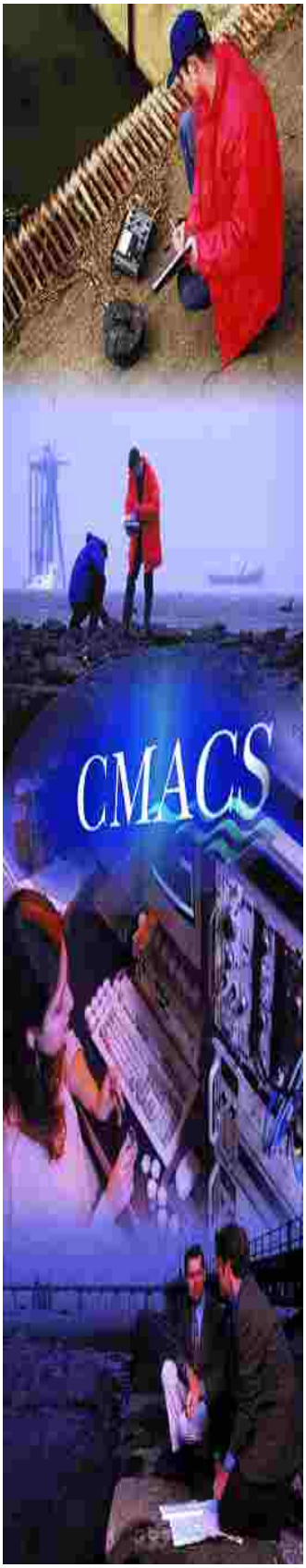

Rhyl Flats Offshore Wind Farm

Benthic Grab Survey 2006

Monitoring Report

CMACS Project No: J3039

Doc Ref: J3039/04-07 v.1.0

Report to: **Carol Mitchell**

RWE npower renewables

May 2007

Centre for Marine and Coastal Studies Ltd

Report Tracker:

Version	Date	Description	Prepared by	Checked by	Approved by
1.0	May 2007	Monit report	LG/SD	SWD	SWD

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1 Introduction

Rhyl Flats Offshore Wind Farm (OWF) has consent for thirty turbines to be built within an area of approximately 10km^2 off the North Wales coastline between the towns of Abergele and Rhos on Sea (npower renewables, 2006). Construction is likely to begin at the site during summer 2007.

The following report details the main methodologies and findings of the 2006 Rhyl Flats OWF benthic grab survey. This survey was conducted during September 2006 by the Centre for Marine and Coastal Studies (CMACS Ltd) and has been undertaken as part of the second year of a five-year monitoring phase required as part of the FEPA licence for Rhyl Flats. The FEPA licence stipulates that grab sampling should be undertaken in order to investigate possible changes to the marine benthic communities of the area in addition such investigations must also be closely linked to possible changes to sediments.

The results presented here also consider a comparison with the findings of the previous 2005 monitoring survey. It should also be noted that on the advice of the Countryside Council for Wales (CCW) two further sites have been added as part of the monitoring program (sites 28 and 29- see Figure 1) in 2006 to enable a greater coverage of the biotopes. After discussion with CCW, it was decided to use two sites which have been used as part of the neighbouring North Hoyle Wind farm for the last 5 years. These sites were present within the areas highlighted by CCW as needing further coverage and also present a series of data covering the previous 5 years from the North Hoyle monitoring survey. However, at this stage of the monitoring programme back data has only been utilised from the previous 2005 survey for analysis purposes.

2 Methodology

2.1 Field Sampling

Twenty-nine sampling sites were surveyed as part of the monitoring program and these are diaplyed within Figure 1.

Grab samples for faunal analysis were obtained using a 0.1m^2 Day grab. Wherever possible, three replicate samples were taken at each site. After excess water had been allowed to drain away, a sub-sample of approximately 400g was taken from each sample for particle size analysis (psa) and total organic carbon (toc) analysis. The remainder of each sample was then sieved through a 1.0mm mesh as gently as possible. Sediments passing through the sieve were discarded and the material retained on the sieve was transferred to a labelled bucket and fixed with buffered 10% formalin in seawater to a final formalin concentration of circa 5. A separate waterproof label duplicating the external label was added to the sample bucket. Occasional large fauna were identified on board and returned to the sea alive where possible, these data then being provided to the analytical laboratory and included in the final results.

Field notes were taken, to include sample number, date and time of sample, an estimate of volume of each sub-sample before sieving, a brief visual description of the sample, and any pertinent additional information such as difficulties in sampling. The positional fixes for the field sites sampled are given in Appendix 1 (Section 6.1) and the field notes are given in Appendix 2 (Section 6.2).

