms (C) and <i>Balanus</i> spp. (P), and supporting sparse hydroids (O). <i>Cerianthus lloydii</i> (C), Paguridae spp. (P), some occupying <i>Turritella</i> shells, <i>Munida rugosa</i> (F), <i>Aequipecten opercularis</i> (F), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (P), <i>Porania pulvillus</i> (O), <i>Echinus esculentus</i> (F), teleost sp. (P).	SS.SMx.CMx		
WR12.1	Variable, mixed substrate of silty sand with gravel and pebbles and scattered cobbles and boulders, locally dense (80%)	Stones encrusted with <i>Spirobranchus</i> spp. (F), brown algae (C) and pink coralline algae (O) and supporting sparse hydroids (O) including <i>Halecium</i> sp. and <i>Kirchenpaueria pinnata?</i> , <i>Caryophyllia smithii</i> (P), Polyplacophora sp. (P), <i>Ostrea edulis</i> (1 small specimen), <i>Ciona intestinalis</i> (P) and foliose red algae (F). Paguridae sp. (P), <i>Munida rugosa</i> (P), <i>Asterias rubens</i> (P), <i>Ophiura albida</i> (P), juvenile teleost (P).	CR.LCR.BrAs, SS.SMx.CMx		NO:OE
WR12.2	Variable, mixed substrate of silty sand with gravel and pebbles and scattered cobbles (locally 25%) and boulders (<1%)	Stones encrusted with serpulid worms (locally C) including <i>Spirobranchus</i> spp. and <i>Serpula vermicularis</i> , brown algae (O) and pink coralline algae (R) and supporting foliose red algae (F). <i>Cerianthus lloydii</i> (locally C), Paguridae spp. (P), <i>Munida rugosa</i> (P), Anomiidae sp. (P), <i>Aequipecten opercularis</i> (C), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (P), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F), <i>Corella parallelogramma</i> (P). Very heavy mooring chain.	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR13	Muddy sand with varying density of pebbles, gravel and cobbles and occasional boulders	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (P) and pink coralline algae (R) and supporting sparse hydroids (O) including <i>Rhizocaulus verticillatus</i> (P). <i>Lanice conchilega</i> (P), <i>Munida rugosa</i> (F), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (O), <i>Porania pulvillus</i> (R), <i>Amphiura</i> spp. (P), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F), small mounds (P). Field of <i>Leptometra celtica</i> (where A) from 00:02:41 - 00:03:07 (HD), 00:00:40 - 00:01:06 (SD).	SS.SMx.CMx, SS.SSa.CMuSa		CM, LA, LC
WR14	Muddy sand with variable proportions of scattered pebbles (20%), gravel (5%), cobbles (10%) and boulders (<1%); stones sparse locally	Stones encrusted with serpulid worms (F) and pink coralline algae (R) and supporting sparse hydroids (O). <i>Lanice conchilega</i> (P), <i>Munida rugosa</i> (F), <i>Luidia ciliaris</i> (F), <i>Marthasterias glacialis</i> (P), <i>Porania pulvillus</i> (O), <i>Amphiura</i> spp. (C), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F). Field of <i>Leptometra celtica</i> (where largely A) from 00:05:15 - 00:08:23 (HD), 00:02:38 - 00:05:46 (SD).	SS.SMx.CMx, SS.SSa.CMuSa		CM, LA, LC
WR15	Muddy sand (80%) with variable proportions of scattered pebbles (5%), gravel (2%), cobbles (12%) and boulders (1%); stones sparse locally	Stones encrusted with serpulid worms (P) and pink coralline algae (R) and supporting patchy hydroids (O). <i>Lanice conchilega</i> (locally C), <i>Munida rugosa</i> (F), Nudibranchia sp. (P), <i>Porella compressa?</i> (R), <i>Asterias rubens</i> (locally A), <i>Luidia ciliaris</i> (F), <i>Porania pulvillus</i> (O), <i>Amphiura</i> spp. (A locally), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (P). Field of <i>Leptometra celtica</i> (where largely A, locally F-C) from 00:02:52 - 00:05:14 (HD), 00:00:10 - 00:02:29 (SD).	SS.SMx.CMx, SS.SSa.CMuSa		CM, LA, LC
WR16	Muddy sand with highly variable densities of scattered pebbles, gravel, cobbles (dense locally) and boulders; stones sparse over large areas	Stones encrusted with serpulid worms (P) including <i>Serpula vermicularis</i> , and pink coralline algae (R) and supporting sparse hydroids (O). <i>Munida rugosa</i> (F), <i>Asterias rubens</i> (P), <i>Porania pulvillus</i> (O), <i>Amphiura</i> spp. (locally C), <i>Echinus esculentus</i> (F), sparse small holes in sediment.. One specimen of <i>Leptometra celtica</i> seen at 00:05:25 (HD) (R). Plastic pipe at 00:05:32 (HD).	SS.SMx.CMx, SS.SSa.CMuSa		CM, LC

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR17.1	Muddy shelly sand with scattered gravel (5%, locally denser), shells (2%) including <i>Ensis</i> , pebbles (1%) and cobbles (1%)	Stones encrusted with serpulid worms (P), <i>Balanus balanus</i> (P) and pink coralline algae (R). <i>Cerianthus lloydii</i> (C), <i>Tubulanus</i> sp. (P), <i>Sabella pavonina</i> (R), worm casts including <i>Arenicola marina</i> (R), <i>Munida rugosa</i> (P), Paguridae spp. (P) including hosts of <i>Turritella</i> shells, <i>Antedon</i> spp. (R), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (O), <i>Porania pulvillus</i> (O), <i>Luidia ciliaris</i> (O), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (O), juvenile teleost sp. (P). Occasional patches of possibly dead algal turf material, with live foliose (R) and filamentous (R) red algae; <i>Saccharina latissima</i> (F, although probably drift material).	SS.SSa.CMuSa		CM
WR17.2	Silty fine sand (43%) with dead maerl (30%), shell and stone gravel (10%), pebbles (5%), shells (5%) including <i>Ensis</i> , cobbles (2%), boulders (5%)	Sediment supporting dense <i>Cerianthus lloydii</i> (C, locally A) and red algal turf of filamentous (A, locally S) and foliose (O) red algae, <i>Desmarestia</i> sp. (R) and <i>Saccharina latissima</i> (F). Stones encrusted with serpulid worms (P), <i>Balanus</i> spp. (P), pink coralline algae (R) and brown algae (R). <i>Virgularia mirabilis</i> (R), <i>Metridium senile</i> (R), Terebellidae sp. (P), <i>Liocarcinus</i> sp. (P), <i>Macropodia</i> sp. (P), <i>Cancer pagurus</i> (P), <i>Antedon</i> spp. (O, locally A), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (O), <i>Porania pulvillus</i> (R), <i>Ophiura albida</i> (locally C), <i>Echinus esculentus</i> (F), solitary ascidians (P) including <i>Corella parallelogramma</i> . Live <i>Phymatolithon calcareum</i> (c.5% - O). Sparsely scattered boulders and denser boulder patches at end of run may represent additional reef biotope	SS.SMp.KSwSS		KS
WR18	Silty sand (10%) with superficial cover of dead maerl (80%), live maerl (5%), shells (5%) and sparse pebbles and cobbles	Patchy filamentous red algal turf (A) composed of largely dead material with live foliose red algae (R); encrusting pink coralline algae (R). Live <i>Phymatolithon calcareum</i> around 5% cover (O). <i>Cerianthus lloydii</i> (locally C), <i>Balanus</i> spp. (P), <i>Ebalia</i> sp. (P), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (P), <i>Porania pulvillus</i> (O), <i>Ophiura ophiura</i> (P).	SS.SMp.KSwSS		KS

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR19	Silty fine sand (20%) with superficial cover of dead maerl (70%), shells (<1%), pebbles (5%), cobbles (5%) and boulders (<1%)	Stones encrusted with serpulid worms, <i>Balanus</i> spp. (P) and pink coralline algae (R). Live <i>Phymatolithon calcareum</i> around <1% cover (R). <i>Cerianthus lloydii</i> (C), Paguridae spp. (P), <i>Marthasterias glacialis</i> (F), <i>Porania pulvillus</i> (O), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (P), solitary ascidians (P).	SS.SMx.CMx		
WR2.1	Dense pebbles (45%) with cobbles (10%) and gravel (10%) on coarse sand (35%)	Stones encrusted with serpulid worms (C) and supporting hydroids (F) and <i>Protanthea simplex</i> (A). <i>Lanice conchilega</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
WR2.2	Flame shell turf (65%) covering concentrations of shells and pebbles with small patches of silty sand (35%)	Well-developed flame shell bed with turf covering overall 65% of seabed (locally 90%) forming typical mosaic with sand patches. Turf with dense gallery apertures and supporting hydroid turf (A) including <i>Nemertesia ramosa</i> (C), <i>Rhizocaulus verticillatus</i> (P) and <i>Halecium halecinum?</i> (P), <i>Alcyonium digitatum</i> (R), <i>Protanthes simplex</i> (P) and <i>Corella parallelogramma</i> (P). <i>Munida rugosa</i> (F), <i>Buccinum undatum</i> (O), <i>Modiolus modiolus?</i> (P), <i>Antedon</i> spp. (C), <i>Solaster endeca</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (C), <i>Marthasterias glacialis</i> (P), <i>Ophiocomina nigra</i> (R), <i>Ophiothrix fragilis</i> (C locally), <i>Echinus esculentus</i> (C).	SS.SMx.IMx.Lim		FS:LH
WR2.3	Silty sand visible but largely hidden by dense ophiuroids	Much of seabed occluded by dense bed of <i>Ophiothrix fragilis</i> (S) but clearly overlying dense <i>Limaria</i> turf judging by the density of gallery apertures visible.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
WR2.4	Flame shell turf (75%) covering concentrations of shells and pebbles with small patches of silty sand (25%)	Well-developed flame shell bed with turf covering overall 75% of seabed forming typical mosaic with sand patches. Turf with dense gallery apertures and supporting hydroid turf (C - A) including <i>Nemertesia ramosa</i> (C) and <i>Halecium halecinum?</i> (P), <i>Haliclona urceolus?</i> (R) and <i>Corella parallelogramma</i> (P). <i>Munida rugosa</i> (P), <i>Antedon</i> spp. (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Ophiura albida</i> (P), <i>Ophiocomina nigra</i> (locally A at end).	SS.SMx.IMx.Lim		FS:LH

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR2.5	Silty sand with scattered pebbles, gravel and sparse cobbles and boulders, though substrate largely obscured by ophiuroids	Dense bed of <i>Ophiothrix fragilis</i> (S) with <i>Ophiocomina nigra</i> (C) and <i>Ophiura albida</i> (P). Ophiuroids probably supported by <i>Limaria</i> turf for part of run, though turf not visible. <i>Protanthea simplex</i> (P), <i>Metridium dianthus</i> (R), Paguridae spp. (P) including <i>Pagurus bernhardus</i> (P), <i>Munida rugosa</i> (P), <i>Liocarcinus</i> sp. (P), <i>Cancer pagurus</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (F), <i>Luidia ciliaris</i> (F), <i>Porania pulvillus</i> (R), <i>Echinus esculentus</i> (F, locally C), <i>Pholis gunnellus</i> (P). Stones encrusted with serpulid worms (P) and pink coralline algae (P).	SS.SMx.CMx.OphMx		
WR2.6	Mixed substrate of silty sand (35%) with pebbles (30%), gravel (20%), cobbles (10%), boulders (<1%) and shells (5%), especially <i>Turritella communis</i>	Stones encrusted with sparse serpulid worms (F) including <i>Serpula vermicularis</i> , and pink coralline algae (O, locally F) and supporting sparse hydroids (O). <i>Protanthea simplex</i> (F locally), <i>Cerianthus lloydii</i> (C), Terebellidae sp. (P), <i>Mya</i> sp. (P), <i>Aequipecten opercularis</i> (O), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (P), <i>Porania pulvillus</i> (O), <i>Ophiura albida</i> (locally A), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
WR20.1	Megaripples of maerl gravel (85%) with live maerl (10%) and shells (5%) concentrated in troughs	Shells encrusted with serpulid worms (P) and pink coralline algae (P) and supporting sparse foliose red algae (R). <i>Saccharina latissima</i> (O) - probably drift. <i>Luidia ciliaris</i> (P). Live <i>Phymatolithon calcareum</i> (c.10% - F).	SS.SMp.Mrl.Pcal.Nmix		MB
WR20.2	Maerl gravel (75%) on silty fine sand (10%) with live maerl (10%) and shells (5%); megaripples locally	Live <i>Phymatolithon calcareum</i> (15% - F, locally 40% - A). Patchy red algal turf (A) including foliose reds (locally A) and filamentous/filiform reds (locally A); <i>Dictyota dichotoma</i> (P). <i>Galathea intermedia</i> (P), <i>Marthasterias glacialis</i> (P).	SS.SMp.Mrl.Pcal		MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR21.1	Scoured bedrock (70%) with boulders (10%), cobbles (10%) and small pockets of coarse sand (5%) and gravel (5%)	Rock encrusted with pink coralline algae (O) and supporting forest of <i>Laminaria hyperborea</i> (A) and <i>Saccharina latissima</i> (P) with understorey of red algal turf (S) including <i>Delesseria sanguinea</i> (P). <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F).	IR.HIR.KSed.XKScrR		
WR21.2	Megaripples of maerl gravel (80%) with shells (10%) and live maerl (10%) concentrated in troughs	<i>Laminaria hyperborea</i> (F). Live <i>Phymatolithon calcareum</i> (c.10% - F) concentrated in troughs.	SS.SMp.Mrl.Pcal.Nmix		MB
WR21.3	Scoured bedrock (50%) with boulders (15%) and cobbles (15%) and small pockets of coarse sand (5%) and larger pockets of megarippled maerl gravel (10%) with live maerl (2%) and shells (3%)	Park of <i>Laminaria hyperborea</i> (C) and <i>Saccharina latissima</i> (O) with understorey of red algae (A). <i>Asterias rubens</i> (P), <i>Marthasterias glacialis</i> (F), <i>Crossaster papposus</i> (P). Patches of dead maerl (where 80%) with shells (where 10%) and live <i>Phymatolithon calcareum</i> (where c. 10% - F).	SS.SMp.Mrl.Pcal.Nmix, IR.HIR.KSed.XKScrR		MB
WR21.4	Megaripples of maerl gravel (80%) with shells (10%) and live maerl (10%) concentrated in troughs	<i>Saccharina latissima</i> (O), pink encrusting coralline algae (R), algal tufts including filiform red algae (O). Live <i>Phymatolithon calcareum</i> (c.10% - F) concentrated in troughs. <i>Asterias rubens</i> (P).	SS.SMp.Mrl.Pcal.Nmix		MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR22.1	Mixed substrate of silty sand (45%) with maerl gravel (18%), pebbles (30%), shells (2%) and cobbles (5%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (C) and pink coralline algae (R). Paguridae sp. (P), <i>Marthasterias glacialis</i> (P), <i>Porania pulvillus</i> (P), <i>Phymatolithon calcareum</i> (<1%, R).	SS.SMx.CMx		
WR22.2	Silty sand (20%) with maerl gravel (60%), live maerl (10%), shells (5%) and scattered boulders (5%); pebbles and cobbles (<1%)	Shells and stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (R) and pink coralline algae (R), and supporting sparse hydroids (R). <i>Cerianthus lloydii</i> (P), <i>Pecten maximus</i> (P), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (F), <i>Porania pulvillus</i> (O), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (F), solitary ascidian (P), <i>Scyliorhinus</i> sp. egg case (P), <i>Phymatolithon calcareum</i> (c.10%, F, locally 20%, C).	SS.SMp.Mrl.Pcal		MB
WR23	Shelly medium sand (92%) with scattered pebbles (4%), shell material (2%) including <i>Ensis</i> , gravel (2%) and sparse cobbles and boulders (<1%)	Much algal debris. <i>Laminaria hyperborea</i> (O) and <i>Saccharina latissima</i> (O) although possibly largely drift material. Sparse tufts of foliose red (R) and filamentous/filiform red (O) algae. Stones encrusted with serpulid worms, <i>Balanus</i> spp. and pink coralline algae (R). <i>Asterias rubens</i> (P), <i>Marthasterias glacialis</i> (P).. Very sparse thalli of <i>Phymatolithon calcareum</i> (<1%, R).	SS.SSa.IMuSa		
WR24.1	Maerl gravel (65%) and live maerl (15%) on silty sand (20%)	Live <i>Phymatolithon calcareum</i> c.15% cover (F). Maerl thalli largely bound by filamentous turf - presumably of algal origin; foliose red algae (R). Sparse stones with serpulid worms and <i>Balanus</i> spp. <i>Marthasterias glacialis</i> (P), <i>Porania pulvillus</i> (P).	SS.SMp.Mrl.Pcal		MB
WR24.2	Megaripples of maerl gravel (75%) with shells (5%), stone gravel (5%) and live maerl (15%) concentrated in troughs	Live <i>Phymatolithon calcareum</i> c.15% cover (F). <i>Galathea intermedia?</i> (P), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens?</i> (P).	SS.SMp.Mrl.Pcal.Nmix		MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR25.1	Mixed coarse substrate of maerl gravel (60%), live maerl (10%), pebbles (10%), cobbles (15%) and boulders (5%)	Stones encrusted with serpulid worms (F) and pink coralline algae (R). <i>Phymatolithon calcareum</i> (10%, F), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (P), <i>Porania pulvillus</i> (P), solitary ascidians (P).	SS.SMp.Mrl.Pcal.Nmix		MB
WR25.2	Mixed coarse substrate of stone gravel (55%), maerl gravel (5%, initially denser), live maerl (5%), pebbles (10%), cobbles (20%), boulders (5%)	Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), pink coralline algae (R) and brown algae (O). Sparse <i>Phymatolithon calcareum</i> (5% at most, O), <i>Asterias rubens</i> (P), <i>Marthasterias glacialis</i> (P), <i>Henricia</i> sp. (P), <i>Luidia ciliaris</i> (P), <i>Neopentadactyla mixta</i> (P, 1 seen).	SS.SCS.CCS		
WR25.3	Dense boulders (50%) with cobbles (25%) and infill of coarse sand (5%), stone and shell gravel (5%), maerl gravel (10%) and pebbles (5%)	Stones encrusted with serpulid worms (F) and pink coralline algae (C) and supporting sparse hydroids (O) and <i>Caryophyllia smithii</i> (P). Sparse <i>Phymatolithon calcareum</i> (<1%, R), <i>Asterias rubens</i> (C, locally A), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (P), small teleost sp. (P).	CR.MCR.EcCr.FaAlCr		
WR26	Megaripples of coarse sand (60%) and gravel (30%) with scattered boulders (5%), cobbles (1%), pebbles (3%, locally much denser) and shells (1%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (locally A), pink coralline algae (R) and brown algae (P), with boulders supporting <i>Laminaria hyperborea</i> (F, locally C), red algal turf (where A) and scattered hydroids (O). Sparse <i>Phymatolithon calcareum</i> (<1%, R), <i>Asterias rubens</i> (C), <i>Crossaster papposus</i> (P), <i>Porania pulvillus</i> (O), <i>Luidia ciliaris</i> (P), <i>Neopentadactyla mixta</i> (P, 1 seen).	SS.SCS.CCS.Nmix, IR.HIR.KSed.XKScrR		MC

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR27	Dense cobbles (60%) with pebbles (10%) on silty coarse sand (15%) and gravel (15%)	Stones encrusted with <i>Spirobranchus</i> spp. (C), <i>Balanus</i> spp. (O), orange bryozoan (R) and pink coralline algae (F) and supporting sparse hydroids (O). <i>Chaetopterus variopedatus?</i> (P), <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (C), <i>Porania pulvillus</i> (O), <i>Ophiura albida</i> (P), <i>Ophiothrix fragilis</i> (R), <i>Neopentadactyla mixta</i> (P, 2 seen).	SS.SCS.CCS.PomB		
WR28	Boulders (20%) and cobbles (40%) with pebbles (10%) forming mosaic with coarse sand (30%)	Mixed kelp park of <i>Laminaria hyperborea</i> (C) and <i>Saccharina latissima</i> (O) with understorey of filamentous and foliose red algae (A) including <i>Delesseria sanguinea</i> ; encrusting pink coralline algae (R), <i>Dictyota dichotoma</i> (P). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (C), <i>Luidia ciliaris</i> (F), <i>Ophiura albida</i> (locally C), <i>Echinus esculentus</i> (C).	IR.HIR.KSed.XKScrR, SS.SCS.CCS		
WR29.1	Dense pebbles (65%) with cobbles (10%) on coarse sand (20%) with gravel (5%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (O) and pink coralline algae (F) and supporting sparse foliose red algae (R). Small Galatheididae sp. (P), <i>Marthasterias glacialis</i> (O), <i>Asterias rubens</i> (O), <i>Porania pulvillus</i> (P), <i>Luidia ciliaris</i> (P), <i>Ophiothrix fragilis</i> (R).	SS.SCS.CCS.PomB		
WR29.2	Megaripples of coarse sand (95%) with shells (2%) and gravel (3%) concentrated in troughs	Shells and stones encrusted with pink coralline algae (R).	SS.SCS.CCS		
WR3.1	Poorly sorted substrate of silty fine sand (15%) with coarse sand (40%) and gravel (20%) and scattered pebbles (21%), cobbles (3%) and shells (1%) including <i>Modiolus</i>	Stones with sparse serpulid worms ((O) and <i>Balanus</i> sp. (R) and supporting hydroids (R), <i>Alcyonium digitatum</i> (R) and <i>Protanthea simplex</i> (C). <i>Chaetopterus variopedatus</i> (P), Terebellidae sp. (P), <i>Munida rugosa</i> (O), <i>Asterias rubens</i> (F), <i>Solaster endeca</i> (F), <i>Ophiura albida</i> (locally A), <i>Ophiothrix fragilis</i> (locally C), <i>Echinus esculentus</i> (F), <i>Holothuria</i> sp. (P), <i>Ciona intestinalis?</i> (P).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR3.2	Flame shell turf (65%) covering concentrations of shells and pebbles with small patches of silty coarse sand (35%); boulders and cobbles (<1%)	Well-developed flame shell bed with turf covering overall 65% of seabed (locally 100%) forming typical mosaic with sand patches. Turf with dense gallery apertures and some dead <i>Limaria</i> shells visible. Turf supports hydroid turf (C-A) dominated by <i>Nemertesia ramosa</i> (C) and <i>Rhizocaulus verticillatus</i> (P), with <i>Kirchenpaueria pinnata?</i> and <i>Halecium</i> sp.? (P). Other sessile forms include pink encrusting coralline algae (R), foliose red algae (R), <i>Haliclona urceolus</i> (R), <i>Protanthea simplex</i> (C locally), <i>Alcyonium digitatum</i> (R) and solitary ascidians including <i>Corella parallelogramma</i> , <i>Ciona intestinalis</i> , <i>Polycarpa pomaria</i> and <i>Ascidia virginea</i> . <i>Munida rugosa</i> (O), <i>Gibbula cineraria</i> (P), <i>Buccinum undatum</i> (P), <i>Modiolus modiolus</i> (P), <i>Antedon</i> spp. (O), <i>Solaster endeca</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (C), <i>Henricia</i> sp. (P), <i>Ophiura albida</i> (P), <i>Ophiocomina nigra</i> (R), <i>Ophiothrix fragilis</i> (O), <i>Echinus esculentus</i> (C), <i>Pleuronectiformes</i> sp. (P).	SS.SMx.IMx.Lim		FS:LH
WR3.3	Silty sand with pebbles and shells - largely occluded by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (C) and <i>Ophiura albida</i> (P). Stones encrusted with pink coralline algae (R) and serpulid worms (P) and support hydroids (O) and <i>Protanthea simplex</i> (R, locally C). <i>Carcinus maenas</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
WR30	Slightly silty coarse sand (50%) and gravel (15%) with scattered pebbles (15%) and cobbles (20%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (F) and pink coralline algae (O) and supporting sparse foliose red algae (R) and a short, fine, dense scrub (A), possibly of dead hydroids or filamentous algae. <i>Lanice conchilega</i> (P), <i>Munida rugosa?</i> (P), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (P), <i>Porania pulvillus</i> (P), <i>Luidia ciliaris</i> (P), <i>Neopentadactyla mixta</i> (P, 1 seen), <i>Ascidia mentula</i> (P), small teleost sp. (P), <i>Phymatolithon calcareum</i> (R, <1%).	SS.SMx.CMx		
WR31	Megaripples of maerl gravel (55%) with live maerl (10%) interspersed with boulders (15%), cobbles (15%) and pebbles (5%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (P), brown algae (locally A) and pink coralline algae (O) and supporting sparse hydroids (R). Small <i>Galathea</i> sp. (P), <i>Marthasterias glacialis</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Porania pulvillus</i> (O), <i>Ophiura albida</i> (locally C), <i>Echinus esculentus</i> (F), small teleost sp. (P), <i>Phymatolithon calcareum</i> (c.10%, F - at least locally).	SS.SMp.Mrl.Pcal.Nmix, CR.MCR.EcCr.FaAlCr		MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR32	Megaripples of maerl gravel (50%) with live maerl (10%) interspersed with patches of boulders (20%), cobbles (15%) and pebbles (5%)	Stones encrusted with serpulid worms (F) including <i>Spirobranchus</i> spp. (P), <i>Balanus</i> spp. (R), orange bryozoan (R), brown algae (locally A) and pink coralline algae (O). <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (C), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (C), small teleost sp. (P), <i>Phymatolithon calcareum</i> (c.10%, F - at least locally).	SS.SMp.Mrl.Pcal.Nmix, CR.MCR.EcCr.FaAlCr		MB
WR33	Megaripples of maerl gravel (60%), live maerl (10%), stone gravel (20%) and sand (10%)	Patchy <i>Phymatolithon calcareum</i> (possibly c.10% - F - overall, although large areas probably less than this). <i>Pecten maximus?</i> (P), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (P), encrusting pink coralline algae (R).	SS.SMp.Mrl.Pcal.Nmix		MB
WR34	Poorly mixed, silty sand (70%) with gravel (10%) and scattered cobbles (15%) and pebbles (5%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (F) and pink coralline algae (R) and supporting sparse hydroids (R), although with a short, fine, dense scrub (C), possibly of dead hydroids or filamentous algae; also sparse foliose (R) and filamentous (R) red algae. Galatheidae sp. (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F).	SS.SMx.CMx		
WR35	Poorly mixed, silty sand (60%) with scattered gravel (20%), shells (5% including <i>Ensis</i> ), pebbles (15%) and cobbles (<1%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (P and pink coralline algae (R) and supporting sparse foliose (R) and filamentous (R) red algae. <i>Cerianthus lloydii</i> (P), polychaete casts (P), <i>Ensis</i> sp. siphon? (P), <i>Aplysia punctata</i> (P), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		
WR4.1	Mixed substrate of silty sand (50%) with pebbles (35%), gravel (10%), cobbles (5%) and boulders (<1%)	Stones encrusted with sparse serpulid worms (F) and supporting sparse hydroids (O). <i>Protanthea simplex</i> (C, locally A), <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (P), <i>Ophiura albida</i> (locally C), <i>Ophiothrix fragilis</i> (A), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR4.2	Mixed substrate of silty sand (35%) with pebbles (45%), gravel (15%) and cobbles (5%)	Stones encrusted with serpulid worms (F) and supporting hydroids (F), Porifera sp. (P) and <i>Protanthea simplex</i> (A). <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (P), <i>Ophiothrix fragilis</i> (P).	SS.SMx.CMx		
WR4.3	Flame shell turf (80%) covering concentrations of shells and pebbles with small patches of silty coarse and medium sand (20%)	Well-developed flame shell bed with turf covering overall 80% of seabed (100% over extensive area) forming typical mosaic with sand patches. Turf with dense gallery apertures and some dead <i>Limaria</i> shells visible. Turf supports hydroid turf (A) with <i>Nemertesia ramosa</i> (C) and <i>Rhizocaulus verticillatus</i> (P). Other sessile forms include pink encrusting coralline algae and <i>Haliclona urceolus</i> (R). <i>Munida rugosa</i> (P), <i>Buccinum undatum</i> (P), <i>Antedon</i> spp. (P), <i>Asterias rubens</i> (C), <i>Marthasterias glacialis</i> (P), <i>Henricia</i> sp. (P), small, Ophiuroidea sp. (C locally), <i>Echinus esculentus</i> (C).	SS.SMx.IMx.Lim		FS:LH
WR4.4	Flame shell turf (65%) covering concentrations of shells and pebbles with small patches of silty coarse and medium sand (35%)	Well-developed flame shell bed with turf covering 65% of seabed and forming typical mosaic with sand patches. Turf with dense gallery apertures and supporting hydroid turf (A) with <i>Nemertesia ramosa</i> (C). Encrusting coralline algae (R), <i>Ophiocomina nigra</i> (S), <i>Ophiura albida</i> (C), small Ophiuroidea sp. (P), <i>Echinus esculentus</i> (C).	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH
WR4.5	Silty, shelly sand with scattered pebbles and cobbles and occasional boulders, though substrate largely obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C). Stones encrusted with pink coralline algae (R). <i>Pagurus bernhardus</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
WR5.1	Mixed substrate of silty sand (50%) with pebbles (30%), gravel (10%), shells (5%) and cobbles (5%)	Stones encrusted with serpulid worms (F) and supporting <i>Protanthea simplex</i> (C). <i>Virgularia mirabilis</i> (P), <i>Lanice conchilega</i> (locally C), <i>Munida rugosa</i> (F), Polyplacophora sp. (P), <i>Echinus esculentus</i> (C), Holothuroidea sp. (P).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR5.2	Flame shell turf (70%) covering concentrations of shells and stones with small patches of silty coarse sand (30%) and occasional boulders (<1%)	Well-developed flame shell bed with turf covering overall 70% of seabed (100% over extensive area) forming typical mosaic with sand patches. Turf with dense gallery apertures. Turf supports hydroid turf (C - A) with <i>Nemertesia ramosa</i> (P), <i>Kirchenpaueria pinnata?</i> (P) and <i>Halecium halecinum</i> (P). Other sessile forms include pink encrusting coralline algae (R), foliose red algae (R), <i>Alcyonium digitatum</i> (R), <i>Protanthea simplex</i> (locally C), Terebellidae sp. (P), serpulid worms (P), <i>Haliclona urceolus</i> (R), <i>Corella parallelogramma</i> (P) and <i>Ciona intestinalis</i> (P). <i>Tubulanus</i> sp. (P), <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Antedon</i> spp. (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (C, locally A), <i>Marthasterias glacialis</i> (P), <i>Solaster endeca</i> (O), <i>Ophiocomina nigra</i> (locally A towards end of run), <i>Ophiothrix fragilis</i> (P), <i>Ophiura albida</i> (locally C), small Ophiuroidea sp. (P), <i>Echinus esculentus</i> (C).	SS.SMx.IMx.Lim		FS:LH
WR5.3	Silty sand with scattered pebbles, shells and cobbles and occasional boulders, though substrate largely obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C, locally S). Stones encrusted with serpulid worms (P) and pink coralline algae (R) and supporting <i>Nemertesia ramosa</i> (P) and <i>Protanthea simplex</i> (C locally). <i>Necora puber</i> (P), <i>Crossaster papposus</i> (P), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
WR6.1	Silty sand (55%) with pebbles (15%), gravel (10%); cobbles (10%) and boulders (10%) dense in patches	Stones encrusted with serpulid worms (F) and pink coralline algae (O) and supporting foliose red algae (R), hydroids (O), <i>Alcyonium digitatum</i> (R), <i>Protanthea simplex</i> (P) and <i>Metridium dianthus</i> (R). <i>Cerianthus lloydii</i> (C locally), <i>Gibbula cineraria</i> (P), <i>Antedon</i> spp. (P), <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (C locally), <i>Ophiothrix fragilis</i> (P), <i>Echinus esculentus</i> (C). Some <i>Limaria hians</i> byssal material visible, indicative of sparse nests locally.	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR6.2	Highly variable mixed substrate of silty sand with scattered pebbles, shells, cobbles and occasional boulders (locally dense)	Patchy flame shell bed, initially with sparsely scattered nests of agglomerated stones, later more developed and of 30 - 80% cover over long distance but turf thickness relatively poor. Stones encrusted with pink coralline algae (R) and serpulid worms (P). <i>Haliclona urceolus</i> (P), hydroids (C) including <i>Halecium halecinum</i> , <i>Kirchenpueria pinnata?</i> and <i>Nemertesia ramosa</i> , <i>Protanthea simplex</i> (P), <i>Metridium dianthus</i> (R), <i>Munida rugosa</i> (F), <i>Hyas araneus</i> (P), <i>Liocarcinus depurator</i> (P), <i>Antedon</i> spp. (P), <i>Crossaster papposus</i> (F), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (F), <i>Solaster endeca</i> (P), <i>Porania pulvillus</i> (R), <i>Ophiura albida</i> (locally A), small Ophiuroidea sp. (P), <i>Ophiothrix fragilis</i> (P), <i>Ophiocomina nigra</i> (P), <i>Corella parallelogramma</i> (P), foliose red algae (C locally).	SS.SMx.IMx.Lim		FS:LH
WR6.3	Silty sand with scattered gravel, pebbles and shells, though substrate largely obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C). Stones encrusted with pink coralline algae (R). <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
WR7.1	Silty sand with scattered gravel, pebbles, shells and cobbles, though substrate largely obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C). Stones supporting <i>Protanthea simplex</i> (C). <i>Munida rugosa</i> (P), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (P), <i>Porania pulvillus</i> (P). Density of ophiuroids may occlude evidence of flame shell turf.	SS.SMx.CMx.OphMx		
WR7.2	Silty sand with scattered gravel, pebbles, shells and cobbles, though substrate largely obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C). <i>Nemertesia ramosa</i> (P), <i>Munida rugosa</i> (P), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (F). Mosaic of ophiuroids and sand patches suggestive of underlying flame shell bed and confirmed on some stills by evidence of byssal turf, as well as by grab sample WRG04. However, bed boundaries along run quite unknown.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR7.3	Silty, shelly sand with scattered stones, though substrate largely obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C). Stones encrusted with pink coralline algae (R). <i>Marthasterias glacialis</i> (F), <i>Luidia ciliaris</i> (P). Density of ophiuroids may occlude evidence of flame shell turf.	SS.SMx.CMx.OphMx		
WR8.1	Muddy sand (65%) with scattered pebbles, varying widely in density but generally around 25%; gravel (5%), cobbles (5%), boulders (<1%)	Stones encrusted with serpulid worms (F), <i>Balanus balanus</i> (R) and pink coralline algae (R) and supporting sparse hydroids (R) and <i>Protanthea simplex</i> (R, locally F). Sediment with sparse emergent infaunal tubes, small holes and casts and displaying fairly large bivalve siphons flush with surface (locally C) including <i>Arctica islandica</i> (P); <i>Modiolus modiolus</i> also present but apparently at low density. <i>Toxisarcon alba</i> (P), <i>Suberites carnosus?</i> (P), Terebellidae sp. (F), <i>Munida rugosa</i> (F), Paguridae spp. (P) including <i>Pagurus bernhardus</i> (P), <i>Carcinus maenas</i> (R), <i>Liocarcinus</i> sp. (P), Polyplacophora sp. (P), <i>Dentalium</i> sp.? (P), <i>Pecten maximus</i> (R), <i>Aequipecten opercularis</i> (O), small Pectiniidae sp. (P), <i>Antedon</i> spp. (R), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (O), <i>Porania pulvillus</i> (O), <i>Ophiura albida</i> (C), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P).	SS.SMx.CMx		AI
WR8.2	Flame shell turf (60%) covering concentrations of shells and pebbles with patches of silty sand (40%)	Well-developed flame shell bed with turf covering overall 60% of seabed and forming typical mosaic with sand patches. Turf with gallery apertures and some dead <i>Limaria</i> shells visible. Turf supports hydroid turf (C) with <i>Nemertesia ramosa</i> (P) and <i>Halecium halecinum</i> (P). <i>Munida rugosa</i> (P), <i>Antedon</i> spp. (O), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (P), <i>Porania pulvillus</i> (P), small Ophiuroidea sp. (P), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P).	SS.SMx.IMx.Lim		FS:LH
WR8.3	Flame shell turf incorporating stones and shells largely occluded by dense ophiuroids; small patches of silty sand (15%)	<i>Limaria hians</i> turf covered by dense <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (A), with <i>Ophiura albida</i> (C, at least locally). <i>Liocarcinus</i> sp. (P), <i>Aequipecten opercularis?</i> (P), <i>Marthasterias glacialis</i> (F), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (F), pink encrusting coralline algae (P). Location of boundary with following biotope very uncertain.	SS.SMx.IMx.Lim, SS.SMx.CMx.OphMx		FS:LH

