

# Coral characterised benthic assemblages of the deep N. E. Atlantic: defining 'Coral Gardens' to support future habitat mapping efforts.

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Supplementary Material

## S1

Descriptions of potential "coral garden" assemblages identified by the SIMPROF routine including and full morphospecies lists with recorded density values and comparisons with biotopes previously defined by (Howell et al. 2010).

Species identified as characteristic of coral gardens in current definitions are **high-lit**. Species identified as characteristic of the assemblage by SIMPER routine in Primer v6 (Clarke and Warwick, 2001) are indicated (\*).

### 1. Shallow data set assemblages (<1100m)

s5. Isolated colonies of *Lophelia* and *Madrepora* on hard substrate outcrops with associated coral and sponge species.

SIMPROF analyses identified 44 10m samples from 6 transects of this assemblage covering a total area of 669.24m<sup>2</sup> at an average depth of 845.2m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 31.23%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0044.

This assemblage was observed to be present on cobbles and boulders on predominately sand and gravel sediments. The dominant characterizing species of this assemblage identified by SIMPER were the species *Caryophyllia* sp. 2, *Phakellia ventilabrum*, and the morphospecies group, lobose sponge. Reef forming corals occur, mainly as dead frameworks and rubble in small, scattered clumps in areas of sandy gravel and caryophyllid species. The high density of sponge species suggests the assemblage could be considered as a sponge aggregation, however these species are also associated with, and deemed characteristic of coral garden. This assemblage corresponds to an assortment of mixed and hard substrate biotopes previously defined by (Howell et al., 2010) but predominately was undescribed.

Assemblage s5						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
Caryophyllia sp. 2	*	0.004	0.592	0	2.040	84
<i>Phakellia ventilabrum</i>	*	0.014	6.312	0	15.097	64
Lobose sponge	*	0.005	0.723	0	2.672	61
Stichopathes cf. gravieri	*	0.007	0.986	0	3.691	57
<i>Madrepora oculata</i>	*	0.004	0.394	0	1.740	55
<i>Lophelia pertusa</i>	*	0.005	0.657	0	2.342	50
Cerianthidae sp. 1	*	0.004	0.855	0	2.474	43
Green encrusting sponge	*	0.005	0.592	0	2.139	36
Asciacea sp. 1	*	0.004	0.329	0	1.440	34
Aphrocallistes sp.	*	0.002	0.394	0	1.108	34
Porifera cup sp. 3		0.016	2.827	0	7.496	25
Caryophyllia sp. 3		0.002	0.197	0	0.624	20
Phelliactis sp. 1		0.002	0.197	0	0.624	20
White encrusting sponge		0.002	0.263	0	0.734	20
Yellow encrusting sponge		0.003	0.263	0	0.829	18
Porifera spherical sp. 1		0.003	0.394	0	1.002	14
Pliobothrus sp.		0.002	0.131	0	0.553	14
Ophiuroidea sp. 2		0.004	0.197	0	0.817	11
<i>Bonellia viridis</i>		0.001	0.066	0	0.321	11
Parantipathes sp.		0.001	0.066	0	0.321	11
Blue encrusting sponge		0.001	0.066	0	0.321	11
Globose sponge		0.001	0.066	0	0.321	11
Asciacea sp. 2		0.002	0.131	0	0.387	9
Echinoidea sp. 1		0.001	0.066	0	0.291	9
Corallimorphidae sp. 1		0.001	0.066	0	0.255	7
Paguridae spp		0.001	0.066	0	0.255	7
<i>Chaceon affinis</i>		0.002	0.131	0	0.362	7
Actiniaria sp. 1		0.008	0.394	0	1.164	5
<i>Cidaris cidaris</i>		0.002	0.131	0	0.334	5
Ceramaster/Peltaster/Plinthaster sp. 1		0.001	0.066	0	0.211	5
<i>Koehlermetra porrecta</i>		0.001	0.066	0	0.211	5
Bathypathes sp. 1		0.001	0.066	0	0.211	5
Isididae sp. 1		0.003	0.131	0	0.421	5
Porifera spherical sp. 3		0.001	0.066	0	0.211	5
<i>Munida tenuimana</i>		0.002	0.131	0	0.334	5
Grey encrusting sponge		0.001	0.066	0	0.211	5
Halcampoididae sp. 1		0.003	0.131	0	0.302	2
Gorgonacea sp. 2		0.001	0.066	0	0.151	2
Gersemia sp. 2		0.001	0.066	0	0.151	2
187		0.001	0.066	0	0.151	2
Echinus spp.		0.004	0.197	0	0.452	2
<i>Stichastrella rosea</i>		0.001	0.066	0	0.151	2
<i>Parastichopus tremulus</i>		0.001	0.066	0	0.151	2
Majidae sp. 2		0.001	0.066	0	0.151	2
Leiopathes sp. 1		0.001	0.066	0	0.151	2
<i>Anthothela grandiflora</i>		0.001	0.066	0	0.151	2
<i>Primnoa resedaeformis</i>		0.001	0.066	0	0.151	2
Actiniaria sp. 10		0.001	0.066	0	0.151	2
Cream encrusting sponge		0.001	0.066	0	0.151	2
Gastropod		0.001	0.066	0	0.151	2
Gastroptychus		0.001	0.066	0	0.151	2
Lamellate sponge		0.001	0.066	0	0.151	2
Orange encrusting sponge		0.001	0.066	0	0.151	2

## S6. *Pliobothrus* and associated coral species on mixed hard substratum

SIMPROF analyses identified 64 10m samples from 19 transects of this assemblage covering a total area of 973.4m<sup>2</sup> at an average depth of 644.4m.

Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 27.01%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0066.

This assemblage is found predominately on mixed substrates with the majority of live coral and associated species on hard substrates; larger cobbles and boulders scattered on a mixed sandy gravel seabed. This assemblage corresponds to an assortment of previously identified mixed and hard substrate biotopes predominately biotope RHD (Howell et al., 2010). Live coral and associated species were found almost exclusively on patchily distributed hard substrates. Although patchily distributed, live coral and associated species were observed in relatively high densities where larger cobble and boulder hard substrates were present conforming to the working coral garden definitions.

Assemblage s6						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
<i>Pliobothrus</i> sp.	*	0.013	2.301	0	9.315	69
<i>Parastichopus tremulus</i>	*	0.002	0.263	0	1.047	53
Cerianthidae sp. 1	*	0.002	0.657	0	1.613	52
Lobose sponge	*	0.004	0.855	0	2.904	47
<i>Madrepora oculata</i>	*	0.002	0.592	0	1.533	34
Yellow encrusting sponge	*	0.003	0.855	0	1.974	34
Phelliactis sp. 1	*	0.003	0.657	0	2.028	31
Paguridae spp	*	0.003	0.394	0	1.320	20
<i>Lophelia pertusa</i>		0.004	0.526	0	1.956	19
Cream encrusting sponge		0.005	1.315	0	2.882	19
Corallimorphidae sp. 1		0.001	0.197	0	0.584	17
Grey encrusting sponge		0.002	0.197	0	0.611	16
Green encrusting sponge		0.002	0.263	0	0.654	14
<i>Calveriosoma fenestratum</i>		0.002	0.263	0	0.647	13
Cidaris cidaris		0.002	0.329	0	0.745	13
<i>Paromola cuvieri</i>		0.001	0.131	0	0.393	13
<i>Anthomastus grandiflorus</i>		0.003	0.329	0	1.003	11
<i>Munida sarsi</i>		0.001	0.066	0	0.294	9
<i>Bonellia viridis</i>		0.002	0.329	0	0.672	9
<i>Callogorgia verticillata</i>		0.003	0.460	0	0.924	8
Globose sponge		0.007	1.315	0	2.568	6
<i>Caryophyllia</i> sp. 2		0.003	0.263	0	0.630	5
<i>Brisingella coronata</i> / <i>Brisinga endecacnemos</i>		0.001	0.066	0	0.213	5
Orange encrusting sponge		0.001	0.066	0	0.213	5
White encrusting sponge		0.001	0.066	0	0.213	5
Corallimorphidae sp. 2		0.003	0.329	0	0.635	3
<i>Syringammina fragillissima</i>		0.001	0.066	0	0.175	3
<i>Porania pulvillus</i>		0.001	0.066	0	0.175	3
<i>Stichopathes</i> cf. <i>gravieri</i>		0.001	0.066	0	0.175	3
<i>Parantipathes</i> sp.		0.001	0.066	0	0.175	3
Stylasterid		0.001	0.066	0	0.175	3
Majidae sp. 1		0.002	0.131	0	0.250	2
Halcampoididae sp. 1		0.002	0.131	0	0.250	2
<i>Pandalus borealis</i>		0.001	0.066	0	0.125	2
Gorgonacea sp. 2		0.001	0.066	0	0.125	2
Ophiuroidea sp. 2		0.001	0.066	0	0.125	2
Porifera massive lobose sp. 8		0.002	0.131	0	0.250	2
Echinus spp.		0.001	0.066	0	0.125	2
<i>Gorgonocephalus</i> sp. 1		0.001	0.066	0	0.125	2
<i>Chaceon affinis</i>		0.002	0.131	0	0.250	2
Gorgonacea (dead)		0.001	0.066	0	0.125	2
Margarites sp. 1		0.001	0.066	0	0.125	2
Echinoidea sp. 1		0.002	0.131	0	0.250	2
Actiniaria sp. 9		0.002	0.131	0	0.250	2

Alcyonacea sp. 4	0.001	0.066	0	0.125	2
Unknown sp. 7	0.001	0.066	0	0.125	2
Porifera massive globose sp. 10	0.001	0.066	0	0.125	2
Blue encrusting sponge	0.001	0.066	0	0.125	2
Gorgonian	0.001	0.066	0	0.125	2
Sponge	0.002	0.131	0	0.250	2

### s9. Isolated live coral colonies on dead frameworks of *Lophelia pertusa* reef and hard substratum

SIMPROF analyses identified 21 10m samples from 2 transects of this assemblage covering a total area of 319.41m<sup>2</sup> at an average depth of 319.4m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 57.1%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0186.

This assemblage is found on dead framework slopes of *Lophelia pertusa* and mixed coral rubble on bedrock and gravel seabed types with the majority of live coral and associated species being observed on the dead coral framework and rubble. Sessile sponges, echinoderms and anemones associated with cold-water corals and mobile fish and crustacean species were predominantly in areas of high coral density.

This assemblage, identified by SIMPROF, corresponds to the bioherm biotope RHFii described by (Howell et al., 2010) which describes discrete colonies of live coral on hard substratum and dead framework slopes of *Lophelia pertusa*. Overall densities of reef forming corals in this assemblage exceed the density of non-reef forming coral garden species.

Species	Assemblage s9					
	Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs	
Corallimorphidae sp. 1	*	0.018	0.789	0.0657	3.375	100
<i>Lophelia pertusa</i>	*	0.063	2.893	0	14.334	95
Stichopathes cf. gravieri	*	0.019	0.723	0	3.434	95
Lobose sponge	*	0.015	1.118	0	3.763	95
Actiniaria sp. 9	*	0.020	0.986	0	4.507	90
Acanella sp. 1	*	0.008	0.460	0	1.648	86
cf. Antipathella spp.	*	0.007	0.394	0	1.596	86
Phelliactis sp. 1	*	0.010	0.526	0	2.182	81
Parantipathes sp.	*	0.009	0.526	0	2.189	76
<i>Koehlermetra porrecta</i>	*	0.007	0.460	0	1.720	71
Drifa sp. 1		0.011	0.460	0	2.476	62
<i>Madrepora oculata</i>		0.027	1.315	0	6.655	48
Asciacea sp. 2		0.008	0.394	0	1.569	33
Aphrocallistes sp.		0.005	0.197	0	0.926	33
<i>Calveriosoma fenestratum</i>		0.003	0.066	0	0.463	29
<i>Anthomastus grandiflorus</i>		0.004	0.131	0	0.669	29
Asciacea sp. 1		0.008	0.329	0	1.250	19
Cidaris cidaris		0.007	0.329	0	1.165	19
Cerianthidae sp. 1		0.004	0.131	0	0.512	14
Gorgonacea sp. 2		0.003	0.066	0	0.359	14
<i>Syringammina fragillissima</i>		0.003	0.066	0	0.359	14
Echinoidea sp. 1		0.003	0.066	0	0.359	14
Isididae sp. 1		0.003	0.066	0	0.359	14
Gersemia sp. 2		0.005	0.131	0	0.478	10
<i>Munida sarsi</i>		0.006	0.197	0	0.680	10
<i>Parastichopus tremulus</i>		0.003	0.066	0	0.301	10
<i>Bonellia viridis</i>		0.003	0.066	0	0.301	10
Caryophyllia sp. 2		0.003	0.066	0	0.218	5

Porifera spherical sp. 1	0.031	0.657	0	2.182	5
Caryophyllia sp. 3	0.003	0.066	0	0.218	5
Porifera massive lobose sp. 8	0.003	0.066	0	0.218	5
Paguridae spp	0.003	0.066	0	0.218	5
Gorgonocephalus sp. 1	0.003	0.066	0	0.218	5
Porifera lamellate sp. 4	0.022	0.460	0	1.528	5
<i>Heliometra glacialis</i>	0.003	0.066	0	0.218	5
<i>Chaceon affinis</i>	0.003	0.066	0	0.218	5
<i>Callogorgia verticillata</i>	0.003	0.066	0	0.218	5
Leiopathes sp. 1	0.003	0.066	0	0.218	5
Actiniaria sp. 8	0.022	0.460	0	1.528	5
Bathypathes sp. 1	0.006	0.131	0	0.436	5
Antipatharia sp. 8	0.003	0.066	0	0.218	5
<i>Pennatula phosphorea</i>	0.003	0.066	0	0.218	5
Antipatharia sp. 9	0.003	0.066	0	0.218	5
Blue encrusting sponge	0.003	0.066	0	0.218	5
White encrusting sponge	0.013	0.263	0	0.873	5

s10. Discrete colonies of *Lophelia* and *Madrepora* on hard substratum, dead framework and coral rubble slopes.

SIMPROF analyses identified 296 10m samples from 38 transects of this assemblage covering a total area of 4502.2m<sup>2</sup> at an average depth of 678.8m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 27.85%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.001.

This assemblage was characterized by the presence of patchily distributed coral species on dead framework slopes of reef forming corals, mixed coral rubble, bedrock, large cobbles and boulders and gravel seabed types. The majority of live coral and associated species were observed on the dead coral framework and coral rubble. In areas of soft and gravelly substrates encompassed by this assemblage live coral and associated species were found almost exclusively on the patchily distributed hard substrate. Although patchily distributed, live coral and associated species were observed in high densities where larger cobble and boulder hard substrates were present. This assemblage, identified by SIMPROF, encompasses a large number of previously identified biotopes but predominately corresponds to the biotopes RHFii and PBCi, described by (Howell et al., 2010) which comprise of discrete colonies of live coral on hard substratum and dead framework slopes of the reef forming coral *Lophelia pertusa*.