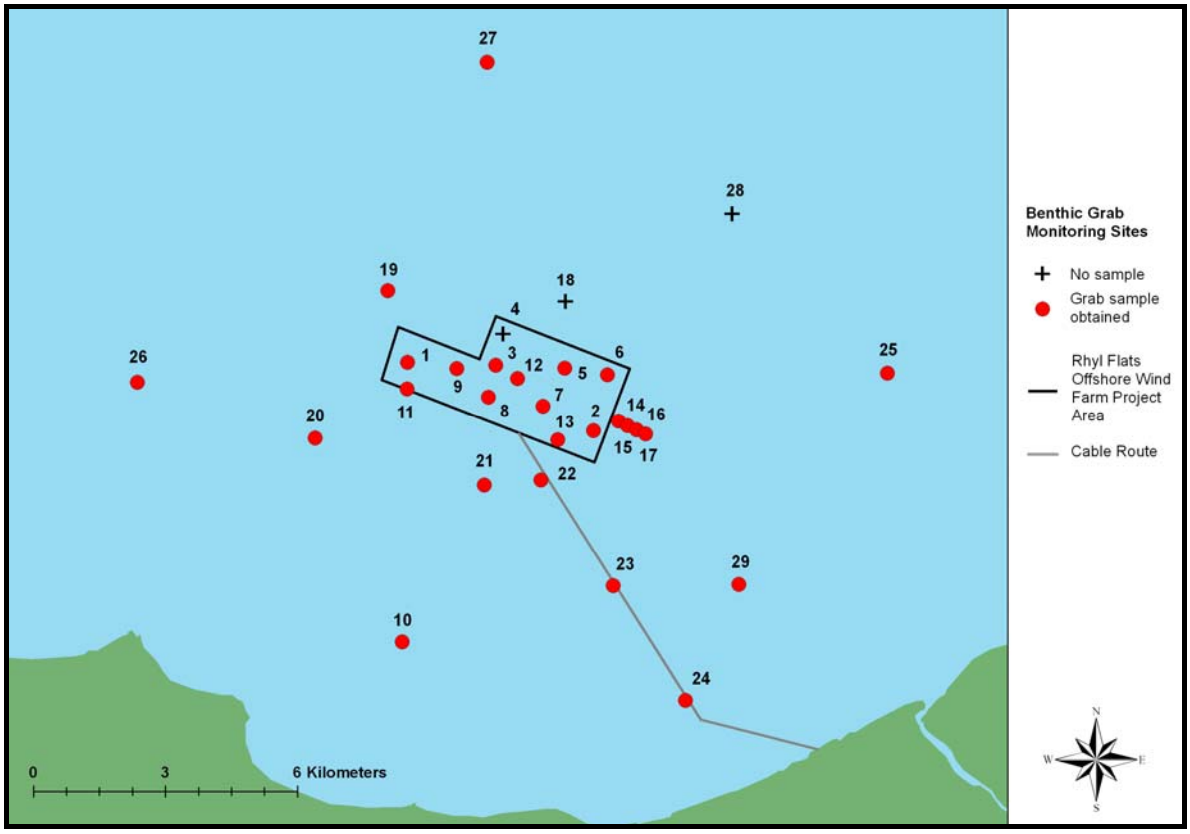


Figure 1 Rhyl Flats Offshore Wind Farm Benthic Grab Monitoring Sites (N.B. No sample was obtained for sites 4, 18 and 28).

2.2 Laboratory analyses

2.2.1 Sediment Analysis

Particle size analysis was carried out after drying the sediment samples at 70°C, using a Retsch sieve shaker and the suite of sieves given in Table 1 Sieve Series used for particle size analysis (mesh size in mm). Total organic content (TOC) of dry sediment was determined by loss on ignition at 450ºC, using the sediment fraction less than 1mm.

Table 1 Sieve Series used for particle size analysis (mesh size in mm)

Sieve size (mm)										
10	5	4	2	1	0.6	0.425	0.3	0.212	0.150	0.063

The weights of the sediment retained on each of the sieve series were then used to calculate the mean and median particle sizes, and the determination of sorting index by calculating the standard deviation of Phi. These were then used to determine sediment type according to the definitions as used by Buchanan et al. (1984) (see Table 2 and

Table 3) and also the Folk and Ward classification system as used by the British Geological Survey (BGS) (see

Figure 2).

Table 2 Classification used for defining sediment type (from Buchanan et al. 1984).

Wentworth Scale (mm)	Phi units	Sediment types
>256 mm	<-8	Boulders
64 - 256 mm	-8 to -6	Cobble
4 - 64 mm	-6 to -2	Pebble
2 - 4 mm	-2 to -1	Granule
1 - 2 mm	-1 to 0	Very coarse sand
0.5 - 1 mm	0 - 1	Coarse sand
250 - 500 µm	1 - 2	Medium sand
125 - 250 µm	2 - 3	Fine sand
63 - 125 µm	3 - 4	Very fine sand
<63 µm	>4	Silt

Table 3 Classification used to define the degree of sediment sorting (from Buchanan et al. 1984).

Standard Deviation of mean Phi	Classification
<0.35	Very well sorted
0.35 - 0.5	Well sorted
0.5 - 0.71	Moderately well sorted
0.71 - 1	Moderately sorted
1 - 2	Poorly sorted
2 - 4	Very poorly sorted
>4	Extremely poorly sorted