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
WR8.4	Predominantly silty, shelly sand with sparse boulders (<1%) but substrate obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (P). Stones encrusted with pink coralline algae (P). Paguridae sp. (P), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (P).	SS.SMx.CMx.OphMx		
WR9.1	Predominantly silty, shelly sand with scattered pebbles (locally 60%) and cobbles and sparse boulders, although substrate largely obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (locally A) and <i>Ophiura albida</i> (locally A). Stones encrusted with pink coralline algae (R, locally O) and support <i>Protanthea simplex</i> (P) and Anomiidae sp. (P). <i>Pagurus bernhardus</i> (P), <i>Munida rugosa</i> (P), <i>Liocarcinus depurator</i> (P), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (F), <i>Astropecten irregularis</i> (R), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
WR9.2	Silty shelly sand (34%) with dense pebbles (50%), gravel (10%), cobbles (5%) and boulders (1%)	Stones encrusted with serpulid worms (F) and pink coralline algae (O, locally R in deeper water) and supporting hydroids (O) including <i>Kirchenpaueria pinnata?</i> (P), and <i>Protanthea simplex</i> (C). <i>Cerianthus lloydii</i> (locally A), <i>Munida rugosa</i> (P), Polyplacophora sp. (P), <i>Aequipecten opercularis?</i> (R), <i>Antedon</i> sp. (R), <i>Crossaster papposus</i> (P), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (F), <i>Porania pulvillus</i> (O), <i>Ophiura albida</i> (C, locally A), <i>Ophiothrix fragilis</i> (R), <i>Echinus esculentus</i> (C).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
Bottle Island	Gravel (50%) and coarse sand (25%) with variable cover of pebbles (20%) and shells (5%); bedrock outcrop at end	Stones encrusted with pink coralline algae (R) and serpulid worms (F) and supporting sparse hydroids (R) including <i>Nemertesia antennina</i> , foliose red algae (R) and filamentous/filiform red algae (R). Small patches of <i>Phymatolithon calcareum</i> (where C, but overall R). <i>Lanice conchilega</i> (P), <i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> (O), <i>Liocarcinus depurator</i> (P), <i>Pecten maximus</i> (P), <i>Porania pulvillus</i> (P), <i>Luidia ciliaris</i> (P), <i>Ophiura ophiura</i> (P). Reef at end of dive not adequately surveyed but encrusted with <i>Spirobranchus</i> spp. (where C), <i>Balanus</i> spp. (P), pink coralline algae (C), brown algae (P) and supporting dense patches of <i>Antedon</i> spp. (A) and a turf of filamentous/filiform red algae (A); <i>Necora puber</i> (P), squid eggs (P), <i>Marthasterias glacialis</i> (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (A).	SS.SMp.Mrl.Pcal.Nmix, SS.SCS.CCS		MB
Carn Skerries	Coarse sand (50%) and gravel (15%), with pebbles (10%), shells (10% including <i>Ensis</i> ) and live maerl (15%) largely concentrated in troughs of low amplitude megaripples over much of dive	Maerl bed over much of dive with <i>Phymatolithon calcareum</i> (c.15%, F) largely concentrated in wave troughs, although absent locally. Areas of maerl and shells support patchy algal turf of foliose reds (O) and filamentous/filiform reds (F), with <i>Desmarestia aculeata?</i> (R), <i>Laminaria hyperborea</i> (R) and <i>Saccharina latissima</i> (O). <i>Cerianthus lloydii</i> (P), <i>Liocarcinus depurator</i> (O), <i>Hyas</i> sp. (P), <i>Inachus</i> sp. (P), <i>Cancer pagurus</i> (F), <i>Pecten maximus</i> (P), <i>Antedon</i> sp. (P), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (P), solitary ascidians (P). Stones and shells with serpulid worms (P) and encrusting pink coralline algae (R).	SS.SMp.Mrl.Pcal, SS.SCS.CCS		MB
Dornie Bank.1	Poorly mixed sand (75%) with varying densities of gravel (15%), pebbles (6%), cobbles (2%) and shells (2%) including <i>Ensis</i>	Stones encrusted with serpulid worms (P), <i>Balanus</i> spp. (P) and pink coralline algae (R) and supporting sparse filamentous/filiform red algae (R), foliose red algae (R) and towards end, <i>Saccharina latissima</i> (O). Hydroids (O) including <i>Nemertesia ramosa</i> (O) and <i>N. antennina</i> (R), <i>Cerianthus lloydii</i> (F), <i>Munida rugosa</i> (R), <i>Cancer pagurus</i> (P), <i>Liocarcinus depurator</i> (P), <i>Inachus</i> sp. (P), <i>Buccinum undatum</i> (P), <i>Pecten maximus</i> (P), <i>Aequipecten opercularis</i> (P), <i>Antedon</i> spp. (O), <i>Asterias rubens</i> (P), <i>Porania pulvillus</i> (P), <i>Luidia ciliaris</i> (P), <i>Ophiura ophiura</i> (P), <i>Echinus esculentus</i> (O), <i>Asciidiella aspersa?</i> (R), <i>Ascidia virginea</i> (R).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
Dornie Bank.2	Poorly mixed medium and coarse sand (70%) with scattered gravel (12%), pebbles (15%, locally denser), shells (2% including <i>Ensis</i> ), and cobbles (1%) and boulders (<1% overall)	Patchy <i>Saccharina latissima</i> (F, locally A) and tufts of filamentous/filiform red algae (F) and brown filiform algae (R). <i>Pecten maximus</i> (F), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (P).	SS.SMp.KSwSS.LsacR.Sa		KS
Fox Point.1	Sand-dusted bedrock	<i>Laminaria hyperborea</i> forest (A) with understory of filamentous/filiform red algae (C, locally A) probably largely <i>Bonnemaisonia asparagoides</i> . Kelp stipes with red algal epibiota and fronds with <i>Obelia geniculata</i> . <i>Nemertesia antennina</i> (P), <i>Echinus esculentus</i> (C).	IR.HIR.KSed.XKScrR		
Fox Point.2	Coarse sand (70%) and shell and stone gravel (20%) with shells (8%) including <i>Ensis</i> and often in patches, pebbles (2%) and cobbles (<1%)	Patchy turf of red algae (F) including <i>Scinaia interrupta</i> , and sparse <i>Desmarestia aculeata</i> (R) and <i>Saccharina latissima</i> (O). Camera angle unsuitable for identification of live maerl, but some small patches of <i>Phymatolithon calcareum</i> thalli present (where possibly F - c.10% cover, but R overall). Hydroids (O) including <i>Nemertesia antennina</i> and <i>N. ramosa</i> , <i>Alcyonium digitatum</i> (R), <i>Cerianthus lloydii</i> (F), <i>Lanice conchilega</i> (P), Paguridae sp. (P), <i>Inachus</i> sp. (P), <i>Liocarcinus depurator</i> (P), <i>Carcinus maenas</i> (R), <i>Cancer pagurus</i> (O), <i>Buccinum undatum</i> (R), <i>Aequipecten opercularis</i> (P), <i>Pecten maximus</i> (P), <i>Eledone cirrhosa</i> (P), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (P), <i>Henricia</i> sp. (R), <i>Echinus esculentus</i> (P), Gobiidae sp. (P).	SS.SMp.Mrl.Pcal, SS.SCS.ICS		MB
Horse Island.1	Silted boulders (60%) and bedrock (40%)	Rock encrusted with <i>Balanus</i> spp. (P) and pink coralline algae (P) and supporting patchy algal turf of filamentous/filiform reds (P) and foliose reds (R), <i>Dictyota dichotoma</i> (R) and locally dense <i>Ciona intestinalis</i> (C, locally A); <i>Ascidella aspersa</i> (P). The rock is festooned in the egg strings of <i>Onchidoris bilamellata</i> , with adults also present. Hydroids (O, locally F) including <i>Nemertesia antennina</i> and <i>N. ramosa</i> , <i>Munida rugosa</i> (P), <i>Cancer pagurus</i> (P), small Pectiniidae sp. (P), <i>Antedon</i> spp. (F), <i>Porania pulvillus</i> (O), <i>Luidia ciliaris</i> (P), shoal of juvenile gadoids.	CR.LCR.BrAs.AmenCio.Ant		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
Horse Island.2	Shell gravel (60%) and coarse sand (30%) with scattered shell material (5%), cobbles (3%) and pebbles (2%)	Stones and shells supporting <i>Antedon</i> spp. (R) and <i>Onchidoris bilamellata</i> egg strings with adults also present. Patchy turf of filamentous and fine filiform red algae (C) with foliose red algae (R), <i>Ensis</i> sp. (P), <i>Aequipecten opercularis?</i> (P), <i>Pecten maximus</i> (P)	SS.SCS.ICS		
Horse Island.3	Bedrock	Rock encrusted with <i>Balanus</i> spp. (P) and pink coralline algae (R) and supporting fairly dense <i>Saccharina latissima</i> (C) with an understory of filamentous and filiform red algae (A) and <i>Dictyota dichotoma</i> (O). <i>Cancer pagurus</i> (P), <i>Liocarcinus depurator</i> (P), <i>Onchidoris bilamellata</i> egg strings (P), Asteroidea sp. (P), <i>Antedon</i> spp. (F), <i>Marthasterias glacialis</i> (F), <i>Porania pulvillus</i> (P), shoal of juvenile gadoids.	IR.HIR.KSed.LsacSac		
Horse Island.4	Shell gravel (65%) and coarse sand (30%) with scattered shell material (5%)	Patchy turf of filamentous and fine filiform red algae (C), <i>Liocarcinus depurator</i> (P), <i>Cancer pagurus</i> (P), <i>Ophiura</i> sp. (P).	SS.SCS.ICS		
Martin Bank	Medium - coarse sand (40%) with boulders (25%), cobbles (25%) and pebbles (10%)	Stones encrusted with pink coralline algae (O) and serpulid worms (F) and supporting fairly dense <i>Saccharina latissima</i> (C, locally A) and patches of filamentous/filiform red algae (O, locally A) and foliose red algae (O). Hydroids (R), <i>Metridium dianthus</i> (O), <i>Munida rugosa</i> (O), clumps of <i>Antedon</i> spp. (O), <i>Porania pulvillus</i> (O), <i>Echinus esculentus</i> (C), shoal of small teleosts.	IR.HIR.KSed.LsacSac		
Planet Rock	Maerl gravel (68%), live maerl (30%), shells (2%)	Well-developed bed of <i>Phymatolithon calcareum</i> (c.30% - C, locally A) supporting sparse filamentous red algae (O) and foliose red algae (R), filiform brown algae (R), <i>Dictyota dichotoma</i> (R) and <i>Saccharina latissima</i> (C, locally A) with <i>Antedon</i> spp. (locally C). Maerl bound by dense filamentous red algae (possibly <i>Trilliella intricata</i> ) in very localised area (where S). <i>Inachus</i> sp. (P), <i>Pecten maximus</i> (F), <i>Marthasterias glacialis</i> (F), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (F), <i>Porania pulvillus</i> (P), Gobiidae sp. (P), <i>Pleuronectes platessa</i> (P), shoal of small teleosts.	SS.SMp.Mrl.Pcal		MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
Planet Rock (II)	Maerl	Only close-up imagery available, so no quantification possible. Dense <i>Phymatolithon calcareum</i> , <i>Cerianthus lloydii</i> , <i>Pandalus montagui</i> , <i>Pecten maximus</i> , <i>Antedon</i> spp., juvenile <i>Asterias rubens?</i> , <i>Luidia ciliaris</i> , <i>Ascidiella aspersa</i> , <i>Corella parallelogramma</i> , <i>Myoxocephalus scorpius</i> , <i>Pholis gunnellus</i> .	SS.SMp.Mrl.Pcal		MB
Tanera fish farm.1	Muddy sand (95%) with bedrock outcrops (5%)	Sediment with mounds and patches of diatomaceous film (P) and with extensive cover of algal mat/turf (S) which includes some live filamentous/filiform reds - the proportion attached is unknown, and foliose reds (R). Scattered <i>Saccharina latissima</i> (O). Sediment supports dense <i>Anthopleura ballii</i> (C) and <i>Cerianthus lloydii</i> (P). <i>Philine aperta</i> (F) with numerous egg sacs. <i>Carcinus maenas</i> (P), <i>Liocarcinus depurator</i> (P), <i>Marthasterias glacialis</i> (P), shoal of small gadoids. The camera skirts some silted bedrock outcrops, one large, which supports dense <i>S. latissima</i> (A), pink encrusting coralline algae (R), and an understorey of a patchy filamentous/filiform red algae (P) and <i>A. ballii</i> (A); <i>Beggiatoa</i> patch (R), <i>Metridium dianthus</i> (P), <i>Echinus esculentus</i> (locally A).	SS.SMp.KSwSS, IR.LIR.K.Lsac.Ft		KS
Tanera fish farm.2	Shelly muddy sand (100%) with sparsely scattered shells (<1%)	Sediment with mounds and diatomaceous film (C) and supporting dense <i>Cerianthus lloydii</i> (C) and <i>Philine aperta</i> (O) with egg sacs. <i>Echinus esculentus</i> (O). Small patch of algal turf/mat but overall R. This video sector probably approached fish farm cages within about 25 m.	SS.SSa.IMuSa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
Tanera fish farm.3	Muddy sand (100%) with bedrock outcrop (<1%)	Sediment with mounds and patches of diatomaceous film (P) and with extensive cover of algal mat/turf (S) which includes some live filamentous/filiform reds - the proportion attached is unknown, and foliose reds (R). Scattered <i>Saccharina latissima</i> (O, locally A). Sediment supports dense <i>Anthopleura ballii</i> (C) and <i>Cerianthus lloydii</i> (P). <i>Philine aperta</i> (F, locally C) with numerous egg sacs. Dead <i>Carcinus maenas</i> with white bacterial film (P), <i>Liocarcinus depurator</i> (P), <i>Echinus esculentus</i> (O), <i>Asciidiella aspersa</i> (R), small teleosts (P) including shoal of juvenile <i>Gadus morhua</i> , tyre. One very small rock outcrop already traversed on first video sector, with <i>S. latissima</i> (P), pink encrusting coralline algae (O), <i>Balanus</i> spp. (O), and a turf of filamentous/filiform red algae (A) with <i>Dictyota dichotoma</i> (P); <i>Suberites</i> sp. (P), <i>Metridium dianthus</i> (P), <i>Echinus esculentus</i> (P).	SS.SMp.KSwSS		KS, GM
MHS1	Fine-medium sand with scattered gravel (5%), pebbles (3%), cobbles (2%) and small boulders (<1%)	Stones possibly encrusted with <i>Balanus</i> spp. (P). Sparse, emergent infaunal tubes (P), <i>Lanice conchilega?</i> (P), Paguridae sp. (P), <i>Pecten maximus</i> (P), <i>Aequipecten opercularis?</i> (P), <i>Henricia</i> sp. (P), <i>Luidia ciliaris</i> (P).	SS.SSa.CFiSa		
MHS10	Megaripples of coarse sand (80%) with dead maerl (10%), live maerl (5%), pebbles (<1%) and shells (5%)	Sparse live <i>Phymatolithon calcareum</i> around 5% cover overall (O). Shells encrusted with serpulid worms (F). <i>Antedon</i> spp. (O), <i>Asterias rubens</i> (O).	SS.SCS.CCS		
MHS11	Megaripples of coarse sand (78%) with shell gravel (5%), dead maerl (2%), live maerl (10%) and shells (5%) including <i>Ensis</i>	Fairly sparse live <i>Phymatolithon calcareum</i> , possibly 10% cover overall (F). Shells encrusted with serpulid worms (F). <i>Lanice conchilega</i> (P), <i>Antedon</i> spp. (O), <i>Asterias rubens</i> (F).	SS.SMp.Mrl.Pcal.Nmix		MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
MHS12	Ripples and locally megaripples of medium-coarse sand (93%) with scattered shells (1%) including <i>Ensis</i> , cobbles (5%) and boulders (1%)	Very sparse scattered thalli of <i>Phymatolithon calcareum</i> (<1%, R). <i>Lanice conchilega</i> (P), <i>Asterias rubens</i> (C, locally A), <i>Henricia</i> sp. (P), <i>Antedon</i> spp. (F). Stones encrusted with pink coralline algae (where C - overall R) and supporting <i>Alcyonium digitatum</i> (R), <i>Antedon</i> spp. (where A), <i>Asterias rubens</i> (where A), <i>Ecinus esculentus</i> (where C) and <i>Balanus</i> spp. (P).	SS.SCS.CCS		
MHS13	Scattered cobbles (15%), boulders (5%) and shells (<1%) including <i>Ensis</i> on rippled medium sand (80%)	Sediment with diatomaceous film (P) and supporting <i>Asterias rubens</i> (C, locally A), <i>Marthasterias glacialis</i> (P) and <i>Luidia clialis</i> (P). Stones encrusted with pink coralline algae (where C) and yellow sponge (R) and supporting <i>Alcyonium digitatum</i> (where F), hydroids (where O), <i>Antedon</i> spp. (where A), <i>A. rubens</i> (where C) and <i>Echinus esculentus</i> (where C).	SS.SSa.IFiSa, CR.MCR.EcCr.FaAlCr		
MHS14	Slightly rippled medium sand (58%) with scattered coarse sand (5%), shell and stone gravel (5%), shells (2%) including <i>Ensis</i> , cobbles (20%) and boulders (10%)	Sediment with diatomaceous film (P) and supporting <i>Asterias rubens</i> (C), <i>Henricia</i> sp. (P) and <i>Luidia clialis</i> (F). Stones encrusted with pink coralline algae (where C) and supporting <i>Alcyonium digitatum</i> (R), hydroids (where O), <i>Antedon</i> spp. (A, locally S), <i>A. rubens</i> (where C) and <i>Echinus esculentus</i> (where F). Live <i>Phymatolithon calcareum</i> (<1%, R)	SS.SSa.IFiSa, CR.MCR.EcCr.FaAlCr		
MHS15	Medium sand (35%) with shell gravel (5%) and pebbles (10%), cobbles (25%) and boulders (25%)	Sediment with diatomaceous film (P) and supporting <i>Lanice conchilega</i> (P), <i>Asterias rubens</i> (P) and <i>Luidia clialis</i> (F). Stones encrusted with pink coralline algae (where F), brown algae (P), yellow sponge (R), <i>Urticina felina</i> (R), <i>Balanus</i> spp. (P), <i>Parasmittina trispinosa</i> ? (R) and serpulid worms (P) including <i>Spirobranchus</i> spp. (locally C) and supporting <i>Alcyonium digitatum</i> (R), hydroids (where O), <i>Antedon</i> spp. (where C, locally S), <i>Marthasterias glacialis</i> (P), <i>A. rubens</i> (where C), <i>Echinus esculentus</i> (where C), solitary ascidians (R) and foliose red algae (R).	SS.SSa.IFiSa, CR.MCR.EcCr.FaAlCr		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
MHS16	Rippled medium sand, locally megarippled (70%), with scattered coarse sand (5%), shell gravel (5%), shells (<1%) including <i>Ensis</i> , cobbles (15%) and boulders (5%)	Sediment with diatomaceous film (P) and supporting <i>Cerianthus lloydii?</i> (P), <i>Lanice conchilega</i> (F), <i>Cancer pagurus</i> (P), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (C), <i>Henricia</i> sp. (P), <i>Luidia ciliaris</i> (F) and <i>Antedon</i> spp. (F); <i>Phymatolithon calcareum</i> (<1%, R). Stones encrusted with pink coralline algae (where O), <i>Balanus</i> spp. (P) and <i>Parasmittina trispinosa?</i> (R) and supporting <i>Alcyonium digitatum</i> (R), <i>Antedon</i> spp. (where A, locally S), <i>Marthasterias glacialis</i> (P), <i>Asterias rubens</i> (where C), <i>Echinus esculentus</i> (where F).	SS.SSa.IFiSa, CR.MCR.EcCr.FaAICr		
MHS17	Megaripples of coarse sand (40%) and dead maerl (35%) with shell gravel (5%), live maerl (10%) and shells (10%)	Live <i>Phymatolithon calcareum</i> around 10% cover (F), at least locally. Shells encrusted with serpulid worms (P) and pink coralline algae (R). <i>Antedon</i> spp. (O), <i>Asterias rubens</i> (C), <i>Neopentadactyla mixta</i> (P).	SS.SMp.Mrl.Pcal.Nmix		MB
MHS18	Megaripples of coarse sand (73%) with dead maerl (5%), live maerl (20%) and shells (2%) including <i>Ensis</i>	Live <i>Phymatolithon calcareum</i> around 20% cover overall (C), concentrated in troughs. Shells encrusted with serpulid worms (P). <i>Lanice conchilega</i> (P), <i>Antedon</i> spp. (F), <i>Asterias rubens</i> (F), filiform red algae (R).	SS.SMp.Mrl.Pcal.Nmix		MB
MHS19	Medium sand (78%) with live maerl (15%), dead maerl (5%) and shells (2%) including <i>Ensis</i>	Live <i>Phymatolithon calcareum</i> around 15% cover overall but denser in patches (F, locally C). Shells encrusted with pink coralline algae (R) and serpulid worms (P). <i>Antedon</i> spp. (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Luidia ciliaris</i> (P).	SS.SMp.Mrl.Pcal.Nmix		MB
MHS2	Megaripples of coarse sand (80%) with dead maerl (10%), live maerl (15%) and shells (5%) including <i>Ensis</i>	Live <i>Phymatolithon calcareum</i> around 15% cover overall (F, locally C). Shells encrusted with pink coralline algae (R), brown algae (R) and serpulid worms (F). <i>Lanice conchilega?</i> (P), <i>Antedon</i> spp. (F), <i>Asterias rubens</i> (O), <i>Henricia</i> sp. (P), <i>Ophiura albida</i> (P).	SS.SMp.Mrl.Pcal.Nmix		MB