Species	Assemblage s10				% Samples in which species occurs	
	Mean density (m <sup>2</sup> )	Max density (m <sup>2</sup> )	Min density (m <sup>2</sup> )	Standard deviation (abundance)		
<i>Lophelia pertusa</i>	*	0.0013	2.367	0	6.543	74
<i>Madrepora oculata</i>	*	0.0015	3.353	0	7.167	71
Phelliactis sp. 1	*	0.0007	1.052	0	2.635	64
Stichopathes cf. gravieri	*	0.0012	1.841	0	4.610	43
Corallimorphidae sp. 1	*	0.0015	3.156	0	5.994	41
Lobose sponge	*	0.0005	0.592	0	1.418	41
<i>Cidaris cidaris</i>	*	0.0004	0.592	0	1.423	40
<i>Anthomastus grandiflorus</i>		0.0004	0.460	0	0.942	20
Cerianthidae sp. 1		0.0004	0.460	0	0.969	19
<i>Bonellia viridis</i>		0.0005	0.657	0	1.122	16
<i>Brisingella coronata</i> / <i>Brisinga endecacemos</i>		0.0004	0.329	0	0.756	15

Gorgonian	0.0003	0.263	0	0.580	14
Yellow encrusting sponge	0.0004	0.394	0	0.671	13
Parantipathes sp.	0.0006	0.855	0	1.208	13
Actiniaria sp. 9	0.0005	0.723	0	1.118	12
<i>Parastichopus tremulus</i>	0.0003	0.263	0	0.508	10
<i>Calveriosoma fenestratum</i>	0.0003	0.131	0	0.359	10
Aphrocallistes sp.	0.0007	0.723	0	1.253	10
Pliobothrus sp.	0.0004	0.460	0	0.726	10
Actiniaria sp. 1	0.0004	0.263	0	0.563	9
Asciacea sp. 2	0.0004	0.394	0	0.678	8
Caryophyllia sp. 2	0.0004	0.329	0	0.539	8
Paguridae spp	0.0003	0.263	0	0.399	8
Blue encrusting sponge	0.0003	0.197	0	0.399	7
<i>Munida sarsi</i>	0.0004	0.394	0	0.569	7
Porifera massive lobose sp. 8	0.0003	0.197	0	0.350	6
Stylasterid	0.0003	0.131	0	0.289	6
Alcyonacea sp. 2	0.0004	0.460	0	0.523	5
Ceramaster/Peltaster/Plinthaster sp. 1	0.0003	0.131	0	0.255	5
Octocorallia sp. 3	0.0003	0.263	0	0.352	5
<i>Callogorgia verticillata</i>	0.0003	0.131	0	0.262	4
<i>Munida tenuimana</i>	0.0003	0.197	0	0.275	4
Acanella sp. 1	0.0003	0.263	0	0.309	4
Antipatharia sp. 8	0.0011	1.446	0	1.499	4
Octocorallia sp. 1	0.0003	0.131	0	0.229	3
Gorgonacea sp. 2	0.0003	0.197	0	0.281	3
Isididae sp. 1	0.0003	0.131	0	0.287	3
Globose sponge	0.0004	0.263	0	0.335	3
Sponge	0.0004	0.197	0	0.349	3
Gersemia sp. 2	0.0003	0.131	0	0.222	3
Echinoidea sp. 1	0.0002	0.066	0	0.162	3
<i>Chaceon affinis</i>	0.0002	0.131	0	0.191	3
Cream encrusting sponge	0.0003	0.131	0	0.215	3
Green encrusting sponge	0.0003	0.131	0	0.237	3
Corallimorphidae sp. 2	0.0004	0.197	0	0.315	3
<i>Henricia sanguinolenta</i>	0.0002	0.066	0	0.152	2
<i>Porania pulvillus</i>	0.0002	0.066	0	0.152	2
White encrusting sponge	0.0002	0.066	0	0.152	2
cf. Antipathella spp.	0.0003	0.131	0	0.182	2
<i>Stichastrella rosea</i>	0.0002	0.066	0	0.141	2
Majidae sp. 2	0.0002	0.066	0	0.141	2
Bathynectes sp.	0.0002	0.066	0	0.129	2
<i>Paromola cuvieri</i>	0.0002	0.066	0	0.129	2
<i>Pandalus borealis</i>	0.0003	0.197	0	0.209	2
<i>Koehlermetra porrecta</i>	0.0004	0.263	0	0.278	2
Actiniaria sp. 4	0.0004	0.263	0	0.306	2
Porifera massive globose sp. 4	0.0005	0.263	0	0.322	2
Alcyonacea sp. 4	0.0002	0.066	0	0.116	1
<i>Pennatula phosphorea</i>	0.0002	0.066	0	0.116	1
Halcampoididae sp. 1	0.0003	0.197	0	0.201	1
Drifa sp. 1	0.0004	0.197	0	0.259	1
Porifera spherical sp. 1	0.0012	0.986	0	0.905	1
Hydrozoa (bushy)	0.0002	0.066	0	0.100	1
<i>Asterias rubens</i>	0.0002	0.066	0	0.100	1
Porifera branching-erect sp. 1	0.0002	0.066	0	0.100	1
Bathypathes sp. 1	0.0002	0.066	0	0.100	1
Pennatulid	0.0002	0.066	0	0.100	1
Ophiuroidea sp. 7	0.0003	0.131	0	0.142	1
Porifera cup sp. 2	0.0003	0.131	0	0.142	1
Antipatharia sp. 9	0.0003	0.131	0	0.142	1
<i>Syringammia fragillissima</i>	0.0004	0.131	0	0.174	1
Hydrocoral	0.0006	0.329	0	0.318	1
Ophiuroidea sp. 2	0.0009	0.592	0	0.538	1
Caryophyllia sp. 3	0.0002	0.066	0	0.082	1
Sagartiidae sp. 3	0.0002	0.066	0	0.082	1
Pterasteridae sp. 2	0.0002	0.066	0	0.082	1
Echinus spp.	0.0002	0.066	0	0.082	1
Porifera massive lobose sp. 10	0.0002	0.066	0	0.082	1
Leiopathes sp. 1	0.0002	0.066	0	0.082	1
Echinus sp. 1	0.0002	0.066	0	0.082	1
Branching sponge	0.0002	0.066	0	0.082	1
Lamellate sponge	0.0002	0.066	0	0.082	1

Asciacea sp. 1	0.0003	0.131	0	0.130	1
<i>Bolocera tuediae</i>	0.0003	0.131	0	0.130	1
Alcyonacea sp. 1	0.0003	0.131	0	0.130	1
Cup sponge	0.0003	0.131	0	0.130	1
Ophiuroidea sp. 1	0.0002	0.066	0	0.058	0.3
Sagartiidae sp. 2	0.0002	0.066	0	0.058	0.3
Crinoidea sp. 1	0.0002	0.066	0	0.058	0.3
Porifera massive globose sp. 7	0.0002	0.066	0	0.058	0.3
Anthozoa sp. 2	0.0002	0.066	0	0.058	0.3
<i>Phakellia ventilabrum</i>	0.0002	0.066	0	0.058	0.3
<i>Astropecten irregularis</i>	0.0002	0.066	0	0.058	0.3
Hydrozoa (irregularly branched)	0.0002	0.066	0	0.058	0.3
Gorgonacea sp. 5	0.0002	0.066	0	0.058	0.3
Margarites sp. 1	0.0002	0.066	0	0.058	0.3
Gorgonacea sp. 7	0.0002	0.066	0	0.058	0.3
Alcyonacea sp. 3	0.0002	0.066	0	0.058	0.3
Actiniaria sp. 11	0.0002	0.066	0	0.058	0.3
Stylaster sp. 1	0.0002	0.066	0	0.058	0.3
Crinoidea sp. 3	0.0002	0.066	0	0.058	0.3
Ophiuroidea sp. 8	0.0002	0.066	0	0.058	0.3
<i>Pachycerianthus multiplicatus</i>	0.0002	0.066	0	0.058	0.3
Anemone	0.0002	0.066	0	0.058	0.3
Gastrotychus	0.0002	0.066	0	0.058	0.3
Octocoral	0.0002	0.066	0	0.058	0.3
Cnidaria sp. 1	0.0004	0.131	0	0.116	0.3
Gorgonacea sp. 1	0.0004	0.131	0	0.116	0.3
Porifera massive globose sp. 3	0.0007	0.197	0	0.174	0.3
<i>Heliometra glacialis</i>	0.0007	0.197	0	0.174	0.3
Gorgonacea sp. 6	0.0007	0.197	0	0.174	0.3
Gersemia sp. 1	0.0009	0.263	0	0.232	0.3
Desmophyllum sp. 1	0.0027	0.789	0	0.697	0.3

## s16. Live summit and framework slope regions of *Lophelia pertusa* coral reef

SIMPROF analyses identified 56 10m samples from 4 transects of this assemblage covering a total area of 851.8m<sup>2</sup> at an average depth of 820.5m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 45.29%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0027.

This assemblage was identified on gravelly sand, pebble and cobble and bedrock substrates dominated by predominately dead reef forming corals. The assemblage corresponds predominately with biotopes RHFii and PBCi described by (Howell et al. 2010) described as dead frameworks of *Lophelia pertusa* and discrete areas of live coral reef.

Assemblage s16						
Species		Mean density (m <sup>2</sup> )	Max density (m <sup>2</sup> )	Min density (m <sup>2</sup> )	Standard deviation (abundance)	% Samples in which species occurs
<i>Koehlermetra porrecta</i>	*	0.021	3.682	1	11.327	100
cf. <i>Antipathella</i> spp.	*	0.003	0.526	0	2.006	79
<i>Stichopathes</i> cf. <i>gravieri</i>	*	0.004	0.592	0	2.353	73
Asciacea sp. 2	*	0.004	0.592	0	2.343	73
Aphrocallistes sp.	*	0.004	1.183	0	3.711	68
<i>Caryophyllia</i> sp. 2	*	0.003	0.789	0	2.428	57
Lobose sponge	*	0.002	0.394	0	1.361	50
Octocorallia sp. 1	*	0.002	0.263	0	1.311	43
Echinus sp. 1		0.002	0.263	0	1.121	32
Antipatharia sp. 9		0.002	0.394	0	1.283	32
<i>Parantipathes</i> sp.		0.002	0.197	0	0.808	30
Yellow encrusting sponge		0.002	0.197	0	1.006	30

<i>Porania pulvillus</i>	0.001	0.066	0	0.437	25
Isididae sp. 1	0.001	0.197	0	0.548	21
Majidae sp. 2	0.002	0.197	0	0.624	21
Gorgonacea sp. 6	0.003	0.329	0	1.160	21
Gastroptychus	0.001	0.131	0	0.417	14
Cidaris cidaris	0.001	0.066	0	0.334	13
Leiopathes sp. 1	0.001	0.066	0	0.334	13
<i>Munida sarsi</i>	0.001	0.131	0	0.401	13
Antipatharia sp. 8	0.001	0.131	0	0.401	13
<i>Callogorgia verticillata</i>	0.002	0.197	0	0.585	13
<i>Chaceon affinis</i>	0.001	0.066	0	0.312	11
<i>Henricia sanguinolenta</i>	0.001	0.131	0	0.384	11
Ceramaster/Peltaster/Plinthaster sp. 1	0.002	0.197	0	0.520	9
Gorgonian	0.002	0.197	0	0.520	9
Gorgonacea sp. 7	0.002	0.197	0	0.565	9
Corallimorphidae sp. 1	0.001	0.131	0	0.345	7
Gorgonacea sp. 5	0.001	0.131	0	0.345	7
Blue encrusting sponge	0.001	0.131	0	0.345	7
<i>Bonellia viridis</i>	0.002	0.131	0	0.412	7
Acanella sp. 1	0.002	0.197	0	0.507	7
Porifera spherical sp. 3	0.002	0.197	0	0.554	7
Gorgonacea sp. 3	0.001	0.066	0	0.227	5
Globose sponge	0.001	0.066	0	0.227	5
Alcyonacea sp. 2	0.002	0.197	0	0.493	5
Desmophyllum sp. 1	0.002	0.263	0	0.562	5
Gorgonacea sp. 2	0.001	0.066	0	0.187	4
Pliobothrus sp.	0.001	0.066	0	0.187	4
Gorgonocephalus sp. 1	0.001	0.066	0	0.187	4
<i>Anthothela grandiflora</i>	0.001	0.066	0	0.187	4
Actiniaria sp. 9	0.001	0.066	0	0.187	4
Porifera massive lobose sp. 8	0.003	0.263	0	0.549	4
Cerianthidae sp. 1	0.001	0.066	0	0.134	2
Caryophyllia sp. 3	0.001	0.066	0	0.134	2
Porifera lamellate sp. 1	0.001	0.066	0	0.134	2
Colus sp. 2	0.001	0.066	0	0.134	2
<i>Calveriosoma fenestratum</i>	0.001	0.066	0	0.134	2
<i>Stichastrella rosea</i>	0.001	0.066	0	0.134	2
Hydrozoa (irregularly branched)	0.001	0.066	0	0.134	2
<i>Parastichopus tremulus</i>	0.001	0.066	0	0.134	2
<i>Paromola cuvieri</i>	0.001	0.066	0	0.134	2
Bathypathes sp. 1	0.001	0.066	0	0.134	2
<i>Munida tenuimana</i>	0.001	0.066	0	0.134	2
Octocorallia sp. 3	0.001	0.066	0	0.134	2
Branching sponge	0.001	0.066	0	0.134	2
Gastropod	0.001	0.066	0	0.134	2
<i>Lamellate sponge</i>	0.001	0.066	0	0.134	2
White encrusting sponge	0.001	0.066	0	0.134	2
<i>Anthomastus grandiflorus</i>	0.002	0.131	0	0.267	2
Primnoidae sp.	0.002	0.131	0	0.267	2
<i>Phakellia ventilabrum</i>	0.004	0.197	0	0.401	2

### s17. Discrete colonies of *Lophelia* and *Madrepora* and associated coral and sponge species on coral framework slopes and mixed substrates

SIMPROF analyses identified 19 10m samples from 5 transects of this assemblage covering a total area of 289m<sup>2</sup> at an average depth of 762.7m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 48.33%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0184.