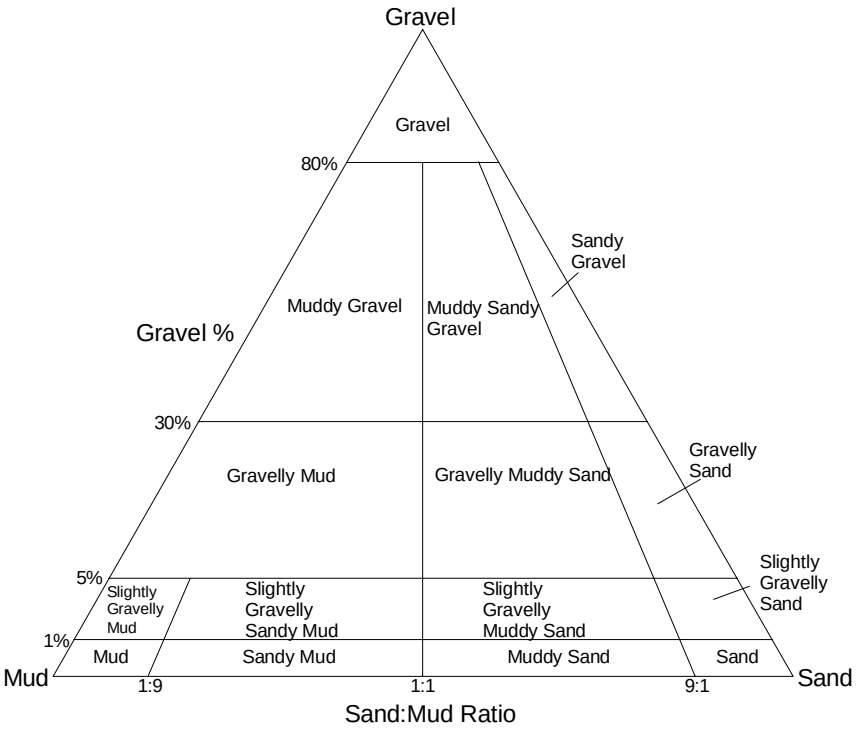


Figure 2 Sediment classification after Folk (1954) as also used by the BGS. "Gravel" is greater than 2mm and "mud" is less than 63μm.

2.2.2 Fauna

Wherever possible, all macrofauna were identified to species and counted. A labelled reference collection was prepared and all faunal samples subsequently stored in alcohol. The following quality control procedures were used for sample collection and specimen sorting and identification:

Experienced operatives carried out all sorting with low power microscopes available for use. A proportion of samples (minimum 10%) (typically one sample randomly selected from each batch of ten recently sorted samples) was re-sorted by an experienced sorter other than the original. Under this protocol, if the number of animals found in the original sorting is less than

95% of the total found (sorting plus re-sorting) all of the other samples in the appropriate batch sorted by that person have to be re-sorted.

An experienced marine invertebrate taxonomist using appropriate up to date identification guides and papers, and an appropriate range of stereo and monocular microscopes etc carried out all identification. Nomenclature follows the MCS species directory (Picton and Howson, 1997) unless more up to date names exist.

A variety of univariate and multivariate statistics were used to investigate the results. Where multivariate analysis was carried out, the programme Primer v5.0 was used.

3 Results

Of the twenty-nine designated sampling sites, twenty-six were successfully sampled in triplicate while no samples were obtained for sites 4, 18 and 28 due to pebbles or sometimes larger cobbles preventing the grab jaws from closing so that an adequate sample was not obtained.

3.1 Sediment

The results of the sediment analysis are given in full in Appendix 3 (Section 6.3). The distribution of mean phi and predominant sediment types according to BGS classification are provided in Figure 3 and Figure 4.

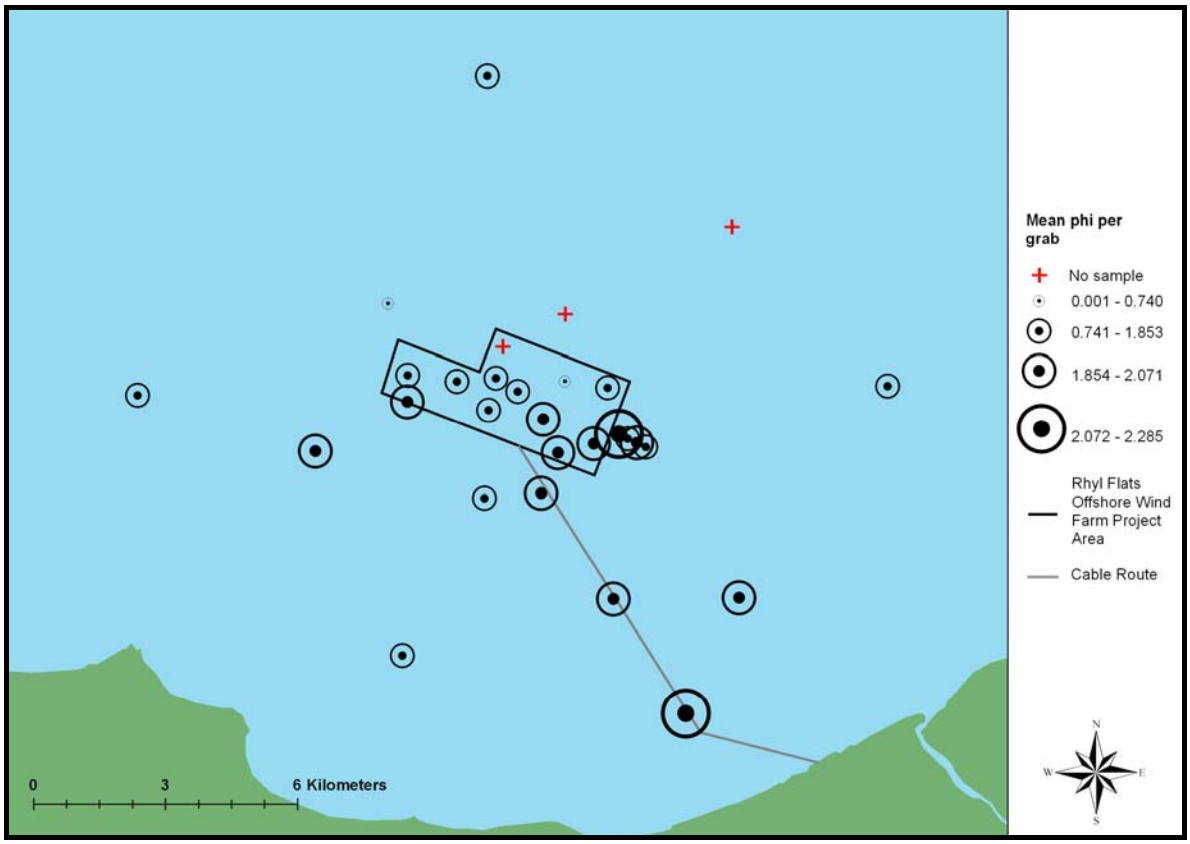


Figure 3 Mean phi of sediment amongst the three replicate samples taken (one only at site 29) at the sites surveyed during the monitoring survey of September 2006.