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
MHS20	Slightly rippled, medium sand (78%), live maerl (15%), dead maerl (5%) and shells (2%) including <i>Ensis</i>	Live <i>Phymatolithon calcareum</i> around 15% cover overall but denser and much sparser in patches (F, locally C). Shells encrusted with serpulid worms (P). <i>Cerianthus lloydii</i> (F), <i>Lanice conchilega</i> (P), <i>Inachus</i> sp. (P), <i>Pecten maximus</i> (O), <i>Antedon</i> spp. (F), <i>Asterias rubens</i> (P), <i>Henricia</i> sp. (P), <i>Luidia ciliaris</i> (P), <i>Ascidia virginea?</i> (P).	SS.SMp.Mrl.Pcal.Nmix		MB
MHS3	Megaripples of coarse sand (85%) with dead maerl (5%), live maerl (5%) and shells (5%) including <i>Ensis</i>	Sparse live <i>Phymatolithon calcareum</i> around 5% cover overall (O) concentrated in troughs. Shells encrusted with serpulid worms (P). <i>Asterias rubens</i> (O).	SS.SCS.CCS		
MHS4	Megaripples of coarse sand (74%) with dead maerl (5%), live maerl (15%), pebbles (1%) and shells (5%) including <i>Ensis</i>	Live <i>Phymatolithon calcareum</i> around 15% cover overall (F, locally C). Shells encrusted with serpulid worms (F). <i>Antedon</i> spp. (F), <i>Asterias rubens</i> (O), <i>Henricia</i> sp. (P), <i>Ophiura albida</i> (P).	SS.SMp.Mrl.Pcal.Nmix		MB
MHS5	Slightly rippled medium - coarse sand (88%) with sparse, patchy live maerl (5%), dead maerl (5%) and shells (2%)	Sparse live <i>Phymatolithon calcareum</i> around 5% cover overall (O), although increasing at end of run. <i>Cerianthus lloydii</i> (P), small bivalve siphon holes (P), <i>Antedon</i> spp. (F), <i>Asterias rubens</i> (O).	SS.SCS.CCS		
MHS6	Megaripples and locally ripples of medium - coarse sand (80%) with sparse live maerl (5%), dead maerl (10%) and shells (5%)	Sparse live <i>Phymatolithon calcareum</i> around 5% cover overall (O). Shells encrusted with serpulid worms (F) and pink coralline algae (R). <i>Lanice conchilega?</i> (P), <i>Antedon</i> spp. (F), <i>Asterias rubens</i> (P).	SS.SCS.CCS		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
MHS7	Medium-coarse sand (75%) with shells (3%), live maerl (17%) and dead maerl (5%)	Live <i>Phymatolithon calcareum</i> around 17% cover overall (F, locally C). <i>Lanice conchilega</i> (P), <i>Antedon</i> spp. (F), <i>Luidia ciliaris</i> (P), <i>Porania pulvillus</i> (P), <i>Henricia</i> sp. (P).	SS.SMp.Mrl.Pcal.Nmix		MB
MHS8	Megaripples of coarse sand (88%) with shell gravel (10%) and shells (2%)	<i>Antedon</i> spp. (F), <i>Porania pulvillus</i> (O), <i>Henricia</i> sp. (O), <i>Luidia ciliaris</i> (F).	SS.SCS.CCS		
MHS9	Coarse sand (71%) with shells (2%), live maerl (17%) and dead maerl (10%)	Live <i>Phymatolithon calcareum</i> around 17% cover overall (F, locally C). Shells encrusted with serpulid worms (P) and pink coralline algae (R). <i>Pecten maximus</i> (P), <i>Antedon</i> spp. (F, locally C), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P).	SS.SMp.Mrl.Pcal.Nmix		MB
NH_01_V01	Flat, low-profile, scoured bedrock (50%), with areas of boulders (20%) and cobbles (10%) and small patches and channels of coarse sand (20%)	Rock encrusted with pink coralline algae (O, locally F), <i>Parasmittina trispinosa</i> (O, locally F), orange bryozoan (R), red bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) and <i>Spirobranchus</i> spp. (A) and supporting hydroids (O), <i>Alcyonium digitatum</i> (F, locally A), <i>Urticina felina</i> (P), <i>Flustra foliacea</i> (F, S locally), and solitary ascidians (P). <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (O), <i>Echinus esculentus</i> (C), <i>Ophiocomina nigra</i> and <i>Ophiothrix fragilis</i> are widely distributed but become locally abundant.	CR.MCR.EcCr.FaAlCr.Flu, CR.MCR.EcCr.FaAlCr.Adig, CR.MCR.EcCr.FaAlCr.Br i		
NH_01_V02	Dense boulders (60%) and cobbles (20%) with small patches of coarse sand (10%), gravel (5%) and pebbles (5%)	Rock encrusted with pink coralline algae (R), <i>Balanus</i> spp. (P), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), red bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) and <i>Spirobranchus</i> spp. (A) and supporting hydroids (O) including <i>Thuiara thuja</i> (P), <i>Alcyonium digitatum</i> (C locally), <i>Urticina felina</i> (P) and <i>Flustra foliacea</i> (F locally). <i>Chaetopterus variopedatus?</i> (P), <i>Cancer pagurus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Porania pulvillus</i> (R), <i>Echinus esculentus</i> (C), <i>Ophiocomina nigra</i> (locally A), <i>Ophiothrix fragilis</i> (locally S), <i>Scyliorhinus</i> sp. (P), teleost spp. (P).	CR.MCR.EcCr.FaAlCr.Flu, CR.MCR.EcCr.FaAlCr.Adig, CR.MCR.EcCr.FaAlCr.Br i, CR.MCR.EcCr.FaAlCr.Pom		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_01_V03	Stepped bedrock ledges (60%) trapping patches of coarse sand (7%) and shell gravel (3%) with areas of boulders (30%)	Rock encrusted with pink coralline algae (C), red algae (P), <i>Parasmittina trispinosa</i> (O, locally F), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) and <i>Spirobranchus</i> spp. (A) and supporting hydroids (F) including <i>Abietinaria abietina?</i> (P) and <i>Hydrallmania falcata</i> (P), <i>Alcyonium digitatum</i> (F, locally A), <i>Urticina felina</i> (P), <i>Flustra foliacea</i> (R) and foliose red algae (R). Small prosobranchs (locally A), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Marthasterias glacialis</i> (P), <i>Echinus esculentus</i> (C), <i>Ophiocomina nigra</i> (A), <i>Ophiothrix fragilis</i> (A, locally S), teleost sp. (P).	CR.MCR.EcCr.FaAlCr.Br i		
NH_01_V04	Stepped bedrock ledges (50%) with patches of coarse sand (7%) and shell gravel (3%), with rock broken locally into areas of boulders (30%) and cobbles (10%)	Rock encrusted with pink coralline algae (A), red algae (P), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) and <i>Spirobranchus</i> spp. (C, locally A) and supporting cream/orange cushion sponge (P), hydroids (O) including <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (F, locally C), <i>Urticina felina</i> (O) and solitary ascidians (P). <i>Crossaster papposus</i> (F), <i>Solaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Echinus esculentus</i> (C), <i>Ophiocomina nigra</i> (C), <i>Ophiothrix fragilis</i> (S).	CR.MCR.EcCr.FaAlCr.Br i		
NH_01_V05	Stepped bedrock ledges (50%) with patches of shell gravel (10%) and coarse sand (5%), with areas of boulders (25%) and cobbles (10%)	Rock encrusted with pink coralline algae (F), red algae (P), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) and <i>Spirobranchus</i> spp. (C, locally A) and supporting cream/orange cushion sponge (P), hydroids (O) including <i>Abietinaria abietina?</i> (P) and <i>Thuiara thuja</i> (P), <i>Alcyonium digitatum</i> (F, locally C), <i>Urticina felina</i> (P), <i>Flustra foliacea</i> (R, C in patches) and solitary ascidians (P). <i>Cancer pagurus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Leptasterias muelleri?</i> (P), <i>Echinus esculentus</i> (C), <i>Ophiocomina nigra</i> (A, locally C), <i>Ophiothrix fragilis</i> (locally A).	CR.MCR.EcCr.FaAlCr.Br i, CR.MCR.EcCr.FaAlCr.A dig, CR.MCR.EcCr.FaAlCr.Fl u		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_01_V06	Stepped bedrock ledges (45%) with patches of gravel (10%) and coarse sand (5%), with areas of boulders (20%) and cobbles (20%)	Rock encrusted with pink coralline algae (R), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) and <i>Spirobranchus</i> spp. (A) and supporting cream/orange cushion sponge (cf. <i>Halichondria panicea</i> ) (P), hydroids (O) including <i>Kirchenpaueria pinnata?</i> (P), <i>Nemertesia ramosa</i> (P) and <i>Thuiara thuja</i> (P), <i>Alcyonium digitatum</i> (F), <i>Flustra foliacea</i> (C over large areas) and solitary ascidians (P). <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C), <i>Ophiocomina nigra</i> (A, locally C and S), <i>Ophiothrix fragilis</i> (locally S), teleost spp. (P).	CR.MCR.EcCr.FaAlCr.Flu, CR.MCR.EcCr.FaAlCr.Br		
NH_01_V07	Bedrock (30%) with boulders (40%) and cobbles (15%) and patches of gravel (5%) and coarse sand (10%)	Rock encrusted with pink coralline algae (O), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) and <i>Spirobranchus</i> spp. (A) and supporting cream/orange cushion sponge (cf. <i>Halichondria panicea</i> ) (O), hydroids (O-F) including <i>Thuiara thuja</i> (P) and <i>Hydrallmania falcata</i> (P), <i>Alcyonium digitatum</i> (A locally), <i>Urticina felina</i> (P), <i>Flustra foliacea</i> (C over large areas) and <i>Botryllus schlosseri?</i> (P). <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (C), <i>Ophiocomina nigra</i> (C locally), <i>Ophiothrix fragilis</i> (locally S).	CR.MCR.EcCr.FaAlCr.Br i, CR.MCR.EcCr.FaAlCr.A dig, CR.MCR.EcCr.FaAlCr.Flu		
NH_01_V08	Bedrock (65%) with boulders (10%) and cobbles (10%) and patches of gravel (5%) and coarse sand (10%)	Rock encrusted with pink coralline algae (C), brown algae (C), <i>Parasmittina trispinosa</i> (O), <i>Spirobranchus</i> spp. (C) and <i>Balanus</i> spp. (P) and supporting hydroids (O), <i>Alcyonium digitatum</i> (F, locally A) and <i>Urticina felina</i> (P). <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (C), <i>Ophiocomina nigra</i> (C), <i>Ophiothrix fragilis</i> (C, locally S).	CR.MCR.EcCr.FaAlCr.A dig, CR.MCR.EcCr.FaAlCr.Br i		
NH_02_R01	Shell and stone gravel (50%), coarse sand (20%), boulders (10%), cobbles (15%), pebbles (5%)	Stones encrusted with serpulid worms (F, locally C) including <i>Spirobranchus</i> spp. (P), and a cream/green film - probably old <i>Parasmittina trispinosa</i> with a green algal epiphyte (P). <i>Alcyonium digitatum</i> (C). <i>Crossaster papposus</i> (F), <i>Ophiocomina nigra</i> (C), <i>Ophiothrix fragilis</i> (S), <i>Echinus esculentus</i> (F), <i>Asterias rubens</i> (F).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_02_R03	Coarse sand (25%) and shell gravel (15%) with cobbles (35%) and boulders (25%)	Stones encrusted with serpulid worms (C), an orange bryozoan (R) and a cream/green film - probably <i>Parasmittina trispinosa</i> with a green algal epiphyte (P), and supporting hydroids (O) including <i>Abietinaria abietina?</i> (P), and <i>Alcyonium digitatum</i> (C). <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (C), <i>Echinus esculentus</i> (C).	SS.SMx.CMx.OphMx		
NH_02_R04	Coarse sand (40%) with boulders (25%), cobbles (20%), gravel (10%) and pebbles (5%)	Ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C). Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), cream sponge and orange bryozoan (R). Other sessile biota includes hydroids (R) including <i>Abietinaria abietina</i> and <i>Thuiara thuja</i> , <i>Alcyonium digitatum</i> (C) and <i>Flustra foliacea</i> (R). <i>Porania pulvillus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C), Gadidae sp. (P).	SS.SMx.CMx.OphMx		
NH_02_R05.1	Coarse sand (15%) and gravel (15%) with densely scattered boulders (20%), cobbles (35%), pebbles (10%) and shells (5%) including many <i>Modiolus</i>	Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), <i>Parasmittina trispinosa?</i> (R), with green algal epiphyte, and pink coralline algae (R), and supporting hydroids (F, locally C) including <i>Abietinaria abietina?</i> , <i>Alcyonium digitatum</i> (F, locally C), and <i>Flustra foliacea</i> (locally C). <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (P), <i>Ophiothrix fragilis</i> (locally S), <i>Ophiocomina nigra</i> (A), <i>Echinus esculentus</i> (C).	SS.SMx.CMx.OphMx		
NH_02_R05.2	Dense shells and broken shell (35%, very largely <i>Modiolus</i> ) with gravel (40%, mostly shell) and sand (25%); sparse cobbles	Shells and stones with sparse epibiota of serpulid worms (C), hydroids (R) including <i>Abietinaria abietina?</i> , and <i>Flustra foliacea</i> (R). <i>Ophiocomina nigra</i> (P).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_02_R06	Mixed substrate of sand (30%) and gravel (15%) with pebbles (5%), cobbles (25%) and boulders (25%)	<i>Ophiothrix fragilis</i> (C) and <i>Ophiocomina nigra</i> (A, but at low end of abundance rank). Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), <i>Parasmittina trispinosa</i> ? (R) with green algal epiphyte, and pink coralline algae (R). Other sessile biota includes hydroids (F, locally C) including <i>Nemertesia ramosa</i> (P), <i>N. antennina</i> (P) and <i>Abietinaria abietina</i> (P), <i>Flustra foliacea</i> (O, locally C) and <i>Alcyonium digitatum</i> (C). <i>Munida rugosa</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> ? (P), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (C), <i>Gadidae</i> sp. (P).	SS.SMx.CMx.FluHyd		
NH_02_R09	Medium sand (50%) with much scattered cobbles (30%), gravel (14%), pebbles (5%) and boulders (1%)	Stones encrusted with serpulid worms (C), <i>Parasmittina trispinosa</i> (R) and a cream sponge (R) and supporting hydroids (C) including <i>Nemertesia antennina</i> (C) and <i>N. ramosa</i> (C), <i>Alcyonium digitatum</i> (O, locally F), and bryozoans including <i>Flustra foliacea</i> (O), <i>Securiflustra securifrons</i> ? (P) and <i>Alcyonidium diaphanum</i> (F). <i>Chaetopterus variopedatus</i> ? (P), <i>Eledone cirrhosa</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (P), <i>Ophiocomina nigra</i> (C), <i>Echinus esculentus</i> (F), <i>Corella parallelogramma</i> (F locally).	SS.SMx.CMx.FluHyd		
NH_02_R10	Medium sand (50%) with much scattered boulders (15%), cobbles (25%), gravel (5%) and pebbles (5%)	Stones encrusted with serpulid worms (C), <i>Parasmittina trispinosa</i> (R) and a cream sponge (R) and supporting hydroids (F) including <i>Nemertesia antennina</i> (P), <i>N. ramosa</i> (C), <i>Thuiara thuja</i> (P) and <i>Abietinaria abietina</i> ? (P), <i>Alcyonium digitatum</i> (R), and <i>Flustra foliacea</i> (O, locally F). <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (P), <i>Ophiocomina nigra</i> (C locally), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P), <i>Pleuronectes platessa</i> (P).	SS.SMx.CMx.FluHyd		
NH_02_R11	Medium sand (45%) with much scattered cobbles (30%), gravel (10%), pebbles (5%) and boulders (10%)	Stones encrusted with serpulid worms (O) including <i>Spirobranchus</i> spp. (A locally) and supporting <i>Alcyonium digitatum</i> (F). <i>Calliostoma zizyphinum</i> (P), <i>Asterias rubens</i> (P), <i>Ophiocomina nigra</i> (A), <i>Ophiothrix fragilis</i> (S), <i>Echinus esculentus</i> (F), <i>Scyliorhinus</i> sp. (P), <i>Pleuronectiformes</i> sp. (P).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_02_R27	Shell and stone gravel (20%), coarse sand (45%), boulders (10%), cobbles (20%), pebbles (5%)	Stones encrusted with serpulid worms (F), <i>Parasmittina trispinosa</i> with green algal epiphyte (P) and pink coralline algae (R), and supporting hydroids (O) including <i>Abietinaria abietina?</i> and <i>Hydrallmania falcata</i> , and <i>Alcyonium digitatum</i> (C). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (C), <i>Ophiocomina nigra</i> (C), <i>Ophiothrix fragilis</i> (S), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		
NH_02_V18	Dense gravel (35%) and pebbles (25%) with sand (15%), cobbles (15%) and boulders (10%); larger stones denser locally	Stones encrusted with serpulid worms (P, largely dead), <i>Parasmittina trispinosa?</i> (R) and orange bryozoan (R) and supporting hydroids (O) including <i>Nemertesia ramosa</i> and <i>Abietinaria abietina?</i> , <i>Alcyonium digitatum</i> (R), and <i>Alcyonidium diaphanum</i> (P). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Ophiocomina nigra</i> (C overall, A locally), <i>Ophiothrix fragilis</i> (R overall, locally S in small clumps), <i>Echinus esculentus</i> (C).	SS.SMx.CMx		
NH_02_V19	Coarse sand (45%) with boulders (25%), cobbles (20%), gravel (5%) and pebbles (5%)	Ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C). Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), and bryozoans including <i>Parasmittina trispinosa?</i> (R), in part with green algal epiphyte. Other sessile biota includes hydroids (O) including <i>Abietinaria abietina</i> (P), and <i>Alcyonium digitatum</i> (C). <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C).	SS.SMx.CMx.OphMx		
NH_02_V21	Mixed substrate of sand (30%) and gravel (15%) with pebbles (5%), cobbles (25%) and boulders (25%), possibly with some small bedrock outcrops (<1%)	Ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (P). Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), and bryozoans including <i>Parasmittina trispinosa?</i> (R), an orange form (R) and a cream/green film - probably old <i>P. trispinosa</i> with green alga. Other sessile biota includes hydroids (O) including <i>Nemertesia antennina</i> (P) and <i>Abietinaria abietina</i> (P), and <i>Alcyonium digitatum</i> (C). <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (C), <i>Platichthys flesus?</i> (P), teleost sp. (P).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_02_V23	Medium sand with significant component of coarse sand (65%), with scattered boulders (15%), cobbles (15%) and gravel (5%); stones much denser locally	Rock encrusted with serpulid worms (C) and densely colonised by bryozoans including <i>Flustra foliacea</i> (F, locally A), <i>Securiflustra securifrons</i> (P) and <i>Alcyonidium diaphanum</i> (P), and hydroids (C) including <i>Nemertesia antennina</i> , <i>Abietinaria</i> sp.?, <i>Hydrallmania falcata</i> (P) and <i>Thuiara thuja</i> (P). <i>Alcyonium digitatum</i> (R), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (O), <i>Ophiocomina nigra</i> (C), <i>Ophiothrix fragilis</i> (R), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F), <i>Corella parallelogramma</i> (P), <i>Platichthys flesus</i> (P).	CR.HCR.XFa, SS.SSa.IFiSa.ScupHyd		
NH_02_V25	Mixed substrate of gravel (75%), pebbles (10%) and cobbles (<1%) on coarse sand (15%)	Stones encrusted with serpulid worms (F) and supporting hydroids (O), <i>Alcyonium digitatum</i> (R), and sparse bryozoans including <i>Cellaria</i> sp. (P). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (C), <i>Ophiocomina nigra</i> (C), <i>Ophiothrix fragilis</i> (P), <i>Ophiura albida</i> (C), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (C), <i>Platichthys flesus</i> ? (P).	SS.SMx.CMx		
NH_02_V26.1	Apparently long waves of medium sand with significant component of coarse sand and small shells, particularly in troughs	Four sandeels seen, large size indicating they may be <i>Hyperoplus lanceolatus</i> . <i>Pleuronectiformes</i> sp. (P).	SS.SSa.CFiSa		
NH_02_V26.2	Mix of medium and coarse sand (73%) with scattered boulders (15%), cobbles (10%), pebbles (1%) and gravel (1%); stones more concentrated locally	Stones sparsely encrusted with serpulid worms (O) and supporting hydroids (O, locally C) including <i>Nemertesia antennina</i> , <i>Alcyonium digitatum</i> (R), and bryozoans including <i>Flustra foliacea</i> (P) and <i>Alcyonidium diaphanum</i> (locally A). <i>Munida rugosa</i> ? (P), <i>Crossaster papposus</i> (F), <i>Ophiocomina nigra</i> (R), <i>Echinus esculentus</i> (F), small teleost sp. (R).	SS.SSa.IFiSa.ScupHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_02_V27	Slightly rippled medium sand (74%) with bedrock outcrops (8% but possibly much greater but just subsurface), boulders (8%), cobbles (5%), pebbles (3%) and gravel (2%).	Rock sparsely encrusted with serpulid worms (R) and densely colonised by bryozoans including <i>Flustra foliacea</i> (locally A), <i>Securiflustra securifrons?</i> (P) and <i>Alcyonidium diaphanum</i> (locally A), and hydroids (C locally) including <i>Nemertesia antennina</i> , <i>N. ramosa</i> and <i>Abietinaria</i> sp.?. <i>Axinella</i> sp.? (R, aff. <i>A. dissimilis</i> ), <i>Alcyonium digitatum</i> (R), <i>Urticina felina</i> (P), <i>Caryophyllia smithii</i> (P), <i>Munida rugosa</i> (P), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (P), <i>Ophiocomina nigra</i> (R), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F), <i>Corella parallelogramma</i> (P), teleost spp. P) including Pleuronectiformes sp.	CR.HCR.XFa, SS.SSa.IFiSa.ScupHyd		
NH_02_V28.1	Long, shallow waves of medium sand, with slight rippling locally. Some patches with additional coarse sand locally. Very sparse boulders, cobbles, pebbles and gravel (collectively <1%)	Hydroids (R), Pleuronectiformes sp. (P).	SS.SSa.CFiSa		
NH_02_V28.2	Long and short ripples of medium sand, with some additional coarse sand locally. Scattered boulders (1%), cobbles (3%), pebbles (1%) and gravel (1%), generally in patches	Stones sparsely encrusted with <i>Balanus</i> spp. (R) and serpulid worms (R) and supporting hydroids (R), <i>Alcyonium digitatum</i> (R), and bryozoans including <i>Flustra foliacea</i> (R, locally F) and <i>Securiflustra securifrons?</i> (R). <i>Echinus esculentus</i> (O).	SS.SSa.IFiSa.ScupHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_02_V29.1	Slightly rippled medium sand (82%) with scattered boulders (10%), cobbles (5%), pebbles (1%) and gravel (2%)	Stones sparsely encrusted with serpulid worms (O) and <i>Parasmittina trispinosa?</i> (R) and supporting hydroids (F) including <i>Nemertesia antennina</i> , <i>Alcyonium digitatum</i> (R), and bryozoans including <i>Flustra foliacea</i> (O) and <i>Alcyonidium diaphanum</i> (locally C). Emergent infaunal tubes (P), <i>Munida rugosa</i> (P), <i>Cancer pagurus</i> (P), <i>Luidia ciliaris</i> (P), <i>Ophiocomina nigra</i> (O), <i>Echinus esculentus</i> (F).	SS.SSa.IFiSa.ScupHyd		
NH_02_V29.2	Rippled medium sand with very sparse boulders (<1%), cobbles (<1%) and pebbles (<1%)	Teleost sp. (R). Sparse stones lacking epibiota.	SS.SSa.CFiSa		
NH_02_V32.1	Long ripples of medium sand (90%) with shell gravel surface scattering (10%)	No biota seen	SS.SSa.CFiSa		
NH_02_V32.2	Long ripples of shell gravel (45%) and coarse sand (45%) with crests of medium sand (10%); scattered shells (<1%) including <i>Ensis</i>	No biota seen	SS.SCS.CCS		
NH_02_V32.3	Long ripples of medium sand (75%) with scattered boulders (7%), cobbles (10%), pebbles (5%) and gravel (3%); stones much denser locally	Stones sparsely encrusted with <i>Balanus</i> spp. (R) and supporting hydroids (O, locally C) including <i>Nemertesia antennina</i> , <i>Alcyonium digitatum</i> (R), and bryozoans including <i>Flustra foliacea</i> (O, locally C) and <i>Alcyonidium diaphanum</i> (locally C). <i>Axinella</i> sp.? (aff. <i>A. dissimilis</i> ) (R), Paguridae sp.? (P), <i>Munida rugosa</i> (O), <i>Cancer pagurus</i> (P), <i>Eledone cirrhosa</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (F), <i>Ophiocomina nigra</i> (R), <i>Echinus esculentus</i> (F), <i>Ascidia virginea</i> (R), <i>Corella parallelogramma</i> (P).	SS.SSa.IFiSa.ScupHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_02_V32.4	Coarse sand (50%), gravel (48%) and scattered shells (2%)	Sparse hydroids (R) and <i>Alcyonidium diaphanum</i> (R).	SS.SCS.CCS		
NH_02_X01	Mixed substrate of coarse sand (25%) and gravel (25%) with pebbles (10%), cobbles (30%) and boulders (10%); shells (<1%) including <i>Modiolus</i>	<i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (A). Stones encrusted with serpulid worms (F) including <i>Spirobranchus</i> spp. (P), an orange bryozoan and a cream/green film - probably old <i>P. trispinosa</i> with a green alga. <i>Alcyonium digitatum</i> (C). <i>Crossaster papposus</i> (C), <i>Asterias rubens</i> (C), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (C).	SS.SMx.CMx.OphMx		
NH_02_X02.1	Dead shells and large shell fragments of mainly <i>Modiolus modiolus</i> (40%), shell gravel (40%), coarse sand (20%); some small patches of boulders and cobbles	Shell encrusted with serpulid worms (apparently dead) and <i>Parasmittina trispinosa</i> (R), and support a sparse epibiota consisting of hydroids (O) including <i>Nemertesia ramosa</i> (O), <i>N. antennina</i> (R) and <i>Abietinaria abietina?</i> (R), and bryozoans including <i>Alcyonidium diaphanum</i> (A) and <i>Flustra foliacea</i> (R). <i>Alcyonium digitatum</i> (R), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (O), <i>Ophiocomina nigra</i> (F), <i>Echinus esculentus</i> (O).	SS.SMx.CMx		
NH_02_X02.2	Shell and stone gravel (60%), shells (5%), boulders (10%), cobbles (15%), pebbles (10%)	Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), <i>Parasmittina trispinosa</i> (R) with green algal epiphyte, and support an epibiota consisting of hydroids (F) including <i>Nemertesia ramosa</i> , <i>N. antennina</i> and <i>Abietinaria abietina?</i> , <i>Flustra foliacea</i> (F) and <i>Alcyonium digitatum</i> (F). <i>Munida rugosa</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (P), <i>Ophiocomina nigra</i> (C), <i>Ophiothrix fragilis</i> (P), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P).	SS.SMx.CMx.FluHyd		
NH_02_X03	Gravel (45%), coarse sand (45%), boulders (3%), cobbles (5%), pebbles (2%)	Stones encrusted with serpulid worms (F), <i>Parasmittina trispinosa</i> with green algal epiphyte (R), orange bryozoan (R) and pink coralline algae (R), and supporting hydroids (O) including <i>Nemertesia ramosa</i> (P), and <i>Alcyonium digitatum</i> (O). <i>Asterias rubens</i> (F), <i>Ophiocomina nigra</i> (A), <i>Ophiothrix fragilis</i> (A, locally S), <i>Echinus esculentus</i> (F).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_02_X04	Mix of coarse and medium sand (40%) with scattered boulders (15%), cobbles (20%), pebbles (5%) and gravel (20%); stone density highly variable	Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), <i>Parasmittina trispinosa</i> (R) and an orange bryozoan (R) and supporting hydroids (C) including <i>Nemertesia antennina</i> (C), <i>N. ramosa</i> (P) and <i>Thuiara thuja</i> (P), <i>Alcyonium digitatum</i> (O), and bryozoans including <i>Flustra foliacea</i> (O), <i>Securiflustra securifrons</i> (R), <i>Cellaria</i> sp. (P) and <i>Alcyonidium diaphanum</i> (C). <i>Caryophyllia smithii</i> (R), <i>Urticina felina</i> (P), <i>Chaetopterus variopedatus</i> (locally C), Nudibranchia sp. (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (R), <i>Ophiocomina nigra</i> (C), <i>Ophiura albida</i> (locally C), <i>Echinus esculentus</i> (F), <i>Corella parallelogramma</i> (C locally), <i>Ascidia virginea</i> (P), <i>Micrenophrys lilljeborgii?</i> (P).	SS.SMx.CMx.FluHyd		
NH_02_X05.1	Coarse sand (15%) and gravel (15%) with densely scattered boulders (25%), cobbles (40%), pebbles (5%) and shells (<1% but greater towards end) including many <i>Modiolus</i>	Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), <i>Parasmittina trispinosa?</i> (R), a red bryozoan (R) and pink coralline algae (R), and supporting sparse hydroids (R) including <i>Abietinaria abietina?</i> , <i>Alcyonium digitatum</i> (C), and <i>Flustra foliacea</i> (R). <i>Cancer pagurus</i> (P), <i>Buccinum undatum</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (O), <i>Porania pulvillus</i> (P), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (C), <i>Echinus esculentus</i> (C), <i>small teleost</i> sp. (P).	SS.SMx.CMx.OphMx		
NH_02_X05.2	Dense shells and broken shell (60%, very largely <i>Modiolus</i> ) with gravel (25%, mostly shell) and sand (15%); scattered cobbles (<1%) and boulders (<1%)	Shells with sparse epibiota of serpulid worms (C), hydroids (R) including <i>Nemertesia ramosa</i> and <i>Abietinaria abietina?</i> , <i>Parasmittina trispinosa?</i> (R), red bryozoan crust (R), <i>Alcyonidium diaphanum</i> (R) and <i>Flustra foliacea</i> (R). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Ophiocomina nigra</i> (F, at least locally), <i>Corella parallelogramma</i> (R). Very sparse, closed paired valves of <i>Modiolus modiolus</i> (R), probably dead specimens.	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
NH_02_X06.1	Coarse sand (15%) and gravel (15%) with densely scattered boulders (20%), cobbles (35%), pebbles (10%) and shells (5%) including many <i>Modiolus</i> towards end	Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), <i>Parasmittina trispinosa?</i> (R) with green algal epiphyte and a red bryozoan (R), and supporting hydroids (O) including <i>Abietinaria abietina?</i> and <i>Thuiara thuja</i> , <i>Alcyonium digitatum</i> (C), and <i>Flustra foliacea</i> (R). <i>Cancer pagurus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (O), <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (A), <i>Echinus esculentus</i> (C), <i>Gadus morhua</i> (P).	SS.SMx.CMx.OphMx		GM
NH_02_X06.2	Dense shells and broken shell (60%, very largely <i>Modiolus</i> ) with gravel (25%, mostly shell) and sand (15%)	Shells with sparse epibiota of serpulid worms (C, probably largely dead), hydroids (R) including <i>Nemertesia ramosa</i> and <i>Abietinaria abietina?</i> , orange bryozoan crust (R), <i>Alcyonidium diaphanum</i> (R) and <i>Flustra foliacea</i> (R). <i>Chaetopterus variopedatus</i> (P), <i>Lanice conchilega?</i> (P), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (P), <i>Ophiocomina nigra</i> (R), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		
NH_02_X07.1	Mix of coarse and medium sand (40%) with scattered boulders (15%), cobbles (20%), pebbles (5%) and gravel (20%); stone density highly variable with dense gravel patches	Stones encrusted with serpulid worms (C), <i>Parasmittina trispinosa?</i> (R) and an orange bryozoan (R) and supporting hydroids (C) including <i>Nemertesia antennina</i> (F), <i>Abietinaria abietina?</i> (P) and <i>N. ramosa</i> (P), <i>Alcyonium digitatum</i> (R), and bryozoans including <i>Flustra foliacea</i> (O, locally C) and <i>Alcyonidium diaphanum</i> (locally C). <i>Chaetopterus variopedatus</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Ophiocomina nigra</i> (F, locally C), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F), <i>Corella parallelogramma</i> (P), <i>Pleuronectes platessa</i> (P).	SS.SMx.CMx.FluHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_02_X07.2	Mix of coarse and medium sand (35%) with scattered boulders (25%), cobbles (20%), small bedrock outcrops (<1%), pebbles (5%) and gravel (15%); stone density highly variable	Stones encrusted with serpulid worms (C, locally A) with <i>Spirobranchus</i> spp. (P), cream sponge (P), <i>Parasmittina trispinosa?</i> (R) and an orange bryozoan (R) and supporting hydroids (C) including <i>Nemertesia antennina</i> (C) and <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R, locally C), and bryozoans including <i>Flustra foliacea</i> (O). <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (P), <i>Luidia ciliaris</i> (O), <i>Ophiocomina nigra</i> (A, mostly over rock), <i>Ophiothrix fragilis</i> (locally A), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P), <i>Ascidia mentula?</i> (P).	SS.SMx.CMx.OphMx		
NH_03_X01	Mosaic of shelly mixed substrate (90%) and flat, bedrock outcrops (10%). Shelly substrate includes <i>Modiolus</i> shells and large shell debris (45%), shell gravel (40%) and sand (5%)	Poor imagery causing difficulty in discrimination of habitats. Much of run of dense shells containing some live <i>Modiolus modiolus</i> (mean of c.2/m <sup>2</sup> on photos, suggesting low end of C). Shells encrusted with serpulid worms (C), orange bryozoan (R) and cream and green film - possibly bryozoan with green alga (P), and supporting sparse hydroids (O) including <i>Sertularia</i> sp., and <i>Alcyonidium diaphanum</i> (R). <i>Cancer pagurus</i> (O), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (O), <i>Ophiothrix fragilis</i> (R), <i>Echinus esculentus</i> (O), <i>Ciona intestinalis</i> (P). Rock encrusted with pink coralline algae (R), serpulid worms (P), cream and green film - possibly bryozoan with green alga (P), orange bryozoan (R) and <i>Parasmittina trispinosa</i> (O) and apparently supporting a dense hydroid turf (A), with <i>A. rubens</i> (O) and <i>E. esculentus</i> (C)	SS.SBR.SMus.ModT, CR.HCR.XFa		HM:TS

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_03_X02	Dense <i>Modiolus</i> shells (85%) including c.45% dead shells and large shell fragments; shell gravel (15%)	Patchy <i>Modiolus</i> bed with mosaic of dense live <i>M. modiolus</i> (A, but locally S and C) occupying around 50% of the seabed along the run and dead shell patches containing few or no <i>Modiolus</i> , the live patches also containing dense ophiuroids. The live patches have shells supporting turf of hydroids (A) including <i>Kirchenpaueria pinnata?</i> and <i>Sertularia</i> sp., and serpulid worms (C), small Galatheidae spp. (P), <i>Pagurus bernhardus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Buccinum undatum</i> (P), orange encrusting bryozoan (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (A), <i>Ophiopholis aculeata</i> (P), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (P), pink encrusting coralline algae (R). The dead shell patches have shells sparsely encrusted with serpulid worms (P) and orange encrusting bryozoans (R), and support occasional hydroids, <i>Eledone cirrhosa</i> (P), <i>Alcyonidium diaphanum</i> (R), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx, SS.SMx.CMx		HM:TS
NH_03_X03	Dense <i>Modiolus</i> shells (70%) including c.30% dead shells and large shell fragments; shell gravel (15%), coarse sand (15%); cobbles, boulders and small, flat, bedrock outcrops (<1%)	Patchy <i>Modiolus</i> bed with mosaic of dense live <i>M. modiolus</i> (A, but locally S and C) occupying around 70% of the seabed along the run and dead shell patches containing few or no <i>Modiolus</i> , the live patches also containing dense ophiuroids. The live patches have shells supporting turf of hydroids (A) including <i>Kirchenpaueria pinnata?</i> , <i>Sertularia</i> sp. (locally C), <i>Nemertesia antennina</i> and <i>Abietinaria abietina?</i> with dense small prosobranchs, and serpulid worms (C) including <i>Spirobranchus</i> spp. (P), small Galatheidae spp. (P), Paguridae spp. (P), Cancer pagurus (P), <i>Calliostoma zizyphinum</i> (P), <i>Janolus cristatus?</i> (P), <i>Eledone cirrhosa</i> (O), orange encrusting bryozoan (O), <i>Parasmittina trispinosa?</i> (R), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (A), <i>Ophiopholis aculeata</i> (P), <i>Echinus esculentus</i> (C), solitary ascidians (C locally) including <i>Corella parallelogramma</i> and <i>Ciona intestinalis</i> , pink encrusting coralline algae (R) and <i>Pholis gunnellus</i> (P).. The dead shell patches have shells sparsely encrusted with serpulid worms (P) and orange encrusting bryozoans (R), and support occasional hydroids, <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (P), <i>Henricia</i> sp. (P), <i>Leptasterias muelleri?</i> (P), <i>Ophiothrix fragilis</i> (P) and <i>Echinus esculentus</i> (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx, SS.SMx.CMx		HM:TS