This assemblage is found predominately on dead framework slopes of *Lophelia pertusa* on sand and gravel seabed types with the majority of live coral and



associated species being observed on the dead coral framework. Reef forming coral species dominated this assemblage however non-reef forming coral species were also recorded at densities of 1.03 (colonies per m<sup>2</sup>) from areas of high coral density.

This assemblage, identified by SIMPROF, predominately corresponds with the biotope RHFii described by (Howell et al., 2010) comprising of colonies of live coral on dead framework slopes of *Lophelia pertusa*.

Assemblage s17						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
Stichopathes cf. gravieri	*	0.018	0.920	1	2.926	100
Ascidacea sp. 2	*	0.019	0.986	0	4.525	89
<i>Lophelia pertusa</i>	*	0.063	2.367	0	9.256	89
<i>Madrepora oculata</i>	*	0.032	1.249	0	5.735	84
Lobose sponge	*	0.017	0.723	0	3.532	84
Aphrocallistes sp.	*	0.005	0.197	0	0.809	68
<i>Koehlermetra parrecta</i>	*	0.011	0.657	0	2.699	68
Parantipathes sp.	*	0.009	0.329	0	1.710	63
Caryophyllia sp. 2	*	0.008	0.394	0	1.710	58
cf. Antipathella spp.	*	0.009	0.394	0	1.837	58
Yellow encrusting sponge	*	0.007	0.329	0	1.374	47
Caryophyllia sp. 3		0.007	0.263	0	1.357	37
Octocorallia sp. 1		0.004	0.131	0	0.607	37
Globose sponge		0.005	0.197	0	0.902	37
<i>Henricia sanguinolenta</i>		0.004	0.131	0	0.597	32
Echinus sp. 1		0.005	0.131	0	0.692	32
Blue encrusting sponge		0.004	0.131	0	0.582	26
<i>Cidaris cidaris</i>		0.004	0.131	0	0.562	21
<i>Porania pulvillus</i>		0.003	0.066	0	0.419	21
<i>Bonellia viridis</i>		0.005	0.197	0	0.749	21
Majidae sp. 2		0.004	0.131	0	0.562	21
Antipatharia sp. 8		0.003	0.066	0	0.419	21
Isididae sp. 1		0.003	0.066	0	0.419	21
Antipatharia sp. 9		0.006	0.263	0	0.955	21
Porifera massive lobose sp. 8		0.008	0.263	0	1.012	16
Ceramaster/Peltaster/Plinthaster sp. 1		0.003	0.066	0	0.375	16
Gorgonacea sp. 5		0.003	0.066	0	0.375	16
<i>Anthomastus grandiflorus</i>		0.005	0.131	0	0.535	16
Acanella sp. 1		0.003	0.066	0	0.375	16
Leiopathes sp. 1		0.005	0.131	0	0.535	16
<i>Munida tenuimana</i>		0.005	0.131	0	0.535	16
White encrusting sponge		0.010	0.394	0	1.429	16
Hydrozoa (bushy)		0.003	0.066	0	0.315	11
Pliobothrus sp.		0.017	0.592	0	2.065	11
<i>Primnoa resedaeformis</i>		0.005	0.131	0	0.501	11
Gastroptychus		0.003	0.066	0	0.315	11
Halcampoididae sp. 1		0.003	0.066	0	0.229	5
Gorgonacea sp. 1		0.003	0.066	0	0.229	5
<i>Pandalus borealis</i>		0.003	0.066	0	0.229	5
Gorgonacea sp. 2		0.003	0.066	0	0.229	5
Porifera cup sp. 3		0.010	0.197	0	0.688	5
Alcyonacea sp. 2		0.003	0.066	0	0.229	5
Aeoliidae sp. 1		0.003	0.066	0	0.229	5
<i>Calveriosoma fenestratum</i>		0.003	0.066	0	0.229	5
<i>Stichastrella rosea</i>		0.003	0.066	0	0.229	5
<i>Munida sarsi</i>		0.003	0.066	0	0.229	5
Paguridae spp		0.003	0.066	0	0.229	5
Cyclostomatida sp. 4		0.003	0.066	0	0.229	5
<i>Syringammina fragillissima</i>		0.007	0.131	0	0.459	5
<i>Parastichopus tremulus</i>		0.003	0.066	0	0.229	5
<i>Brisingella coronata</i> / <i>Brisinga endecacnemus</i>		0.003	0.066	0	0.229	5
<i>Callogorgia verticillata</i>		0.014	0.263	0	0.918	5
Pectinidae spp		0.003	0.066	0	0.229	5
Gorgonacea sp. 6		0.003	0.066	0	0.229	5

Pterasteridae sp. 1	0.003	0.066	0	0.229	5
Gorgonacea sp. 7	0.003	0.066	0	0.229	5
Actiniaria sp. 9	0.010	0.197	0	0.688	5
Epizoanthus sp. 1	0.003	0.066	0	0.229	5
Primnoidae sp.	0.003	0.066	0	0.229	5
Porifera massive lobose sp. 11	0.014	0.263	0	0.918	5
Stylaster sp. 1	0.007	0.131	0	0.459	5
Branching sponge	0.003	0.066	0	0.229	5
Cream encrusting sponge	0.003	0.066	0	0.229	5
Green encrusting sponge	0.007	0.131	0	0.459	5
Orange encrusting sponge	0.003	0.066	0	0.229	5

## s21. Caryophyllids and associated species on sandy substrates

SIMPROF analyses identified 12 10m samples from 6 transects of this assemblage covering a total area of 182.52m<sup>2</sup> at an average depth of 739.7m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 36.64%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.091.

This assemblage was recorded exclusively from sand substrates with sparse cobbles and boulders. SIMPER analysis indicated the assemblage was characterized by anemone species including caryophyllids. Densities of coral garden characterizing species were fairly low across the whole assemblage, only just meeting the working definition lower limit of 0.1 colonies per m<sup>2</sup>. The assemblage predominately corresponds to the *Lanice* bed biotope OB described by (Howell et al., 2010).

Assemblage s21						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
Caryophyllia sp. 3	*	0.010	0.197	0	1.084	75
Actiniaria sp. 1	*	0.011	0.263	0	1.337	42
Asciacea sp. 2	*	0.007	0.131	0	0.669	33
Echinus spp.		0.008	0.131	0	0.622	17
Gorgonacea sp. 7		0.005	0.066	0	0.389	17
<i>Koehlermetra porrecta</i>		0.022	0.460	0	2.015	17
Caryophyllia sp. 2		0.005	0.066	0	0.289	8

## s24. *Majidae* and sparse gorgonians on hard substratum

SIMPROF analyses identified 23 10m samples from 8 transects of this assemblage covering a total area of 349.83m<sup>2</sup> at an average depth of 679.77m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 33.42%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0038.

Recorded from bedrock and sandy gravel substrates and dominated by the morphospecies *Majidae* sp. 2 and sparse unidentified gorgonian species this assemblage was largely undescribed by (Howell et al. 2010).

Assemblage s24						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
Majidae sp. 2	*	0.010	0.855	0	3.476	65
Gorgonian	*	0.004	0.197	0	0.821	43
<i>Cidaris cidaris</i>		0.003	0.066	0	0.277	9
Porifera massive globose sp. 9		0.004	0.131	0	0.440	9
Cerianthidae sp. 1		0.003	0.066	0	0.200	4
Ophiuroidea sp. 1		0.006	0.131	0	0.400	4
Reteporella sp. 1		0.003	0.066	0	0.200	4
Lobose sponge		0.003	0.066	0	0.200	4

## s28. *Pliobothrus* colonies on hard substrates and dead coral rubble

SIMPROF analyses identified 15 10m samples from 7 transects of this assemblage covering a total area of 228.15m<sup>2</sup> at an average depth of 739.8m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 53.91%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0074.

This assemblage was recorded from bedrock, sand and gravel substrates with sparse, scattered coral rubble. SIMPER analysis indicated the assemblage being characterised solely by *Pliobothrus* sp. Densities of coral garden species were relatively low across this assemblage only slightly higher than the working definition lower limit of 0.1 colonies per m<sup>2</sup>. Corresponding partially to biotopes from mixed and hard substrates; RHC and RHD the majority of this assemblage was undescribed by (Howell et al., 2010).

Assemblage s28						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
<i>Pliobothrus</i> sp.	*	0.008	0.263	0	1.234	93
Cerianthidae sp. 1		0.004	0.066	0	0.458	27
<i>Chaceon affinis</i>		0.004	0.066	0	0.352	13
Stylaster sp. 1		0.004	0.066	0	0.352	13
<i>Bonellia viridis</i>		0.004	0.066	0	0.258	7
Lobose sponge		0.009	0.131	0	0.516	7

## s42. *Stichopathes*, gorgonians and associated corals on coral rubble and hard substratum

SIMPROF analyses identified 105 10m samples from 21 transects of this assemblage covering a total area of 2201m<sup>2</sup> at an average depth of 713m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 15.42%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.016.

This assemblage was recorded from bedrock, bedrock with carbonate veneer, gravel and coral rubble substrates and the majority of coral garden species recorded on small outcrops of reef forming corals and on sparsely distributed cobbles and boulders. This assemblage corresponds predominately to the

biotope RHFii as described by (Howell et al., 2010) and whilst highest abundances of coral garden species were observed in areas of highest density of reef forming corals the overall densities of non-reef forming corals exceed those of reef forming coral species in this assemblage.

Assemblage s42						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
Phelliactis sp. 1	*	0.002	0.657	0	2.432	52
Stichopathes cf. gravieri	*	0.001	0.657	0	1.684	51
<i>Gorgonian</i>	*	0.002	0.723	0	1.635	33
Cerianthidae sp. 1	*	0.002	0.855	0	2.380	32
<i>Cidaris cidaris</i>	*	0.001	0.263	0	0.833	32
Actiniaria sp. 1	*	0.001	0.329	0	1.157	30
<i>Madrepora oculata</i>	*	0.002	0.920	0	1.876	24
<i>Brisingella coronata / Brisinga endecacnemos</i>	*	0.001	0.263	0	0.895	24
<i>Lophelia pertusa</i>	*	0.002	0.657	0	1.861	22
Ophiuroidea sp. 1	*	0.006	3.550	0	7.038	21
<i>Anthomastus grandiflorus</i>	*	0.001	0.263	0	0.788	18
Alcyonacea sp. 3	*	0.002	0.723	0	1.743	17
Globose sponge	*	0.001	0.263	0	0.647	17
Porifera massive globose sp. 4	*	0.002	0.526	0	1.475	14
<i>Calveriosoma fenestratum</i>		0.001	0.263	0	0.551	14
Echinus spp.		0.001	0.131	0	0.426	12
Aphrocallistes sp.		0.002	1.249	0	1.916	12
Alcyonacea sp. 1		0.002	0.723	0	1.165	10
<i>Munida tenuimana</i>		0.002	0.526	0	1.056	10
Stylasterid		0.003	1.118	0	2.098	9
<i>Axinella infundibuliformis</i>		0.004	0.920	0	2.279	9
<i>Stichastrella rosea</i>		0.001	0.131	0	0.314	8
<i>Henricia sanguinolenta</i>		0.001	0.197	0	0.380	8
Sponge		0.001	0.197	0	0.445	8
Drifa sp. 1		0.001	0.197	0	0.437	7
Caryophyllia sp. 2		0.002	0.263	0	0.611	6
Parantipathes sp.		0.001	0.263	0	0.471	6
cf. Antipathella spp.		0.001	0.131	0	0.331	6
Cirripedia sp.		0.015	5.128	0	8.197	6
Reteporella sp. 1		0.003	1.118	0	1.676	6
Orange anemone		0.003	0.526	0	1.199	6
Yellow encrusting sponge		0.001	0.197	0	0.419	5
Gersemia sp. 2		0.001	0.197	0	0.409	4
Antipatharia sp. 9		0.001	0.066	0	0.192	4
<i>Phakellia ventilabrum</i>		0.001	0.263	0	0.422	4
Ophiuroidea sp. 7		0.001	0.066	0	0.192	4
<i>Pheronema carpenteri</i>		0.001	0.131	0	0.347	4
Ceramaster/Peltaster/Plinthaster sp. 2		0.001	0.131	0	0.255	4
<i>Bolocera tuediae</i>		0.001	0.197	0	0.322	3
Corallimorphidae sp. 1		0.002	0.197	0	0.454	3
Paguridae spp		0.001	0.131	0	0.237	3
Ceramaster/Peltaster/Plinthaster sp. 1		0.001	0.066	0	0.167	3
<i>Porania pulvillus</i>		0.001	0.066	0	0.167	3
Porifera branching-erect sp. 1		0.001	0.131	0	0.290	3
Porifera massive globose sp. 9		0.001	0.131	0	0.237	3
Anemone		0.001	0.131	0	0.237	3
Blue encrusting sponge		0.001	0.131	0	0.290	3
Cup sponge		0.001	0.131	0	0.237	3
Lobose sponge		0.001	0.131	0	0.237	3
Gorgonocephalus sp. 1		0.001	0.197	0	0.308	2
Callogorgia verticillata		0.001	0.197	0	0.308	2
Octocoral		0.001	0.066	0	0.137	2
Edwardsiidae sp. 1		0.002	0.394	0	0.593	2
Majidae sp. 1		0.001	0.066	0	0.137	2
Echinoidea sp. 1		0.001	0.066	0	0.137	2
Majidae sp. 2		0.002	0.263	0	0.401	2
Ophiuroidea sp. 6		0.004	0.789	0	1.174	2
Orange encrusting sponge		0.001	0.131	0	0.217	2

Alcyonacea sp. 2	0.001	0.066	0	0.098	1
Gorgonacea sp. 6	0.001	0.066	0	0.098	1
Bathypathes sp. 1	0.001	0.066	0	0.098	1
Isididae sp. 1	0.002	0.197	0	0.293	1
Alcyonacea sp. 4	0.001	0.066	0	0.098	1
Porifera massive lobose sp. 2	0.001	0.066	0	0.098	1
Porifera spherical sp. 1	0.001	0.066	0	0.098	1
Sagartiidae sp. 1	0.015	1.512	0	2.245	1
Asciacea sp. 2	0.001	0.066	0	0.098	1
Brachiopoda sp. 1	0.001	0.066	0	0.098	1
Sagartiidae sp. 3	0.001	0.066	0	0.098	1
Corallimorphidae sp. 2	0.001	0.131	0	0.195	1
Porifera massive globose sp. 3	0.001	0.131	0	0.195	1
Actiniaria sp. 4	0.001	0.066	0	0.098	1
Porifera cup sp. 3	0.001	0.066	0	0.098	1
Crinoidea sp. 1	0.001	0.066	0	0.098	1
Sagartiidae sp. 4	0.001	0.066	0	0.098	1
Geodia sp. 1	0.003	0.263	0	0.390	1
<i>Munida sarsi</i>	0.001	0.066	0	0.098	1
<i>Heliometra glacialis</i>	0.003	0.263	0	0.390	1
Chaetopteridae sp. 1	0.001	0.131	0	0.195	1
<i>Parastichopus tremulus</i>	0.001	0.066	0	0.098	1
<i>Bonellia viridis</i>	0.001	0.066	0	0.098	1
<i>Koehlermetra porrecta</i>	0.001	0.131	0	0.195	1
<i>Primnoa resedaeformis</i>	0.001	0.066	0	0.098	1
Crinoidea sp. 3	0.001	0.066	0	0.098	1
Porifera lamellate sp. 7	0.001	0.066	0	0.098	1
Ascidian	0.001	0.066	0	0.098	1
Lamellate sponge	0.001	0.066	0	0.098	1

## 2. Deep data set assemblages (>1100m)

### d1. *Ophiomusium lymani* and encrusting sponges on soft gravelly substratum

SIMPROF analyses identified 351 10m samples from 16 transects of this assemblage covering a total area of 5338.71m<sup>2</sup> at an average depth of 1340.5m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 1.61%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0003.