As previously recorded during the characterisation survey in 2001 and monitoring in 2005, the predominant sediment type is sand. Sediments are generally well-sorted medium to well-sorted fine sands, with increasing proportions of coarser material at a few sites, particularly sites 5 and 19. Several other offshore sites are also clearly gravelly, namely sites 4, 18 and 28 (no sample obtained), where the hard ground and presence of large pebbles and occasional cobbles prevented the successful collection of sediment by the grab.

Total organic carbon content is generally well below 1% across the monitoring sites with some exceptions at site 21 and 22 (located inshore of the Constable Bank) even then the

maximum value was only 1.34% found at site 22. This site also recorded the highest value TOC during the 2005 monitoring survey with a value of 1.47%.

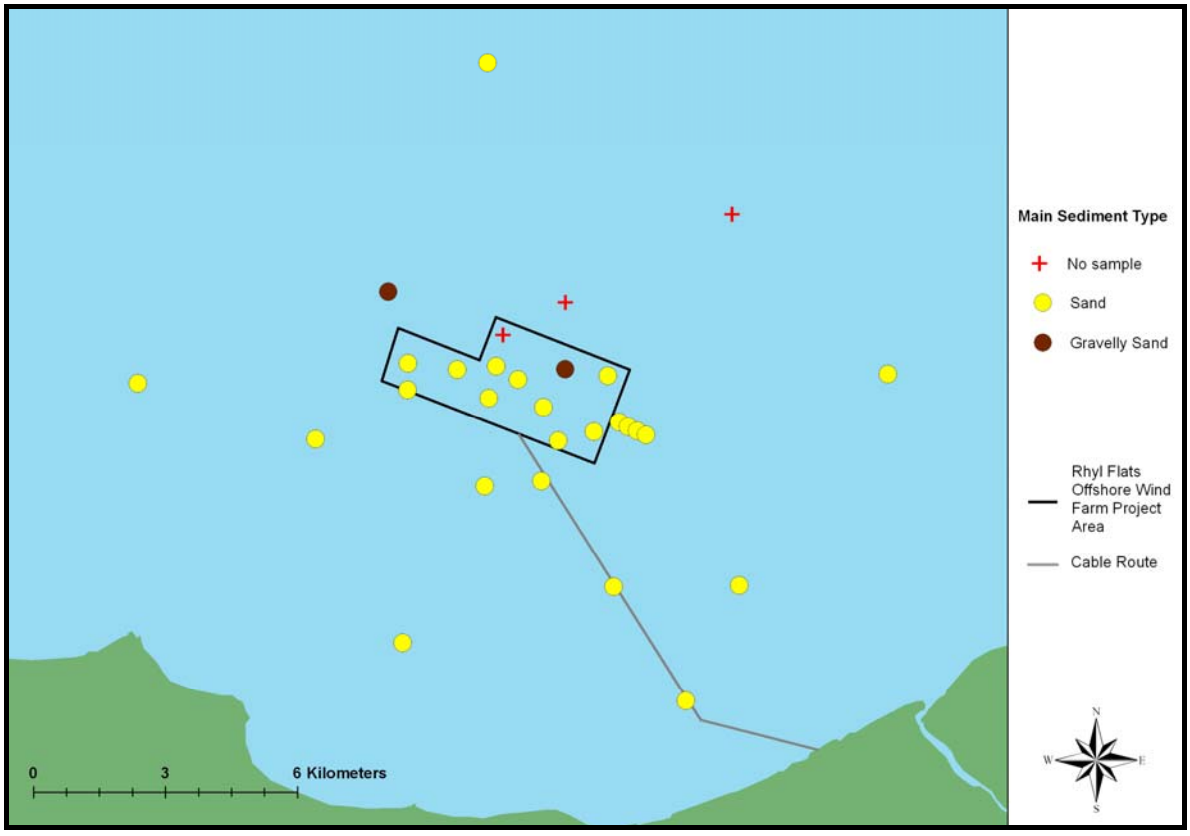


Figure 4 Predominant sediment types according to BGS classification amongst the three replicate samples taken (only one at site 29) at the sites surveyed during the monitoring survey of September 2006.

3.2 Fauna

The raw faunal data is contained in Appendix 4 (Section 6.4). Some broad comparisons have been made with both the characterisation survey of 2001 and the monitoring survey undertaken in 2005. The characterisation survey had 46 samples from 46 sites, (i.e. non-replicated) whereas the monitoring surveys of 2005 and 2006 undertook triplicate samples wherever possible, collecting 76 samples from 26 sites and 78 samples from 29 sites respectively (Table 4). In 2006 the overall number of taxa found was 210, which is very similar to the number recorded during the characterisation survey in 2001 (210) and only slightly more than the 189 taxa observed during monitoring in 2005. The fauna from the 2006 monitoring survey were of moderately high diversity compared to 2005, with an average of 121.4 countable individuals per grab and 22.9 taxa per $0.1m^2$ (cf. 82.1 countable individuals per grab and 18.07 taxa per $0.1m^2$ in 2005). A very similar number of taxa per $0.1m^2$ was recorded during the characterisation survey (23.15), although a higher number of countable individuals per grab was observed (191.4).