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_03_X04	Dense <i>Modiolus</i> shells (90%) with shell gravel (10%)	Patchy <i>Modiolus</i> bed with mosaic of dense live <i>M. modiolus</i> (A) occupying around 35% of the seabed along the run and dead shell patches containing few or no <i>Modiolus</i> , the live patches also containing dense ophiuroids. The live patches have shells supporting turf of hydroids (A) including <i>Kirchenpaueria pinnata?</i> and <i>Sertularia</i> sp. and serpulid worms (P), small Galatheidae spp. (P), <i>Pagurus bernhardus</i> (P), <i>Buccinum undatum</i> (P), orange encrusting bryozoan (R), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (A), <i>Ophiopholis aculeata</i> (A locally), <i>Echinus esculentus</i> (C), solitary ascidians (P). The dead shell patches have shells sparsely encrusted with serpulid worms (P) and <i>Parasmittina trispinosa?</i> (R), and support occasional hydroids, <i>Asterias rubens</i> (P), <i>Ophiocomina nigra</i> (R, locally C), <i>Echinus esculentus</i> (P) and <i>Pholis gunnellus</i> (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx, SS.SMx.CMx		HM:TS
NH_03_X05	Dense <i>Modiolus</i> shells (95%) including c.5% dead shells and large shell fragments; shell gravel (3%), sand (2%)	Dense bed of <i>Modiolus modiolus</i> (S) with shells supporting turf of hydroids (A) including <i>Kirchenpaueria pinnata?</i> and <i>Sertularia</i> sp. Serpulid worms (C), small Galatheidae spp. (P), <i>Calliostoma zizyphinum</i> (P), orange encrusting bryozoan (O), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (C), <i>Ophiothrix fragilis</i> (A), <i>Echinus esculentus</i> (C), solitary ascidians (C) including <i>Polycarpa pomaria</i> (P) and <i>Ciona intestinalis</i> (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS
NH_03_X06.1	Dense shells and broken shell of <i>Modiolus</i> (85%, of which 45% dead) with shell gravel (15%)	Bed of <i>Modiolus modiolus</i> (A), reducing to C towards end of run (A overall), with shells encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (C), <i>Parasmittina trispinosa?</i> (R) and orange bryozoan (R) and supporting turf of hydroids (A) including <i>Sertularia</i> sp. and <i>Kirchenpaueria pinnata?</i> . Small Galatheidae spp. (P), <i>Buccinum undatum</i> (P), <i>Eledone cirrhosa</i> (P), <i>Crossaster papposus</i> (C), <i>Asterias rubens</i> (C), <i>Henricia</i> sp. (F), <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (P), <i>Ophiopholis aculeata</i> (P), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_03_X06.2	<i>Modiolus</i> shells and large shell fragments (85%), shell gravel (15%)	Shells with serpulid worms (F, probably largely dead). <i>Buccinum undatum</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (C), <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (P), <i>Ophiopholis aculeata</i> (P), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		
NH_03_X07	Gravel (35%), pebbles (30%) and shells with large shell material (35%) including many <i>Modiolus</i> ; pebble density declines and shell increases along run. Small bedrock patches (<1%) at very start of run.	Very low diversity biota with shells and pebbles encrusted with sparse serpulid worms (F, possibly largely dead) and pink coralline algae (P) and supporting patchy turf of well-developed <i>Alcyonidium diaphanum</i> (C but A initially, locally S) with nudibranch egg strings (P) and sparse hydroids (R) and <i>Flustra foliacea</i> (R). <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (O), <i>Stichastrella rosea?</i> (P), <i>Echinus esculentus</i> (P). Single live <i>Modiolus modiolus</i> (R) observed towards end of run.	SS.SMx.CMx		
NH_03_X08	Gravel (45%), pebbles (45%) and shells (10%) including many <i>Modiolus</i>	Very low diversity biota with shells and pebbles encrusted with sparse serpulid worms (F, possibly largely dead), orange bryozoan and pink coralline algae (P) and supporting patchy turf of well-developed <i>Alcyonidium diaphanum</i> (A, locally S) with nudibranch egg strings (P) and occasional hydroids. <i>Crossaster papposus</i> (F), <i>Ophiura albida</i> (P).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_03_X09	Dense <i>Modiolus</i> shells (80%) with shell gravel (15%) and sand (5%)	Patchy <i>Modiolus</i> bed with mosaic of dense live <i>M. modiolus</i> patches (A) occupying around 20% of the seabed along the run and dead shell areas containing few or no <i>Modiolus</i> , the live patches also containing dense ophiuroids. The live patches have shells supporting turf of hydroids (A) including <i>Kirchenpaueria pinnata?</i> and <i>Sertularia</i> sp., a yellow cushion sponge (R), serpulid worms (C) including <i>Spirobranchus</i> spp. (P), small Galatheidae spp. (P), Paguridae spp. (P), <i>Buccinum undatum</i> (F), <i>Eledone cirrhosa</i> (P), orange and red encrusting bryozoans (R), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (A), <i>Ophiopholis aculeata</i> (A), <i>Echinus esculentus</i> (C) and <i>Corella parallelogramma</i> (P). The dead shell patches have shells sparsely encrusted with serpulid worms (P) and <i>Parasmittina trispinosa?</i> (R), and support occasional hydroids, <i>Alcyonidium diaphanum</i> (R), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (P), <i>Henricia</i> sp. (P) and <i>Echinus esculentus</i> (C).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx, SS.SMx.CMx		HM:TS
NH_03_X10.1	Dense shells and broken shell (60%, very largely <i>Modiolus</i> ) with gravel (25%, mostly shell) and sand (15%)	Shells with sparse epibiota of serpulid worms (C), hydroids (R), <i>Parasmittina trispinosa?</i> (R) and <i>Alcyonidium diaphanum</i> (locally A). Paguridae sp. (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (C), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (R), <i>Ophiura albida</i> (locally C).	SS.SMx.CMx		
NH_03_X10.2	Dense boulders (40%) and cobbles (20%) on dense and broken shell (20%, very largely <i>Modiolus</i> ) with gravel (10%, mostly shell) and sand (10%)	Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), <i>Parasmittina trispinosa?</i> (R), and supporting hydroids (F-C) including <i>Abietinaria abietina?</i> . <i>Gibbula</i> sp. (P), <i>Asterias rubens</i> (P), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (S), <i>Echinus esculentus</i> (C).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
NH_03_X10.3	Dense shells and broken shell (60%, very largely <i>Modiolus</i> ) with gravel (25%, mostly shell) and sand (15%)	Shells with sparse epibiota of serpulid worms (F), hydroids (R) and <i>Parasmittina trispinosa?</i> (R). <i>Crossaster papposus</i> (P), <i>Ophiocomina nigra</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
NH_03_X11.1	Dense <i>Modiolus</i> shells and large shell fragments (85%), shell gravel (15%)	Dense bed of <i>Modiolus modiolus</i> (A, locally S) with shells supporting turf of hydroids (A) including <i>Kirchenpaueria pinnata?</i> (P). Serpulid worms (C) including <i>Spirobranchus</i> spp. (P), Paguridae sp. (P), orange encrusting bryozoan (R), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Ophiothrix fragilis</i> (A), <i>Echinus esculentus</i> (C). Fast camera speed precludes more detailed analysis.	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS
NH_03_X11.2	Dense shells and broken shell (75%, very largely <i>Modiolus</i> ) with shell gravel (15%) and coarse sand (10%)	Shells with sparse epibiota of serpulid worms (C), hydroids (R) and an orange encrusting bryozoan (R). <i>Ophiothrix fragilis</i> (R), <i>Echinus esculentus</i> (P). Fast camera speed precludes more detailed analysis.	SS.SMx.CMx		
NH_03_X12.1	Dense <i>Modiolus</i> shells and large shell fragments (75%), shell gravel (25%)	Shells with sparse epibiota of serpulid worms (C), hydroids (O) and an orange encrusting bryozoan (R). <i>Ophiocomina nigra</i> (C).	SS.SMx.CMx		
NH_03_X12.2	Dense boulders (40%) and cobbles (20%) with shell gravel (20%), pebbles (10%), shells (5%) and sand (5%)	Stones encrusted with serpulid worms (A) including <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa?</i> (R) with green algal epiphyte, and pink coralline algae (R), and supporting hydroids (F) including <i>Abietinaria abietina?</i> . <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (A), <i>Echinus esculentus</i> (C).	SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_03_X13	Dense <i>Modiolus</i> shells and large shell fragments (85%), shell gravel (10%), sand (5%)	Dense bed of <i>Modiolus modiolus</i> (S) with shells supporting turf of hydroids (A) including <i>Kirchenpaueria pinnata?</i> , <i>Sertularia</i> sp. and <i>Abietinaria abietina?</i> . Large, mustard coloured, erect, branching sponge (R), yellow cushion sponge (R), serpulid worms (P), small Galatheidae spp. (P), Paguridae sp. (P), <i>Calliostoma zizyphinum</i> (P), <i>Buccinum undatum</i> (P), orange encrusting bryozoan (R), <i>Cancer pagurus</i> (P), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (C), <i>Ophiothrix fragilis</i> (A), <i>Echinus esculentus</i> (C), solitary ascidians (C) including <i>Polycarpa pomaria</i> and <i>Ciona intestinalis</i> (P), Didemnidae sp. (R) <i>Scyliorhinus</i> sp. egg case (P), teleost sp. (P). Small patches of dead <i>Modiolus</i> shells.	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx, SS.SMx.CMx		HM:TS
NH_03_X14.1	Dense <i>Modiolus</i> shells and large shell fragments (85%), shell gravel (15%)	Dense bed of <i>Modiolus modiolus</i> (A, locally S) with shells supporting turf of hydroids (A) including <i>Abietinaria abietina?</i> (P). Serpulid worms (C), Paguridae sp. (P), orange encrusting bryozoan (R), <i>Asterias rubens</i> (P), <i>Ophiothrix fragilis</i> (C), <i>Echinus esculentus</i> (P). Fast camera speed and lack of HD footage precludes more detailed analysis.	SS.SBR.SMus.ModT		HM:TS
NH_03_X14.2	Dense shells and broken shell of <i>Modiolus</i> (90%) with shell gravel (10%)	Shells with sparse epibiota of serpulid worms (C), hydroids (O) and an orange encrusting bryozoan (R). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Ophiothrix fragilis</i> (C), <i>Ophiocolina nigra</i> (P), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F). Fast camera speed precludes more detailed analysis.	SS.SMx.CMx		
NH_03_X15.1	Dense <i>Modiolus</i> shells and large shell fragments (85%), shell gravel (15%)	Dense bed of <i>Modiolus modiolus</i> (A, locally S) with shells supporting turf of hydroids (A) including <i>Kirchenpaueria pinnata?</i> . Serpulid worms (C), small Galatheidae spp. (P), Paguridae spp. (P), <i>Calliostoma zizyphinum</i> (P), <i>Buccinum undatum</i> (P), <i>Gibbula</i> sp. (P), Anomiidae sp. (P), orange encrusting bryozoan (R), <i>Crossaster papposus</i> (C), <i>Asterias rubens</i> (C), <i>Henricia</i> sp. (C), <i>Ophiothrix fragilis</i> (A), <i>Echinus esculentus</i> (C), <i>Polycarpa pomaria</i> (P), <i>Ciona intestinalis</i> (P), <i>Platichthys flesus?</i> (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_03_X15.2	Dense shells and broken shell of <i>Modiolus</i> (80%) with shell gravel (20%)	Shells with sparse epibiota of serpulid worms (C), hydroids (O), an orange encrusting bryozoan (R) and <i>Parasmittina trispinosa?</i> (R). Paguridae sp. (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (C), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
NH_03_X16	Dense shells and broken shell of <i>Modiolus</i> (80%) with shell gravel (10%) and coarse sand (10%)	Shells with sparse epibiota of serpulid worms (C), hydroids (O) and an orange encrusting bryozoan (R). <i>Crossaster papposus</i> (P), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (O), <i>Ophiocomina nigra</i> (O), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F).	SS.SMx.CMx		
NH_03_X17	Dense <i>Modiolus</i> shells and large shell fragments (90%) of which 10% is dead, shell gravel (10%)	Dense bed of <i>Modiolus modiolus</i> (S) with shells supporting turf of hydroids (A) including <i>Sertularia</i> sp. Yellow cushion sponge (R), serpulid worms (C) including <i>Sprobranchus</i> spp. (C), small Galatheidae spp. (P), Paguridae sp. (P), <i>Calliostoma zizyphinum</i> (P), orange encrusting bryozoan (O), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Henricia</i> sp. (C), <i>Ophiothrix fragilis</i> (A, locally S), <i>Ophiocomina nigra</i> (P), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (C locally), <i>Ascidia virginea</i> (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS
NH_03_X18	<i>Modiolus</i> shells and large shell fragments (80%) of which 40% is dead, shell gravel (15%) and sand (5%)	Dense bed of <i>Modiolus modiolus</i> (A, locally S) with shells supporting turf of hydroids (A) including <i>Sertularia</i> sp. and <i>Kirchenpaueria pinnata?</i> Yellow cushion sponge (R), serpulid worms (C), small Galatheidae spp. (P), orange encrusting bryozoan (R), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (S), <i>Ophiopholis aculeata</i> (locally A), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (C locally). Line of creels.	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS
NH_03_X19.1	Dense shells and broken shell of <i>Modiolus</i> (75%) with shell gravel (25%)	Dense bed of <i>Modiolus modiolus</i> initially (S), reducing to C towards end of run (A overall), with shells encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (C) and orange bryozoan (R) and supporting turf of hydroids (A). Small Galatheidae spp. (P), <i>Pagurus bernhardus</i> (O), <i>Cancer pagurus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (S), <i>Ophiopholis aculeata</i> (locally A), <i>Echinus esculentus</i> (C).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_03_X19.2	<i>Modiolus</i> shells and large shell fragments (80%), shell gravel (15%) and sand (5%)	Shells with sparse epibiota of serpulid worms (C, probably largely dead), <i>Parasmittina trispinosa?</i> (R), orange encrusting bryozoan (R), <i>Alcyonidium diaphanum</i> (R) and hydroids (R). <i>Eledone cirrhosa</i> (P), juvenile <i>Crossaster papposus</i> (P), <i>Ophiothrix fragilis</i> (C), <i>Ophiocomina nigra</i> (R), <i>Ophiura albida</i> (C), <i>Echinus esculentus</i> (C).	SS.SMx.CMx		
NH_04_R13	<i>Modiolus</i> shells and large shell fragments (80%, of which 50% dead), shell gravel (15%) and sand (5%)	Bed of <i>Modiolus modiolus</i> (A) with shells encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), and orange bryozoan (R) and supporting turf of hydroids (A) including <i>Sertularia</i> sp. and <i>Kirchenpaueria pinnata?</i> , and <i>Flustra foliacea</i> (R). Yellow cushion sponge (O, possibly <i>Myxilla incrustans</i> ), <i>Chaetopterus variopedatus?</i> (P), <i>Buccinum undatum</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Asterias rubens</i> (C), <i>Leptasterias muelleri?</i> (P), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (S), <i>Ophiopholis aculeata</i> (P), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (C), <i>Ascidia mentula</i> (P), <i>Gadidae</i> sp. (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS
NH_04_R14	<i>Modiolus</i> shells and large shell fragments (70%), shell gravel (30%)	Shells with sparse epibiota of serpulid worms (F) and hydroids (R); patches of dense <i>Ophiothrix fragilis</i> (where S). Video imagery very poor; biota indeterminable.	SS.SMx.CMx, SS.SMx.CMx.OphMx		
NH_04_R15	<i>Modiolus</i> shells and large shell fragments (60%), shell gravel (40%), with scattered boulders (<1%), pebbles (<1%) and cobbles (<1%)	Shells with sparse epibiota of serpulid worms (F) and hydroids (R); patches of dense <i>Ophiopholis aculeata</i> (locally S). Stones encrusted with serpulid worms (P) and green and cream film - possibly <i>Parasmittina trispinosa</i> with alga (P). <i>Ophiura albida</i> (P), <i>Asterias rubens</i> (P).	SS.SMx.CMx, SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_04_R16	<i>Modiolus</i> shells and large shell fragments (55%), shell and stone gravel (35%), with scattered boulders (5%) and cobbles (5%), more concentrated towards end	Shells with sparse epibiota of serpulid worms (F) orange bryozoan (R), <i>Alcyonidium diaphanum</i> (R) and occasional hydroids (O); patches of dense <i>Ophiopholis aculeata</i> (locally S) with <i>Ophiothrix fragilis</i> (P). Boulders and cobbles encrusted with serpulid worms (A) including <i>Spirobranchus</i> spp. (P), pink coralline algae (R), <i>Parasmittina spinosa?</i> (R), and green and cream film - possibly <i>P. trispinosa</i> with alga (P), and supporting a hydroid turf (C) including <i>Abietinaria abietina?</i> . <i>Crossaster papposus</i> (P), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F), teleost sp. (P).	SS.SMx.CMx, SS.SMx.CMx.OphMx, CR.HCR.XFa		
NH_04_R17	<i>Modiolus</i> shells and large shell fragments (65%), shell and stone gravel (35%), large boulder/bedrock <1%	Shells encrusted with serpulid worms (C) and orange encrusting bryozoan (R), and supporting generally fairly sparse hydroids (F). Patches of dense <i>Ophiopholis aculeata</i> (where S) with <i>Ophiocomina nigra</i> (C locally); <i>Ophiothrix fragilis</i> (P), <i>Ophiura albida</i> (P). Yellow cushion sponge (R), <i>Cancer pagurus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Stichastrella rosea</i> (P), <i>Echinus esculentus</i> (P).	SS.SMx.CMx, SS.SMx.CMx.OphMx		
NH_04_R28	<i>Modiolus</i> shells and large shell fragments (70%), shell gravel (30%)	Shells encrusted with serpulid worms (F) and supporting sparse hydroids (R) and <i>Alcyonidium diaphanum</i> (R). Patches of dense <i>Ophiopholis aculeata</i> (where S) with <i>Ophiocomina nigra</i> (P). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F).	SS.SMx.CMx, SS.SMx.CMx.OphMx		
NH_04_V01	<i>Modiolus</i> shells and large shell fragments (70%) of which 50% is dead, shell gravel (20%) and sand (10%)	Bed of <i>Modiolus modiolus</i> (possibly A overall but declining along run to low end of C towards end) with shells supporting turf of hydroids (A) including <i>Sertularia</i> sp. and <i>Kirchenpaueria pinnata?</i> . Serpulid worms (C) including <i>Spirobranchus</i> spp. (C), <i>Calliostoma zizyphinum</i> (P), orange encrusting bryozoan (R), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (C), <i>Luidia ciliaris</i> (P), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (A, locally S) declining along run, <i>Ophiopholis aculeata</i> (A, locally S) increasing along run, <i>Ophiocomina nigra</i> (P), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (P), <i>Corella parallelogramma</i> (P), <i>Scyliorhinus</i> sp. (P), <i>Scyliorhinus</i> sp. egg case (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_04_V06	<i>Modiolus</i> shells and large shell fragments (55%), gravel, chiefly shell (40%) with scattered pebbles (<1%), cobbles (2%) and boulders (3%), fairly dense in patches towards end of run	Shells with sparse epibiota of serpulid worms (F, probably largely dead) and hydroids (R). Patches of dense <i>Ophiopholis aculeata</i> (where S), with <i>Ophiothrix fragilis</i> (locally S). Stones encrusted with pink coralline algae (R), <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (R), orange bryozoan (R) and green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) and hydroids including <i>Abietinaria abietina</i> ? (P). Video of poor quality but indicates hydroids probably A on larger boulders. <i>Pagurus bernhardus</i> (P), <i>Modiolus modiolus</i> (R, 1 seen), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (O), <i>Leptasterias muelleri</i> ? (P), <i>Echinus esculentus</i> (O).	SS.SMx.CMx, SS.SMx.CMx.OphMx, CR.HCR.XFa		
NH_04_V07	<i>Modiolus</i> shells and large shell fragments (70%) of which 65% is dead, shell gravel (30%)	Sparse <i>Modiolus modiolus</i> bed (C, c.3/sq m) with shells encrusted with serpulid worms (C) and an orange bryozoan (R) and supporting fairly sparse hydroids (F). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (S), <i>Ophiopholis aculeata</i> (P), <i>Ophiocomina nigra</i> (P), <i>Echinus esculentus</i> (F), <i>Ciona intestinalis</i> ? (P), <i>Scyliorhinus</i> sp. (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS
NH_04_V08	Largely dense shells of <i>Modiolus modiolus</i> with large shell fragments (48%), shell gravel (40%) and scattered cobbles (5%), boulders (5%) and flat bedrock outcrops (2%)	Poor visibility but apparently mostly dense shells with sparse epibiota of serpulid worms (F). Bedrock and stones encrusted with pink coralline algae (R), serpulid worms (A) including <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (R), an orange bryozoan (R) and a cream and green film - possibly bryozoan with green alga (P), and supporting fairly sparse hydroids (F). <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Ophiura abida</i> (P), <i>Echinus esculentus</i> (F), teleost sp. (P). Dense <i>Ophiopholis aculeata</i> on rock (S) and shells (locally S) with <i>Ophiocomina nigra</i> (P) and <i>Ophiothrix fragilis</i> (P).	SS.SMx.CMx, SS.SMx.CMx.OphMx, CR.MCR.EcCr.FaAlCr.Br i		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_04_V09	<i>Modiolus</i> shells and large shell fragments (80%) of which 40% is dead, shell gravel (15%) and sand (5%)	Dense bed of <i>Modiolus modiolus</i> (A) with shells supporting turf of hydroids (A) including <i>Sertularia</i> sp. and <i>Kirchenpaueria pinnata?</i> and <i>Flustra foliacea</i> (R). Yellow cushion sponge (R), <i>Alcyonium digitatum</i> (R), serpulid worms (C) including <i>Spirobranchus</i> spp. (C), Paguridae spp. (P), <i>Pagurus bernhardus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Buccinum undatum</i> (F), <i>Tectura</i> sp.? (P), <i>Eledone cirrhosa</i> (P), orange encrusting bryozoan (R), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Leptasterias muelleri?</i> (P), <i>Henricia</i> sp. (F), <i>Ophiothrix fragilis</i> (S), <i>Ophiopholis aculeata</i> (A, locally S), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (P), <i>Scyliorhinus</i> sp. egg case (P). Line of creels.	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS
NH_04_V11	<i>Modiolus</i> shells and large shell fragments (50%), shell gravel (50%)	Shells with sparse epibiota of serpulid worms (F, probably largely dead), <i>Alcyonium digitatum</i> (R), <i>Parasmittina trispinosa?</i> (R), orange encrusting bryozoan (R), <i>Alcyonidium diaphanum</i> (C) and hydroids (O) including <i>Nemertesia ramosa</i> (R). <i>Crossaster papposus?</i> (P), <i>Ophiura albida</i> (C), <i>Echinus esculentus</i> (P).	SS.SMx.CMx		
NH_04_V12	<i>Modiolus</i> shells and large shell fragments (60%), gravel, chiefly shell (40%) with scattered pebbles (<1%), cobbles (<1%) and boulders (<1%), particularly towards end of the run	Shells with sparse epibiota of serpulid worms (F) and hydroids (R). Patches of dense <i>Ophiopholis aculeata</i> (where S), with <i>Ophiocomina nigra</i> (P) and <i>Ophiothrix fragilis</i> (P). Stones encrusted with pink coralline algae (R), <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (R) and green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) supporting often dense, small prosobranchs (locally A), and hydroids including <i>Abietinaria abietina?</i> (P). <i>Modiolus modiolus</i> (R, 2 seen), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (O), <i>Echinus esculentus</i> (F).	SS.SMx.CMx, SS.SMx.CMx.OphMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
NH_04_V13	Highly variable substrate, with dense <i>Modiolus</i> shells initially and patches of flat bedrock (c.7% overall) and boulders towards the end, with scattered boulders and cobbles at varying densities throughout	Shells with sparse epibiota of serpulid worms and <i>Parasmittina trispinosa</i> ? (R), with occasional hydroids (O) including <i>Nemertesia ramosa</i> (R). Bedrock, boulders and cobbles encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), <i>P. spinosa</i> (O) with green algal epiphyte, orange bryozoan (R), and supporting often dense, small prosobranchs (locally A), a hydroid turf (C, locally A) including <i>Abietinaria abietina</i> ? (locally F), <i>Flustra foliacea</i> (R). <i>Crossaster papposus</i> (P), <i>Luidia ciliaris</i> (P), <i>Ophiura albida</i> (locally C), <i>Echinus esculentus</i> (F), <i>Corella parallelogramma</i> (R).	SS.SMx.CMx, <i>CR.HCR.XFa</i>		
NH_04_V14	Largely dense shells of <i>Modiolus modiolus</i> with large shell fragments (50%), shell gravel (45%) and scattered cobbles (2%), boulders (2%) and flat bedrock outcrops (1%)	Poor visibility but apparently mostly dense shells with sparse epibiota of serpulid worms (F) and occasional hydroids. Bedrock and stones encrusted with pink coralline algae (R), serpulid worms (C) including <i>Spirobranchus</i> spp. (locally C), <i>Parasmittina trispinosa</i> (R) and a cream/green film - probably <i>P. trispinosa</i> with green alga (P), and supporting a hydroid turf (C). <i>Crossaster papposus</i> (F), <i>Echinus esculentus</i> (F), <i>Platichthys flesus</i> juveniles? (P). Dense patches of <i>Ophiopholis aculeata</i> (locally S) with <i>Ophiocomina nigra</i> (P) and <i>Ophiothrix fragilis</i> (P) on shells.	SS.SMx.CMx, SS.SMx.CMx.OphMx, <i>CR.HCR.XFa</i>		
NH_04_V15	Coarse sand (40%) with gravel (15%) and pebbles (5%) and scattered cobbles (15%), boulders (15%) and low-lying bedrock outcrops (10%)	Bedrock and stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (C), <i>Parasmittina trispinosa</i> (R) with green algal epiphyte (P), and supporting a hydroid turf (A) including <i>Abietinaria abietina</i> ?, <i>Nemertesia antennina</i> and <i>N. ramosa</i> , <i>Flustra foliacea</i> (O, locally C) and <i>Alcyonium digitatum</i> (R). <i>Urticina felina</i> (P), <i>Alcyonidium diaphanum</i> (locally A), <i>Munida rugosa</i> (P), <i>Cancer pagurus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (P), <i>Ophiocomina nigra</i> (C locally), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P).	SS.SMx.CMx.FluHyd, <i>CR.HCR.XFa</i>		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_N31.1	Fairly dense boulders (25%), cobbles (20%) and pebbles (5%) on coarse sand (40%) and gravel (10%) with some larger patches of coarse sediment	Rock encrusted with <i>Spirobranchus</i> spp. (C, locally A), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (F) including <i>Nemertesia antennina</i> (P), <i>N ramosa</i> (P) and <i>Abietinaria abietina?</i> (P), <i>Alcyonidium diaphanum</i> (R) and <i>Flustra foliacea</i> (O). <i>Calliostoma zizyphinum</i> (P), <i>Pecten maximus</i> (P), Anomiidae sp. (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (O), <i>Ophiothrix fragilis</i> (A locally), <i>Ophiocomina nigra</i> (A), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P), teleost spp. (P).	CR.MCR.EcCr.FaAlCr.Br i, SS.SCS.CCS		
NH_05_N31.2	Sand (50%, mostly coarse) and gravel (44%), probably in megaripples, with scattered pebbles (5%), cobbles (1%) and boulders (<1%)	Larger stones with sparse hydroids (R) including <i>Nemertesia ramosa</i> , serpulid worms (R) <i>Alcyonidium diaphanum</i> (R) and <i>Parasmittina trispinosa</i> (R). <i>Asterias rubens</i> (O), <i>Echinus esculentus</i> (F)	SS.SCS.CCS		
NH_05_N32	Coarse sand and gravel with varying concentrations of boulders, cobbles and pebbles, dense in places (80%), sparse, or virtually absent in patches	Rock encrusted with <i>Spirobranchus</i> spp. (C, locally A), <i>Parasmittina trispinosa</i> (R, locally O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (F) including <i>Nemertesia antennina</i> (P), <i>N ramosa</i> (P) and <i>Rhizocaulus verticillatus</i> (P), <i>Alcyonidium diaphanum</i> (P) and <i>Flustra foliacea</i> (O, locally F). <i>Lanice conchilega</i> (P), <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Cancer pagurus</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Porania pulvillus</i> (P), <i>Luidia ciliaris</i> (P), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiocomina nigra</i> (C), <i>Echinus esculentus</i> (C), solitary ascidians (F) including <i>Corella parallelogramma</i> (F), <i>Ciona intestinalis</i> (P) and <i>Ascidia virginea</i> (P), <i>Myoxocephalus scorpius/Taurulus bubalis</i> (P), juvenile teleost sp. (P), emergent infaunal tubes.	CR.MCR.EcCr.FaAlCr.Flu, SS.SMx.CMx.FluHyd, SS.SCS.CCS		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_N70	Sediment varies from mainly coarse sand at the start to sand with dense cover of gravel and pebbles. Over the sediment is a varying concentration of cobbles and boulders ranging from c.75% cover in patches to virtually 0% cover.	Larger stones encrusted with <i>Spirobranchus</i> spp. (C, locally A), <i>Parasmittina trispinosa</i> (locally O), orange bryozoan (R) and pink coralline algae (R), and supporting hydroids (F locally) including <i>Nemertesia antennina</i> (P), <i>N. ramosa</i> (P) and <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R, locally F), <i>Alcyonidium diaphanum</i> (locally S), <i>Securiflustra securifrons</i> (R) and <i>Flustra foliacea</i> (locally C). <i>Munida rugosa</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Pecten maximus</i> (P), bivalve siphons (P), <i>Crossaster papposus</i> (F locally), <i>Asterias rubens</i> (F locally), <i>Ophiothrix fragilis</i> (P), <i>Ophiocomina nigra</i> (C locally), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F, C locally), <i>Corella parallelogramma</i> (C locally), <i>Botryllus schlosseri?</i> (R), <i>Scyliorhinus</i> sp. egg case (P), emergent infaunal tubes.	CR.MCR.EcCr.FaAlCr.Flu, SS.SMx.CMx.FluHyd, SS.SCS.CCS		
NH_05_N80	Dense cobbles (40%) and boulders (25%) with pebbles (5%) for much of run with patches of coarse sand (15%) and gravel (15%)	Stones encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (O, locally F), orange bryozoan (R), red bryozoan, and a green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) supporting dense small prosobranchs, and pink coralline algae (R). Rock supporting hydroids (F) including <i>Abietinaria abietina?</i> , Anomiidae sp. (P) and <i>Flustra foliacea</i> (F). Terebellidae sp. (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Porania pulvillus</i> (P), <i>Echinus esculentus</i> (C), <i>Scyliorhinus canicula</i> (P), juvenile teleost sp. (P), large teleost sp. (P). <i>Ophiocomina nigra</i> (A overall - and for much of run), <i>Ophiothrix fragilis</i> (locally A)).	CR.MCR.EcCr.FaAlCr.Flu, CR.MCR.EcCr.FaAlCr.Br i, SS.SCS.CCS		
NH_05_N81	Largely dense boulders (40%) and cobbles (35%) with small pockets of sand (10%), gravel (10%) and pebbles (5%)	Stones encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), and a green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P), and pink coralline algae (R). Rock supporting hydroids (O) including <i>Abietinaria abietina?</i> , and <i>Flustra foliacea</i> (O). Terebellidae sp. (P), <i>Munida rugosa</i> (F), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Porania pulvillus</i> (P), <i>Ophiocomina nigra</i> (locally C), <i>Ophiothrix fragilis</i> (locally C), <i>Echinus esculentus</i> (C), <i>Ascidia virginea</i> (P), <i>Polycarpa pomaria</i> (P), <i>Clavelina lepadiformis</i> (O), juvenile teleost sp. (P).	CR.MCR.EcCr.FaAlCr.Flu		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_N82	Mixed substrate of coarse sand (30%), gravel (35%) and pebbles (5%) with scattered cobbles (25%) and boulders (5%)	Rock encrusted with <i>serpulid worms</i> (F), <i>Balanus</i> spp. (P), <i>Parasmittina trispinosa</i> (R), orange bryozoan (R), and green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and supporting hydroids (F) including <i>Nemertesia ramosa</i> (F), <i>N. antennina</i> (P) and <i>Rhizocaulus verticillatus</i> (P), <i>Alcyonium digitatum</i> (O), <i>Alcyonidium diaphanum</i> (locally C), and <i>Flustra foliacea</i> (O). <i>Chaetopterus variopedatus?</i> (P), <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Ophiocomina nigra</i> (locally C), <i>Ophiura albida</i> (F), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (F), <i>Myoxocephalus scorpius?</i> (P).	SS.SMx.CMx.FluHyd		
NH_05_R18	Dense boulders (40%) and cobbles (35%) on coarse sand (20%) with bedrock outcrops (5%)	Rock encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (R) and pink coralline algae (O), and supporting hydroids (O) including <i>Abietinaria abietina?</i> , and <i>Alcyonium digitatum</i> (R). Paguridae sp. (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (A), <i>Echinus esculentus</i> (C), small teleost sp. (P).	CR.MCR.EcCr.FaAlCr.Br i		
NH_05_R19	Bedrock outcrops (10%) and fairly dense boulders (20%), cobbles (25%) and pebbles (5%) on coarse sand (25%) with gravel (15%)	Rock encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (R), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (O, locally F), and supporting hydroids (O) including <i>Abietinaria abietina?</i> , <i>Alcyonium digitatum</i> (R, locally F), <i>Alcyonidium diaphanum</i> (R) and <i>Flustra foliacea</i> (R). <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (A), <i>Ophiocomina nigra</i> (A), <i>Echinus esculentus</i> (C), solitary ascidians (P). Subsea cable.	CR.MCR.EcCr.FaAlCr.Br i		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_R20	Bedrock (60%) with boulders (10%) and cobbles (10%) and patches of coarse sand (10%) and gravel (10%)	Rock encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (F), and supporting hydroids (O) including <i>Abietinaria abietina?</i> , and <i>Alcyonium digitatum</i> (R). <i>Munida rugosa</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Asterias rubens</i> (P), <i>Ophiothrix fragilis</i> (S), <i>Ophiocomina nigra</i> (A.), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis?</i> (P), <i>Scyliorhinus</i> sp. egg case (P), Gadidae sp. (P). Loose ball of rope.	CR.MCR.EcCr.FaAlCr.Br i		
NH_05_R21	Dense boulders (35%) and cobbles (35%) on coarse sand (15%) and gravel (15%)	Rock encrusted with <i>Spirobranchus</i> spp. (C), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (O), and supporting hydroids (O) including <i>Abietinaria abietina?</i> and possibly <i>Flustra foliacea</i> (probably drift). Paguridae sp. (P), <i>Crossaster papposus</i> (P), <i>Ophiothrix fragilis</i> (C), <i>Ophiocomina nigra</i> (A.), <i>Echinus esculentus</i> (C), small teleost sp. (P).	CR.MCR.EcCr.FaAlCr.Br i		
NH_05_R22	Dense boulders (35%), cobbles (30%) and pebbles (5%) on coarse sand (10%) and gravel (20%)	Rock encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (F), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (O), and supporting hydroids (O) including <i>Abietinaria abietina?</i> . <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (P), <i>Ophiothrix fragilis</i> (C), <i>Ophiocomina nigra</i> (A.), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P). Discarded cabling.	CR.MCR.EcCr.FaAlCr.Br i		
NH_05_R23	Dense boulders (35%), cobbles (30%) and pebbles (5%) on coarse sand (10%) and gravel (20%)	Rock encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (F), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (O) including <i>Kirchenpaueria pinnata?</i> and <i>Abietinaria abietina?</i> , <i>Flustra foliacea</i> (R-O), and <i>Clavelina lepadiformis</i> (F). <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Solaster endeca</i> (P), <i>Ophiothrix fragilis</i> (P), <i>Ophiocomina nigra</i> (C locally), <i>Echinus esculentus</i> (C), small teleost sp. (P).	CR.MCR.EcCr.FaAlCr.Fl u		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_R24	Dense boulders (40%) and cobbles (40%) with coarse sand (10%) and gravel (10%)	Rock encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (F), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting yellow cushion sponge (R), hydroids (F) including <i>Abietinaria abietina?</i> , <i>Alcyonium digitatum</i> (R) and <i>Polycarpa pomaria</i> (P). <i>Calliostoma zizyphinum</i> (P), <i>Ophiothrix fragilis</i> (A), <i>Ophiocolina nigra</i> (A), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAlCr.Br i		
NH_05_R25	Bedrock (50%) with boulders (20%) and cobbles (10%) with patches of coarse sand (5%) and gravel (15%)	Rock encrusted with <i>Spirobranchus</i> spp. (C), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (O), and supporting hydroids (O) including <i>Abietinaria abietina?</i> , and <i>Alcyonium digitatum</i> (R), <i>Urticina felina</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (P), <i>Ophiothrix fragilis</i> (S), <i>Ophiocolina nigra</i> (A), <i>Echinus esculentus</i> (C), solitary ascidians (P) including <i>Ascidia virginea</i> (P).	CR.MCR.EcCr.FaAlCr.Br i		
NH_05_R29	Megaripples of shell gravel (75%) and coarse sand (23%) with scattered shells (2%)	Shells support serpulid worms (F) and <i>Alcyonidium diaphanum</i> (R). Paguridae spp. (O), <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (F).	SS.SCS.CCS		
NH_05_R30	Sand-dusted bedrock (70%) with boulders (10%) and cobbles (5%) and small patches of coarse sand (10%) and gravel (5%)	Rock encrusted with <i>Spirobranchus</i> spp. (C), <i>Parasmittina trispinosa</i> (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (O), and supporting hydroids (O) including <i>Abietinaria abietina?</i> . Paguridae sp. (P), <i>Gibbula cineraria</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (S), <i>Ophiocolina nigra</i> (A, locally S), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAlCr.Br i		
NH_05_R31.1	Dense boulders (55%) and cobbles (35%) with small pockets of coarse sand (5%) and gravel (5%)	Rock encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (F), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (O) including <i>Abietinaria abietina?</i> , and <i>Flustra foliacea</i> (F). <i>Calliostoma zizyphinum</i> (P), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (C), small teleost spp. (P).	CR.MCR.EcCr.FaAlCr.FI u		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_R31.2	Gravel (85%) and coarse sand (10%) with pebbles (5%), probably in megaripples	<i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (F), <i>Ophiura albida</i> (P).	SS.SCS.CCS		
NH_05_R32	Shell gravel (55%) and coarse sand (20%) with scattered boulders (10%), cobbles (10%) and pebbles (5%)	Sediment supporting <i>Neopentadactyla mixta</i> (F) and <i>Chaetopterus variopedatus</i> (P). Boulders encrusted with pink coralline algae (P), serpulid worms including <i>Spirobranchus</i> spp. (P) and <i>Parasmittina trispinosa</i> (P) and supporting hydroids (O) and dense <i>Flustra foliacea</i> (S on boulders). <i>Calliostoma zizyphinum</i> (P), <i>Janolus cristatus</i> (P on <i>Flustra</i> ), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F). Considered to be mosaic of mainly gravel habitat with boulder habitat.	SS.SCS.CCS.Nmix, CR.MCR.EcCr.FaAlCr.FI u		
NH_05_R33	Dense boulders (50%) and cobbles (30%) with small pockets of coarse sand (10%) and gravel (10%)	Rock encrusted with <i>Spirobranchus</i> spp. (C), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (O) including <i>Nemertesia antennina</i> (P), <i>Alcyonium digitatum</i> (F) and <i>Flustra foliacea</i> (O). Terebellidae sp. (P), small Galtheidae sp. (P), Paguridae sp. (P), <i>Cancer pagurus</i> (P), squid eggs? (P), <i>Leptasterias muelleri</i> ? (P), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (P), . <i>Ophiothrix fragilis</i> (A) and <i>Ophiocomina nigra</i> (locally A) but largely confined to rock interstices and not on open surfaces.	CR.MCR.EcCr.FaAlCr.FI u		
NH_05_R34	Fairly dense boulders (20%) and cobbles (35%) on coarse sand (30%) and gravel (15%)	Rock encrusted with <i>Spirobranchus</i> spp. (C), <i>Balanus</i> spp. (R), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (F) including <i>Nemertesia antennina</i> (P), <i>Abietinaria abietina</i> ? (P) and <i>Rhizocaulus verticillatus</i> , <i>Alcyonium digitatum</i> (O) and <i>Flustra foliacea</i> (O). Yellow cushion sponge (R), <i>Chaetopterus variopedatus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (O), <i>Ophiothrix fragilis</i> (P), <i>Ophiocomina nigra</i> (P), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P).	CR.MCR.EcCr.FaAlCr.FI u		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_R35	Fairly dense boulders (25%) and cobbles (40%) on coarse sand (20%), gravel (10%) and pebbles (5%)	Rock encrusted with <i>Spirobranchus</i> spp. (C), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (F) including <i>Nemertesia antennina</i> (P) and <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (F) and <i>Flustra foliacea</i> (O). <i>Chaetopterus variopedatus</i> (P), <i>Lanice conchilega</i> (P), Terebellidae sp. (P), <i>Munida rugosa</i> (F), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiocomina nigra</i> (C locally), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P), <i>Polycarpa pomaria</i> (P).	CR.MCR.EcCr.FaAlCr.FI u		
NH_05_R36	Fairly dense boulders (25%) and cobbles (40%) on coarse sand (20%), gravel (10%) and pebbles (5%)	Rock encrusted with <i>Spirobranchus</i> spp. (C), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (F) including <i>Halecium halecinum?</i> (P) and <i>Rhizocaulus verticillatus</i> (P), <i>Alcyonium digitatum</i> (F), <i>Securiflustra securifrons</i> (P) and <i>Flustra foliacea</i> (O). <i>Munida rugosa</i> (P), <i>Polycera quadrilineata</i> (P), <i>Asterias rubens</i> (F), <i>Leptasterias muelleri?</i> (P), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiocomina nigra</i> (C locally), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P), <i>Ascidia virginea</i> (P), small teleost spp. (P).	CR.MCR.EcCr.FaAlCr.FI u		
NH_05_R37	Fairly dense boulders (25%) and cobbles (25%) on coarse sand (30%), gravel (15%) and pebbles (5%)	Rock encrusted with <i>Spirobranchus</i> spp. (C), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (F) including <i>Abietinaria abietina?</i> (P), <i>Sertularia</i> sp. (P), <i>Nemertesia ramosa</i> (P) and <i>N. antennina</i> (P), <i>Cellaria</i> sp. (P) and <i>Flustra foliacea</i> (F). Yellow cushion sponge (R), Terebellidae sp. (P), <i>Munida rugosa</i> (P), <i>Cancer pagurus</i> (P), <i>Buccinum undatum</i> (P), <i>Pecten maximus</i> (P), <i>Janolus cristatus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiocomina nigra</i> (C), <i>Echinus esculentus</i> (P), <i>Corella parallelogramma</i> (P), <i>Ciona intestinalis</i> (P), <i>Labrus mixtus</i> (P).	CR.MCR.EcCr.FaAlCr.FI u		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_R38	Fairly dense boulders (30%) and cobbles (35%) on coarse sand (20%), gravel (10%) and pebbles (5%)	Rock encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (O) including <i>Abietinaria abietina?</i> (P) and <i>Nemertesia antennina</i> (P), <i>Alcyonium digitatum</i> (R), <i>Flustra foliacea</i> (F) and <i>Clavellina lepadiformis</i> (locally F). Terebellidae sp. (P), <i>Munida rugosa</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Porania pulvillus</i> (P), <i>Ophiothrix fragilis</i> (A locally), <i>Ophiocomina nigra</i> (S locally), <i>Echinus esculentus</i> (C), teleost spp. (P).	CR.MCR.EcCr.FaAlCr.Flu, CR.MCR.EcCr.FaAlCr.Br i		
NH_05_R39	Fairly dense boulders (30%) and cobbles (35%) on coarse sand (20%), gravel (10%) and pebbles (5%)	Rock encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and pink coralline algae (R), and supporting hydroids (O) including <i>Abietinaria abietina?</i> (P), and <i>Flustra foliacea</i> (O). <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (P), <i>Ophiothrix fragilis</i> (A), <i>Ophiocomina nigra</i> (A), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (P). Cable or rope present.	CR.MCR.EcCr.FaAlCr.Br i, SS.SMx.CMx.OphMx		
NH_05_V01	Coarse sand (39%) and gravel (39%) with scattered cobbles (15%) boulders (2%) and pebbles (5%)	Stones encrusted with serpulid worms (C), <i>Parasmittina trispinosa</i> (R) and an orange bryozoan (R) and supporting hydroids (C) including <i>Nemertesia antennina</i> (P), and <i>N. ramosa</i> (C), and bryozoans including <i>Flustra foliacea</i> (O), <i>Cellaria</i> sp. (P) and <i>Alcyonidium diaphanum</i> (C). <i>Chaetopterus variopedatus</i> (P), <i>Lanice conchilega</i> (P), <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Cancer pagurus</i> (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (O), <i>Ophiocomina nigra</i> (C), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (C), Polyclinidae sp.? (R), <i>Ascidia</i> sp. (P), <i>Corella parallelogramma</i> (F), <i>Scyliorhinus</i> sp. (P) and its egg case (P).	SS.SMx.CMx.FluHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_V02	Bedrock outcrops (10%) and boulders (30%), cobbles (20%), pebbles (5%) over coarse sediment of coarse sand (20%) and shell gravel (15%); relative proportions of stones and sediment varying greatly	Bedrock and larger stones encrusted with pink coralline algae (R), <i>Parasmittina trispinosa</i> (O, locally F), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with alga (P) and <i>Spirobranchus</i> spp. (A) and supporting <i>Cliona celata?</i> (R), fairly sparse hydroids (O, locally F) including <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R), <i>Flustra foliacea</i> (overall O but F over large areas, becoming S locally), <i>Clavelina lepadiformis</i> (locally F), <i>Polycarpa pomaria</i> (P), <i>Corella parallelogramma</i> (P), and <i>Ascidia virginea</i> (P). <i>Munida rugosa</i> (P), Paguridae sp. (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Porania pulvillus?</i> (P), <i>Echinus esculentus</i> (C, locally A), juvenile teleost sp. (P), <i>Ctenolabrus rupestris</i> (P). <i>Ophiocomina nigra</i> and <i>Ophiothrix fragilis</i> are widely distributed but become abundant largely in the more mixed stony/sediment areas.	CR.MCR.EcCr.FaAlCr.FI u, SS.SMx.CMx.OphMx		
NH_05_V03	Bedrock outcrops (3%) and boulders (32%), cobbles (25%), pebbles (5%) over coarse sediment of coarse sand (20%) and gravel (15%); relative proportions of stones and sediment varying greatly	Bedrock and larger stones encrusted with pink coralline algae (R), <i>Parasmittina trispinosa</i> (O, locally F), orange bryozoan (R), red bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with alga (P) supporting numerous small prosobranchs, and <i>Spirobranchus</i> spp. (A) and supporting fairly sparse hydroids (O, locally F) including <i>Abietinaria abietina?</i> (P) and <i>Nemertesia ramosa</i> (P), <i>Alcyonium digitatum</i> (R), <i>Flustra foliacea</i> (overall O but F over large areas, becoming A locally), <i>Clavelina lepadiformis</i> (locally F) and yellow cushion sponge (R, possibly <i>Myxilla incrustans</i> ). Terebellidae sp. (P), Paguridae sp. (P), <i>Calliostoma zizyphinum</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Leptasterias muelleri?</i> (P), <i>Henricia</i> sp. (P), <i>Porania pulvillus</i> (P), <i>Echinus esculentus</i> (C), <i>Scyliorhinus</i> sp. egg case (P), juvenile teleost sp. (P), large teleost sp. (P). <i>Ophiocomina nigra</i> and <i>Ophiothrix fragilis</i> are widely distributed but become locally abundant both in boulder areas and more mixed areas.	CR.MCR.EcCr.FaAlCr.FI u, SS.SMx.CMx.OphMx, CR.MCR.EcCr.FaAlCr.Br i, SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_V04	Bedrock outcrops (2%) and boulders (35%), cobbles (35%), pebbles (5%) with small pockets of coarse sand (17%) and gravel (6%)	Bedrock and Stones encrusted with pink coralline algae (R), <i>Parasmittina trispinosa</i> (O) and orange bryozoan (R), and <i>Spirobranchus</i> spp. (A) and supporting fairly sparse hydroids (O) including <i>Abietinaria abietina?</i> (P) and <i>Kirchenpaueria pinnata?</i> (P), <i>Alcyonium digitatum</i> (O, locally F), <i>Urticina</i> sp. (R), <i>Flustra foliacea</i> (O) and <i>Clavelina lepadiformis</i> (locally O). Paguridae sp. (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Porania pulvillus</i> (P), <i>Echinus esculentus</i> (C), juvenile teleost sp. (P). <i>Ophiocomina nigra</i> and <i>Ophiothrix fragilis</i> are widely distributed but become locally abundant both in denser boulder areas and more mixed areas.	CR.MCR.EcCr.FaAlCr.Flu, CR.MCR.EcCr.FaAlCr.Br i		
NH_05_V05	Dense boulders (25%) and cobbles (45%) on coarse sediment, with stones becoming more scattered towards end of run	Visibility poor (no photos or HD video) but stones encrusted with <i>Parasmittina trispinosa</i> (O) and <i>Spirobranchus</i> spp. (A) and supporting <i>Alcyonium digitatum</i> (F) and <i>Flustra foliacea</i> (O initially). <i>Cancer pagurus</i> (P), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (C).	CR.MCR.EcCr.FaAlCr.A dig		
NH_05_V06	Largely dense boulders (30%) and cobbles (35%) with pockets of coarse sand (15%), gravel (15%) and pebbles (5%) becoming more widespread towards end of run	Stones encrusted with pink coralline algae (R), <i>Parasmittina trispinosa</i> (O), red bryozoan (R), orange bryozoan (R) and green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P), and <i>Spirobranchus</i> spp. (A) and supporting fairly sparse hydroids (O) including <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (C over much of run), <i>Alcyonidium diaphanum</i> (R) and <i>Flustra foliacea</i> (O, locally F in more mixed areas). Terebellidae sp. (P), <i>Lanice conchilega</i> (P), <i>Chaetopterus variopedatus</i> (locally C), <i>Munida rugosa</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Luidia ciliaris</i> (O), <i>Echinus esculentus</i> (C), juvenile teleost sp. (P). <i>Ophiocomina nigra</i> (locally A), <i>Ophiothrix fragilis</i> (locally A), <i>Ophiura albida</i> (P).	CR.MCR.EcCr.FaAlCr.A dig, CR.MCR.EcCr.FaAlCr.Flu u		
NH_05_V07	Coarse sediment (75%) with scattered pebbles (15%) and cobbles (10%)	Visibility poor (no photos or HD video) but stones supporting hydroids (F) and <i>Flustra foliacea</i> (F). <i>Urticina felina</i> (P), <i>Crossaster papposus</i> (P), <i>Echinus esculentus</i> (F), small teleost sp. (P).	SS.SMx.CMx.FluHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_V08	Gravel (40%, mostly shell) and coarse sand (35%) with scattered pebbles (15%) and cobbles (10%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (P), <i>Parasmittina trispinosa</i> (R) and supporting hydroids (F) including <i>Nemertesia antennina</i> (P), and <i>N. ramosa</i> (F), <i>Alcyonium digitatum</i> (R) and bryozoans including <i>Flustra foliacea</i> (F), <i>Securiflustra securifrons</i> (P) and <i>Alcyonidium diaphanum</i> (P). <i>Chaetopterus variopedatus</i> (P), Paguridae sp. (P), <i>Cancer pagurus</i> (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (F), <i>Ophiocomina nigra</i> (P), <i>Ophiothrix fragilis</i> (P), <i>Ophiura albida</i> (locally C), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (F), teleost sp. (P).	SS.SMx.CMx.FluHyd		
NH_05_V09	Initially megaripples of coarse sand (49%) with gravel and shells (2%) becoming coarse sand and gravel (49%)	Shells and stones with hydroids (R), <i>Alcyonidium diaphanum</i> (R) and <i>Fustra foliacea</i> (R, probably drift). Emergent infaunal tubes (P), <i>Asterias rubens</i> (O),	SS.SCS.CCS		
NH_05_V10	Coarse sand (62%) with shell gravel (30% but denser locally) and shells (2%); locally in small ripples	Shells with hydroids (O) and <i>Alcyonidium diaphanum</i> (F). Sabellidae sp. (P), <i>Asterias rubens</i> (O), <i>Scyliorhinus</i> sp. (P), teleost sp. (R),	SS.SCS.CCS		
NH_05_V11.1	Coarse sand (40%) and gravel (40%, mostly shell), with scattered cobbles (15% and pebbles (5%)	Stones with serpulid worms (F), hydroids (F) including <i>Nemertesia ramosa</i> , <i>Flustra foliacea</i> (O), <i>Securiflustra securifrons</i> (P), <i>Alcyonidium diaphanum</i> (locally C), <i>Ascidia virginea?</i> (P) and <i>Corella parallelogramma</i> (P). Paguridae sp. (P), <i>Ophiura albida</i> (P).	SS.SMx.CMx.FluHyd		
NH_05_V11.2	Mostly coarse sand (30%) and gravel (45%) with scattered shells (5%) but patch of rippled medium sand (20%) with scattered gravel	Hydroids (R), <i>Alcyonidium diaphanum</i> (R), <i>Flustra foliacea</i> (R), Paguridae spp. (P), <i>Asterias rubens</i> (P), <i>Ascidella scabra?</i> (P), <i>Agonus cataphractus</i> (P), emergent infaunal tubes (P).	SS.SCS.CCS		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_05_V12.1	Variable substrate of medium (dominating later in run) and coarse sand with shell gravel and scattered cobbles (15%), boulders (1%) and pebbles (5%)	Stones encrusted with serpulid worms (F) including <i>Spirobranchus</i> spp. (P), <i>Balanus</i> spp. (P) and <i>Parasmittina trispinosa</i> (R) and supporting hydroids (F) including <i>Nemertesia ramosa</i> (P) and <i>N. antennina</i> (P), <i>Flustra foliacea</i> (O), <i>Securiflustra securifrons</i> (P), <i>Alcyonidium diaphanum</i> (C) and <i>Corella parallelogramma</i> (C locally). <i>Urticina felina</i> (P), <i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> (P), <i>Cancer pagurus</i> (P), <i>Asterias rubens</i> (O), <i>Ophiura albida</i> (C locally), <i>Ophiocomina nigra</i> (O), <i>Echinus esaculentus</i> (P).	SS.SMx.CMx.FluHyd		
NH_05_V12.2	Coarse sand (85%) and shell gravel (15%) with sparsely scattered shells (<1%), pebbles (<1%) and cobbles (<1%)	Hydroids (R), serpulid worms (O), <i>Alcyonidium diaphanum</i> (O), <i>Flustra foliacea</i> (R), <i>Asterias rubens</i> (O), emergent infaunal tubes (P).	SS.SCS.CCS		
NH_06_N43.1	Largely gravel (80%) possibly in megaripples, with coarse sand (10%), pebbles (10%) and scattered cobbles (<1%)	Stones encrusted with serpulid worms (F, possibly largely dead), <i>Parasmittina trispinosa</i> (R) and orange bryozoan (R), and supporting <i>Alcyonium digitatum</i> (R), hydroids (R) including <i>Nemertesia antennina</i> , <i>Flustra foliacea</i> (R), <i>Cellaria</i> sp. (R), <i>Alcyonidium diaphanum</i> (F) and <i>Corella parallelogramma</i> (P). <i>Chaetopterus variopedatus?</i> (P), Terebellidae sp. (P), Paguridae spp. (O), Nudibranchia sp. (P), <i>Asterias rubens</i> (P), <i>Crossaster papposus</i> (P), <i>Ophiura albida</i> (P).	SS.SCS.CCS		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_06_N43.2	Sediment varies but generally coarse sand with some gravel and pebbles, dense locally, over which is a varying concentration of cobbles and boulders ranging from c.80% cover in patches to around 10% cover	Larger stones encrusted with <i>Spirobranchus</i> spp. (C), <i>Balanus</i> spp. (R), <i>Parasmittina trispinosa</i> (O, locally F), orange bryozoan (R) and pink coralline algae (R), and supporting hydroids (F) including <i>Hydrallmania falcata</i> (P), <i>Nemertesia ramosa</i> (P) and <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R), <i>Cellaria</i> sp. (P), <i>Alcyonidium diaphanum</i> (R), <i>Securiflustra securifrons</i> (P) and <i>Flustra foliacea</i> (O, locally F). Yellow cushion sponge (R), <i>Chaetopterus vaiopedatus</i> (P), Terebellidae sp. (P), small Galatheidae sp. (P), Paguridae spp. (P), <i>Cancer pagurus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiocomina nigra</i> (C locally), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (F), <i>Polycarpa pomaria</i> (P), <i>Clavelina lepadiformis</i> (P), <i>Labrus mixtus</i> (P).	CR.MCR.EcCr.FaAlCr.FI u, SS.SMx.CMx.FluHyd		
NH_06_N44	Dense boulders (35%) and cobbles (35%) with pebbles (5%) and small pockets of shell gravel (10%) and coarse sand (15%)	Larger stones encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), red bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga supporting dense small prosobranchs, and pink coralline algae (R), and supporting hydroids (F) including <i>Hydrallmania falcata</i> (P) and <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R, locally F), <i>Cellaria</i> sp. (P), and <i>Flustra foliacea</i> (O). Yellow cushion sponge (R), <i>Chaetopterus vaiopedatus?</i> (locally C), Terebellidae sp. (P), <i>Calliostoma zizyphinum</i> (P), squid eggs (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp (P), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiocomina nigra</i> (C locally), <i>Echinus esculentus</i> (C), solitary ascidians (P) including <i>Polycarpa pomaria</i> (P), <i>Labrus mixtus</i> (P), juvenile teleost sp. (P).	CR.MCR.EcCr.FaAlCr.FI u		
NH_06_N45.1	Mix of medium and coarse sand with sparsely scattered shells, pebbles and cobbles (all <1%)	Stones support sparse hydroids (R), <i>Alcyonium digitatum?</i> (R), <i>Balanus</i> spp. (R) and <i>Corella parallelogramma</i> (R). Emergent infaunal tubes (P), <i>Asterias rubens</i> (P).	SS.SCS.CCS		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_06_N45.2	Mix of medium and coarse sand with scattered pebbles (2%), boulders (1%) and cobbles (4%)	Stones encrusted with serpulid worms (O), <i>Balanus</i> spp. (R) and <i>Parasmittina trispinosa</i> (R), and supporting hydroids (O) including <i>Nemertesia ramosa</i> (R) and <i>Abietinaria abietina?</i> (R), <i>Caryophyllia smithii</i> (R), <i>Alcyonidium diaphanum</i> (O), <i>Securiflustra securifrons</i> (R) and <i>Flustra foliacea</i> (R, locally F). <i>Chaetopterus vaiopedatus?</i> (P), Terebellidae sp. (R), <i>Cancer pagurus</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Ophiothrix fragilis</i> (R), <i>Ophiura albida</i> (locally C), <i>Echinus esculentus</i> (F), <i>Corella parallelogramma</i> (P), Pleuronectidae sp. (P).	SS.SMx.CMx.FluHyd		
NH_06_N46	Coarse sand (90%), at least initially in megaripples, with gravel (9%) and pebbles (1%), concentrated locally in troughs	Stones with hydroids (R), serpulid worms (R, probably dead), <i>Parasmittina trispinosa</i> (R) and <i>Alcyonidium diaphanum</i> (F). Paguridae spp. (R), <i>Cancer pagurus</i> (P), <i>Asterias rubens</i> (O).	SS.SCS.CCS		
NH_06_N51	Sediment varies but generally coarse sand with some gravel and pebbles, over which is a varying concentration of cobbles and boulders ranging from c.100% cover in patches to virtually 0% cover in patches.	Larger stones encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> , and pink coralline algae (R), and supporting hydroids (F) including <i>Hydrallmania falcata</i> (P) and <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R), <i>Cellaria</i> sp. (P), <i>Alcyonidium diaphanum</i> (R), <i>Securiflustra securifrons</i> (P) and <i>Flustra foliacea</i> (O). Yellow cushion sponge (R), <i>Metridium dianthus</i> (R), <i>Chaetopterus vaiopedatus</i> (P), Terebellidae sp. (P), <i>Cancer pagurus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (O), <i>Henricia</i> sp (P), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiocomina nigra</i> (C locally), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P), <i>Clavelina lepadiformis</i> (P), <i>Botryllus schlosseri?</i> (P), <i>Scyliorhinus</i> sp. (P), juvenile teleost sp. (P).	CR.MCR.EcCr.FaAlCr.Flu, SS.SMx.CMx.FluHyd, SS.SCS.CCS		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_06_N52	Sediment generally coarse sand with some gravel and pebbles, over which is a varying concentration of cobbles and boulders ranging from c.80% cover in patches to virtually 0% cover in patches.	Larger stones encrusted with <i>Spirobranchus</i> spp. (C, locally A), <i>Parasmittina trispinosa</i> (R, locally C), orange bryozoan (R) and green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga, and supporting hydroids (F) including <i>Hydrallmania falcata</i> (P), <i>Rhizocaulus verticillatus</i> (P), <i>Nemertesia ramosa</i> (P) and <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R), <i>Cellaria</i> sp. (P), <i>Securiflustra securifrons</i> (P) and <i>Flustra foliacea</i> (O). Terebellidae sp. (P), Paguridae sp. with <i>Suberites ficus?</i> (P), <i>Munida rugosa</i> (P), <i>Cancer pagurus</i> (P), small bivalve siphons (locally C), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Ophiothrix fragilis</i> (P), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (C), <i>Corella parallelograma</i> (P).	CR.MCR.EcCr.FaAlCr.Flu, SS.SMx.CMx.FluHyd, SS.SCS.CCS		
NH_06_N53.1	Coarse sand (80%) with shell gravel (20%); sparse cobbles (<1%)	<i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> (P), <i>Asterias rubens</i> (P).	SS.SCS.CCS		
NH_06_N53.2	Coarse sand (85%) with shell gravel (5%) and scattered pebbles (2%), cobbles (8%) and boulders (<1%)	Stones encrusted with serpulid worms (F), <i>Balanus</i> spp. (R) and <i>Parasmittina trispinosa</i> (R), and supporting hydroids (F) including <i>Nemertesia antennina</i> (R), <i>Alcyonium digitatum</i> (R), <i>Alcyonidium diaphanum</i> (P) and <i>Flustra foliacea</i> (O). Paguridae spp. (P), <i>Pecten maximus</i> (P), small bivalve siphons (locally A), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (F), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (F), Pleuronectidae sp. (P), emergent infaunal tubes (P).	SS.SMx.CMx.FluHyd		
NH_06_N56	Coarse sand (43%) and gravel (43%) with scattered pebbles (10%), cobbles (4%) and boulders (<1%)	Stones encrusted with serpulid worms (F) and <i>Parasmittina trispinosa</i> (R) and supporting sparse hydroids (O), <i>Alcyonium digitatum</i> (R), <i>Alcyonidium diaphanum</i> (locally C) and <i>Corella parallelograma</i> (P). <i>Echinus esculentus</i> (P).	SS.SMx.CMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_06_N57	Largely coarse and medium sand (93%) with scattered cobbles (2%) and boulders (2%), occasionally in patches, and pebbles (1%) and gravel (2%)	Stones encrusted with serpulids (R) and <i>Parasmittina trispinosa</i> (R) and supporting hydroids (locally C) including <i>Abietinaria abietina?</i> (P) and <i>Nemertesia antennina</i> (P), <i>Alcyonidium diaphanum</i> (R) and <i>Flustra foliacea</i> (locally F). Paguridae spp. (O), <i>Echinus esculentus</i> (locally C).	SS.SCS.CCS, SS.SMx.CMx.FluHyd		
NH_06_N58	Shallow megaripples of coarse sand (88%) with shell gravel (10%) and shells (2%)	<i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> (F), <i>Asterias rubens</i> (F), emergent infaunal tubes (P).	SS.SCS.CCS		
NH_06_N59	Sediment generally coarse sand with some gravel and pebbles, over which is a varying concentration of cobbles and boulders ranging from c.80% cover in patches to sparsely scattered.	Larger stones encrusted with serpulids (P) including <i>Spirobranchus</i> spp. (locally A), <i>Parasmittina trispinosa</i> (R, locally O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga and pink coralline algae (R), and supporting hydroids (F, locally C) including <i>Hydrallmania falcata</i> (P) and <i>Nemertesia antennina</i> (P), <i>Alcyonium digitatum</i> (R), <i>Cellaria</i> sp. (P), <i>Alcyonidium diaphanum</i> (P), <i>Securiflustra securifrons</i> (P) and <i>Flustra foliacea</i> (O). <i>Urticina</i> sp. (P), <i>Chaetopterus variopedatus</i> (P), Terebellidae sp. (P), <i>Cancer pagurus</i> (P), <i>Calliostoma zizyphinum</i> (P), small bivalve siphons (locally C), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (R), <i>Ophiocomina nigra</i> (C locally), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (F), foliose red algae (R).	CR.MCR.EcCr.FaAlCr.Flu, SS.SMx.CMx.FluHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_06_N60	Mostly dense boulders (40%) and cobbles (35%) with patches of coarse sand (10%), gravel (10%) and pebbles (5%)	Larger stones encrusted with serpulids (C) including <i>Spirobranchus</i> spp. (C, locally A), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), green and cream film - possibly <i>Parasmittina trispinosa</i> with green alga (P) and pink coralline algae (R), and supporting a turf of hydroids (C) including <i>Hydrallmania falcata</i> (P) and <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R) and bryozoans including <i>Cellaria</i> sp. (P) and <i>Flustra foliacea</i> (R). Cream cushion sponge (R), <i>Suberites carnosus</i> (P), <i>Chaetopterus variopedatus</i> (P), Terebellidae sp. (P), <i>Munida rugosa</i> (P), small prosobranch spp. (locally C), <i>Pecten maximus</i> (P), <i>Aequipecten opercularis?</i> (P), <i>Asterias rubens</i> (F), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (C), <i>Corella parallelogramma</i> (P), <i>Botryllus schlosseri</i> (P), filiform red algae (R).	CR.MCR.EcCr.FaAlCr.Flu, SS.SMx.CMx.FluHyd		
NH_06_N62	Coarse sand (88%) with shell gravel (10%) and shells (2%)	<i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> (F), <i>Atelecyclus rotundatus</i> (P), small bivalve siphons (locally A), <i>Asterias rubens</i> (F), teleost sp. (P), emergent infaunal tubes (P).	SS.SCS.CCS		
NH_06_N63	Largely dense boulders (40%) and cobbles (40%) with pebbles (10%), sand (5%) and gravel (5%)	Stones encrusted with <i>Spirobranchus</i> spp. (C, locally A), <i>Balanus</i> spp. (P), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), red bryozoan (R), and pink coralline algae (R), and supporting hydroids (F) including <i>Nemertesia ramosa</i> (P), <i>Alcyonium digitatum</i> (R) and bryozoans including <i>Securiflustra securifrons</i> (F), <i>Alcyonidium diaphanum</i> (locally C) and <i>Flustra foliacea</i> (R), and colonial ascidians including <i>Clavelina lepadiformis</i> (F) and <i>Botryllus schlosseri?</i> (P). Cream cushion sponge (R), red encrusting sponge? (R), Terebellidae sp. (P), <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (P), <i>Echinus esculentus</i> (C), <i>Polycarpa pomaria</i> (P).	CR.MCR.EcCr.FaAlCr.Sec		
NH_06_N64	Megaripples of sand (20%) and gravel (65%) with scattered cobbles (5%), boulders (5%) and pebbles (5%), occasionally in patches	Stones encrusted with <i>Spirobranchus</i> spp. (locally C), <i>Parasmittina trispinosa</i> (R), orange bryozoan (R) and pink coralline algae (R) and supporting hydroids (O) including <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R), <i>Securiflustra securifrons</i> (R) and <i>Flustra foliacea</i> (R). <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (P), <i>Echinus esculentus</i> (F), <i>Ascidia mentula?</i> (P), <i>Ciona intestinalis?</i> (P).	SS.SCS.CCS, SS.SMx.CMx.FluHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_06_N65	Boulder field (60%) with cobbles (25%), sand (10%) and pebbles (5%)	Stones encrusted with <i>Spirobranchus</i> spp. (A), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R) and pink coralline algae (R) and supporting hydroids (F) including <i>Abietinaria abietina?</i> (P) and <i>Kirchenpaueria pinnata?</i> (P), <i>Alcyonium digitatum</i> (R, locally F), <i>Alcyonidium diaphanum</i> (P) and <i>Securiflustra securifrons</i> (R). Terebellidae sp. (P), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Ophiocomina nigra</i> (locally C), <i>Ophiothrix fragilis</i> (locally A), <i>Echinus esculentus</i> (C), solitary ascidian (P).	CR.MCR.EcCr.FaAICr.Pom		
NH_06_N66	Mixed substrate of boulders (30%) and cobbles (30%) on sand (25%) with pebbles (10%) and gravel (5%)	Stones encrusted with <i>Spirobranchus</i> spp. (C), <i>Balanus</i> spp. (P), <i>Parasmittina trispinosa</i> (O), orange bryozoan (R), red bryozoan (R), and pink coralline algae (R) and supporting hydroids (C) including <i>Abietinaria abietina?</i> (P), <i>Hydrallmania falcata</i> (P) and <i>Kirchenpaueria pinnata?</i> (P), <i>Alcyonium digitatum</i> (R), <i>Flustra foliacea</i> (R) and <i>Alcyonidium diaphanum</i> (P). Terebellidae sp. (P), <i>Munida rugosa</i> (F), <i>Calliostoma zizyphinum</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Leptasterias muelleri?</i> (P), <i>Ophiothrix fragilis</i> (P), <i>Echinus esculentus</i> (C).	SS.SMx.CMx.FluHyd		
NH_06_N68	Megaripples of coarse sand (92%) with scattered cobbles (3%) and boulders (3%) occasionally in patches, gravel (1%) and pebbles (1%)	Stones encrusted with serpulids (R) and <i>Parasmittina trispinosa</i> (R, locally F) and supporting hydroids (O) including <i>Nemertesia antennina</i> (P), <i>Alcyonium digitatum</i> (R) and <i>Flustra foliacea</i> (O). <i>Chaetopterus variopedatus?</i> (P), Paguridae spp. (R), <i>Asterias rubens</i> (P), <i>Ophiura albida</i> (P), <i>Ophiothrix fragilis</i> (R), <i>Echinus esculentus</i> (F).	SS.SCS.CCS, SS.SMx.CMx.FluHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
NH_06_N69	Sediment varies from medium to coarse sand with often dense cover of gravel and pebbles. Over the sediment is a varying concentration of cobbles and boulders ranging from c.90% cover in patches to virtually 0% cover in patches.	Larger stones encrusted with <i>Spirobranchus</i> spp. (C, locally A), <i>Parasmittina trispinosa</i> (locally O), orange bryozoan (R) and pink coralline algae (R), and supporting hydroids (F locally) including <i>Nemertesia ramosa</i> (P) and <i>Abietinaria abietina?</i> (P), <i>Alcyonium digitatum</i> (R, locally F), <i>Alcyonidium diaphanum</i> (R), <i>Securiflustra securifrons</i> (R) and <i>Flustra foliacea</i> (O in rocky areas). Yellow cushion sponge (R), <i>Suberites</i> sp. (P), <i>Chaetopterus vaiopedatus?</i> (locally C), Terebellidae sp. (P), <i>Munida rugosa</i> (P), Anomiidae sp. (P) <i>Crossaster papposus</i> (F locally), <i>Asterias rubens</i> (F locally), <i>Henricia</i> sp (P), <i>Porania pulvillus</i> (P), <i>Ophiothrix fragilis</i> (C locally), <i>Ophiocomina nigra</i> (P), <i>Ophiura albida</i> (P), <i>Echinus esculentus</i> (C locally), <i>Polycarpa pomaria?</i> (P), <i>Scyliorhinus canicula</i> (P), teleost sp. (P).	CR.MCR.EcCr.FaAICr.Flu, SS.SMx.CMx.FluHyd, SS.SCS.CCS		
NH-04_V10	<i>Modiolus</i> shells and large shell fragments (70%) of which 40% is dead, shell gravel (20%) and sand (10%)	Bed of <i>Modiolus modiolus</i> (A) with shells supporting turf of hydroids (A) including <i>Sertularia</i> sp. and <i>Kirchenpaueria pinnata?</i> . Yellow cushion sponge (O), possibly <i>Myxilla incrustans</i> , cream cushion sponge (R), also possibly <i>M. incrustans</i> , serpulid worms (C) including <i>Spirobranchus</i> spp. (C), Paguridae spp. (P), <i>Calliostoma zizyphinum</i> (P), <i>Buccinum undatum</i> (F), <i>Tectura</i> sp.? (P), orange encrusting bryozoan (R), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (F), <i>Leptasterias muelleri?</i> (P), <i>Henricia</i> sp. (F), <i>Ophiothrix fragilis</i> (S), <i>Ophiopholis aculeata</i> (A), <i>Echinus esculentus</i> (C), <i>Ciona intestinalis</i> (C), <i>Scyliorhinus</i> sp. egg case (P), <i>Platichthys flesus?</i> (P).	SS.SBR.SMus.ModT, SS.SMx.CMx.OphMx		HM:TS
MF_01_X01	Sandy mud or possibly cohesive muddy sand; shells (<1%) including <i>Turritella communis</i>	Sediment with sparse small burrows, some with adjacent small mounds (possibly <i>Callianassa subterranea</i> ). Paguridae sp. (P), <i>Asterias rubens</i> (F).	SS.SMu.CSaMu		
MF_01_X02	Sandy mud or possibly cohesive muddy sand; shells (<1%) including <i>Turritella communis</i>	Sediment with small mounds, polychaete casts, emergent infaunal tubes, holes and burrows, mostly small but with fairly sparse larger burrows including possibly those of <i>Nephrops norvegicus</i> . Terebellidae sp. (P), Paguridae spp. (O), <i>Liocarcinus</i> sp. (P), <i>Asterias rubens</i> (C). <i>Turritella</i> shells present, mostly unoccupied but at least some containing pagurids.	SS.SMu.CSaMu		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
MF_01_X03	Sandy mud or possibly cohesive muddy sand; shell gravel (2%), shells (<1%) including <i>Turritella communis</i>	Sediment with sparse burrows. Paguridae spp. (O), Brachyura sp. (P), <i>Asterias rubens</i> (P).	SS.SMu.CSaMu		
MF_02_V01	Rippled fine sand with sparse shell gravel (2%), cobbles (<1%) and boulders (<1%)	<i>Liocarcinus depurator</i> (O), <i>Asterias rubens</i> (A). Stones supporting <i>Alcyonium digitatum</i> (R) and <i>Urticina</i> sp. (R). Drift algae.	SS.SSa.CFiSa	SB:GS	
MF_02_V02	Slightly rippled, slightly silty, fine sand	<i>Liocarcinus depurator</i> (O), some small emergent infaunal tubes.	SS.SSa.CFiSa	SB:GS	
MF_02_V03	Muddy sand with sparsely scattered shells (<1%)	<i>Liocarcinus depurator</i> (O), <i>Ophiura albida</i> (C), <i>Asterias rubens</i> (F)	SS.SSa.CMuSa	SB:MS	
MF_02_V04	Faintly rippled fine sand (85%) with scattering of shell gravel (8%), pebbles (5%), cobbles (<1%) and shells (2%) including <i>Modiolus</i>	Stones and shells supporting hydroids (O), erect branching sponge (P), <i>Alcyonium digitatum</i> (R), <i>Urticina felina</i> (P), <i>Metridium dianthus</i> (O), Ectocarpaceae sp.? (R) and <i>Saccharina latissima juvenile</i> (R). <i>Cerianthus lloydii</i> (P), polychaete casts (P), <i>Pagurus bernhardus</i> (P), <i>Liocarcinus depurator</i> (P), <i>Ophiura albida</i> (P), <i>Asterias rubens</i> (F)	SS.SSa.IFiSa.ScupHyd	SB:GS	
MF_02_V05	Mixed sediment of muddy sand (67%) with much shell and some stone gravel (30%), pebbles (1%), cobbles (1%) and shells (1%) including <i>Modiolus modiolus</i> .	Stones and shells support hydroid clumps (O, locally F), <i>Alcyonium digitatum</i> (R), <i>Urticina</i> sp. (O), <i>Metridium dianthus</i> (R), solitary ascidians (O) including <i>Corella parallelogramma</i> (P), algal tufts (O) including filamentous red algae and apparently brown algae. <i>Liocarcinus depurator</i> (O), <i>Buccinum undatum</i> (P), <i>Asterias rubens</i> (C), <i>Ophiura albida</i> (P), small teleost (P).	SS.SMx.CMx	SB:MX	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
MF_02_V06	Mixed sediment of silty sand (34%) with gravel (27%), pebbles (27%), cobbles (2%) and shells (10%) including <i>Modiolus modiolus</i> , locally dense.	Stones and shells encrusted with serpulid worms (C) and support hydroid clumps (F), <i>Alcyonium digitatum</i> (R), solitary ascidians (P) including <i>Dendrodoa grossularia</i> (P), algal tufts (O) including filamentous red algae and apparently brown algae. <i>Liocarcinus depurator</i> (P), <i>Asterias rubens</i> (C), <i>Echinus esculentus</i> (F), <i>Agonus cataphractus</i> (P), <i>Pholis gunnellus</i> (P). <i>Modiolus modiolus</i> is present but apparently sparse (O - F, 2 specimens seen).	SS.SMx.CMx	SB:MX	
MF_02_V07	Slightly silty fine sand with scattered shells (1%), mostly <i>Turritella</i> but also <i>Ensis</i>	Paguridae spp. (P), <i>Turritella communis</i> (live specimens possibly F), <i>Asterias rubens</i> (C), <i>Ophiura</i> sp. (P), .	SS.SSa.IMuSa	SB:MS	
MF_02_V08	Muddy sand with broken shell (2%) and scattered shells (<1%)	Sand with cover of brown diatomaceous mat (A) and with small holes/burrows and depressions and small mounds. <i>Asterias rubens</i> (F), <i>Astropecten irregularis</i> (P), <i>Pleuronectes platessa</i> (P).	SS.SSa.IMuSa	SB:MS	
MF_02_V09	Silty fine sand	Sand with cover of brown diatomaceous mat (A) and with small holes/burrows and small mounds. <i>Asterias rubens</i> (C), <i>Ophiura</i> sp. (P).	SS.SSa.IMuSa	SB:MS	
MF_02_V10	Slightly silty, rippled fine sand with shell gravel (2%) and scattered shells (<1%) including <i>Ensis</i>	Sand with depressions, some with small holes, possibly those of <i>Ensis</i> , and <i>spatangid</i> tests. <i>Liocarcinus</i> sp. (P), <i>Asterias rubens</i> (C), <i>Astropecten irregularis</i> ? (P).	SS.SSa.IMuSa	SB:MS	
MF_02_V11	Muddy sand (82%) with broken shell (15%) and scattered shells (3%), pebbles (<1%), cobbles (<1%) and boulders (<1%)	Sediment with many small, silty mounds. Scattered stones support patches of hydroids (R), <i>Metridium dianthus</i> (R), <i>Alcyonium digitatum</i> (R), bryozoans including <i>Securiflustra securifrons</i> (R) and <i>Flustra foliacea</i> ? (R), and filamentous red algae (R). <i>Toxisarcon alba</i> (P), <i>Chaetopterus variopedatus</i> (P), Paguridae sp. (P), <i>Asterias rubens</i> (O), <i>Astropecten irregularis</i> (P).	SS.SSa.CMuSa	SB:MS	