This assemblage was recorded predominately on mixed, soft and gravelly sand substrates and dominated by deep sea sponge species. The assemblage was described visually as encompassing two dominant biotopes; *Ophiomusium lymani* and cerianthid anemones on mixed substrate and *L. pertusa*, soft corals and sponges on mixed substrate.

Species		Assemblage d1			Standard deviation (abundance)	% Samples in which species occurs
		Mean density (m2)	Max density (m2)	Min density (m2)		
<i>Ophiomusium lymani</i>	*	0.000	0.460	0	0.740	9
Blue encrusting sponge	*	0.000	0.329	0	0.545	7
Yellow encrusting sponge	*	0.000	0.526	0	0.603	4
Lepidisis sp.	*	0.000	0.131	0	0.183	3
Keratoisis sp. 2		0.000	0.066	0	0.140	2
<i>Syringamina fragillissima</i>		0.000	0.131	0	0.184	2
<i>Coryphaenoides rupestris</i>		0.000	0.131	0	0.159	2
<i>Madrepora oculata</i>		0.000	0.263	0	0.255	1
Anemone		0.000	0.131	0	0.150	1
<i>Cidaris cidaris</i>		0.000	0.131	0	0.141	1
<i>Lophelia pertusa</i>		0.000	0.066	0	0.106	1
<i>Pheronema carpenteri</i>		0.000	0.066	0	0.106	1

Caryophyllia sp. 3	0.000	0.066	0	0.092	1
Porifera massive globose sp. 4	0.000	0.131	0	0.130	1
Phelliactis sp. 1	0.000	0.066	0	0.092	1
Actiniaria sp. 10	0.000	0.263	0	0.244	1
<i>Pentametrocrinus atlanticus</i>	0.000	0.066	0	0.092	1
Cerianthidae sp. 1	0.000	0.066	0	0.075	1
Porifera boring sp. 1	0.000	0.066	0	0.075	1
Velatida sp. 1	0.000	0.066	0	0.075	1
<i>Henricia sanguinolenta</i>	0.000	0.066	0	0.075	1
<i>Psolus squamatus</i>	0.000	0.066	0	0.075	1
<i>Chaceon affinis</i>	0.000	0.066	0	0.075	1
Gorgonacea sp. 6	0.001	0.197	0	0.226	1
Crinoidea sp. 2	0.000	0.066	0	0.075	1
<i>Munida tenuimana</i>	0.000	0.066	0	0.075	1
<i>Kophobelemnon stelliferum</i>	0.000	0.066	0	0.075	1
<i>Actinauge richardi</i>	0.000	0.066	0	0.075	1
Brisingida sp.	0.000	0.066	0	0.075	1
<i>Echinus acutus</i>	0.000	0.066	0	0.075	1
Halipteris sp.	0.001	0.329	0	0.341	1
White encrusting sponge	0.000	0.263	0	0.220	1
Caryophyllia sp. 2	0.000	0.066	0	0.053	0.3
<i>Bolocera tuediae</i>	0.000	0.066	0	0.053	0.3
Porifera spherical sp. 1	0.001	0.329	0	0.267	0.3
Porifera massive lobose sp. 3	0.000	0.066	0	0.053	0.3
Ophiuroidea sp. 1	0.000	0.066	0	0.053	0.3
Sagartiidae sp. 3	0.000	0.066	0	0.053	0.3
Porifera massive globose sp. 1	0.001	0.329	0	0.267	0.3
Porifera lamellate sp. 1	0.000	0.066	0	0.053	0.3
Serpulidae sp. 1	0.000	0.066	0	0.053	0.3
Alcyonacea sp. 1	0.000	0.066	0	0.053	0.3
Porifera cup sp. 3	0.000	0.131	0	0.107	0.3
Porifera massive globose sp. 7	0.001	0.263	0	0.214	0.3
<i>Crossaster papposus</i>	0.000	0.066	0	0.053	0.3
<i>Calveriosoma fenestratum</i>	0.000	0.066	0	0.053	0.3
Echinus spp.	0.001	0.197	0	0.160	0.3
<i>Phakellia ventilabrum</i>	0.000	0.066	0	0.053	0.3
Reteporella sp. 1	0.000	0.066	0	0.053	0.3
Paguridae spp	0.000	0.066	0	0.053	0.3
Heliometra glacialis	0.001	0.197	0	0.160	0.3
Caridea sp. 1	0.000	0.066	0	0.053	0.3
Gorgonacea (dead)	0.001	0.197	0	0.160	0.3
<i>Brisingella coronata</i> / <i>Brisinga endecacnemus</i>	0.000	0.066	0	0.053	0.3
<i>Anthomastus grandiflorus</i>	0.000	0.066	0	0.053	0.3
Parantipathes sp.	0.000	0.066	0	0.053	0.3
<i>Paromola cuvieri</i>	0.000	0.066	0	0.053	0.3
<i>Koehlermetra porrecta</i>	0.000	0.066	0	0.053	0.3
<i>Pennatula phosphorea</i>	0.001	0.329	0	0.267	0.3
Antipatharia sp. 9	0.000	0.066	0	0.053	0.3
<i>Acanthogorgia granulata</i>	0.000	0.066	0	0.053	0.3
Echinoidea sp. 4	0.000	0.066	0	0.053	0.3
Keratoisis sp. 1	0.000	0.131	0	0.107	0.3
Bathypathes sp. 2	0.000	0.066	0	0.053	0.3
Echinoidea sp. 5	0.000	0.131	0	0.107	0.3
<i>Solaster endeca</i>	0.000	0.066	0	0.053	0.3
Holothuroidea sp. 2	0.000	0.066	0	0.053	0.3
Umbellula sp.	0.000	0.066	0	0.053	0.3
Asteroidea sp. 1	0.000	0.066	0	0.053	0.3
Crinoidea sp. 7	0.000	0.066	0	0.053	0.3
Crinoidea sp. 9	0.000	0.066	0	0.053	0.3
Porifera lamellate sp. 10	0.000	0.066	0	0.053	0.3
Ophiuroidea sp. 10	0.000	0.066	0	0.053	0.3
Gorgonacea sp. 16	0.000	0.066	0	0.053	0.3
Cream encrusting sponge	0.000	0.066	0	0.053	0.3
Cup sponge	0.000	0.066	0	0.053	0.3
Echinoid	0.000	0.066	0	0.053	0.3
Gorgonian	0.000	0.066	0	0.053	0.3

Green encrusting sponge	0.000	0.066	0	0.053	0.3
Soft coral	0.000	0.066	0	0.053	0.3

#### d4. Live summit and frameworks of *Lophelia pertusa* coral reef

SIMPROF analyses identified 11 10m samples from 2 transects of this assemblage covering a total area of 167.31m<sup>2</sup> at an average depth of 1234.8m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 42%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0334.

This assemblage was recorded on bedrock, bedrock with carbonate veneer and coral rubble substrates with the majority of live coral and associated species growing on frameworks of predominately dead reef forming corals. Described visually as live biogenic coral reef and predominantly dead, low-lying coral rubble this assemblage features high abundances of coral garden characterising and associated species, particularly sponges and fish species however overall densities of reef forming corals exceed the density of non-reef forming species.

Assemblage d4						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
Lophelia pertusa	*	0.111	2.170	0.46	7.353	100
Phakellia ventilabrum	*	0.015	0.394	0	1.991	73
Gorgonacea sp. 12	*	0.010	0.263	0	1.221	64
Gorgonacea sp. 16	*	0.013	0.329	0	1.567	64
Madrepora oculata	*	0.027	0.986	0	4.413	55
Brisingella coronata / Brisinga endecacnemos	*	0.008	0.131	0	0.786	55
Koehlermetra porrecta	*	0.007	0.131	0	0.674	55
Keratoisis sp. 2		0.010	0.131	0	0.924	36
Porifera massive lobose sp. 24		0.010	0.263	0	1.206	36
Anthothela grandiflora		0.016	0.263	0	1.348	27
Isididae sp. 1		0.016	0.263	0	1.421	27
Porifera massive lobose sp. 18		0.016	0.263	0	1.421	27
Porifera lamellate sp. 10		0.006	0.066	0	0.467	27
Yellow encrusting sponge		0.008	0.131	0	0.674	27
Porifera cup sp. 3		0.009	0.131	0	0.647	18
Velatida sp. 1		0.006	0.066	0	0.405	18
Phelliactis sp. 1		0.009	0.131	0	0.647	18
Anthomastus grandiflorus		0.006	0.066	0	0.405	18
Callogorgia verticillata		0.027	0.329	0	1.834	18
Brisingida sp.		0.006	0.066	0	0.405	18
Antipatharia sp. 7		0.006	0.066	0	0.405	18
Porifera massive lobose sp. 2		0.006	0.066	0	0.302	9
Corallimorphidae sp. 1		0.006	0.066	0	0.302	9
Porifera massive lobose sp. 6		0.018	0.197	0	0.905	9
Crossaster papposus		0.006	0.066	0	0.302	9
Porifera massive lobose sp. 8		0.006	0.066	0	0.302	9
Heliometra glacialis		0.012	0.131	0	0.603	9
Gorgonacea sp. 6		0.006	0.066	0	0.302	9
Primnoidae sp.		0.012	0.131	0	0.603	9
Actiniaria sp. 10		0.006	0.066	0	0.302	9
Pheronema carpenteri		0.006	0.066	0	0.302	9

Mysida sp. 2	0.006	0.066	0	0.302	9
Actinauge richardi	0.006	0.066	0	0.302	9
Porifera cup sp. 2	0.006	0.066	0	0.302	9
Antipatharia sp. 9	0.006	0.066	0	0.302	9
Acanthogorgia granulata	0.006	0.066	0	0.302	9
Placogorgia graciosa	0.006	0.066	0	0.302	9
Lepidisis sp.	0.006	0.066	0	0.302	9
Echinus acutus	0.006	0.066	0	0.302	9
Gastroptychus formosus	0.006	0.066	0	0.302	9
Halipterus sp.	0.006	0.066	0	0.302	9
Ophiuroidea sp. 10	0.006	0.066	0	0.302	9
Asconema setubalense	0.012	0.131	0	0.603	9
Anemone	0.006	0.066	0	0.302	9
Green encrusting sponge	0.006	0.066	0	0.302	9
White encrusting sponge	0.006	0.066	0	0.302	9

#### d5. Live summit of *Lophelia pertusa* reef with associated gorgonians, sponge and coral species

SIMPROF analyses identified 94 10m samples from 2 transects of this assemblage covering a total area of 1429.7m<sup>2</sup> at an average depth of 1336.6m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 31.48%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0021.

This assemblage was recorded predominately on bedrock substrates interspersed by areas of sandy gravel, pebbles, cobbles and coral rubble. The majority of live coral and associated species were observed on hard substrates and on coral rubble. This assemblage encompasses from visual review the biotopes; gorgonian dominated “coral garden”, *Lophelia pertusa*, soft corals and sponges on mixed substrates and predominately dead, low-lying coral rubble. Coral garden characterizing species were observed to be patchily distributed over a large area but found in relatively high abundances where present. Density of reef forming corals again however exceeds the overall density of non reef forming species.

Assemblage d5						
Species		Mean density (m <sup>2</sup> )	Max density (m <sup>2</sup> )	Min density (m <sup>2</sup> )	Standard deviation (abundance)	% Samples in which species occurs
<i>Phakellia ventilabrum</i>	*	0.002	0.460	0	1.578	67
<i>Madrepora oculata</i>	*	0.006	1.446	1	6.393	63
Green encrusting sponge	*	0.002	1.052	1	2.776	61
<i>Lophelia pertusa</i>	*	0.003	0.657	0	2.774	54
<i>Callogorgia verticillata</i>	*	0.002	0.657	0	2.155	54
Porifera lamellate sp. 10	*	0.002	0.526	0	1.606	51
<i>Anthomastus grandiflorus</i>	*	0.001	0.263	0	0.819	46
Blue encrusting sponge	*	0.002	0.723	0	2.106	34
Gorgonacea sp. 12	*	0.001	0.329	0	0.887	32
<i>Koehlermetra porrecta</i>	*	0.002	0.460	0	1.438	31
Porifera massive lobose sp. 18	*	0.001	0.263	0	0.759	31
<i>Coryphaenoides rupestris</i>	*	0.001	0.394	0	1.212	28
<i>Caryophyllia</i> sp. 2	*	0.001	0.197	0	0.656	21
Actiniaria sp. 4		0.001	0.131	0	0.543	21
Yellow encrusting sponge	*	0.001	0.329	0	1.019	21
Phelliactis sp. 1		0.001	0.131	0	0.481	20
Keratoisis sp. 3	*	0.003	0.657	0	2.138	18
Keratoisis sp. 2		0.001	0.263	0	0.694	17