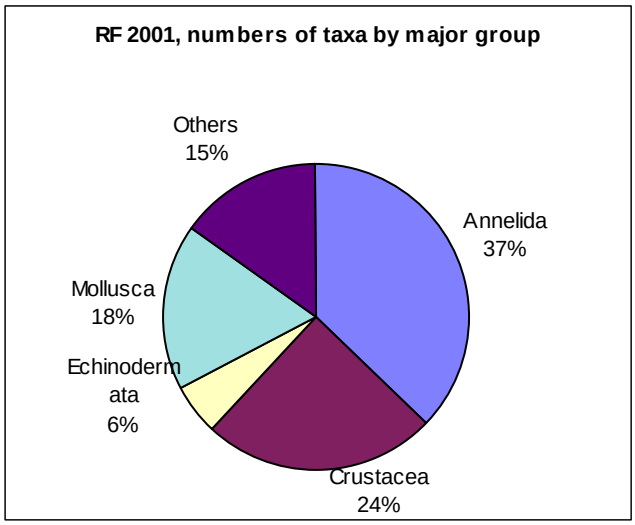
Annelida contributed to the largest numbers of taxa (33% of 208 different species), although crustacea were also important (24%) (Figure 5). This is similar to the patterns observed in the characterisation survey of 2001 and monitoring in 2005, although 'others' were slightly more

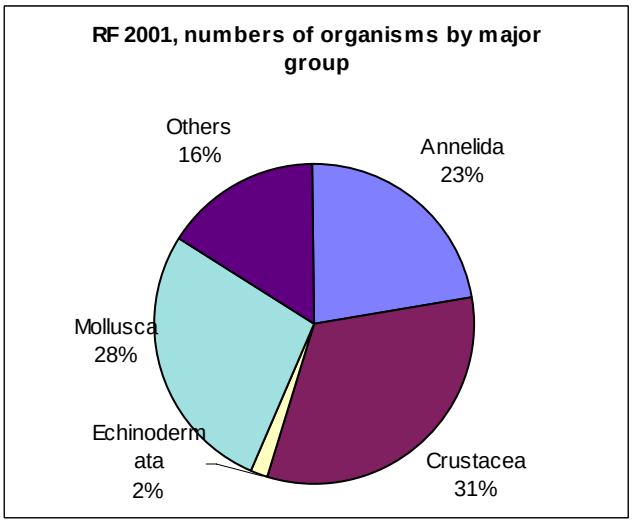
important in 2005. The Annelida contributed most in terms of countable individuals (59%), with the crustacea being somewhat less important but still contributing relatively high numbers of individuals (24%). This is reminiscent of the situation described from the 2005 monitoring survey (cf. annelida 46% and crustacea 33%). The division of individuals amongst the main phylogentic groups was more even during the characterisation of 2001, although the Echinodermata contributed the lowest numbers across all 3 surveys.

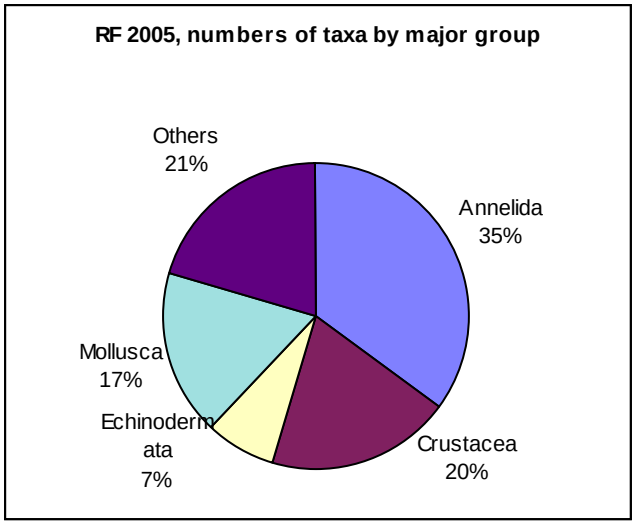
No rare or unusual species were recorded from the 2006 monitoring survey with the exception of the Thumbnail crab, *Thia scutellata*. This crab is considered to be a species of conservation concern by CCW and has been recorded within and around the area from previous monitoring surveys. It is a small crab (carapace width typically 10-20mm) known to have very specific requirements for sediment with a geographical distribution from southern Sweden to the Gulf of Guinea and reorded from all British coasts. It is a specialist species adapted to live in loose well-sorted medium sand (median phi 1.1-1.3) into which the crab can easily burrow. Within UK waters it is perceived as being a scarce species because even within fields of sand waves the precise locations with the conditions they prefer are limited (Rees, 2001). Its main Irish Sea populations are 6-12 miles offshore from the North Wales coast, with some off the east coast of Anglesey. It is also known to occur in limited areas in central Cardigan Bay and Carmarthern Bay.

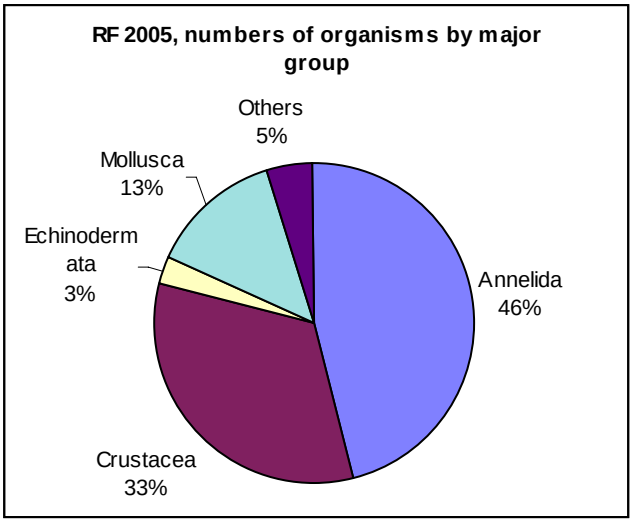
Table 4 Summary of diversity data found in this monitoring survey, and the monitoring and characterisation surveys in 2005 and 2001 respectively.