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
MF_02_V12	Soft mud	Mud covered by thin diatomaceous film (A), and with mounds up to c.10 cm in diameter and fairly well burrowed by species including <i>Nephrops norvegicus</i> (C), <i>Calocaris macandreae</i> (P) and <i>Callianassa subterranea?</i> (P). <i>Cerianthus lloydii?</i> (P), <i>Pagurus bernhardus?</i> (P), <i>Liocarcinus</i> spp. (O), <i>Asterias rubens</i> (F), <i>Agonus cataphractus</i> (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
MF_02_V13	Sandy mud	Sediment with diatomaceous film (A), casts, small holes and mounds and sparse, mostly small megafaunal burrows. <i>Alcyonium digitatum</i> (R), hydroids (R), <i>Turritella communis</i> shells (P, some possibly with host), <i>Asterias rubens</i> (C), <i>Astropecten irregularis?</i> (P).	SS.SMu.CSaMu		
MF_02_V14	Sandy mud	Sediment with small mounds, some with casts, emergent infaunal tubes and fairly sparse burrows including <i>Nephrops norvegicus</i> (F). <i>Toxisarcon alba?</i> (P), hydroids (R), <i>Alcyonium digitatum</i> (R), <i>Metridium dianthus</i> (R), Paguridae spp. (P) including in <i>Turritella</i> shells, <i>Asterias rubens</i> (C).	SS.SMu.CSaMu		
MF_02_V21	Soft mud	Mud with mounds up to c.10 cm in diameter and fairly well burrowed by species including <i>Nephrops norvegicus</i> and probably <i>Calocaris macandreae</i> . <i>Pagurus bernhardus?</i> (P), <i>Asterias rubens</i> (C).	SS.SMu.CFiMu.SpnMeg		BM:SB
MF_02_V22	Sandy mud	Sediment with some small mounds and very sparse burrows including <i>Nephrops norvegicus</i> . Hydroids (R), <i>Alcyonium digitatum</i> (R), Paguridae spp. (P) including in <i>Turritella</i> shells (locally F), <i>Liocarcinus</i> spp. (O), small bivalve siphon pairs (locally A), <i>Asterias rubens</i> (C).	SS.SMu.CSaMu		
MF_02_V23	Sandy mud	Mud with small mounds (c.5 cm in diameter) and with small holes and very sparse small, megafaunal burrows. <i>Cerianthus lloydii</i> (P) hydroids (R) including <i>Nemertesia ramosa?</i> (R), <i>Pagurus bernhardus</i> (P) supporting Paguridae sp. (P), Balanidae spp. (P) and <i>Suberites</i> sp. (P), <i>Asterias rubens</i> (C).	SS.SMu.CSaMu		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
MF_02_V24	Muddy sand with scattered shells (1%) and broken shell gravel (5%)	Sediment with polychaete casts and small holes and small mounds. Single megafaunal burrow observed - that of <i>Nephrops norvegicus</i> with resident at entrance. Shells and possibly small stones supporting sparse <i>Alcyonium digitatum</i> (R) and possibly small tufts of silted hydroids. Larger clumps of possibly hydroids and <i>Flustra foliacea</i> may be largely drift material. <i>Asterias rubens</i> (F).	SS.SMu.CSaMu		
MF_02_V27	Soft mud	Mud with mounds up to c.10 cm in diameter and fairly well burrowed by species probably including <i>Calocaris macandreae</i> and <i>Nephrops norvegicus</i> . <i>Asterias rubens</i> (C). Sparsely scattered <i>Turritella communis</i> shells, probably all unoccupied.	SS.SMu.CFiMu.SpnMeg		BM:SB
MF_02_V38	Muddy sand with scattered shells (1%) and broken shell gravel (2%)	Sediment with some small mounds (c. 5 cm diameter). <i>Alcyonium digitatum?</i> (R), <i>Liocarcinus</i> spp. (P), <i>Astropecten irregularis?</i> (P), <i>Asterias rubens</i> (F).	SS.SMu.CSaMu		
STR_Sab_V02	Coarse sand with cover of gravel, pebbles, cobbles and boulders, largely obscured by ophiuroids	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C). Rock supports serpulid worms (C), hydroids (R) including <i>Abietinaria abietina?</i> , <i>Alcyonium digitatum</i> (C). <i>Urticina</i> spp. (O) including <i>U. eques</i> and possibly <i>U. felina</i> , <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (C), <i>Luidia ciliaris</i> (O), <i>Echinus esculentus</i> (C), teleost sp. (P).	SS.SMx.CMx.OphMx		
STR_V01	Poorly mixed, slightly muddy sand with scattered shells (5%) and shell gravel (20%)	Emergent infaunal tubes, Paguridae spp. (O) including <i>Pagurus bernhardus</i> , <i>Cancer pagurus</i> (P), teleost spp. (O) including <i>Pleuronectiformes</i> sp. (O).	SS.SSa.CMuSa		
STR_V02	Muddy sand with sparsely scattered shells (<1%) and broken shell material	Sediment with small holes and shallow concavities. <i>Brachyura</i> spp. (P), <i>Asterias rubens</i> (O), <i>Pleuronectes</i> sp. (P)	SS.SSa.CMuSa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
STR_V03.1	Sand (35%) with highly variable, patchy cover of gravel (15%), pebbles (40%), cobbles (10%) and boulders (<1%), with areas of sparser stones	Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (P), <i>Balanus</i> spp. (P) and pink coralline algae (O) and supporting patches of hydroids (O, locally F) including <i>Nemertesia ramosa</i> (P), <i>Alcyonium digitatum</i> (R), Actiniaria sp. (P), <i>Urticina</i> sp. (P), <i>Flustra foliacea?</i> (R), solitary ascidians (C locally) including <i>Corella parallelogramma</i> (C locally) and <i>Ascidia virginea?</i> (P), and foliose (O locally) and filamentous (O locally) red algae. <i>Chaetopterus variopedatus?</i> (P), <i>Lanice conchilega</i> (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (O), <i>Henricia</i> sp. (R), <i>Luidia ciliaris</i> (O).	SS.SMx.CMx.FluHyd		
STR_V03.2	Sand (10%) with dense cover of gravel (70%), pebbles (20%), shells (<1%), cobbles (<1%) and boulders (<1%)	Stones encrusted with serpulid worms (C) and pink coralline algae (R) with cobbles and boulders supporting patches of hydroids (R). <i>Cerianthus lloydii?</i> (P), <i>Lanice conchilega</i> (P), <i>Munida rugosa</i> (R), <i>Pecten maximus</i> (P), <i>Asterias rubens</i> (P).	SS.SMx.CMx		
STR_V04	Sand (35%) with highly variable, patchy cover of gravel (15%), pebbles (15%), cobbles (25%) and boulders (10%), with concentrations of cobbles and boulders locally (where 80%)	Stones encrusted with serpulid worms (C, locally A), <i>Balanus</i> spp. (P) and pink coralline algae (R) and supporting patches of hydroids (O, locally F) including <i>Kirchenpaueria pinnata?</i> (P), <i>Alcyonium digitatum</i> (R), Actiniaria sp. (P) and solitary ascidians (R). <i>Chaetopterus variopedatus</i> (P), <i>Lanice conchilega</i> (P), Terebellidae sp. (P), <i>Munida rugosa</i> (F), <i>Liocarcinus depurator</i> (P), <i>Cancer pagurus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Pecten maximus</i> (P), <i>Crossaster papposus</i> (O), <i>Asterias rubens</i> (O), <i>Luidia ciliaris</i> (O), <i>Echinus esculentus</i> (F, locally C), <i>Ophiothrix fragilis?</i> (R).	SS.SMx.CMx.FluHyd		
STR_V05	Dense cobbles (40%) and pebbles (35%) on mixed gravelly (10%) sand (15%)	Stones encrusted with serpulid worms (C) including <i>Spirobranchus</i> spp. (C) and pink coralline (O) and red (R) algae, and supporting turf of hydroids (C) including <i>Kirchenpaueria pinnata?</i> (locally F), <i>Alcyonium digitatum</i> (R), solitary ascidians (C) including <i>Corella parallelogramma</i> (C) and <i>Ascidella</i> sp.?, and foliose (R) and filamentous/filiform (C) red algae. <i>Chaetopterus variopedatus</i> (C locally), <i>Munida rugosa</i> (P), <i>Galathea</i> sp. (C), <i>Portunus puber</i> (P), <i>Liocarcinus depurator</i> (P), <i>Crossaster papposus</i> (P), <i>Asterias rubens</i> (P), <i>Echinus esculentus?</i> (P).	CR.HCR.XFa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
STR_V06	Soft mud	Fairly well-burrowed mud with <i>Calocaris macandreae</i> (C) and <i>Nephrops norvegicus</i> (P, 1 animal seen), and small mounds, emergent infaunal tubes and polychaete casts. <i>Pennatula phosphorea</i> (F), <i>Asterias rubens</i> (P), <i>Astropecten irregularis?</i> (R), <i>Ophiura</i> sp. (P), teleosts (O) including <i>Pleuronectiformes</i> sp. (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
STR_V07	Soft mud	Fairly well-burrowed mud with <i>Calocaris macandreae</i> (C) and <i>Nephrops norvegicus</i> (P), and small mounds, emergent infaunal tubes and polychaete casts. <i>Pennatula phosphorea</i> (F), <i>Astropecten irregularis</i> (R).	SS.SMu.CFiMu.SpnMeg		BM:SB
STR_V08	Sandy mud	Mud with small mounds up to c.10 cm in diameter and some emergent infaunal tubes and polychaete casts, but sparse small megafaunal burrows possibly including those of small <i>Nephrops norvegicus</i> . <i>Pennatula phosphorea</i> (F), <i>Myxicola sarsi</i> (P), <i>Asterias rubens</i> (P), <i>Porania pulvillus</i> (P), small teleost spp. (F), <i>Pleuronectidae</i> sp. (O), <i>Callionymus</i> sp. (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
STR_V09	Sandy mud	Mud with many small mounds up to c.10 cm in diameter and some emergent infaunal tubes, but sparse small megafaunal burrows. <i>Pennatula phosphorea</i> (F), <i>Myxicola sarsi</i> (P), <i>Asterias rubens</i> (F), small teleost spp. (O).	SS.SMu.CFiMu.SpnMeg		BM:SB
STR_V10	Silty sand (35%) with patchy cover of gravel (15%), pebbles (20%), cobbles (25%) and boulders (5%), with concentrations of cobbles and boulders locally (where 80%)	Stones encrusted with serpulid worms (C, locally A), <i>Balanus</i> spp. (locally A) and pink coralline algae (R) and supporting patches of hydroids (O) including <i>Abietinaria abietina?</i> and <i>Nemertesia antennina</i> , <i>Alcyonium digitatum</i> (R) and <i>Flustra foliacea?</i> (R). <i>Sabella pavonina</i> tubes (P), <i>Munida rugosa</i> (F), <i>Calliostoma zizyphinum</i> (P), <i>Asterias rubens</i> (locally A), <i>Porania pulvillus</i> (O), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (F), <i>Ctenolabrus rupestris</i> (P).	SS.SMx.CMx.FluHyd		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/PMF
STR_V12	Sandy mud with sparsely scattered silted cobbles and boulders	Mud with small mounds up to c.10 cm in diameter, emergent infaunal tubes and polychaete casts, with moderate density of small megafaunal burrows. <i>Pennatula phosphorea</i> (O), <i>Munida</i> spp. (O), Paguridae spp. (O) including <i>Pagurus bernhardus</i> (O), <i>Hippasteria phrygiana</i> (R), <i>Asterias rubens</i> (O), teleost sp. (R). Sparsely scattered boulders and cobbles support faunal turf of hydroids (R), Actiniaria sp. (R) and <i>Porella compressa?</i> (R), teleost spp. (R).	SS.SMu.CFiMu.SpnMeg		BM:SB
STR_V13	Soft mud	Fairly well-burrowed mud with <i>Calocaris macandreae</i> (C) and <i>Nephrops norvegicus</i> (P), and small mounds, emergent infaunal tubes and polychaete casts. <i>Pennatula phosphorea</i> (F), <i>Bolocera tuediae?</i> (R), <i>Asterias rubens</i> (F). teleosts (O) including Pleuronectidae sp. (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
STR_V14	Soft mud, scattered boulders (<1%) and cobbles (<1%)	Mud with small mounds up to c.10 cm in diameter and some emergent infaunal tubes, with moderate density of small megafaunal burrows possibly including those of small <i>Nephrops norvegicus</i> . <i>Pennatula phosphorea</i> (O-F), <i>Cerianthus lloydii</i> (P), <i>Myxicola sarsi</i> (P), <i>Munida rugosa</i> (O), <i>Porania pulvillus?</i> (R), <i>Luidia ciliaris</i> (trace of burrowed specimen), teleost sp. (P). Sparsely scattered boulders and cobbles support faunal turf and <i>Bolocera tuediae?</i> (R).	SS.SMu.CFiMu.SpnMeg		BM:SB
STR_V15	Soft mud	Well-burrowed mud with <i>Calocaris macandreae</i> (C) and <i>Nephrops norvegicus</i> (P), and small mounds and emergent infaunal tubes. <i>Pennatula phosphorea</i> (F), Pleuronectidae sp. (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
STR_V16	Slightly shelly sandy mud or cohesive muddy sand with scattered shells (1%) and cobbles (<1%)	Very sparse small burrows, with small mounds, emergent infaunal tubes and polychaete casts. <i>Pennatula phosphorea</i> (F, but identity not certain due to high camera speed), Actiniaria spp. (P), <i>Crossaster papposus</i> (P), <i>Luidia ciliaris?</i> (P), <i>Ophiura ophiura</i> (P).	SS.SMu.CSaMu		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
STR_V17.1	Shelly sand (63%) with varying cover of gravel (15%), pebbles (15%), cobbles (5%) and boulders (2%); concentrations of larger stones locally	Stones encrusted with serpulid worms (C, locally A) including <i>Spirobranchus</i> spp. (P) and <i>Serpula vermicularis</i> (P), <i>Balanus</i> spp. (locally C), <i>Parasmittina trispinosa</i> (R) and pink coralline algae (R) and supporting sparse erect fauna including hydroids (R and Actiniaria sp. (R). <i>Munida rugosa</i> (O), <i>Antedon</i> sp. (P), <i>Crossaster papposus</i> (P), <i>Stichastrella rosea</i> (P), <i>Porania pulvillus</i> (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (O).	SS.SMx.CMx		
STR_V17.2	Slightly silty, poorly mixed, shelly sand (99%) with sparsely scattered shells (1%), pebbles and cobbles (<1%)	Sediment with emergent infaunal tubes, polychaete casts and small mounds. <i>Cerianthus lloydii?</i> (R), <i>Chaetopterus variopedatus?</i> (R), <i>Asterias rubens</i> (F), <i>Echinus esculentus</i> (P), small teleosts (O).	SS.SSa.CMuSa		
STR_V23	Soft mud	Moderately well-burrowed mud with <i>Calocaris macandreae</i> (F, at least locally) and <i>Nephtys norvegicus</i> (C, 1 animal seen), and small mounds, emergent infaunal tubes and polychaete casts. Hydroids (R), <i>Pennatula phosphorea</i> (O), Actiniaria sp. (R), <i>Ophiura ophiura</i> (O), spatangid tests (P), teleosts (O) including Pleuronectiformes sp. (P).	SS.SMu.CFiMu.SpnMeg		BM:SB
SAB_V01	Dense boulders (40% of which perhaps 5% may be bedrock) and cobbles (30%) with infill of coarse sand (30%)	Dense ophiuroid bed with <i>Ophiothrix fragilis</i> (S) and <i>Ophiocomina nigra</i> (C, locally A). Rock encrusted with pink coralline algae (R) and <i>Spirobranchus</i> spp. (C, locally A) and supporting <i>Alcyonium digitatum</i> (C), <i>Urticina felina</i> (F) and <i>Flustra foliacea</i> (R, locally S). <i>Munida rugosa</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (C). Discarded rope or cable.	CR.MCR.EcCr.FaAlCr.Br i		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SAB_V02	Mixed sediment of sand (60%) with gravel (35%) and shell and shell fragments (5%); some stones with sandy encrustation and much of the gravel and shell may be consolidated into a crust	<i>Suberites</i> sp. (R), sparse serpulid worms (O), <i>Caridea</i> sp. (P), <i>Inachus</i> sp. (P), <i>Astropecten irregularis</i> (P), <i>Flustra foliacea</i> (R). Sandy encrustation possibly by <i>Sabellaria spinulosa</i> .	SS.SBR.PoR.SspiMx		
SAB_V03.1	Rippled fine sand with scattered shell gravel (5%) and stones (<1%)	<i>Urticina</i> spp. (O), Crangonidae sp. (P), <i>Cancer pagurus</i> (P), teleost spp. (O).	SS.SSa.CFiSa		
SAB_V03.2	Mixed substrate of sand with gravel, pebble and cobble-sized objects, some of which may be concretions	Sandy encrustation of gravel and pebbles probably by <i>Sabellaria spinulosa</i> . <i>Alcyonium digitatum</i> (R), serpulid worms (O), <i>Caridea</i> sp. (locally C), <i>Munida rugosa</i> (P), Paguridae spp. (R), <i>Ebalia</i> sp. (P), <i>Nudibranchia</i> sp. (P), <i>Flustra foliacea</i> (drift), <i>Asterias rubens?</i> (P), <i>Henricia</i> sp. (R), <i>Luidia ciliaris</i> (O), teleost sp. (P), emergent infaunal tubes.	SS.SBR.PoR.SspiMx		
SAB_V03.3	Rippled fine sand with scattered shell gravel (5%), pebbles (<1%) and cobbles (<1%)	Stones support <i>Alcyonium digitatum</i> (R), <i>Urticina</i> spp. (O), <i>Flustra foliacea</i> (R) and <i>Securiflustra securifrons?</i> (R)	SS.SSa.CFiSa		
SAB_V03.4	Mixed substrate of sand with gravel, pebble and cobble-sized objects, some of which may be concretions	Sandy encrustation of gravel and pebbles probably by <i>Sabellaria spinulosa</i> . <i>Alcyonium digitatum</i> (R), <i>Ebalia</i> sp. (P), <i>Flustra foliacea</i> (drift?).	SS.SBR.PoR.SspiMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SAB_V04.1	Mixed substrate of sand (20%) with dense gravel 65%) and pebbles (15%); cobbles (<1%); sand apparently consolidating stones forming crust	Crust possibly formed by <i>Sabellaria spinulosa</i> and supporting hydroids (R) including <i>Nemertesia antennina?</i> , <i>Alcyonium digitatum</i> (R), serpulid worms (C) and <i>Flustra foliacea</i> (R). <i>Urticina</i> sp. (R), Paguridae spp. (O) including <i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> , <i>Pecten maximus?</i> (P), <i>Henricia</i> sp. (O), <i>Luidia ciliaris</i> (O), <i>Chelidonichthys lucerna</i> (O), Gadidae sp. (P), emergent infaunal tubes.	SS.SBR.PoR.SspiMx		
SAB_V04.2	Megaripples of slightly rippled fine-medium sand with gravel (15%, much of it shell), pebbles (5%) and cobbles (1%) largely concentrated in troughs	Stones support hydroids (R), <i>Alcyonium digitatum</i> (R), serpulid worms (C) and <i>Flustra foliacea</i> (R). <i>Pecten maximus?</i> (P), <i>Luidia ciliaris</i> (P), Gadidae sp. (O).	SS.SSa.CFiSa		
SAB_V04.3	Mixed substrate of sand (20%) with dense gravel 65%) and pebbles (15%); cobbles (<1%); sand apparently consolidating stones forming crust	Crust possibly formed by <i>Sabellaria spinulosa</i> and supporting <i>Alcyonium digitatum</i> (R), serpulid worms (C) and <i>Flustra foliacea</i> (R). <i>Urticina</i> sp. (R), Gadidae sp. (P).	SS.SBR.PoR.SspiMx		
SAB_V05	Heterogeneous seabed with gravelly sand, locally with dense pebbles, apparently widely supporting an uneven sandy crust; scattered cobbles and boulders also with crust	Visibility very poor, but probably widespread crust of <i>Sabellaria spinulosa</i> . Unencrusted areas of larger stones with <i>Spirobranchus</i> spp. (locally A). Crust supports <i>Alcyonium digitatum</i> (R) and hydroid/bryozoan turf (F) including <i>Flustra foliacea</i> (F), particularly well-developed on boulders, and <i>Securiflustra securifrons?</i> (P). <i>Urticina</i> spp. (O), <i>Munida rugosa</i> (P), Caridea sp. (P), <i>Necora puber</i> (P), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (F), <i>Henricia</i> sp. (R), <i>Ophiura albida</i> (locally C), teleost sp. (P), Gadidae sp. (P), <i>Molva molva?</i> (P, 1 seen), Cottidae sp. (P). Discarded rope.	CR.MCR.CSab.Sspi.ByB , SS.SBR.PoR.SspiMx		MM