Porifera massive globose sp. 4	0.001	0.197	0	0.585	16
Porifera cup sp. 3	0.001	0.263	0	0.702	15
Porifera massive lobose sp. 24	0.001	0.329	0	0.896	15
Keratoisis sp. 1	0.001	0.197	0	0.495	14
Echinus spp.	0.001	0.131	0	0.463	13
Stylaster sp. 1	0.001	0.197	0	0.573	13
<i>Asconema setubalense</i>	0.001	0.197	0	0.758	13
Actiniaria sp. 1	0.001	0.131	0	0.418	12
Alcyonacea sp. 1	0.001	0.131	0	0.379	12
Velatida sp. 1	0.001	0.066	0	0.334	12
Halipteris sp.	0.001	0.131	0	0.445	11
White encrusting sponge	0.001	0.197	0	0.503	11
Asterias rubens	0.001	0.131	0	0.398	10
<i>Pentametrocrinus atlanticus</i>	0.001	0.131	0	0.398	10
Sagartiidae sp. 1	0.001	0.197	0	0.486	9
<i>Anthothela grandiflora</i>	0.001	0.131	0	0.387	9
Alcyonacea sp. 4	0.001	0.131	0	0.342	9
Brsingida sp.	0.001	0.131	0	0.426	9
Leiopathes sp. 2	0.001	0.131	0	0.375	7
Porifera massive lobose sp. 3	0.001	0.131	0	0.478	6
<i>Brsingella coronata / Brisinga endecacnemos</i>	0.001	0.131	0	0.313	6
Actiniaria sp. 8	0.001	0.131	0	0.313	6
Antipatharia sp. 6	0.001	0.066	0	0.255	6
Ophiuroidea sp. 10	0.001	0.066	0	0.255	6
Antipatharia sp. 7	0.001	0.131	0	0.297	5
Porifera massive lobose sp. 6	0.001	0.131	0	0.334	4
<i>Pennatula phosphorea</i>	0.001	0.131	0	0.279	4
Echinus acutus	0.001	0.066	0	0.211	4
Porifera lamellate sp. 9	0.001	0.066	0	0.211	4
<i>Henricia sanguinolenta</i>	0.001	0.066	0	0.184	3
Gorgonacea sp. 6	0.001	0.066	0	0.184	3
Porifera cup sp. 2	0.001	0.066	0	0.184	3
Porifera massive lobose sp. 16	0.001	0.263	0	0.452	3
Caryophyllia sp. 3	0.001	0.066	0	0.151	2
Gorgonacea sp. 1	0.001	0.066	0	0.151	2
Porifera massive globose sp. 3	0.001	0.066	0	0.151	2
<i>Stichastrella rosea</i>	0.001	0.131	0	0.239	2
<i>Psolus squamatus</i>	0.001	0.066	0	0.151	2
<i>Porania pulvillus</i>	0.001	0.066	0	0.151	2
Acanella sp. 1	0.001	0.131	0	0.239	2
Isididae sp. 1	0.001	0.066	0	0.151	2
<i>Virgularia mirabilis</i>	0.001	0.066	0	0.151	2
Anemone	0.001	0.066	0	0.151	2
Porifera massive lobose sp. 2	0.001	0.066	0	0.107	1
Porifera massive lobose sp. 5	0.001	0.066	0	0.107	1
<i>Calveriosoma fenestratum</i>	0.001	0.131	0	0.214	1
Porifera lamellate sp. 4	0.002	0.197	0	0.322	1
Actiniaria sp. 6	0.001	0.066	0	0.107	1
Gorgonacea sp. 5	0.001	0.066	0	0.107	1
<i>Syringammina fragillissima</i>	0.001	0.066	0	0.107	1
Leiopathes sp. 1	0.001	0.066	0	0.107	1
Primnoidae sp.	0.001	0.066	0	0.103	1
<i>Pheronema carpenteri</i>	0.001	0.066	0	0.107	1
Mysida sp. 2	0.001	0.131	0	0.214	1
<i>Actinauge richardi</i>	0.001	0.066	0	0.107	1
Lepidisis sp.	0.001	0.066	0	0.107	1
Bathypathes sp. 2	0.001	0.066	0	0.107	1
Porifera massive lobose sp. 22	0.001	0.066	0	0.107	1
Gorgonacea sp. 16	0.001	0.066	0	0.103	1

d8. *Lophelia pertusa*, caryophyllids, antipatharians and sponges on hard substratum

SIMPROF analyses identified 82 10m samples from 4 transects of this assemblage covering a total area of 1247.2m<sup>2</sup> at an average depth of 1505.4m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 51%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0229.

This assemblage was recorded predominately on bedrock substrates interspersed by areas of sandy gravel, pebbles, cobbles and some coral rubble. The majority of live coral and associated species were observed on hard substrates. This assemblage comprised of the visually identified biotopes *Lophelia pertusa*, soft corals and sponges on mixed substrates, *Lophelia pertusa*, antipatharians and crinoids on bedrock and mixed substrates and predominantly dead, low lying coral rubble. Coral garden characterizing species were observed to be patchily distributed over a large area but found, particularly on bedrock ridges and on larger hard substrate formations interspersed by areas of mixed sand and gravel substrate, in relatively high abundances where present. Densities of reef forming corals again exceed the density of non reef forming species within this assemblage.

Assemblage d8						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
Blue encrusting sponge	*	0.009	2.170	1	6.013	100
Green encrusting sponge	*	0.013	3.550	2	11.262	100
<i>Lophelia pertusa</i>	*	0.005	1.775	0	4.912	71
Yellow encrusting sponge	*	0.003	0.789	0	2.911	71
Caryophyllia sp. 2	*	0.002	1.249	0	3.014	63
<i>Madrepora oculata</i>	*	0.003	0.789	0	2.698	48
<i>Psolus squamatus</i>		0.002	0.329	0	1.108	30
<i>Phakellia ventilabrum</i>		0.002	0.394	0	1.184	28
Porifera massive globose sp. 4		0.001	0.197	0	0.618	22
Lepidisis sp.		0.002	0.263	0	0.925	20
Bathypathes sp. 2		0.001	0.197	0	0.629	20
Porifera massive lobose sp. 18		0.001	0.197	0	0.718	20
<i>Ophiomusium lymani</i>		0.002	0.263	0	0.962	17
Brisingida sp.		0.001	0.131	0	0.400	15
Grey encrusting sponge		0.001	0.197	0	0.609	15
White encrusting sponge		0.001	0.263	0	0.672	15
<i>Pentametrocrinus atlanticus</i>		0.001	0.131	0	0.389	13
<i>Syringammina fragillissima</i>		0.002	0.394	0	0.890	12
<i>Koehlermetra porrecta</i>		0.001	0.131	0	0.457	12
Halopteris sp.		0.002	0.394	0	0.828	11
Actinaria sp. 4		0.001	0.131	0	0.352	10
<i>Anthomastus grandiflorus</i>		0.001	0.066	0	0.299	10
Porifera branching-erect sp. 1		0.001	0.131	0	0.465	9
Porifera cup sp. 3		0.001	0.131	0	0.322	7
Cerianthidae sp. 1		0.001	0.263	0	0.521	6

Isididae sp. 1	0.001	0.131	0	0.306	6
<i>Kophobelemnon stelliferum</i>	0.001	0.131	0	0.358	6
Keratoisis sp. 2	0.001	0.131	0	0.306	6
Anemone	0.001	0.197	0	0.391	6
Actiniaria sp. 1	0.001	0.066	0	0.217	5
Velatida sp. 1	0.001	0.066	0	0.217	5
Mysida sp. 2	0.001	0.131	0	0.287	5
<i>Coryphaenoides rupestris</i>	0.001	0.066	0	0.217	5
Antipatharia sp. 6	0.001	0.131	0	0.344	5
Ophiuroidea sp. 1	0.002	0.263	0	0.558	4
Echinus spp.	0.001	0.066	0	0.189	4
Gorgonacea (dead)	0.001	0.066	0	0.189	4
<i>Anthothela grandiflora</i>	0.001	0.131	0	0.328	4
Keratoisis sp. 1	0.001	0.066	0	0.189	4
<i>Echinus acutus</i>	0.001	0.066	0	0.189	4
Stichopathes sp.	0.001	0.131	0	0.328	4
Porifera lamellate sp. 10	0.001	0.066	0	0.189	4
Gorgonacea sp. 16	0.001	0.131	0	0.268	4
Cream encrusting sponge	0.002	0.263	0	0.502	4
Porifera massive lobose sp. 6	0.002	0.131	0	0.310	2
Crinoidea sp. 1	0.001	0.066	0	0.155	2
Alcyonacea sp. 4	0.001	0.066	0	0.155	2
Porifera cup sp. 2	0.001	0.066	0	0.155	2
Antipatharia sp. 4	0.001	0.131	0	0.246	2
Ophiuroidea sp. 10	0.001	0.066	0	0.155	2
Keratoisis sp. 3	0.001	0.066	0	0.155	2
<i>Asconema setubalense</i>	0.001	0.066	0	0.155	2
Sagartiidae sp. 1	0.001	0.066	0	0.110	1
Porifera massive lobose sp. 3	0.001	0.066	0	0.110	1
Serpulidae sp. 1	0.002	0.131	0	0.221	1
Porifera boring sp. 1	0.001	0.066	0	0.110	1
Mysida sp. 1	0.001	0.066	0	0.110	1
Sagartiidae sp. 4	0.001	0.066	0	0.110	1
<i>Calveriosoma fenestratum</i>	0.001	0.066	0	0.110	1
<i>Stichastrella rosea</i>	0.001	0.066	0	0.110	1
<i>Heliometra glacialis</i>	0.001	0.066	0	0.110	1
Drifa sp. 1	0.001	0.066	0	0.110	1
<i>Asterias rubens</i>	0.001	0.066	0	0.110	1
Phelliactis sp. 1	0.001	0.066	0	0.110	1
Gorgonacea sp. 5	0.002	0.131	0	0.221	1
<i>Callogorgia verticillata</i>	0.001	0.066	0	0.110	1
Gorgonacea sp. 6	0.001	0.066	0	0.110	1
Pterasteridae sp. 1	0.001	0.066	0	0.110	1
Actiniaria sp. 8	0.001	0.066	0	0.110	1
Crinoidea sp. 2	0.001	0.066	0	0.110	1
Stylaster sp. 1	0.001	0.066	0	0.110	1
Ophiuroidea sp. 8	0.001	0.066	0	0.110	1
<i>Virgularia mirabilis</i>	0.001	0.066	0	0.110	1
<i>Pennatula phosphorea</i>	0.001	0.066	0	0.110	1
<i>Actinauge richardi</i>	0.001	0.066	0	0.110	1
<i>Solaster endeca</i>	0.001	0.066	0	0.110	1
Crinoidea sp. 8	0.001	0.066	0	0.110	1
Gorgonacea sp. 15	0.001	0.066	0	0.110	1
Porifera massive lobose sp. 23	0.001	0.066	0	0.110	1
Porifera lamellate sp. 11	0.001	0.066	0	0.110	1
1004	0.001	0.066	0	0.110	1
Orange encrusting sponge	0.001	0.066	0	0.110	1
Purple encrusting sponge	0.001	0.066	0	0.110	1

#### d9. Caryophyllids and sponges on mixed substratum

SIMPROF analyses identified 114 10m samples from 10 transects of this assemblage covering a total area of 1733.92m<sup>2</sup> at an average depth of 1342.3m.

Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 31.89%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.012.

This assemblage was recorded predominately on bedrock and mixed substrates with some areas of sandy gravel, pebbles, cobbles and coral rubble. The majority of live coral and associated species were observed on hard substrates: bedrock, boulders and mixed pebbles and cobbles. This assemblage predominantly comprised of the visually identified biotopes *Lophelia pertusa*, soft corals and sponges on mixed substrates and *Psolus*, caryophyllids and lamellate sponges on mixed and boulder substrates. Patchily distributed over a large area, but in relatively high abundances where present non-reef forming coral garden characterizing species exceed the overall density of reef forming species in this assemblage and meet the minimum density criteria of the working definition. The high density and characterization of this assemblage by predominately sponge species, indicated by SIMPER analysis, however requires further investigation.

Species	Assemblage d9					% Samples in which species occurs
	Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)		
Caryophyllia sp. 2	*	0.002	0.789	0	2.745	75
Blue encrusting sponge	*	0.002	1.315	0	3.462	74
<i>Phakellia ventilabrum</i>	*	0.002	0.723	0	2.361	61
Green encrusting sponge	*	0.001	0.657	0	1.562	29
Porifera lamellate sp. 10	*	0.002	0.526	0	1.736	25
Porifera massive lobose sp. 6		0.001	0.394	0	0.923	20
White encrusting sponge		0.001	0.723	0	1.403	20
Velatida sp. 1		0.001	0.131	0	0.488	18
Yellow encrusting sponge		0.001	0.131	0	0.483	17
<i>Pentametrocrinus atlanticus</i>		0.001	0.197	0	0.587	14
<i>Lophelia pertusa</i>		0.001	0.329	0	0.604	11
<i>Syringammina fragillissima</i>		0.001	0.263	0	0.579	11
<i>Asconema setubalense</i>		0.001	0.197	0	0.584	11
Antipatharia sp. 6		0.001	0.131	0	0.325	9
Cream encrusting sponge		0.001	0.131	0	0.361	9
Mysida sp. 2		0.001	0.197	0	0.376	8
<i>Anthomastus grandiflorus</i>		0.001	0.131	0	0.302	7
Anemone		0.001	0.131	0	0.289	6
Stylaster sp. 1		0.001	0.131	0	0.275	5
<i>Coryphaenoides rupestris</i>		0.001	0.066	0	0.224	5
Grey encrusting sponge		0.001	0.197	0	0.486	5
Actiniaria sp. 1		0.001	0.066	0	0.206	4
<i>Asterias rubens</i>		0.001	0.131	0	0.261	4
Porifera lamellate sp. 9		0.001	0.066	0	0.206	4
Antipatharia sp. 7		0.001	0.131	0	0.261	4
Porifera massive globose sp. 4		0.001	0.066	0	0.185	4
Sagartiidae sp. 1		0.001	0.066	0	0.161	3
Caryophyllia sp. 3		0.002	0.394	0	0.576	3
Echinus spp.		0.001	0.066	0	0.161	3
<i>Stichastrella rosea</i>		0.001	0.066	0	0.161	3
<i>Madrepora oculata</i>		0.001	0.131	0	0.228	3
Isidiidae sp. 1		0.001	0.066	0	0.161	3
<i>Pheronema carpenteri</i>		0.001	0.131	0	0.279	3
<i>Echinus acutus</i>		0.001	0.066	0	0.161	3
Porifera massive lobose sp. 18		0.001	0.131	0	0.228	3
Ophiuroidea sp. 10		0.001	0.131	0	0.279	3
Cerianthidae sp. 1		0.001	0.066	0	0.132	2
Actiniaria sp. 4		0.001	0.066	0	0.132	2
Porifera cup sp. 3		0.001	0.066	0	0.132	2
Porifera massive lobose sp. 8		0.001	0.131	0	0.209	2