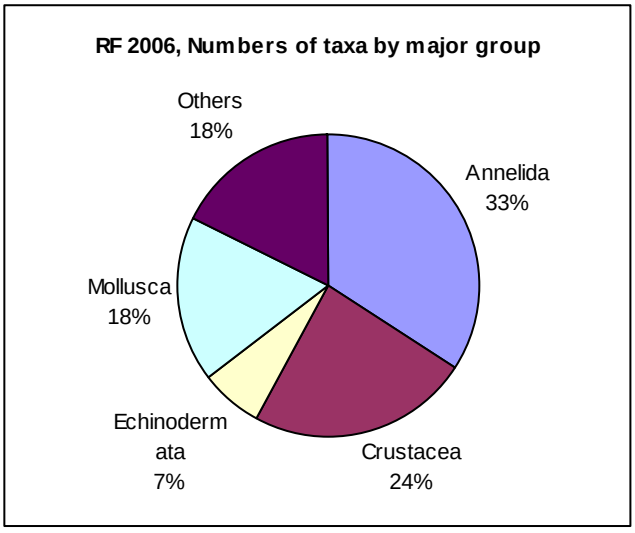
	Characterisation survey 2001*	**Monitoring survey 2005**	**Monitoring survey 2006**
Time and date of survey	Nov-01	Sep 9th to Oct 3rd 2005	Sep 9th and 10th 2006
Total no of taxa found in survey	217	189	210
No of organisms per grab (Mean ± 1 S.D.)	191.4 ± 236.59	82.1 ± 61.88	121.4 ± 105.17
(range)	(26 - 1131)	(10 - 285)	(17 - 573)
No of taxa per grab	23.15 ± 15.52	18.07 ± 8.93	22.9 ± 12.40
(range)	(7 - 90)	(3 - 57)	(8 - 78)











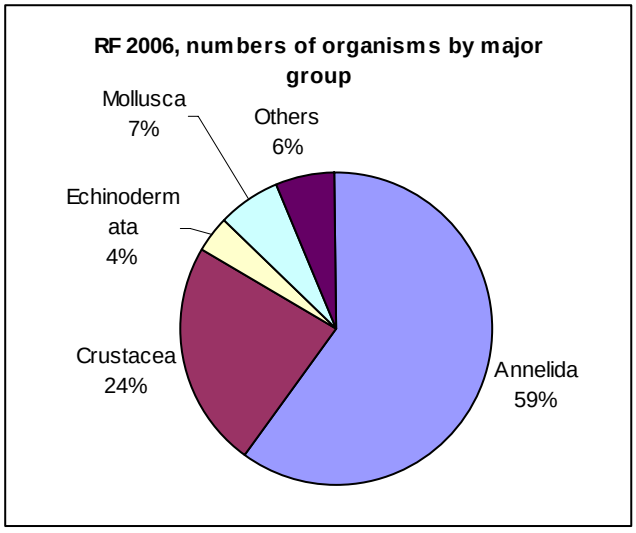


Figure 5 Numbers of taxa and numbers of individuals by major phyla for this monitoring survey compared to the monitoring and characterisation surveys carried out in 2005 and 2001 respectively.

The most important taxa found in the surveys are given in
Table 5. The annelid *Magelona johnstoni* was very abundant and generally widespread during the 2006 monitoring survey, although the largest numbers were oberved inshore to the south and southwest of the development area. Large numbers of *Bathyporeia spp* and *Lagis koreni* were also recorded although these taxa were less even in their distribution and less widespread across the monitoring sites. Other abundant species including *Spiophanes bombyx* and *Nephtys cirrosa* were somewhat less dominant in terms of countable individuals but were widespread over the survey area. These taxa indicate the persistence of the two main biotopes described from the 2001 characterisation surveys and also reconfirmed with the results from the 2005 monitoring, SS.SSA.IFiSa.NcirBat (*Nephtys cirrosa* and *Bathyporeia* spp in infralittoral sand, which was very much the dominant biotope found in the Rhyl Flats characterisation survey) and S.SSA.ImuSa.FfabMag (*Fabulina fabula* and *Magelona mirabilis* with venerid bivalves and amphipods in infralittoral compacted fine muddy sand). FfabMag is often known to grade into the sandier biotope, NcirBat as sediment disturbance increases and the finer silt fraction fails to sediment out. The main biotopes found across the area during the 2006 survey appear relatively unchanged from those previously identified and are displayed in Figure 6.

Another apparently abundant taxa had a very limited distribution, *Cirriformia tentaculata*. This species was entirely limited to a single site just south of the development area (site 22), similar to the situation described for this species durng the monitoring survey of 2005.