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SAB_V07	Sand (40%) with gravel (40%) and pebbles (20%) and sparse cobbles (<1%) and boulders (<1%). Sand apparently forming a crust around individual stones as well as possibly consolidating gravel and pebbles.	Sandy crust possibly derived from <i>Sabellaria spinulosa</i> (possibly present). Stones supporting hydroids (R), <i>Alcyonium digitatum</i> (R, locally O), <i>Urticina</i> spp. (O), serpulid worms (P), <i>Flustra foliacea</i> (R). Caridea sp. (P), <i>Munida rugosa</i> (R), Paguridae spp. (O) including <i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> , <i>Cancer pagurus</i> (O), <i>Asterias rubens?</i> (P), <i>Henricia</i> sp. (R), <i>Ophiura</i> sp. (R), teleost spp. (R), emergent infaunal tubes (P).	SS.SBR.PoR.SspiMx		
SAB_V08	Predominantly fine sand (70%), mostly rippled, with patches of fairly dense gravel (5%) and pebbles (5%), and scattered cobbles (15%) and boulders (5%)	Visibility poor. Cobbles and boulders encrusted with <i>Sabellaria spinulosa</i> and supporting <i>Alcyonium digitatum</i> (F on rock) and hydroid and bryozoan turf (A on rock) dominated by <i>Flustra foliacea</i> (A on rock) with <i>Securiflustra securifrons</i> (P). <i>Urticina felina</i> (O), Caridea sp. (P), <i>Munida rugosa</i> (O), <i>Ebalia</i> sp. (P), <i>Crossaster papposus</i> (P), <i>Luidia ciliaris</i> (O), <i>Echinus esculentus</i> (O), small teleost sp. (R). Much discarded rope.	CR.MCR.CSab.Sspi.ByB, SS.SSa.CFiSa		
SAB_V10.1	Rippled medium sand (95%) with surface coarse shell sand (5%), possibly in megaripples	Small teleost sp. (P), much red algal debris.	SS.SSa.CFiSa		
SAB_V10.2	Scattered boulders (25%) and cobbles (25%) on fine-medium sand (50%)	Rock supporting patches of hydroid/bryozoan turf (locally A but largely absent) and <i>Urticina</i> sp. (P). <i>Asterias rubens?</i> (P). Visibility poor.	CR.MCR, SS.SSa.CFiSa		
SAB_V10.3	Rippled medium sand (90%) with surface coarse shell sand (10%) concentrated in troughs	Much red algal debris.	SS.SSa.CFiSa		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SAB_V11	Variable mixed substrate with scattered cobbles and boulders on variable mix of sand, gravel and pebbles, and patches of coarse sand	Patchy, low density ophiuroid bed dominated by <i>Ophiocomina nigra</i> (A) with <i>Ophiothrix fragilis</i> (locally S). Stones encrusted with <i>Spirobranchus</i> spp. (C, locally A) and supporting <i>Alcyonium digitatum</i> (F), <i>Urticina felina</i> (F), <i>Flustra foliacea</i> (O) and <i>Securiflustra securifrons</i> (P). <i>Munida rugosa</i> (O), <i>Cancer pagurus</i> (F), <i>Crossaster papposus</i> (F), <i>Asterias rubens</i> (C), <i>Luidia ciliaris</i> (F), <i>Echinus esculentus</i> (C), teleost sp. (P).	SS.SMx.CMx.OphMx, SS.SCS.CCS		
SAB_V12	Mosaic of megaripples of rippled medium sand (65%) with scattered cobbles (10%) and boulders (20% including possible bedrock) with patches of more mixed sand with gravel (5%)	Rock with <i>Sabellaria spinulosa</i> crust covering around 60% of rock surface with a thickness probably exceeding 5 cm in places. <i>Sabellaria</i> -free rock locally encrusted with pink coralline algae (R) and <i>Spirobranchus</i> spp. (locally A). Rock supports <i>Urticina felina</i> (F), <i>Alcyonium digitatum</i> (F, locally A), <i>Securiflustra securifrons</i> (F) and <i>Flustra foliacea</i> (R). <i>Munida rugosa</i> (R), <i>Antedon</i> spp.? (locally S), <i>Crossaster papposus</i> (O), <i>Ophiocomina nigra</i> (A in small patches), encrusting colonial ascidian? (R). Discarded rope present.	CR.MCR.CSab.Sspi.ByB, SS.SSa.CFiSa		
SAB_V13	Mixed substrate of sand (50%) with gravel (25%) and pebbles (25%); cobbles (<1%), boulders (<1%). Sand appears to form crust incorporating stones.	Sandy encrustation probably by <i>Sabellaria spinulosa</i> . Stones support sparse hydroids (R) including <i>Thuiara thuja</i> , orange cushion sponge (R), <i>Alcyonium digitatum</i> (R), serpulid worms (O), Anomiidae sp. (locally C) and <i>Ascidia virginea</i> (P). <i>Urticina</i> spp. (O), <i>Cerianthus lloydii</i> (P), <i>Caridea</i> sp. (locally C), <i>Munida rugosa</i> (F), small Galatheididae sp. (P), Paguridae spp. (R), <i>Ebalia</i> sp. (P), <i>Flustra foliacea</i> (drift), <i>Crossaster papposus</i> (O), <i>Luidia ciliaris</i> (O), <i>Agonus cataphractus</i> ? (P).	SS.SBR.PoR.SspiMx		
SAB_V14.1	Rippled fine sand with scattered shell gravel (10%)	<i>Urticina</i> spp. (O), <i>Luidia sarsi</i> ? (P), Triglidae sp. (P).	SS.SSa.CFiSa		