<i>Henricia sanguinolenta</i>	0.001	0.066	0	0.132	2
<i>Cidaris cidaris</i>	0.001	0.066	0	0.132	2
Ceramaster/Peltaster/Plinthaster sp. 1	0.001	0.066	0	0.132	2
Phelliactis sp. 1	0.001	0.131	0	0.209	2
Porifera branching-erect sp. 1	0.001	0.066	0	0.132	2
<i>Leptometra celtica</i>	0.001	0.066	0	0.132	2
Bathypathes sp. 2	0.001	0.066	0	0.132	2
<i>Gastroptychus formosus</i>	0.001	0.131	0	0.209	2
Leiopathes sp. 2	0.001	0.066	0	0.132	2
Porifera massive lobose sp. 24	0.001	0.066	0	0.132	2
Edwardsiidae sp. 1	0.001	0.066	0	0.094	1
Porifera spherical sp. 1	0.001	0.066	0	0.094	1
Porifera massive lobose sp. 3	0.001	0.066	0	0.094	1
Ophiuroidea sp. 1	0.001	0.066	0	0.094	1
Gorgonacea sp. 1	0.001	0.066	0	0.094	1
Hydrozoa (bushy)	0.001	0.066	0	0.094	1
Porifera massive lobose sp. 5	0.001	0.066	0	0.094	1
Gersemia sp. 2	0.001	0.066	0	0.094	1
<i>Crossaster papposus</i>	0.001	0.066	0	0.094	1
Pliobothrus sp.	0.001	0.131	0	0.187	1
Echiura sp. 1	0.002	0.197	0	0.281	1
<i>Heliometra glacialis</i>	0.001	0.066	0	0.094	1
Caridea sp. 1	0.001	0.066	0	0.094	1
<i>Bonellia viridis</i>	0.001	0.066	0	0.094	1
Gorgonacea (dead)	0.001	0.066	0	0.094	1
<i>Brisingella coronata</i> / <i>Brisinga endecacnemos</i>	0.001	0.066	0	0.094	1
Echinoidea sp. 1	0.001	0.066	0	0.094	1
Stichopathes cf. gravieri	0.001	0.066	0	0.094	1
Crinoidea sp. 2	0.001	0.066	0	0.094	1
Porifera cup sp. 1	0.001	0.066	0	0.094	1
Benthogone sp.	0.001	0.066	0	0.094	1
<i>Actinauge richardi</i>	0.001	0.066	0	0.094	1
<i>Hippasteria phrygiana</i>	0.001	0.066	0	0.094	1
Ophiomusium lymani	0.001	0.066	0	0.094	1
Brisingida sp.	0.001	0.066	0	0.094	1
Keratoisis sp. 1	0.001	0.131	0	0.187	1
Keratoisis sp. 2	0.001	0.066	0	0.094	1
Actiniaria sp. 18	0.001	0.066	0	0.094	1
Porifera massive lobose sp. 23	0.001	0.066	0	0.094	1
Porifera branching-erect sp. 3	0.001	0.066	0	0.094	1
Annelida sp. 3	0.001	0.066	0	0.094	1
Purple encrusting sponge	0.001	0.066	0	0.094	1

#### d10. Gorgonian dominated coral garden on dead *Lophelia pertusa* frameworks and coral rubble

SIMPROF analyses identified 48 10m samples from 1 transect of this assemblage covering a total area of 730.08m<sup>2</sup> at an average depth of 1516.7m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 46.6%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0064.

This assemblage was recorded predominantly from coral rubble substrate and was described as a gorgonian dominated “coral garden” upon review of the video. Gorgonian species were observed in high densities on coral rubble and associated coral species were observed on bedrock and coral rubble interspersed with areas of gravel and sand.

Assemblage d10						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
<i>Lophelia pertusa</i>	*	0.011	2.367	0	5.967	98
Blue encrusting sponge	*	0.008	1.118	0	4.594	90
Gorgonacea sp. 6	*	0.014	1.381	0	6.506	85
Gorgonacea sp. 16	*	0.004	0.592	0	2.107	81
<i>Madrepora oculata</i>	*	0.006	1.118	0	3.917	71
<i>Koehlermetra porrecta</i>	*	0.003	0.329	0	1.336	67
<i>Calveriosoma fenestratum</i>	*	0.004	0.460	0	1.989	52
Keratoisis sp. 2	*	0.003	0.329	0	1.292	44
Isididae sp. 1		0.005	0.723	0	2.590	29
Lepidisis sp.		0.002	0.263	0	0.989	29
Keratoisis sp. 3		0.002	0.131	0	0.676	29
Brisingida sp.		0.001	0.131	0	0.494	25
<i>Callogorgia verticillata</i>		0.004	0.592	0	1.718	23
Porifera massive lobose sp. 18		0.054	5.128	0	20.184	23
Grey encrusting sponge		0.002	0.394	0	1.026	23
Antipatharia sp. 4		0.002	0.263	0	0.713	21
Green encrusting sponge		0.006	1.118	0	2.734	21
Yellow encrusting sponge		0.003	0.394	0	1.304	21
Gorgonacea sp. 15		0.002	0.197	0	0.719	19
<i>Phakellia ventilabrum</i>		0.002	0.131	0	0.504	17
Caryophyllia sp. 2		0.002	0.329	0	0.812	15
Gorgonacea (dead)		0.002	0.131	0	0.592	15
<i>Actinauge richardi</i>		0.002	0.131	0	0.491	15
<i>Ophiomusium lymani</i>		0.003	0.394	0	1.059	15
Primnoidae sp.		0.003	0.394	0	0.905	13
Porifera massive globose sp. 3		0.003	0.197	0	0.683	10
Porifera massive lobose sp. 6		0.002	0.131	0	0.444	8
<i>Henricia sanguinolenta</i>		0.001	0.066	0	0.279	8
Anemone		0.002	0.131	0	0.371	8
Keratoisis sp. 1		0.003	0.197	0	0.618	6
Porifera massive lobose sp. 8		0.005	0.263	0	0.714	4
<i>Cidaris cidaris</i>		0.001	0.066	0	0.202	4
Cyclostomatida sp. 4		0.001	0.066	0	0.202	4
Acanella sp. 1		0.001	0.066	0	0.202	4
<i>Pennatula phosphorea</i>		0.001	0.066	0	0.202	4
Gorgonacea sp. 12		0.002	0.131	0	0.320	4
Purple encrusting sponge		0.002	0.131	0	0.320	4
Red encrusting sponge		0.001	0.066	0	0.202	4
White encrusting sponge		0.001	0.066	0	0.202	4
Cerianthidae sp. 1		0.001	0.066	0	0.144	2
Porifera massive lobose sp. 3		0.001	0.066	0	0.144	2
Porifera massive globose sp. 4		0.001	0.066	0	0.144	2
Porifera cup sp. 3		0.001	0.066	0	0.144	2
<i>Brisingella coronata</i> / <i>Brisinga endecacnemos</i>		0.001	0.066	0	0.144	2

Parantipathes sp.	0.001	0.066	0	0.144	2
<i>Placogorgia graciosa</i>	0.001	0.066	0	0.144	2
Bathypathes sp. 2	0.001	0.066	0	0.144	2
<i>Coryphaenoides rupestris</i>	0.001	0.066	0	0.144	2
Holothuroidea sp. 2	0.003	0.131	0	0.289	2
<i>Anthoptilum grandiflorum</i>	0.001	0.066	0	0.144	2
Porifera massive lobose sp. 22	0.001	0.066	0	0.144	2
Porifera massive lobose sp. 24	0.001	0.066	0	0.144	2
Porifera massive globose sp. 13	0.001	0.066	0	0.144	2
1003	0.001	0.066	0	0.144	2
Cream encrusting sponge	0.001	0.066	0	0.144	2
White globose sponge	0.001	0.066	0	0.144	2

#### d11. *Lophelia pertusa*, soft corals and sponges on hard substratum and coral rubble

SIMPROF analyses identified 63 10m samples from 5 transects of this assemblage covering a total area of 958.2m<sup>2</sup> at an average depth of 1229.1m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 34.96%. . Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0041.

This assemblage was observed on bedrock and mixed sand and gravel substrates with some coral rubble and described visually as *Lophelia pertusa*, soft corals and sponges on mixed substrates and predominantly dead low lying coral rubble. This assemblage is characterised and dominated by the reef forming coral *Lophelia pertusa* which was observed to be present in 96.8% of the samples, providing habitat for associated coral garden characterising species present at lower densities and distributed patchily but at moderate densities where present.

Assemblage d11						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
<i>Lophelia pertusa</i>	*	0.007	1.841	0	5.739	97
Blue encrusting sponge	*	0.004	0.723	0	2.958	62
Brisingida sp.	*	0.001	0.263	0	0.777	30
<i>Koehlermetra porrecta</i>	*	0.002	0.394	0	1.299	27
<i>Pentametrocrinus atlanticus</i>	*	0.002	0.592	0	1.529	27
Yellow encrusting sponge		0.003	0.592	0	1.766	27
<i>Phakellia ventilabrum</i>		0.002	0.263	0	0.728	17
<i>Madrepora oculata</i>		0.004	1.052	0	2.267	17
Anemone		0.001	0.131	0	0.435	17
Porifera massive globose sp. 4		0.001	0.131	0	0.503	14
Lepidisis sp.		0.001	0.131	0	0.410	14
Gorgonacea (dead)		0.002	0.263	0	0.618	13
Antipatharia sp. 9		0.001	0.131	0	0.381	11
Keratoisis sp. 2		0.002	0.131	0	0.515	10

<i>Ophiomusium lymani</i>	0.001	0.066	0	0.272	8
Antipatharia sp. 6	0.001	0.066	0	0.272	8
<i>Henricia sanguinolenta</i>	0.001	0.131	0	0.326	6
<i>Coryphaenoides rupestris</i>	0.001	0.066	0	0.246	6
Green encrusting sponge	0.004	0.723	0	1.396	6
Caryophyllia sp. 2	0.001	0.066	0	0.215	5
<i>Heliometra glacialis</i>	0.001	0.131	0	0.304	5
<i>Brisingella coronata</i> / <i>Brisinga endecacnemos</i>	0.001	0.131	0	0.304	5
Echinus sp. 1	0.001	0.066	0	0.215	5
<i>Echinus acutus</i>	0.001	0.066	0	0.215	5
White encrusting sponge	0.001	0.131	0	0.304	5
Porifera massive lobose sp. 6	0.001	0.066	0	0.177	3
<i>Asterias rubens</i>	0.001	0.066	0	0.177	3
<i>Callogorgia verticillata</i>	0.001	0.066	0	0.177	3
Porifera branching-erect sp. 1	0.001	0.066	0	0.177	3
Parantipathes sp.	0.001	0.066	0	0.177	3
Gorgonacea sp. 12	0.001	0.066	0	0.177	3
Gorgonacea sp. 16	0.001	0.066	0	0.177	3
Actiniaria sp. 1	0.001	0.066	0	0.126	2
Porifera lamellate sp. 1	0.001	0.066	0	0.126	2
Porifera lamellate sp. 2	0.001	0.066	0	0.126	2
Crinoidea sp. 1	0.001	0.066	0	0.126	2
Porifera massive globose sp. 6	0.001	0.066	0	0.126	2
Gorgonacea sp. 5	0.001	0.066	0	0.126	2
<i>Syringammina fragillissima</i>	0.001	0.066	0	0.126	2
<i>Anthomastus grandiflorus</i>	0.001	0.066	0	0.126	2
Gorgonacea sp. 6	0.001	0.066	0	0.126	2
Pterasteridae sp. 1	0.001	0.066	0	0.126	2
Actiniaria sp. 8	0.001	0.066	0	0.126	2
Crinoidea sp. 2	0.001	0.066	0	0.126	2
Isididae sp. 1	0.001	0.066	0	0.126	2
Caryophyllidae sp. 2	0.001	0.066	0	0.126	2
Actiniaria sp. 16	0.001	0.066	0	0.126	2
Bathypathes sp. 2	0.002	0.131	0	0.252	2
Echinoidea sp. 5	0.001	0.066	0	0.126	2
Porifera massive lobose sp. 18	0.001	0.066	0	0.126	2
Crinoidea sp. 8	0.001	0.066	0	0.126	2
Porifera massive lobose sp. 24	0.001	0.066	0	0.126	2
Grey encrusting sponge	0.002	0.131	0	0.252	2

### d13. *Ophiomusium lymani*, Xenophyophores and ophiuroids on mixed substratum

SIMPROF analyses identified 120 10m samples from 11 transects of this assemblage covering a total area of 1825.2m<sup>2</sup> at an average depth of 1224.7m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 18.71%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0009.

This assemblage was observed across mixed soft and sandy gravel and areas of dead, low –lying coral rubble. Described visually as *Ophiomusium lymani* and



cerianthid anemones on mixed substrate and Xenophyophores and ophiuroids on mixed substrate.