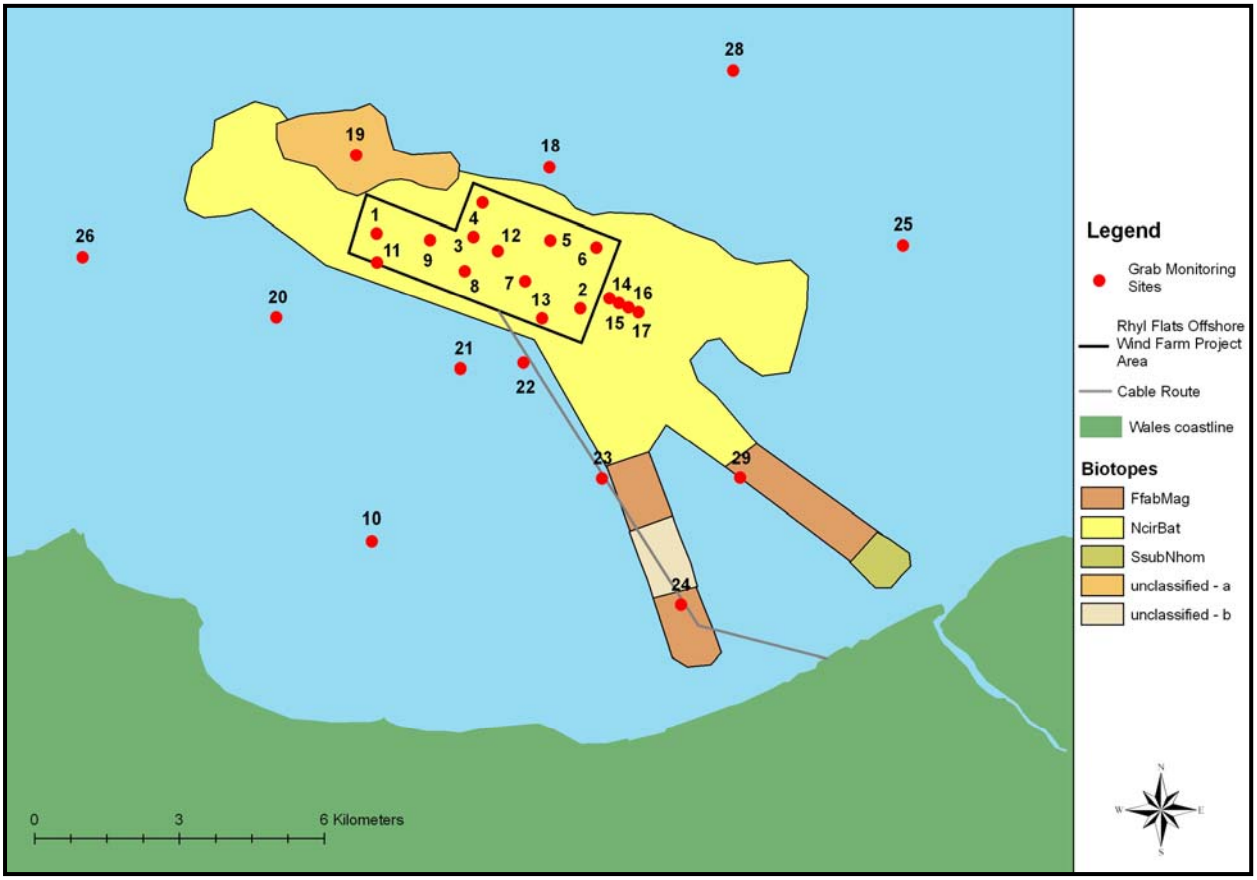


Figure 6 Rhyl Flats biotope classifications and the benthic grab sampling sites surveyed during the 2005 and 2006 monitoring surveys.

Table 5 Numbers of the most numerous taxa found in this survey according to overall abundance, with comparative data from the characterisation survey of 2001 and monitoring survey of 2005. All taxa in which a total 10 or more individuals were found are shown.