Annex 4 continued

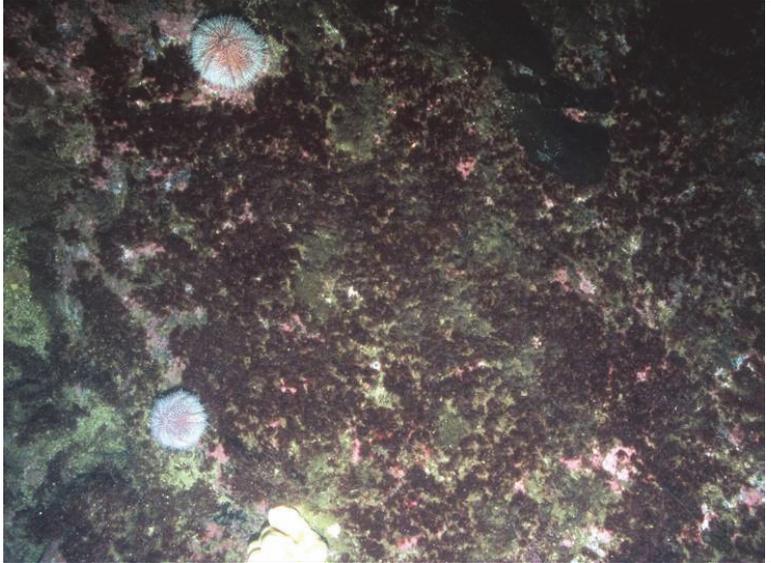
Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SAB_V14.2	Mixed substrate of sand (60%) with gravel (35%) and pebbles (5%); cobbles (<1%). Sand appears to form crust incorporating stones.	Sandy encrustation probably by <i>Sabellaria spinulosa</i> . Stones support sparse hydroids (R), <i>Alcyonium digitatum?</i> (R), serpulid worms (O), <i>Omalosecosa ramulosa?</i> (R) and <i>Ascidia virginea</i> (P). <i>Urticina</i> spp. (F), <i>Sabella pavonina</i> (P) with encrusting white sponge (P), Caridea sp. (locally C), <i>Munida rugosa</i> (P), small Galatheidae sp. (P), Paguridae spp. (R), <i>Ebalia</i> sp. (P), <i>Cancer pagurus</i> (P), <i>Buccinum undatum</i> egg mass (P), small Pectiniidae sp. (P), <i>Flustra foliacea</i> (drift), <i>Luidia ciliaris</i> (F), teleost spp. (O), emergent infaunal tubes.	SS.SBR.PoR.SspiMx		
SAB_V15	Mixed substrate of silty sand (45%) with gravel (40%) and pebbles (15%) with sandy encrustation; cobbles (<1%), boulders (<1%)	Sandy encrustation of gravel and pebbles probably by <i>Sabellaria spinulosa</i> . Stones support hydroids (R) including <i>Thuiara thuja</i> , <i>Alcyonium digitatum</i> (R), serpulid worms (O), <i>Omalosecosa ramulosa?</i> (R) and <i>Flustra foliacea</i> (R, possibly drift). <i>Urticina</i> spp. (O), <i>Munida rugosa</i> (P), Paguridae spp. (F) including <i>Pagurus prideaux</i> with <i>Adamsia cariniopados</i> , <i>Ebalia</i> sp. (P), <i>Cancer pagurus</i> (P), <i>Henricia</i> sp. (R), <i>Luidia ciliaris</i> (P), Triglidae sp. (P), teleost sp. (P), emergent infaunal tubes.	SS.SBR.PoR.SspiMx		
SAB_V16	Rippled fine sand with scattered gravel, mostly shell (10%), pebbles (2%) and cobbles (1%)	Some pebble and cobble-sized stones encrusted by <i>Sabellaria spinulosa</i> (probably P). Stones support sparse hydroids (R), <i>Alcyonium digitatum</i> (R), serpulid worms (R), <i>Omalosecosa ramulosa?</i> (R) and <i>Flustra foliacea</i> (possibly drift). <i>Urticina</i> spp. (O), <i>Munida rugosa</i> (R), Caridea sp. (P), Paguridae sp. (R), <i>Sepia officinalis</i> (R), teleost spp. (F) including Triglidae sp. (P).	SS.SSa.CFiSa		
SAB_V17.1	Fine sand (30%) with scattered gravel, pebbles and possibly consolidated crust derived from <i>Sabellaria spinulosa</i> ; cobbles (<1%)	Consolidated sandy crust possibly derived from <i>Sabellaria spinulosa</i> (possibly present). Hydroids (R), <i>Alcyonium digitatum</i> (R), serpulid worms (P), <i>Flustra foliacea</i> (possibly drift). <i>Urticina</i> sp. (P), Paguridae sp. (P).	SS.SBR.PoR.SspiMx		

Annex 4 continued

Video sample	Substrate	Biota	Biotope	Annex1 habitat	PF/ PMF
SAB_V17.2	Rippled fine sand with coarse sand (5%) in troughs. Scattered gravel (5%), pebbles (<1%) and cobbles (<1%), locally denser	Stones support <i>Alcyonium digitatum</i> (R) and <i>Flustra foliacea</i> (R). <i>Urticina</i> sp. (O), Triglidae sp. (P), teleost sp. (P).	SS.SSa.CFiSa		
SAB_V17.3	Fine sand with gravel, locally dense, and pebbles and sparse cobbles (<1%) and boulders (<1%). Possible consolidated sandy crust derived from <i>Sabellaria spinulosa</i>	Consolidated sandy crust and some pebbles possibly derived from <i>Sabellaria spinulosa</i> (possibly present). Hydroids (O), <i>Alcyonium digitatum</i> (R), serpulid worms (F, locally A), <i>Flustra foliacea</i> (R), <i>Omalosecosa ramulosa?</i> (P). <i>Urticina</i> sp. (O), Caridea sp. (P), <i>Munida rugosa</i> (O), Paguridae spp. (O) including <i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> , <i>Lithodes maja</i> (P), <i>Cancer pagurus</i> (P), <i>Calliostoma zizyphinum</i> (P), <i>Pecten maximus?</i> (P), <i>Stichastrella rosea</i> (P), <i>Luidia ciliaris</i> (P), <i>Echinus esculentus</i> (P), <i>Chelidonichthys lucerna</i> (P), juvenile <i>Lophius piscatorius</i> (O, 2 specimens seen).	SS.SBR.PoR.SspiMx		LP
SAB_V18	Fine sand (40%), possibly forming crust along much of run, with gravel (40%), and pebbles (20%) and sparse cobbles (<1%)	Consolidated sandy crust possibly derived from <i>Sabellaria spinulosa</i> (possibly present). Hydroids (R), <i>Alcyonium digitatum</i> (R), serpulid worms (P), <i>Chaetopterus variopedatus?</i> (P), <i>Flustra foliacea</i> (R). Crangonidae sp. (P), Paguridae spp. (F) including <i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> , <i>Ebalia</i> sp. (P), <i>Atelecyclus rotundatus?</i> (P), <i>Stichastrella rosea?</i> (P), <i>Henricia</i> sp. (O), <i>Ophiura</i> sp. (R), <i>Agonus cataphractus?</i> (P), teleost spp. (O), emergent infaunal tubes (P).	SS.SBR.PoR.SspiMx		
SAB_V19	Megaripples of rippled fine sand (82%) with gravel (10%, largely shell) concentrated in megaripple troughs and coarse sand (5%) in ripple troughs; larger shell material (1%)	<i>Pagurus prideaux</i> with <i>Adamsia carciniopados</i> (O), <i>Cancer pagurus</i> (P), <i>Scylliorhinus</i> sp. (P), teleost sp. (P).	SS.SSa.CFiSa		

**ANNEX 5: BIOTOPES AND PROTECTED FEATURE (PF) SPECIES RECORDED WITH SITES OF OCCURRENCE AND ILLUSTRATIVE PHOTOGRAPH OR VIDEO FRAME GRAB**

Biotope codes and species in red are PFs at sites also in red. Italicized sites indicate provenance of image. See Connor *et al.* (2004) for full biotope description

<p><b>IR.HIR.KFaR.FoR</b></p> <p>Foliose red seaweeds on exposed lower infralittoral rock</p> <p><i>SoM-V06.5, SoM-V06.11, SoM-V06.13, SoM-V06.16, SoM-V06.18, V1.2, V1.4, V1.6, V13.2, V5.2, V5.4, V7.1, V7.2</i></p>	
<p><b>IR.HIR.KFaR.FoR.Dic</b></p> <p>Foliose red seaweeds with dense <i>Dictyota dichotoma</i> on exposed lower infralittoral rock</p> <p><i>V8.1, V8.3</i></p>	
<p><b>IR.HIR.KSed</b></p> <p>Sand or gravel-affected or disturbed kelp and seaweed communities</p> <p><i>V16.2</i></p>	

Annex 5 continued

<p><b>IR.HIR.KSed.LsacSac</b></p> <p><i>Laminaria saccharina</i> and/or <i>Saccorhiza polyschides</i> on exposed infralittoral rock</p> <p>Horse Island.3, <i>Martin Bank</i></p>	
<p><b>IR.HIR.KSed.XKScrR</b></p> <p>Mixed kelps with scour-tolerant and opportunistic foliose red seaweeds on scoured or sand-covered infralittoral rock</p> <p>B18, B19.2, B26, B29.1, B29.3, B3.2, B30.1, B30.3, B30.5, B30.7, B7.1, B8.1, Fox Point.1, V1.8, V12.2, V12.4, V12.5, V14.2, V15.1, V15.3, V16.4, V16.6, V17.1, V17.3, V18, V19.2, V20.1, V21.3, V24.2, V26.1, WR21.1, WR21.3, WR26, WR28</p>	
<p><b>IR.LIR.K.Lsac.Ft</b></p> <p><i>Laminaria saccharina</i> forest on very sheltered upper infralittoral rock</p> <p><i>Tanera fish farm.1</i></p>	

Annex 5 continued

<p><b>IR.LIR.K.Lsac.Pk</b></p> <p><i>Laminaria saccharina</i> park on very sheltered upper infralittoral rock</p> <p>FD3</p>	 An underwater photograph showing a large, dark, textured rock surface covered with a dense, greenish-brown algal mat. The lighting is dim, highlighting the intricate textures of the rock and the algal growth.
<p><b>IR.LIR.KVS</b></p> <p>Kelp in variable salinity conditions</p> <p>LA262.2</p>	 An underwater photograph of a diverse kelp community. The scene is filled with various species of kelp, including large, flat, yellowish-green blades and smaller, more delicate, purple and brownish structures. The background is dark, making the colorful algae stand out.
<p><b>CR.HCR.FaT.CTub.Adig</b></p> <p><i>Alcyonium digitatum</i> with dense <i>Tubularia indivisa</i> and anemones on strongly tide-swept circalittoral rock</p> <p>SoM-V04.2</p>	 An underwater photograph showing a close-up of a rocky substrate. A prominent, bright, white, umbrella-shaped anemone (Alcyonium digitatum) is visible in the foreground. The background is dark, with some yellowish-green, feathery structures (Tubularia indivisa) visible.

<p><b>CR.HCR.XFa</b></p> <p>Mixed faunal turf communities</p> <p><i>B1.1, B1.3, NH_02_V23, NH_02_V27, NH_03_X01, NH_04_R16, NH_04_V06, NH_04_V13, NH_04_V14, NH_04_V15, SoM_3_V2.1, SoM_3_V2.3, SoM_3_V2.5, SoM_3_V2.7, SoM-V05.15, SoM-V05.17, SoM-V06.21, SoM-V06.25, SoM-V08.3, SoM-V09.1, SoM-V09.2, SoM-V09.3, SoM-V09.4, SoM-V09.6, SoM-V09.7, SoM-V09.8, SoM-V09.9, STR_V05, V28.2, V28.4, V28.6</i></p>	
<p><b>CR.HCR.XFa.FluCoAs</b></p> <p><i>Flustra foliacea</i> and colonial ascidians on tide-swept moderately wave-exposed circalittoral rock</p> <p><i>B10.1, B11.2, B11.4, B12.2, B14.1, B14.3, B14.5, B16.1, B16.3, B2.2, B20.2, B21.2, B21.4, B21.6, B22.2, B22.4, B23.2, B9.2, V10.1, V2.1, V2.3, V2.6, V2.8, V22.2, V22.4, V25.2, V25.4, V6.2, V6.4, V6.6</i></p>	
<p><b>CR.HCR.XFa.SwiLgAs</b></p> <p>Mixed turf of hydroids and large ascidians with <i>Swiftia pallida</i> and <i>Caryophyllia smithii</i> on weakly tide-swept circalittoral rock</p> <p><i>SoM_2_V1.11, SoM_2_V1.13, SoM_2_V1.15, SoM_2_V1.17, SoM_2_V1.3, SoM_2_V1.5, SoM_2_V1.7, SoM_2_V1.9, SoM_3_V3.4, SoM-V03.1, SoM-V03.14, SoM-V03.4, SoM-V03.6, SoM-V03.9, V29.1, V29.2</i></p>	

Annex 5 continued

<p><b>CR.MCR</b></p> <p>Moderate energy circalittoral rock</p> <p>SAB_V10.2</p>	
<p><b>CR.MCR.CSab.Sspi.ByB</b></p> <p><i>Sabellaria spinulosa</i> with a bryozoan turf and barnacles on silty turbid circalittoral rock</p> <p>SAB_V05, SAB_V08, SAB_V12</p>	
<p><b>CR.MCR.EcCr.CarSwi.LgAs</b></p> <p><i>Caryophyllia smithii</i>, <i>Swiftia pallida</i> and large solitary ascidians on exposed or moderately exposed circalittoral rock</p> <p>SoM_3_V1.4, SoM-V06.7, SoM-V07.10, SoM-V07.12, SoM-V07.2, SoM-V07.4, SoM-V07.6, SoM-V07.8, SoM-V09.5</p>	

Annex 5 continued

<p><b>CR.MCR.EcCr.FaAICr</b></p> <p>Faunal and algal crusts on exposed to moderately wave-exposed circalittoral rock</p> <p>MHS13, MHS14, MHS15, MHS16, SoM_3_V3.5, SoM_3_V3.6, SoM_4_V2.2, SoM_4_V2.4, SoM_4_V2.8, SoM_4_V3.2, SoM-V05.12, SoM-V05.19, SoM-V05.21, SoM-V05.26, SoM-V05.29, SoM-V06.15, SoM-V06.23, SoM-V06.4, SoM-V06.9, SoM-V11.8, WR25.3, WR31, WR32</p>	
<p><b>CR.MCR.EcCr.FaAICr.Adig</b></p> <p><i>Alcyonium digitatum</i>, <i>Pomatoceros triqueter</i>, algal and bryozoan crusts on wave-exposed circalittoral rock</p> <p>NH_01_V01, NH_01_V02, NH_01_V05, NH_01_V07, NH_01_V08, NH_05_V05, NH_05_V06, SoM_2_V1.7, SoM-V04.3, SoM-V05.28, SoM-V07.14, SoM-V07.16, SoM-V07.18</p>	
<p><b>CR.MCR.EcCr.FaAICr.Bri</b></p> <p>Brittlestars on faunal and algal encrusted exposed to moderately wave-exposed circalittoral rock</p> <p>NH_01_V01, NH_01_V02, NH_01_V03, NH_01_V04, NH_01_V05, NH_01_V06, NH_01_V07, NH_01_V08, NH_04_V08, NH_05_N31.1, NH_05_N80, NH_05_R18, NH_05_R19, NH_05_R20, NH_05_R21, NH_05_R22, NH_05_R24, NH_05_R25, NH_05_R30, NH_05_R38, NH_05_R39, NH_05_V03, NH_05_V04, SAB_V01, SoM_4_V2.6, SoM-V05.13, SoM-V05.27, SoM-V05.30</p>	

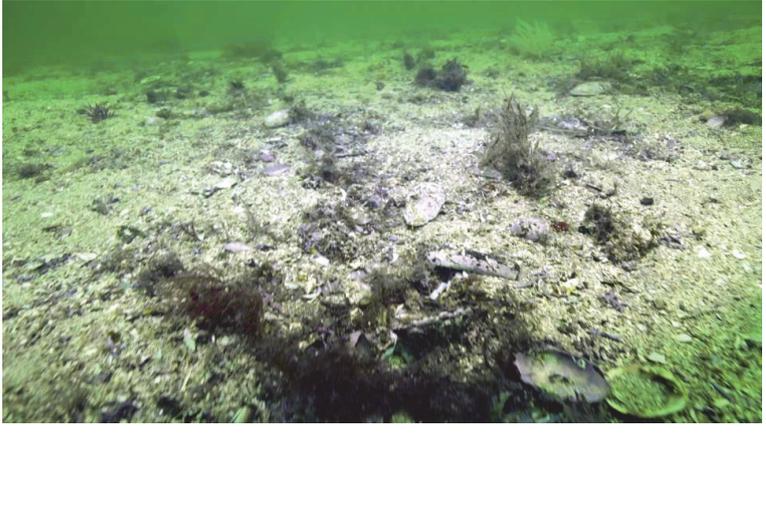
Annex 5 continued

<p><b>CR.MCR.EcCr.FaAlCr.Flu</b></p> <p><i>Flustra foliacea</i> on slightly scoured silty circalittoral rock</p> <p>NH_01_V01, NH_01_V02, NH_01_V05, NH_01_V06, NH_01_V07, NH_05_N32, NH_05_N70, NH_05_N80, NH_05_N81, NH_05_R23, NH_05_R31.1, NH_05_R32, NH_05_R33, NH_05_R34, NH_05_R35, NH_05_R36, NH_05_R37, NH_05_R38, NH_05_V02, NH_05_V03, NH_05_V04, NH_05_V06, NH_06_N43.2, NH_06_N44, NH_06_N51, NH_06_N52, NH_06_N59, NH_06_N60, NH_06_N69</p>	
<p><b>CR.MCR.EcCr.FaAlCr.Pom</b></p> <p>Faunal and algal crusts with Pomatoceros triqueter and sparse Alcyonium digitatum on exposed to moderately wave-exposed circalittoral rock</p> <p>NH_01_V02, NH_06_N65, SoM-V06.2</p>	
<p><b>CR.MCR.EcCr.FaAlCr.Sec</b></p> <p><i>Alcyonium digitatum</i> with <i>Securiflustra securifrons</i> on tide-swept moderately wave-exposed circalittoral rock</p> <p>NH_06_N63, SoM-V05.23</p>	

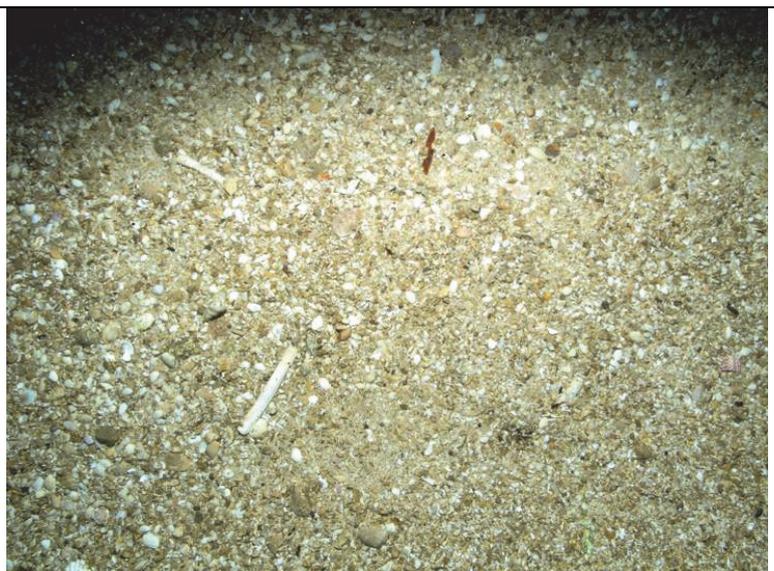
Annex 5 continued

<p><b>CR.LCR</b></p> <p>Low energy circalittoral rock</p> <p>SoM_2_V1.2, SoM_2_V2.2, SoM_2_V2.5, SoM-V03.10, SoM- V03.12, SoM-V03.16, SoM-V07.14, SoM-V07.20, SoM-V10.10, V32</p>	
<p><b>CR.LCR.BrAs</b></p> <p>Brachiopods and ascidians</p> <p>FD14, FT12.1, SoM_3_V1.2, WR12.1</p>	
<p><b>CR.LCR.BrAs.AmenCio</b></p> <p>Solitary ascidians, including <i>Ascidia mentula</i> and <i>Ciona intestinalis</i>, on wave-sheltered circalittoral rock</p> <p>LA256, LA258.2, LA260.2, WR1.2</p>	

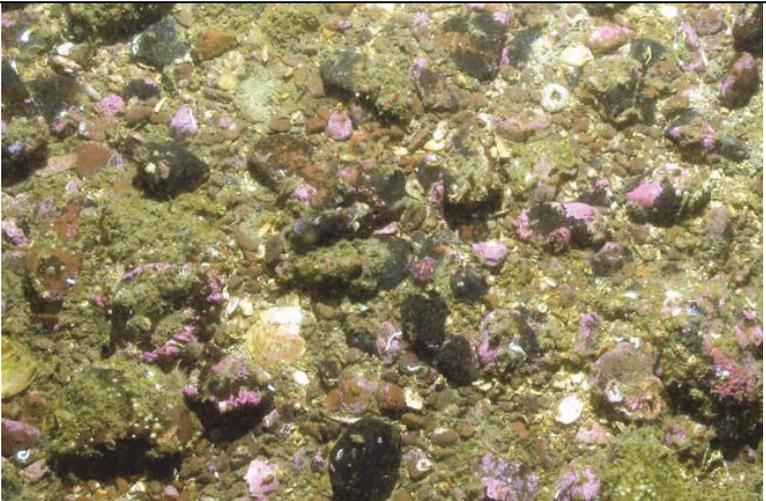
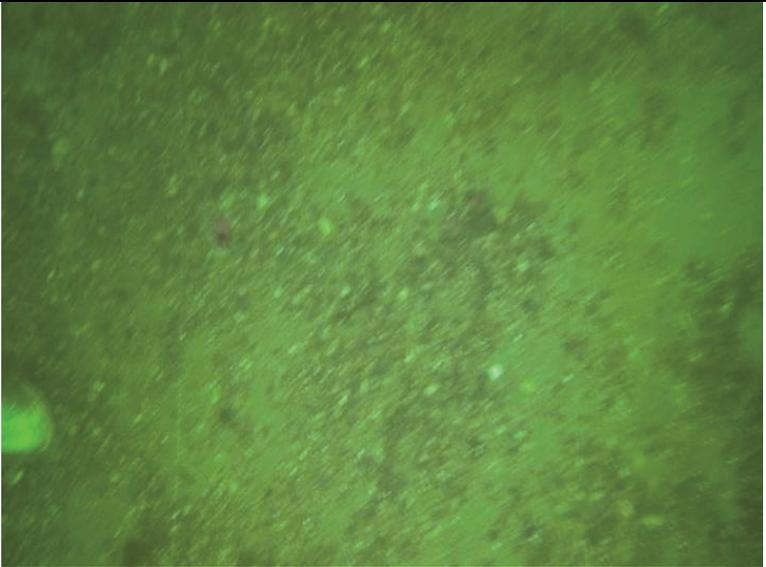
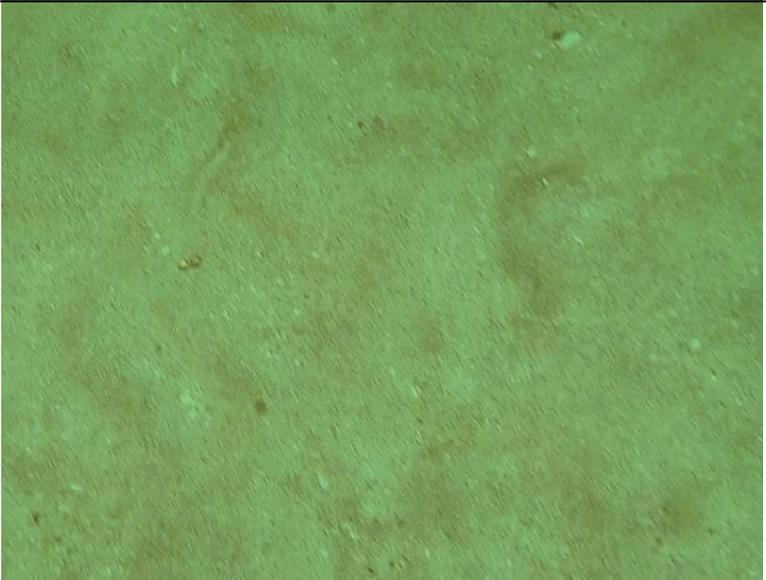
Annex 5 continued