Assemblage d13						
Species		Mean density (m2)	Max density (m2)	Min density (m2)	Standard deviation (abundance)	% Samples in which species occurs
Cerianthidae sp. 1	*	0.001	0.460	0	1.680	67
<i>Phakellia ventilabrum</i>	*	0.001	0.394	0	1.333	30
Echinus spp.	*	0.001	0.263	0	0.783	21
Gorgonian	*	0.001	0.263	0	0.879	20
Blue encrusting sponge	*	0.001	0.197	0	0.618	19
Phelliactis sp. 1	*	0.001	0.197	0	0.526	18
<i>Syringammina fragillissima</i>	*	0.001	0.394	0	1.005	16
Aphrocallistes sp.	*	0.002	1.841	0	3.028	16
Porifera massive globose sp. 4		0.001	0.263	0	0.710	13
Actiniaria sp. 1		0.001	0.197	0	0.569	13
<i>Cidaris cidaris</i>		0.001	0.197	0	0.429	11
Porifera spherical sp. 1		0.001	0.197	0	0.513	10
<i>Pheronema carpenteri</i>		0.002	0.394	0	0.966	9
Porifera massive globose sp. 9		0.001	0.197	0	0.523	8
<i>Calveriosoma fenestratum</i>		0.001	0.131	0	0.306	8
Cirripedia sp.		0.010	1.972	0	4.529	6
Cup sponge		0.001	0.131	0	0.357	6
Yellow encrusting sponge		0.001	0.330	0	0.634	6
Caryophyllia sp. 2		0.001	0.263	0	0.509	5
Ophiuroidea sp. 7		0.001	0.132	0	0.269	5
Mysida sp. 2		0.001	0.066	0	0.219	5
Actiniaria sp. 18		0.001	0.131	0	0.347	5
Ophiuroidea sp. 1		0.010	2.564	0	4.350	4
Porifera lamellate sp. 1		0.001	0.197	0	0.325	4
<i>Anthomastus grandiflorus</i>		0.001	0.066	0	0.201	4
<i>Pennatula phosphorea</i>		0.001	0.263	0	0.433	4
Caryophyllia sp. 3		0.001	0.132	0	0.239	3
Majidae sp. 2		0.002	0.394	0	0.719	3
<i>Munida tenuimana</i>		0.001	0.131	0	0.239	3
Benthogone sp.		0.001	0.131	0	0.286	3
<i>Brisingella coronata</i> / <i>Brisinga endecacnemos</i>		0.002	0.394	0	0.582	3
<i>Pentametrocrinus atlanticus</i>		0.001	0.197	0	0.395	3
<i>Ophiomusium lymani</i>		0.001	0.066	0	0.157	3
Anemone		0.001	0.263	0	0.386	3
Pterasteridae sp. 2		0.001	0.066	0	0.129	2
<i>Munida sarsi</i>		0.001	0.131	0	0.203	2
<i>Astropecten irregularis</i>		0.001	0.066	0	0.129	2
Caridea sp. 1		0.001	0.066	0	0.129	2
<i>Madrepora oculata</i>		0.001	0.066	0	0.129	2
Actiniaria sp. 10		0.001	0.066	0	0.129	2
Porifera lamellate sp. 6		0.001	0.131	0	0.203	2
Decapod		0.001	0.066	0	0.129	2
Lobose sponge		0.001	0.197	0	0.288	2
<i>Bolocera tuediae</i>		0.002	0.197	0	0.274	1
Sagartiidae sp. 1		0.001	0.066	0	0.091	1
Sagartiidae sp. 3		0.001	0.066	0	0.091	1
Porifera lamellate sp. 2		0.001	0.066	0	0.091	1
Actiniaria sp. 4		0.001	0.066	0	0.091	1
Colus sp. 2		0.001	0.066	0	0.091	1
Porifera cup sp. 3		0.001	0.066	0	0.091	1
Crinoidea sp. 1		0.001	0.066	0	0.091	1
<i>Crossaster papposus</i>		0.001	0.066	0	0.091	1
Sagartiidae sp. 4		0.002	0.197	0	0.274	1
Cyclostomatida sp. 3		0.001	0.066	0	0.091	1
<i>Stichastrella rosea</i>		0.001	0.066	0	0.091	1
<i>Heliometra glacialis</i>		0.001	0.066	0	0.091	1
Ceramaster/Peltaster/Plinthaster sp. 1		0.001	0.066	0	0.091	1
<i>Lophelia pertusa</i>		0.002	0.197	0	0.274	1
<i>Parastichopus tremulus</i>		0.001	0.066	0	0.091	1
Stichopathes cf. gravieri		0.001	0.066	0	0.091	1
Parantipathes sp.		0.001	0.066	0	0.091	1

Crinoidea sp. 2	0.001	0.131	0	0.183	1
Porifera spherical sp. 3	0.001	0.066	0	0.091	1
<b>Kophobelemnion stelliferum</b>	0.001	0.066	0	0.091	1
<i>Actinauge richardi</i>	0.001	0.066	0	0.091	1
Porifera lamellate sp. 10	0.001	0.066	0	0.091	1
<b>Antipatharia sp. 7</b>	0.001	0.066	0	0.091	1
Gastropod	0.001	0.066	0	0.091	1
White encrusting sponge	0.001	0.066	0	0.091	1

## d15. Caryophyllids and Xenophyophores on sand and gravel substratum

SIMPROF analyses identified 401 10m samples from 9 transects of this assemblage covering a total area of 6099.2m<sup>2</sup> at an average depth of 1346.2m. Analysis of this cluster with the SIMPER routine revealed average similarity within the assemblage to be 44.81%. Across the total area of this assemblage the average density of species characteristic of coral gardens (number of colonies per m<sup>2</sup>) was 0.0022.

This assemblage was observed across mixed soft and sandy gravel substrates and bedrock. Described visually Xenophyophores and ophiuroids on mixed substrate the assemblage was dominated by *Syringammina fragillissima* and *Caryophyllia* sp. 2.

Assemblage d15						
Species		Mean density (m <sup>2</sup> )	Max density (m <sup>2</sup> )	Min density (m <sup>2</sup> )	Standard deviation (abundance)	% Samples in which species occurs
<i>Syringammina fragillissima</i>	*	0.002	4.931	0	9.845	98
<b>Caryophyllia sp. 2</b>	*	0.003	20.907	0	30.132	63
Cerianthidae sp. 1		0.001	2.235	0	2.994	30
<b>Pennatula phosphorea</b>		0.001	1.709	0	2.751	17
<i>Pheronema carpenteri</i>		0.000	1.446	0	1.517	15
Caridea sp. 1		0.000	0.197	0	0.458	9
<b>Blue encrusting sponge</b>		0.000	0.394	0	0.606	9
<b>Halipteris sp.</b>		0.000	0.263	0	0.542	8
Actiniaria sp. 1		0.000	0.394	0	0.425	6
Porifera massive globose sp. 4		0.000	0.131	0	0.243	5
<i>Ophiomusium lymani</i>		0.000	0.197	0	0.294	5
<b>Green encrusting sponge</b>		0.000	0.263	0	0.434	4
Echinoidea sp. 1		0.000	0.131	0	0.219	4
Ophiuroidea sp. 10		0.000	0.197	0	0.310	4
<b>White encrusting sponge</b>		0.000	0.263	0	0.423	4
<i>Bonellia viridis</i>		0.000	0.197	0	0.337	4
Brisingida sp.		0.000	0.131	0	0.282	4
Mysida sp. 2		0.000	0.131	0	0.203	3
<b>Yellow encrusting sponge</b>		0.000	0.131	0	0.236	3
<b>Caryophyllia sp. 3</b>		0.000	0.131	0	0.197	3
<i>Calveriosoma fenestratum</i>		0.000	0.131	0	0.215	3
<i>Phakellia ventilabrum</i>		0.000	0.329	0	0.393	3
<i>Cidaris cidaris</i>		0.000	0.197	0	0.275	3
Benthogone sp.		0.000	0.066	0	0.171	3
<i>Solaster endeca</i>		0.000	0.066	0	0.164	3
Actiniaria sp. 18		0.000	0.197	0	0.210	2
Porifera boring sp. 1		0.000	0.526	0	0.453	2
<i>Asterias rubens</i>		0.000	0.131	0	0.179	2
<i>Coryphaenoides rupestris</i>		0.000	0.066	0	0.131	2
<b>Caryophyllia sp. 5</b>		0.000	0.131	0	0.149	1
<b>Anemone</b>		0.000	0.131	0	0.192	1
<i>Echinus acutus</i>		0.000	0.197	0	0.199	1
Holothuroidea sp. 2		0.000	0.066	0	0.111	1
<i>Psolus squamatus</i>		0.000	0.066	0	0.099	1
Echinoidea sp. 3		0.000	0.066	0	0.099	1
Majidae sp. 1		0.000	0.066	0	0.086	1

<i>Anthomastus grandiflorus</i>	0.000	0.197	0	0.165	1
<i>Leptometra celtica</i>	0.000	0.066	0	0.086	1
<i>Kophobelemnon stelliferum</i>	0.000	0.066	0	0.086	1
<b>Cream encrusting sponge</b>	0.000	0.066	0	0.086	1
<b>Grey encrusting sponge</b>	0.000	0.131	0	0.122	1
Porifera massive lobose sp. 2	0.000	0.066	0	0.071	0
Ophiuroidea sp. 1	0.000	0.131	0	0.112	0
Porifera massive globose sp. 1	0.000	0.066	0	0.071	0
Porifera massive globose sp. 3	0.000	0.066	0	0.071	0
Porifera massive lobose sp. 6	0.000	0.066	0	0.071	0
Mysida sp. 1	0.000	0.066	0	0.071	0
<b>Stylasteridae sp. 1</b>	0.000	0.066	0	0.071	0
Echinus spp.	0.000	0.066	0	0.071	0
Velatida sp. 1	0.000	0.066	0	0.071	0
<b>Lophelia pertusa</b>	0.000	0.131	0	0.112	0
<b>Octocorallia sp. 1</b>	0.000	0.066	0	0.071	0
Crinoidea sp. 2	0.000	0.066	0	0.071	0
<i>Pentametrocrinus atlanticus</i>	0.000	0.131	0	0.112	0
<i>Pachycerianthus multiplicatus</i>	0.000	0.066	0	0.071	0
<i>Actinauge richardi</i>	0.000	0.066	0	0.071	0
<i>Mesothuria intestinalis</i>	0.000	0.066	0	0.071	0
Porifera massive lobose sp. 18	0.000	0.066	0	0.071	0
Porifera spherical sp. 1	0.000	0.066	0	0.050	0
Porifera massive lobose sp. 3	0.000	0.066	0	0.050	0
<i>Pandalus borealis</i>	0.000	0.066	0	0.050	0
Ophiuroidea sp. 2	0.000	0.066	0	0.050	0
Porifera massive globose sp. 2	0.000	0.066	0	0.050	0
Porifera lamellate sp. 2	0.000	0.066	0	0.050	0
Serpulidae sp. 1	0.001	0.263	0	0.200	0
<b>Alcyonacea sp. 1</b>	0.000	0.066	0	0.050	0
Porifera cup sp. 3	0.000	0.066	0	0.050	0
<i>Crossaster papposus</i>	0.000	0.066	0	0.050	0
Porifera massive lobose sp. 8	0.000	0.066	0	0.050	0
<i>Stichastrella rosea</i>	0.000	0.066	0	0.050	0
Paguridae spp	0.000	0.066	0	0.050	0
Candelabrum sp. 1	0.000	0.066	0	0.050	0
<b>Gorgonacea sp. 5</b>	0.000	0.066	0	0.050	0
Porifera branching-erect sp. 1	0.000	0.066	0	0.050	0
Pterasteridae sp. 1	0.000	0.066	0	0.050	0
<i>Paromola cuvieri</i>	0.000	0.066	0	0.050	0
Porifera spherical sp. 3	0.000	0.066	0	0.050	0
<i>Munida tenuimana</i> 377	0.000	0.066	0	0.050	0
<i>Plutonaster bifrons</i>	0.000	0.131	0	0.100	0
Echinus sp. 1	0.000	0.066	0	0.050	0
Actiniaria sp. 14	0.000	0.066	0	0.050	0
Porifera cup sp. 2	0.000	0.066	0	0.050	0
<i>Spatangus raschi</i>	0.000	0.066	0	0.050	0
Actiniaria sp. 16	0.000	0.066	0	0.050	0
<b>Bathypathes sp. 2</b>	0.000	0.066	0	0.050	0
<b>Gorgonacea sp. 12</b>	0.000	0.066	0	0.050	0
<i>Hypsogastropoda</i>	0.000	0.066	0	0.050	0
Porifera massive lobose sp. 24	0.000	0.066	0	0.050	0
Porifera massive lobose sp. 25	0.000	0.197	0	0.150	0
Holothuroidea sp. 4	0.001	0.460	0	0.350	0
<b>Antipatharia sp. 7</b>	0.000	0.066	0	0.050	0
<i>Asconema setubalense</i>	0.000	0.066	0	0.050	0
<b>1004</b>	0.000	0.066	0	0.050	0
<b>1005</b>	0.000	0.066	0	0.050	0

<b>1006</b>	0.000	0.066	0	0.050	0
<b>Gorgonian</b>	0.000	0.066	0	0.050	0

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## Supplementary Table S2.

Metadata for identified potential coral garden areas.

Data set	SIMPROF Assemblage	Site Name	Transect Name	10m Sample Name	Latitude	Longitude	Average Depth	Substrate
Shallow	s5	HattonBank	HB_E-F#1	HB_E-F#1_49	58.949355	-17.697646	837	Gravel (Boulders & Cobbles)
Shallow	s5	HattonBank	HB_E-F#1	HB_E-F#1_50	58.94922	-17.697827	837	Gravel (Boulders & Cobbles)
Shallow	s5	HattonBank	HB_E-F#1	HB_E-F#1_51	58.949162	-17.697576	837	Gravel (Boulders & Cobbles)
Shallow	s5	HattonBank	HB_E-F#1	HB_E-F#1_52	58.949105	-17.697642	837	Gravel (Boulders & Cobbles)
Shallow	s5	HattonBank	HB_E-F#1	HB_E-F#1_53	58.94908	-17.697544	837	Gravel (Boulders & Cobbles)
Shallow	s5	HattonBank	HB_E-F#1	HB_E-F#1_58	58.948614	-17.697311	837	Gravel (Boulders & Cobbles)
Shallow	s5	HattonBank	HB_E-F#1	HB_E-F#1_59	58.948478	-17.697282	837	Gravel (Boulders & Cobbles)
Shallow	s5	HattonBank	HB_E-F#1	HB_E-F#1_60	58.948471	-17.697331	837	Gravel (Boulders & Cobbles)
Shallow	s5	HattonBank	HS_3_3	HS_3_3_71	57.789341	-13.124089	928	Gravel (Boulders & Cobbles)
Shallow	s5	HattonBank	HS_3_3	HS_3_3_72	57.789255	-13.124147	928	Gravel (Boulders & Cobbles)
Shallow	s6	HattonBank	HB_H#1	HB_H#1_13	59.162148	-17.105142	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_14	59.161977	-17.104869	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_15	59.161803	-17.104586	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_16	59.161638	-17.104418	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_17	59.161559	-17.104299	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_4	59.162738	-17.10583	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_5	59.162652	-17.105712	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_6	59.162629	-17.105666	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_7	59.16268	-17.105607	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_8	59.162619	-17.105626	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_9	59.162545	-17.105554	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_10	59.162421	-17.105488	491	Bedrock
Shallow	s6	HattonBank	HB_H#1	HB_H#1_11	59.162243	-17.105233	491	Bedrock
Shallow	s6	HattonBank	HB_M#1	HB_M#1_7	58.758172	-18.07623	538	Gravel (Boulders & Cobbles)
Shallow	s6	HattonBank	HB_M#1	HB_M#1_8	58.758147	-18.076053	538	Gravel (Boulders & Cobbles)
Shallow	s6	HattonBank	HB_M#1	HB_M#1_9	58.758094	-18.076016	538	Gravel (Boulders & Cobbles)
Shallow	s6	HattonBank	HB_M#1	HB_M#1_29	58.756826	-18.073258	562	Bedrock
Shallow	s6	HattonBank	HB_M#1	HB_M#1_30	58.756576	-18.073104	562	Bedrock
Shallow	s6	HattonBank	HB_M#1	HB_M#1_32	58.756418	-18.072852	562	Bedrock
Shallow	s6	HattonBank	HB_M#1	HB_M#1_33	58.756349	-18.072632	562	Bedrock
Shallow	s6	AntonDohrn	SAMS_Geo1#1	SAMS_Geo1#1_3	57.465934	-10.834137	810	Sandy Gravel (Pebbles & Cobbles)
Shallow	s6	AntonDohrn	SAMS_Geo1#1	SAMS_Geo1#1_4	57.46594	-10.834094	811	Sandy Gravel (Pebbles & Cobbles)
Shallow	s10	HattonBank	HB_N#1	HB_N#1_38	58.819573	-17.951516	585	Gravel (Coral Rubble)