<p><b>CR.LCR.BrAs.AmenCio.Ant</b></p> <p>Solitary ascidians, including <i>Ascidia mentula</i> and <i>Ciona intestinalis</i> with <i>Antedon</i> spp. on wave-sheltered circalittoral rock</p> <p><i>Horse Island.1</i></p>	
<p><b>CR.LCR.BrAs.AmenCio.Bri</b></p> <p>Dense brittlestars with sparse <i>Ascidia mentula</i> and <i>Ciona intestinalis</i> on sheltered circalittoral mixed substrata</p> <p><i>LA250, SoM-V03.8</i></p>	
<p><b>SS.SCS.ICS</b></p> <p>Infralittoral coarse sediment</p> <p><i>Fox Point.2, Horse Island.2, Horse Island.4</i></p>	

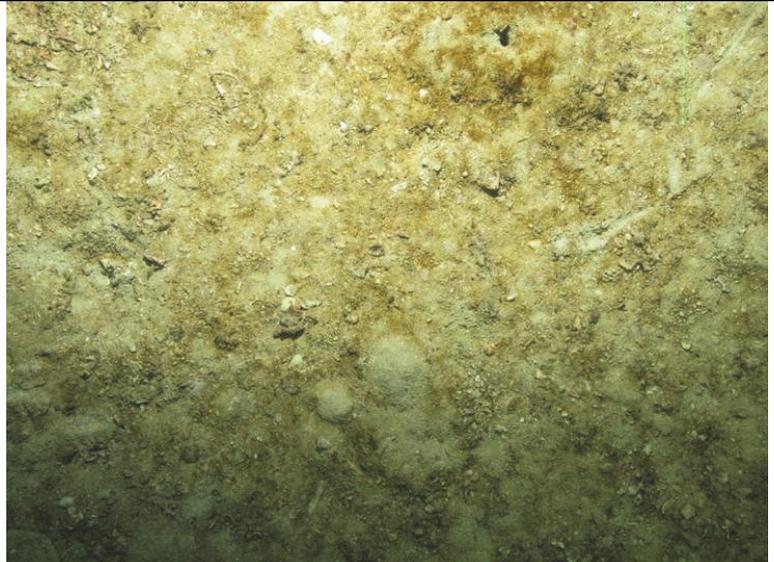
Annex 5 continued

<p><b>SS.SCS.CCS</b></p> <p>Circolittoral coarse sediment</p> <p>B1.2, B10.2, B11.1, B11.3, B11.5, B13, B14.2, B14.4, B14.6, B15, B19.1, B19.3, B20.1, B20.3, B21.1, B21.3, B22.3, B22.5, B3.1, B30.2, B30.4, B30.6, B5, B9.1, Bottle Island, Carn Skerries, MHS10, MHS12, MHS3, MHS5, MHS6, MHS8, NH_02_V32.2, NH_02_V32.4, NH_05_N31.1, NH_05_N31.2, NH_05_N32, NH_05_N70, NH_05_N80, NH_05_R29, NH_05_R31.2, NH_05_V09, NH_05_V10, NH_05_V11.2, NH_05_V12.2, NH_06_N43.1, NH_06_N45.1, NH_06_N46, NH_06_N51, NH_06_N52, NH_06_N53.1, NH_06_N57, NH_06_N58, NH_06_N62, NH_06_N64, NH_06_N68, NH_06_N69, SAB_V11, SoM-V05.25, V10.2, V11.2, V12.1, V12.4, V16.3, V17.2, V2.2, V2.5, V2.7, V21.1, V21.2, V22.1, V22.3, V22.5, V25.1, V25.3, V25.4, V25.5, V5.1, V5.2, V5.3, V5.5, V7.1, V8.2, V8.4, WR25.2, WR28, WR29.2</p>	
<p><b>SS.SCS.CCS.Nmix</b></p> <p><i>Neopentadactyla mixta</i> in circolittoral shell gravel or coarse sand</p> <p>NH_05_R32, WR26</p>	

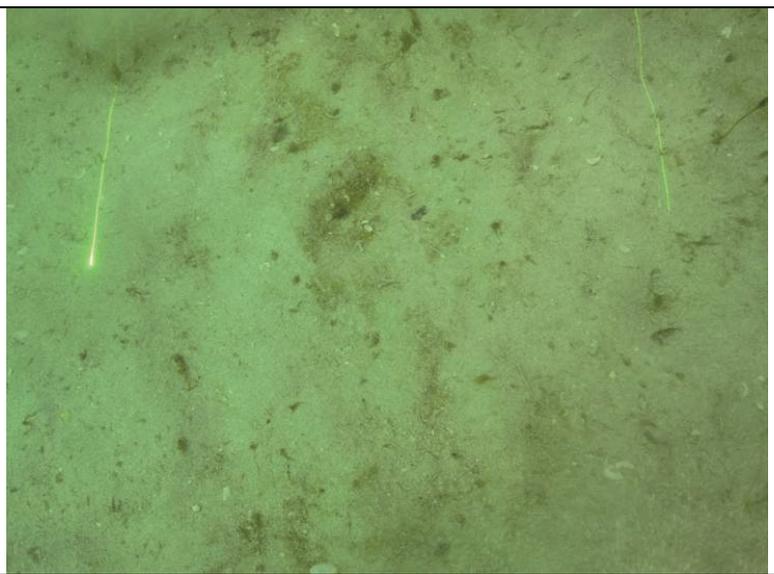
Annex 5 continued

<p><b>SS.SCS.CCS.PomB</b></p> <p><i>Pomatoceros triqueter</i> with barnacles and bryozoan crusts on unstable circalittoral cobbles and pebbles</p> <p>WR27, WR29.1</p>	
<p><b>SS.SSa</b></p> <p>Sublittoral sands and muddy sands</p> <p>FD3</p>	
<p><b>SS.SSa.IFiSa</b></p> <p>Infralittoral fine sand</p> <p>MHS13, MHS14, MHS15, MHS16</p>	

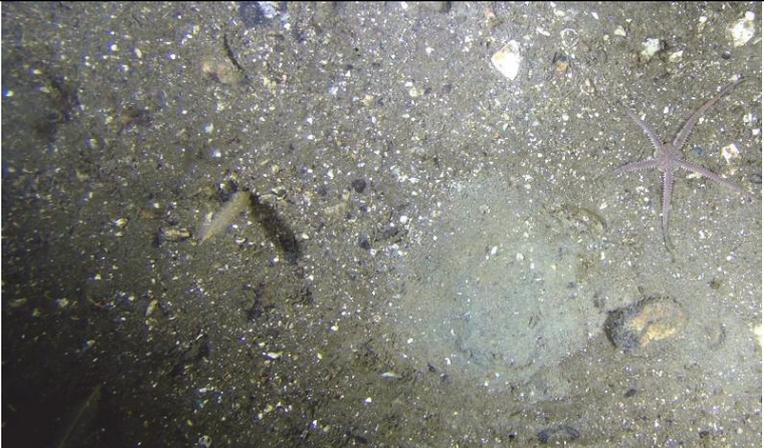
Annex 5 continued

<p><b>SS.SSa.IFiSa.ScupHyd</b></p> <p><i>Sertularia cupressina</i> and <i>Hydrallmania falcata</i> on tide-swept sublittoral sand with cobbles or pebbles</p> <p>MF_02_V04, NH_02_V23, NH_02_V26.2, NH_02_V27, NH_02_V28.2, NH_02_V29.1, NH_02_V32.3</p>	
<p><b>SS.SSa.CFiSa</b></p> <p>Circalittoral fine sand</p> <p>B2.1, B2.3, B22.1, B24, B28, MF_02_V01, MF_02_V02, MHS1, NH_02_V26.1, NH_02_V28.1, NH_02_V29.2, NH_02_V32.1, SAB_V03.1, SAB_V03.3, SAB_V04.2, SAB_V08, SAB_V10.1, SAB_V10.2, SAB_V10.3, SAB_V12, SAB_V14.1, SAB_V16, SAB_V17.2, SAB_V19, SoM-V05.1, V10.3, V2.4, V7.2</p>	
<p><b>SS.SSa.IMuSa</b></p> <p>Infralittoral muddy sand</p> <p>LA260.1, MF_02_V07, MF_02_V08, MF_02_V09, MF_02_V10, Tanera fish farm.2, V11.1, V17.4, V23, V24.1, V24.3, WR23</p>	

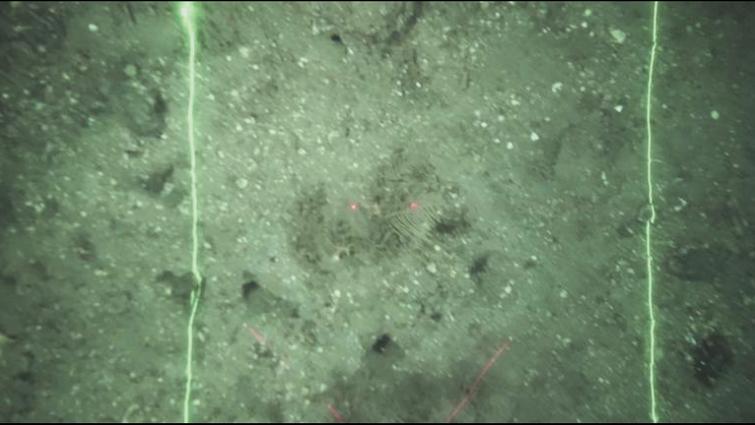
Annex 5 continued

<p><b>SS.SSa.IMuSa.EcorEns</b></p> <p><i>Echinocardium cordatum</i> and <i>Ensis</i> spp. in lower shore and shallow sublittoral slightly muddy fine sand</p> <p>B29.2, B31, FT13</p>	
<p><b>SS.SSa.CMuSa</b></p> <p>Circalittoral muddy sand</p> <p>FD10, MF_02_V03, MF_02_V11, SoM_2_V2.2, SoM_2_V2.4, SoM_3_V1.1, SoM_3_V1.2, SoM_3_V1.3, SoM_3_V1.4, SoM_3_V1.5, SoM_3_V2.1, SoM_3_V2.2, SoM_3_V2.3, SoM_3_V2.4, SoM_3_V2.6, SoM_3_V2.8, SoM_3_V3.2, SoM_3_V3.5, SoM_3_V3.7, SoM-V06.20, SoM-V08.2, SoM-V08.4, STR_V01, STR_V02, STR_V17.2, <b>WR13, WR14, WR15, WR16, WR17.1</b></p>	
<p><b>SS.SMu</b></p> <p>Sublittoral cohesive mud and sandy mud communities</p> <p>V29.2, V29.3</p>	

Annex 5 continued

<p><b>SS.SMu.IFiMu.PhiVir</b></p> <p><i>Philine aperta</i> and <i>Virgularia mirabilis</i> in soft stable infralittoral mud</p> <p>LA246, LA248, LA252, LA254</p>	
<p><b>SS.SMu.CSaMu</b></p> <p>Cirralittoral sandy mud</p> <p>FD15, MF_01_X01, MF_01_X02, MF_01_X03, MF_02_V13, MF_02_V14, MF_02_V22, MF_02_V23, MF_02_V24, MF_02_V38, SoM_3_V3.1, SoM_3_V3.3, SoM-V01.2, SoM-V02.2, SoM-V03.13, SoM-V03.15, SoM-V03.17, SoM-V07.9, STR_V16, V28.5</p>	
<p><b>SS.SMu.CSaMu.VirOphPmax</b></p> <p><i>Virgularia mirabilis</i> and <i>Ophiura</i> spp. with <i>Pecten maximus</i> on cirralittoral sandy or shelly mud</p> <p>FT15.1, FT15.3</p>	

Annex 5 continued

<p><b>SS.SMu.CSaMu.VirOphPmax.HAs</b></p> <p><i>Virgularia mirabilis</i> and <i>Ophiura</i> spp. with <i>Pecten maximus</i>, hydroids and ascidians on circalittoral sandy or shelly mud with stones</p> <p>SoM-V09.1, SoM-V09.10, SoM-V09.8, SoM-V10.11</p>	
<p><b>SS.SMu.CFiMu.MegMax</b></p> <p>Burrowing megafauna and <i>Maxmuelleria lankesteri</i> in circalittoral mud</p> <p>ST8, ST9</p> <p>Note probable <i>Maxmuelleria</i> proboscis trace and burrow aperture top left</p>	
<p><b>SS.SMu.CFiMu.SpnMeg</b></p> <p>Seapens and burrowing megafauna in circalittoral fine mud</p> <p>MF_02_V12, MF_02_V21, MF_02_V27, SoM_2_V2.1, SoM_2_V2.3, SoM-V01.1, SoM-V02.1, SoM-V03.2, SoM-V08.1, ST2, ST3, ST5, STR_V06, STR_V07, STR_V08, STR_V09, STR_V12, STR_V13, STR_V14, STR_V15, STR_V23, V27, V28.1, V28.3, V31, V32, V33, V34</p>	

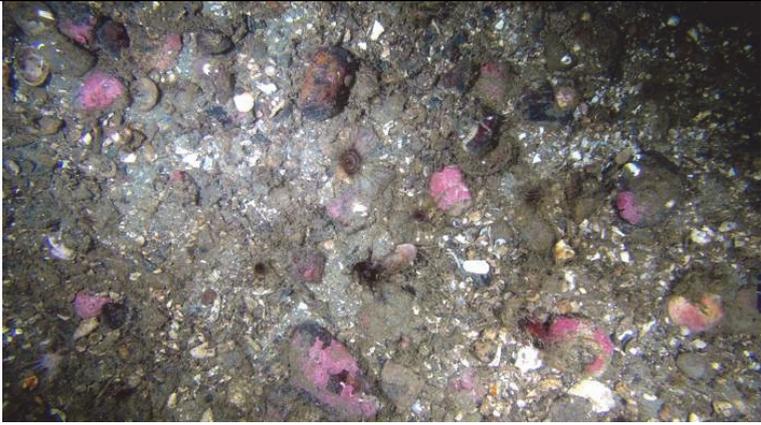
Annex 5 continued

<p><b>SS.SMx.IMx.Lim</b></p> <p><i>Limaria hians</i> beds in tide-swept sublittoral muddy mixed sediment</p> <p>F10.1, F11.1, F11.2, FT17.1, FT18.2, FT19.2, FT4.2, FT6.2, FT7, FT8.2, FT9, WR1.2, WR2.2, WR2.3, WR2.4, WR3.2, WR4.3, WR4.4, WR5.2, WR6.2, WR7.2, WR8.2, WR8.3</p>	
<p><b>SS.SMx.CMx</b></p> <p>Circalittoral mixed sediment</p> <p>B12.1, B23.1, B23.3, Dornie Bank.1, FD08, FD09, FD16.1, FD17.1, FD19, FD20, FT12.1, FT14.1, FT16, FT2.2, FT2.4, FT3.2, MF_02_V05, MF_02_V06, NH_02_R05.2, NH_02_V18, NH_02_V25, NH_02_X02.1, NH_02_X05.2, NH_02_X06.2, NH_03_X02, NH_03_X03, NH_03_X04, NH_03_X06.2, NH_03_X07, NH_03_X08, NH_03_X09, NH_03_X10.1, NH_03_X10.3, NH_03_X11.2, NH_03_X12.1, NH_03_X13, NH_03_X14.2, NH_03_X15.2, NH_03_X16, NH_03_X19.2, NH_04_R14, NH_04_R15, NH_04_R16, NH_04_R17, NH_04_R28, NH_04_V06, NH_04_V08, NH_04_V11, NH_04_V12, NH_04_V13, NH_04_V14, NH_05_V03, NH_06_N56, SoM_2_V1.1, SoM_2_V1.10, SoM_2_V1.12, SoM_2_V1.14, SoM_2_V1.16, SoM_2_V1.18, SoM_2_V1.2, SoM_2_V1.4, SoM_2_V1.6, SoM_2_V1.8, SoM_2_V2.5, SoM_4_V1, SoM_4_V2.1, SoM_4_V2.10, SoM_4_V2.11, SoM_4_V2.3, SoM_4_V2.4, SoM_4_V2.5, SoM_4_V2.7, SoM_4_V2.9, SoM_4_V3.1, SoM_4_V3.3, SoM-V03.11, SoM-V03.3, SoM-V03.5,</p>	

Annex 5 continued

<p>SoM-V03.7, SoM-V04.1, SoM-V05.11, SoM-V05.12, SoM-V05.14, SoM-V05.16, SoM-V05.18, SoM-V05.20, SoM-V05.22, SoM-V05.24, SoM-V05.3, SoM-V05.31, SoM-V05.5, SoM-V05.7, SoM-V05.9, SoM-V06.1, SoM-V06.10, SoM-V06.12, SoM-V06.14, SoM-V06.17, SoM-V06.19, SoM-V06.22, SoM-V06.23, SoM-V06.24, SoM-V06.26, SoM-V06.3, SoM-V06.6, SoM-V06.8, SoM-V07.1, SoM-V07.11, SoM-V07.13, SoM-V07.15, SoM-V07.17, SoM-V07.18, SoM-V07.19, SoM-V07.20, SoM-V07.3, SoM-V07.5, SoM-V07.7, SoM-V09.3, SoM-V09.6, SoM-V10.1, SoM-V10.10, SoM-V10.3, SoM-V10.5, SoM-V10.7, SoM-V10.9, SoM-V11.1, SoM-V11.10, SoM-V11.3, SoM-V11.5, SoM-V11.7, SoM-V11.8, STR_V03.2, STR_V17.1, V30, WR1.3, WR10.1, WR10.2, WR11, WR12.1, WR12.2, WR13, WR14, WR15, WR16, WR19, WR2.1, WR2.6, WR22.1, WR3.1, WR30, WR34, WR35, WR4.2, WR5.1, WR6.1, WR8.1, WR9.2</p>	
<p><b>SS.SMx.CMx.CiloModHo</b></p> <p>Sparse <i>Modiolus modiolus</i>, dense <i>Cerianthus lloydii</i> and burrowing holothurians on sheltered circalittoral stones and mixed sediment</p> <p><b>FT12.2, FT12.4, FT14.3, FT17.2</b></p>	

Annex 5 continued

<p><b>SS.SMx.CMx.CIloMx</b></p> <p><i>Cerianthus lloydii</i> and other burrowing anemones in circalittoral muddy mixed sediment</p> <p>F10.3</p>	
<p><b>SS.SMx.CMx.FluHyd</b></p> <p><i>Flustra foliacea</i> and <i>Hydrallmania falcata</i> on tide-swept circalittoral mixed sediment</p> <p>NH_02_R06, NH_02_R09, NH_02_R10, NH_02_X02.2, NH_02_X04, NH_02_X07.1, NH_04_V15, NH_05_N32, NH_05_N70, NH_05_N82, NH_05_V01, NH_05_V07, NH_05_V08, NH_05_V11.1, NH_05_V12.1, NH_06_N43.2, NH_06_N45.2, NH_06_N51, NH_06_N52, NH_06_N53.2, NH_06_N57, NH_06_N59, NH_06_N60, NH_06_N64, NH_06_N66, NH_06_N68, NH_06_N69, STR_V03.1, STR_V04, STR_V10</p>	
<p><b>SS.SMx.CMx.OphMx</b></p> <p><i>Ophiothrix fragilis</i> and/or <i>Ophiocomina nigra</i> brittlestar beds on sublittoral mixed sediment</p> <p>F10.1, F10.2, F11.1, FD06, FD07, FD1, FD11, FD13, FD16.2, FD17.2, FD18, FD2, FD20, FD21, FD22, FD23, FD4, FD5, FT12.3, FT14.2, FT15.2, FT17.1, FT18.1, FT18.2, FT19.1, FT19.2, FT2.1, FT2.3, FT3.1, FT3.3, FT4.1, FT4.2, FT6.1, FT6.2, FT7, FT8.1, FT8.2, FT9, NH_02_R01, NH_02_R03, NH_02_R04, NH_02_R05.1, NH_02_R11, NH_02_R27,</p>	

Annex 5 continued

<p>NH_02_V19, NH_02_V21,          NH_02_X01, NH_02_X03,          NH_02_X05.1, NH_02_X06.1,          NH_02_X07.2, NH_03_X02,          NH_03_X03, NH_03_X04,          NH_03_X05, NH_03_X06.1,          NH_03_X09, NH_03_X10.2,          NH_03_X11.1, NH_03_X12.2,          NH_03_X13, NH_03_X15.1,          NH_03_X17, NH_03_X18,          NH_03_X19.1, NH_04_R13,          NH_04_R14, NH_04_R15,          NH_04_R16, NH_04_R17,          NH_04_R28, NH_04_V01,          NH_04_V06, NH_04_V07,          NH_04_V08, NH_04_V09,          NH_04_V12, NH_04_V14,          NH_05_R39, NH_05_V02,          NH_05_V03, NH_04_V10, SAB_V11,          SoM-V05.10, SoM-V05.2, SoM-          V05.4, SoM-V05.6, SoM-V05.8,          SoM-V10.2, SoM-V10.4, SoM-V10.6,          SoM-V10.8, SoM-V11.2, SoM-V11.4,          SoM-V11.6, SoM-V11.9,          STR_Sab_V02, WR1.1, WR1.4,          WR2.3, WR2.5, WR3.3, WR4.1,          WR4.4, WR4.5, WR5.3, WR6.3,          WR7.1, WR7.2, WR7.3, WR8.3,          WR8.4, WR9.1</p>	
<p><b>SS.SMp.Mrl.Pcal</b></p> <p><i>Phymatolithon calcareum</i> maerl          beds in infralittoral clean gravel or          coarse sand</p> <p>Carn Skerries, Fox Point.2, Planet          Rock, Planet Rock (II), WR20.2,          WR22.2, WR24.1</p>	

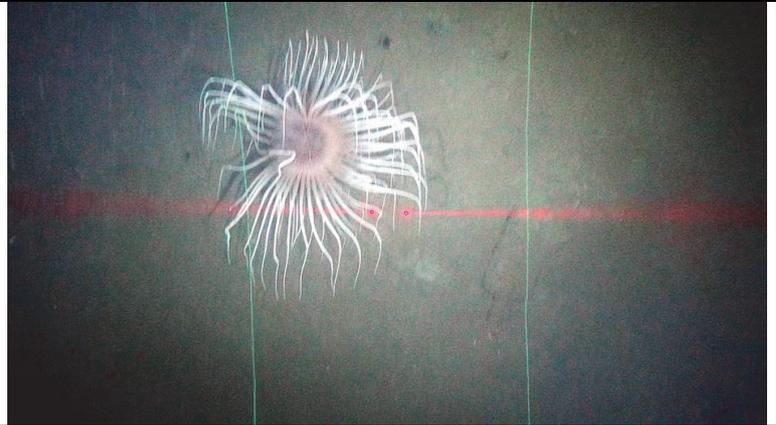
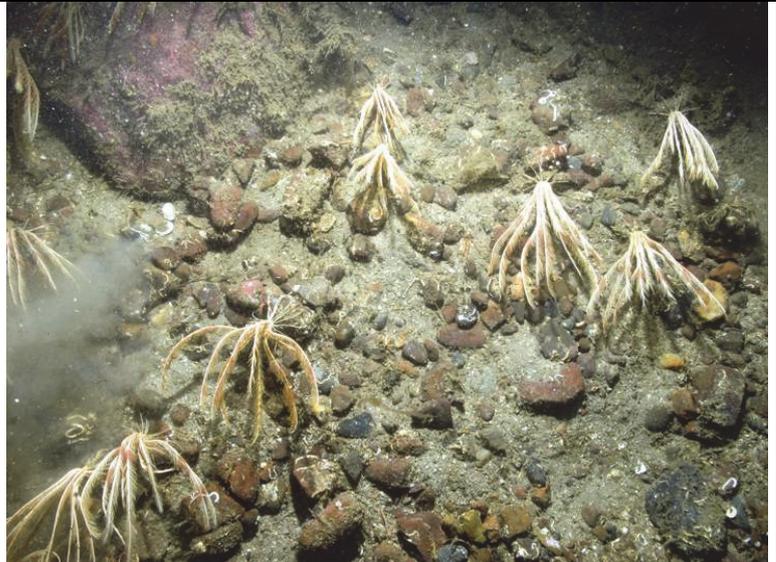
Annex 5 continued

<p><b>SS.SMp.Mrl.Pcal.Nmix</b></p> <p><i>Phymatolithon calcareum</i> maerl beds with <i>Neopentadactyla mixta</i> and other echinoderms in deeper infralittoral clean gravel or coarse sand</p> <p>B12.3, B16.2, B16.4, B17, B21.5, B27, B4, B6, B7.2, B8.2, Bottle Island, MHS11, MHS17, MHS18, MHS19, MHS2, MHS20, MHS4, MHS7, MHS9, V1.1, V1.3, V1.4, V1.5, V1.6, V1.7, V1.8, V12.3, V12.6, V13.1, V13.2, V13.3, V14.1, V14.2, V14.3, V15.2, V16.1, V16.5, V16.7, V19.1, V20.2, V26.1, V26.2, V6.1, V6.3, V6.5, V6.6, V6.7, V9, <b>WR20.1, WR21.2, WR21.3, WR21.4, WR24.2, WR25.1, WR31, WR32, WR33</b></p>	
<p><b>SS.SMp.KSwSS</b></p> <p>Kelp and seaweed communities on sublittoral sediment</p> <p>FT3.4, LA262.1, <b>Tanera fish farm.1, Tanera fish farm.3, WR17.2, WR18</b></p>	
<p><b>SS.SMp.KSwSS.LsacR.Gv</b></p> <p><i>Laminaria saccharina</i> and robust red algae on infralittoral gravel and pebbles</p> <p>FT18.3, FT2.5, <b>FT5</b></p>	

Annex 5 continued

<p><b>SS.SMp.KSwSS.LsacR.Sa</b></p> <p><i>Laminaria saccharina</i> and filamentous red algae on infralittoral sand</p> <p><i>Dornie Bank.2</i>, FT1, FT3.5, LA258.1, LA258.3</p>	
<p><b>SS.SBR.PoR.Ser</b></p> <p><i>Serpula vermicularis</i> reefs on very sheltered circalittoral muddy sand</p> <p>LA260.3</p>	
<p><b>SS.SBR.PoR.SspiMx</b></p> <p><i>Sabellaria spinulosa</i> on stable circalittoral mixed sediment</p> <p>SAB_V02, SAB_V03.2, SAB_V03.4, SAB_V04.1, SAB_V04.3, SAB_V05, SAB_V07, SAB_V13, SAB_V14.2, SAB_V15, SAB_V17.1, SAB_V17.3, SAB_V18</p>	

Annex 5 continued

<p><b>SS.SBR.SMus.ModT</b></p> <p><i>Modiolus modiolus</i> beds with hydroids and red seaweeds on tide-swept circalittoral mixed substrata</p> <p>NH_03_X01, NH_03_X02, NH_03_X03, NH_03_X04, NH_03_X05, NH_03_X06.1, NH_03_X09, NH_03_X11.1, NH_03_X13, NH_03_X14.1, NH_03_X15.1, NH_03_X17, NH_03_X18, NH_03_X19.1, NH_04_R13, NH_04_V01, NH_04_V07, NH_04_V09, NH_04_V10</p>	
<p><b>Fireworks anemone</b></p> <p>(<i>Pachycerianthus multiplicatus</i>)</p> <p>ST2, ST3, ST5, ST8, ST9, V29.2?</p>	
<p><b>Northern feather star aggregations on mixed substrata</b></p> <p><i>Leptometra celtica</i></p> <p>SoM-V07.1, SoM-V07.3, SoM-V07.6, SoM_4_V2.10, SoM_2_V1.3, SoM_2_V1.4, SoM_2_V1.8, SoM_2_V1.12, WR10.1, WR13, WR14, WR15</p>	

## ANNEX 6: PMF, PF AND QUALIFYING ANNEX I HABITAT TYPE ABBREVIATIONS USED IN TABLES

### PMFs & PFs

AA	<i>Arctica islandica</i> aggregation
AI	<i>Arctica islandica</i>
BM:SB	Burrowed mud: sea pens and burrowing megafauna
BM:MM	Burrowed mud: Burrowing megafauna and <i>Maxmuelleria lankesteri</i> in circalittoral mud
BM:FQ	Burrowed mud: <i>Funiculina quadrangularis</i>
BM:PM	Burrowed mud: <i>Pachycerianthus multiplicatus</i>
CM	Circalittoral muddy sand communities
FS:LH	Flameshell beds: <i>Limaria hians</i> beds
GM	<i>Gadus morhua</i>
HM:TS	Horse mussel beds: on tide-swept circalittoral mixed substrata
KS	Kelp and seaweed communities on sublittoral sediment
LC	<i>Leptometra celtica</i>
LA	<i>Leptometra celtica</i> aggregation on mixed substrates
LP	<i>Lophius piscatorius</i>
LS:KP	Low or variable salinity habitats: Kelp in variable or reduced salinity
MB	Maerl beds
MC	Maerl or coarse shell gravel with burrowing sea cucumbers
NO:OE	Native oysters: <i>Ostrea edulis</i>
MM	<i>Molva molva</i>
NS:CS	Northern sea fan and sponge communities: <i>Caryophyllia smithii</i> and <i>Swiftia pallida</i> on circalittoral rock
NS:MT	Northern sea fan and sponge communities: Mixed turf of hydroids and large ascidians with <i>Swiftia pallida</i> and <i>Caryophyllia smithii</i> on weakly tide-swept circalittoral rock
NS:SP	Northern sea fan and sponge communities: <i>Swiftia pallida</i>
PA	<i>Parazoanthus anguicomus</i>
SA	Serpulid aggregations
SE	Sandeels ( <i>Ammodytes marinus</i> and <i>A. tobianus</i> )
SM:CS	Sublittoral mud and specific mixed sediment communities: circalittoral sandy mud
SM:MM	Sublittoral mud and specific mixed sediment communities: sparse <i>Modiolus modiolus</i> , dense <i>Cerianthus lloydii</i> and burrowing holothurians on sheltered circalittoral stones and mixed sediment

### Annex 1 habitats

RF:BR	Reef: bedrock
RF:ST	Reef: stony
RF:BH	Reef: biogenic (Horse mussel)
SB:GS	Sandbanks slightly covered by seawater all the time: gravelly and clean sands
SB:MS	Sandbanks slightly covered by seawater all the time: muddy sand
SB:MX	Sandbanks slightly covered by seawater all the time: mixed sediment
SB:MB	Sandbanks slightly covered by seawater all the time: maerl beds

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