Shallow	s10	HattonBank	HB_N#1	HB_N#1_39	58.819607	-17.951576	582	Gravel (Coral Rubble)
Shallow	s10	HattonBank	HS_C5	HS_C5_15	57.970589	-17.597885	589	Bedrock
Shallow	s10	HattonBank	HS_C5	HS_C5_16	57.97051	-17.597846	589	Bedrock
Shallow	s10	HattonBank	HS_C5	HS_C5_24	57.970002	-17.597892	599	Gravel (Coral Rubble)
Shallow	s10	HattonBank	HS_C5	HS_C5_25	57.969902	-17.597928	599	Gravel (Coral Rubble)
Shallow	s10	HattonBank	HS_C5	HS_C5_26	57.969779	-17.597946	599	Gravel (Coral Rubble)
Shallow	s10	HattonBank	HS_C5	HS_C5_27	57.9697	-17.597942	599	Gravel (Coral Rubble)
Shallow	s10	HattonBank	HS_C5	HS_C5_28	57.969598	-17.597929	599	Gravel (Coral Rubble)
Shallow	s42	HattonBank	HT_C2	HT_C2_24	59.130566	-16.741574	616	Gravel (Coral Rubble)
Shallow	s42	HattonBank	HT_C2	HT_C2_25	59.130479	-16.741525	618	Gravel (Coral Rubble)
Shallow	s42	HattonBank	HT_C2	HT_C2_26	59.130388	-16.741482	618	Gravel (Coral Rubble)
Shallow	s42	HattonBank	HT_C2	HT_C2_27	59.130299	-16.74143	618	Gravel (Coral Rubble)
Shallow	s42	HattonBank	HT_C2	HT_C2_28	59.130199	-16.741376	619	Gravel (Coral Rubble)
Shallow	s42	HattonBank	HT_C2	HT_C2_29	59.130113	-16.741325	620	Gravel (Coral Rubble)
Shallow	s42	HattonBank	HT_C2	HT_C2_46	59.12857	-16.740564	665	Gravel (Boulders & Cobbles)
Shallow	s42	HattonBank	HT_C2	HT_C2_47	59.128482	-16.740501	665	Gravel (Boulders & Cobbles)
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_84	57.577675	-11.397507	1739	Gravel (Coral Rubble)
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_85	57.577736	-11.39739	1740	Gravel (Coral Rubble)
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_90	57.578057	-11.396762	1736	Gravel (Coral Rubble)
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_91	57.578153	-11.39658	1735	Gravel (Coral Rubble)
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_92	57.578197	-11.396515	1734	Gravel (Coral Rubble)
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_95	57.578569	-11.395963	1729	Bedrock
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_96	57.578532	-11.395895	1733	Bedrock
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_97	57.578553	-11.395857	1736	Bedrock
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_184	57.584395	-11.385648	1726	Gravel (Coral Rubble)
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_185	57.584442	-11.385574	1725	Gravel (Coral Rubble)
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_196	57.585344	-11.384206	1718	Bedrock
Deep	d8	AntonDohrn	AD_DC_13	AD_DC_13_197	57.585398	-11.38411	1717	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_75	57.578489	-11.333848	1105	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_76	57.578577	-11.33398	1111	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_77	57.578643	-11.334097	1116	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_78	57.578694	-11.334157	1121	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_79	57.578765	-11.33423	1125	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_80	57.578832	-11.334315	1130	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_81	57.578893	-11.334422	1135	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_83	57.579034	-11.33467	1143	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_84	57.579108	-11.3348	1148	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_85	57.579175	-11.33489	1153	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_86	57.579242	-11.334944	1158	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_88	57.579364	-11.335155	1166	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_89	57.579425	-11.335213	1171	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_90	57.579485	-11.335303	1176	Bedrock

Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_93	57.57971	-11.335636	1190	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_94	57.579768	-11.335727	1196	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_123	57.580054	-11.335413	1228	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_124	57.580105	-11.335539	1233	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_125	57.580172	-11.335648	1236	Bedrock
Deep	d9	AntonDohrn	AD_DC_12	AD_DC_12_126	57.580237	-11.335782	1239	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_02	57.616618	-11.223525	1220	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_03	57.616497	-11.223542	1222	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_05	57.616732	-11.223348	1226	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_06	57.616819	-11.223274	1230	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_09	57.616981	-11.222914	1240	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_10	57.617099	-11.222785	1243	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_11	57.617201	-11.222646	1246	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_12	57.61717	-11.222442	1250	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_14	57.61735	-11.222014	1258	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_15	57.617456	-11.221797	1262	Bedrock
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_16	57.617548	-11.221502	1270	Gravel (Coral Rubble)
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_17	57.61761	-11.221399	1278	Gravel (Coral Rubble)
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_19	57.617695	-11.221094	1319	Gravel (Coral Rubble)
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_20	57.617775	-11.221014	1328	Gravel (Coral Rubble)
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_21	57.617836	-11.220885	1334	Gravel (Coral Rubble)
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_31	57.618447	-11.219362	1370	Gravelly Sand (Pebbles)
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_32	57.618522	-11.219317	1372	Gravelly Sand (Pebbles)
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_34	57.618645	-11.219046	1376	Gravelly Sand (Pebbles)
Deep	d9	AntonDohrn	AD_DC_16	AD_DC_16_35	57.618688	-11.218876	1375	Gravelly Sand (Pebbles)
Deep	d9	AntonDohrn	AD_DC_8	AD_DC_8_86	57.454633	-10.713774	211	Bedrock
Deep	d9	AntonDohrn	AD_DC_8	AD_DC_8_87	57.45464	-10.713625	255	Bedrock
Deep	d9	EastRockall	ER_N_02	ER_N_02_95	58.473783	-14.060845	1127	Bedrock
Deep	d9	EastRockall	ER_N_02	ER_N_02_96	58.473821	-14.060821	1127	Bedrock
Deep	d10	AntonDohrn	AD_DC_13	AD_DC_13_15	57.575847	-11.409413	1451	Gravel (Coral Rubble)
Deep	d10	AntonDohrn	AD_DC_13	AD_DC_13_16	57.575863	-11.409209	1452	Gravel (Coral Rubble)
Deep	d10	AntonDohrn	AD_DC_13	AD_DC_13_22	57.57588	-11.408056	1471	Gravel (Coral Rubble)
Deep	d10	AntonDohrn	AD_DC_13	AD_DC_13_23	57.575889	-11.407835	1473	Gravel (Coral Rubble)
Deep	d10	AntonDohrn	AD_DC_13	AD_DC_13_24	57.575887	-11.4076	1476	Gravel (Coral Rubble)
Deep	d10	AntonDohrn	AD_DC_13	AD_DC_13_25	57.575898	-11.407429	1478	Gravel (Coral Rubble)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_109	57.579368	-11.394232	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_110	57.579439	-11.394154	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_111	57.579533	-11.394007	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_112	57.579525	-11.39369	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_113	57.579666	-11.393763	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_114	57.579704	-11.393561	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_115	57.579773	-11.393681	1768	Sandy Gravel (Pebbles & Cobbles)

Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_116	57.579876	-11.393233	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_117	57.579817	-11.393276	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_118	57.579896	-11.393266	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_119	57.579965	-11.393211	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_120	57.580032	-11.393043	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_121	57.580093	-11.392879	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_122	57.580163	-11.392749	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_123	57.580199	-11.392658	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_124	57.5802	-11.392579	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_125	57.580275	-11.392403	1769	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_126	57.580376	-11.392231	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_127	57.580414	-11.392287	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_128	57.580415	-11.392154	1768	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_129	57.580576	-11.392063	1767	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_130	57.580588	-11.391991	1767	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_131	57.580672	-11.391755	1767	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_132	57.580719	-11.391671	1766	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_133	57.580804	-11.391629	1766	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_134	57.580888	-11.39145	1766	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_135	57.580917	-11.391428	1766	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_136	57.580971	-11.391251	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_137	57.581075	-11.39133	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_138	57.581131	-11.391125	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_139	57.581185	-11.39105	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_140	57.581271	-11.390826	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_141	57.581262	-11.390574	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_142	57.58132	-11.390605	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_143	57.581433	-11.390507	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_144	57.581476	-11.390464	1764	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_145	57.581534	-11.390321	1764	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_146	57.581597	-11.390313	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_147	57.581715	-11.390122	1764	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_148	57.581759	-11.389935	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_149	57.581819	-11.38984	1765	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_150	57.581878	-11.3898	1764	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_151	57.581931	-11.389724	1764	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_152	57.581979	-11.38955	1764	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_153	57.582052	-11.389464	1763	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_154	57.582152	-11.389325	1763	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_155	57.582209	-11.389202	1763	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_156	57.58228	-11.389098	1762	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_157	57.582339	-11.388923	1762	Sandy Gravel (Pebbles & Cobbles)



Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_158	57.582429	-11.38892	1762	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_159	57.582493	-11.388774	1761	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_160	57.582528	-11.388673	1761	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_161	57.582586	-11.388539	1761	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_162	57.582682	-11.388495	1761	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_163	57.582726	-11.388276	1761	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_164	57.58279	-11.388215	1760	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_165	57.582886	-11.388044	1760	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_166	57.582957	-11.387888	1759	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_167	57.583056	-11.387886	1758	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_168	57.583105	-11.387764	1758	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_169	57.583166	-11.38762	1757	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_170	57.583249	-11.387412	1757	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_171	57.583336	-11.387329	1757	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_172	57.583473	-11.387042	1756	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_173	57.583621	-11.386915	1756	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_174	57.583714	-11.386828	1756	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_175	57.583701	-11.386733	1756	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_13	AD_DC_13_176	57.583742	-11.386633	1755	Sandy Gravel (Pebbles & Cobbles)
Deep	d15	AntonDohrn	AD_DC_16	AD_DC_16_28	57.618296	-11.219723	1365	Gravelly Sand (Pebbles)
Deep	d15	AntonDohrn	AD_DC_16	AD_DC_16_29	57.618361	-11.219623	1366	Gravelly Sand (Pebbles)
Deep	d15	AntonDohrn	AD_DC_16	AD_DC_16_30	57.618375	-11.219532	1368	Gravelly Sand (Pebbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_01	57.297287	-12.865353	1365	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_02	57.297521	-12.864956	1364	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_03	57.297679	-12.864659	1364	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_04	57.2978	-12.864406	1364	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_05	57.297842	-12.864262	1363	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_13	57.297021	-12.864261	1365	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_14	57.296944	-12.864332	1366	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_15	57.296892	-12.864354	1366	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_27	57.296043	-12.865533	1396	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_28	57.295949	-12.865693	1401	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_29	57.295895	-12.865785	1404	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_30	57.295799	-12.865869	1407	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_31	57.295715	-12.865972	1409	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_32	57.295634	-12.866127	1411	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_33	57.295568	-12.866215	1413	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_34	57.295419	-12.866362	1414	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_35	57.295344	-12.866498	1415	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_36	57.295271	-12.866552	1417	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_37	57.295229	-12.866585	1418	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_38	57.295164	-12.86673	1419	Gravel (Boulders & Cobbles)

Deep	d15	EastRockall	ER_C1_08	ER_C1_08_39	57.295053	-12.866772	1420	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_40	57.294995	-12.866887	1420	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_41	57.294921	-12.866985	1421	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_42	57.294829	-12.867063	1422	Gravelly Sand (Pebbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_43	57.294731	-12.867193	1423	Gravelly Sand (Pebbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_44	57.294666	-12.867273	1423	Gravelly Sand (Pebbles)
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_48	57.294214	-12.86774	1427	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_49	57.294123	-12.86788	1428	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_50	57.294074	-12.867921	1428	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_51	57.294005	-12.868029	1428	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_52	57.293942	-12.86804	1428	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_57	57.293591	-12.868507	1431	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_58	57.293475	-12.868559	1432	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_59	57.293433	-12.868703	1434	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_63	57.293078	-12.868997	1436	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_64	57.293013	-12.8691	1435	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_65	57.292951	-12.869161	1435	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_66	57.29286	-12.869258	1434	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_87	57.291239	-12.871037	1440	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_88	57.29117	-12.871076	1440	Sand
Deep	d15	EastRockall	ER_C1_08	ER_C1_08_89	57.29109	-12.871197	1440	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_05	57.520564	-12.845131	1197	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_06	57.52049	-12.845189	1200	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_07	57.520402	-12.845239	1202	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_33	57.518235	-12.846868	1237	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_34	57.518187	-12.846939	1239	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_35	57.518109	-12.847016	1241	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_36	57.518009	-12.847087	1243	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_38	57.517854	-12.847242	1246	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_39	57.517762	-12.847315	1248	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_40	57.517669	-12.847389	1249	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_41	57.517575	-12.847452	1251	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_42	57.517493	-12.847516	1253	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_43	57.517466	-12.847525	1255	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_44	57.517376	-12.847601	1256	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_45	57.51729	-12.847681	1258	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_46	57.517193	-12.847756	1259	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_47	57.517094	-12.847828	1261	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_48	57.517007	-12.847897	1262	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_49	57.516919	-12.847973	1264	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_50	57.516821	-12.848038	1265	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_51	57.516721	-12.848113	1266	Sand

Deep	d15	EastRockall	ER_C1_09	ER_C1_09_52	57.516691	-12.84815	1267	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_53	57.516623	-12.848213	1267	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_54	57.516526	-12.848287	1266	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_55	57.516435	-12.848363	1267	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_56	57.516283	-12.848488	1267	Gravel (Boulders & Cobbles)
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_57	57.516196	-12.848563	1266	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_58	57.515997	-12.848705	1266	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_59	57.515913	-12.848756	1266	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_60	57.515849	-12.848803	1265	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_61	57.515801	-12.848862	1265	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_62	57.515716	-12.848969	1262	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_63	57.515635	-12.849038	1261	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_64	57.515558	-12.849091	1259	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_65	57.515499	-12.849165	1257	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_66	57.515412	-12.849243	1255	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_67	57.515336	-12.849291	1254	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_81	57.514208	-12.850137	1225	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_82	57.514133	-12.850154	1223	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_85	57.51376	-12.850457	1209	Sand
Deep	d15	EastRockall	ER_C1_09	ER_C1_09_86	57.513665	-12.850538	1207	Sand