Taxon	Nos in 2006	Taxon	Nos in 2005	Taxon	Nos in 2001
Magelona johnstoni	**1486**	Bathyporeia guilliamsoniana	1166	Donax vittatus	1664
Bathyporeia guilliamsoniana	**1181**	Magelona johnstoni	746	NEMATODA	999
Lagis koreni	**785**	Cirriformia tentaculata	416	Bathyporeia guilliamsoniana	647
Spiophanes bombyx	**697**	Spiophanes bombyx	403	Bathyporeia elegans	549
Cirriformia tentaculata	**550**	Nephtys cirrosa	402	Corophium sextonae	396
Bathyporeia elegans	**549**	Bathyporeia elegans	327	Nephtys cirrosa	385
Nephtys cirrosa	**407**	Spisula subtruncata	268	Pontocrates arenarius	385
Lanice conchilega	**344**	Donax vittatus	176	NEMERTEA	356
Owenia fusiformis	**320**	Poecilochaetus serpens	156	Urothoe elegans	220
Nemertea spp.	**279**	Chaetozone christie	144	Lagis koreni	217
Mysella bidentata	**198**	Nemertea spp.	140	Abra alba	185
Ophiurida sp. Juv.	**181**	Gastrosaccus spinifer	133	Mysella bidentata	184
Poecilochaetus serpens	**130**	Phoronis spp.	128	Microphthalmus	165
Eumida sp.	**121**	Lagis koreni	100	Nephtys (juv.)	159
Chaetozone christie	**96**	Diastylis bradyi	83	Pholoe minuta	128
Glycera tridactyla	**91**	Glycera tridactyla	78	Cirriformia tentaculata	126
Eteone longa/flava (agg.)	**90**	Iphinoe trispinosa	71	Eteone longa (agg.)	120
Upogebia deltaura	**78**	Polinices pulchellus	68	Hesionura elongata	119
Pholoe baltica	**68**	Echinocardium cordatum	57	Fabulina fabula	109
Anaitides mucosa	**59**	Mysella bidentata	54	Pseudocuma longicornis	105
Phoronis spp.	**58**	Thia scutellata	50	Corophium bonnellii	74
Magelona filiformis	**55**	Mediomastus fragilis	48	Amphipholis squamata	56
Urothoe elegans	**54**	Abra alba	48	Glycera tridactyla	48
Diastylis bradyi	**50**	Fabulina fabula	46	Spisula subtruncata	47
Fabulina fabula	**50**	Magelona filiformis	44	OPHIUROIDEA (juv.)	42
Malmgreniella arenicolae	**47**	Ophiurida sp. Juv.	44	Chaetozone christiei	38
Iphinoe trispinosa	**47**	Urothoe elegans	37	Ophelia borealis	37
Polinices pulchellus	**47**	Tellimya ferruginosa	37	Microprotopus maculatus	37
Mediomastus fragilis	**44**	Phaxas pellucidus	35	Pontocrates altamarinus	35
Eumida bahusiensis	**43**	Lanice conchilega	33	Nephtys hombergii	34
Cochlodesma praetenue	**43**	Aonides paucibranchiata	29	Perioculodes longimanus	34
Thia scutellata	**41**	Photis longicaudata	28	Spiophanes bombyx	32
Spisula sp.	**41**	Ophelia borealis	25	Spisula subtruncata (juv.)	32
Ophiura sp. Juv.	**40**	Synchelidium maculatum	24	Owenia fusiformis	30
Echinocardium cordatum	**39**	Cochlodesma praetenue	24	Aora gracilis	29
Spio armata (agg.)	**36**	Owenia fusiformis	23	Spio decorata	28
Acronida brachiata	**35**	Atylus falcatus	18	Iphinoe trispinosa	28
Spio decorata	**33**	Ophiura ophiura	18	Polinices pulchellus	28
Phaxas pellucidus	**31**	Ophiura sp. Juv.	18	Pholoe synophthalmica	26
Donax vittatus	**30**	Sthenelais limicola	17	Stenothoe marina	26
Ophiura ophiura	**30**	Corophium bonnellii	17	Spisula (juv.)	25
Tellimya ferruginosa	**29**	Spio armata (agg.)	16	Diastylis bradyi	24
Pharus legumen	**29**	Amphiura chiajei	16	Polycirrus	23
Pisidia longicornis	**28**	Nephtys sp. (Juv.)	15	Macoma balthica	23
Scolelepis (Scolelepis) bonnieri	**27**	Scolelepis (Scolelepis)	15	Magelona johnstoni	21
Spisula subtruncata	**27**	Eteone longa/flava (agg.)	13	Mytilus edulis (juv.)	20
Abra alba	**27**	Aonides oxycephala	13	Angulus tenuis	20
Aonides paucibranchiata	**25**	Corophium sextonae	13	Mediomastus fragilis	19
Ensis arcuatus	**25**	Actinaria	13	Leucothoe incisa	19
Gastrosaccus spinifer	**23**	Perioculodes longimanus	12	Ensis ensis	19
Synchelidium maculatum	**23**	Pharus legumen	12	Tubificoides pseudogaster	18
Atylus falcatus	**23**	Spio decorata	11	Echinocardium cordatum	18
Echinocyamus pusillus	**23**	Ericthonius punctatus	11	Syllidia armata	17
Anaitides rosea	**22**	Amphiura brachiata	11	Megaluropus agilis	16
Corophium sextonae	**22**	Mactra stultorum	11	Dosinia (juv.)	16
Sthenelais limicola	**19**			Aoridae	15
Perioculodes longimanus	**19**			Tanaopsis graciloides	14
Megaluropus agilis	**18**			ACTINIARIA	14
Ophelia borealis	**17**			Corophium (juv.)	13
Dosinia sp.	**15**			Diastylis rugosa	13
Corophium bonnellii	**13**			Eumida bahusiensis	12
Bodotria scorpioides	**13**			Photis longicaudata	12
Nephtys hombergii	**12**			Pariambus typicus	12
Aonides oxycephala	**12**			Gastrosaccus spinifer	11
Abludomelita obtusata	**12**			Thia scutellata	11
Cerianthus lloydii	**11**			Turbonilla lactea	11
Ericthonius punctatus	**11**			Ericthonius (?)	10
Nephtys sp. (Juv.)	**10**			Ophiothrix fragilis (juv.)	10
Aricidea minuta	**10**				
Polycirrus sp.	**10**				

Donax vittatus was also far less abundant in 2006 (in keeping with the results of the 2005 monitoring survey) than in the 2001 surveys where it was found to be the most numerous. Again reasons cited for this include the fact that it is a species common in a variety of sandy habitats but well known to be extremely patchy and to vary greatly in density from year to year.

3.3 Distribution Maps

Distributions of indicators of richness and diversity, as well as the most abundant species have been mapped within Figure 7. There are obvious similarities between the monitoring surveys of 2005 and 2006, including the dominant biotopes and species observed, many of which are characteristic of the low species diversity and medium sands typical of the wind farm area and surrounding sea bed.

In addition, the distribution of the thumbnail crab *Thia scutella* has also been mapped within Figure 7. This species again occurred in relatively high numbers (41 countable individuals from 78 samples), similar to the number of individuals observed during the 2005 monitoring survey (50 countable individuals). It requires loose, well-sorted medium sand (median phi 1.1-1.3) into which the crab can easily burrow and was found at several of the sandy sites described from the development area. The much lower numbers recorded during the characterisation survey of 2001 are moreover likely to be the result of differences in the distribution of sampling sites and sediment types across the area.

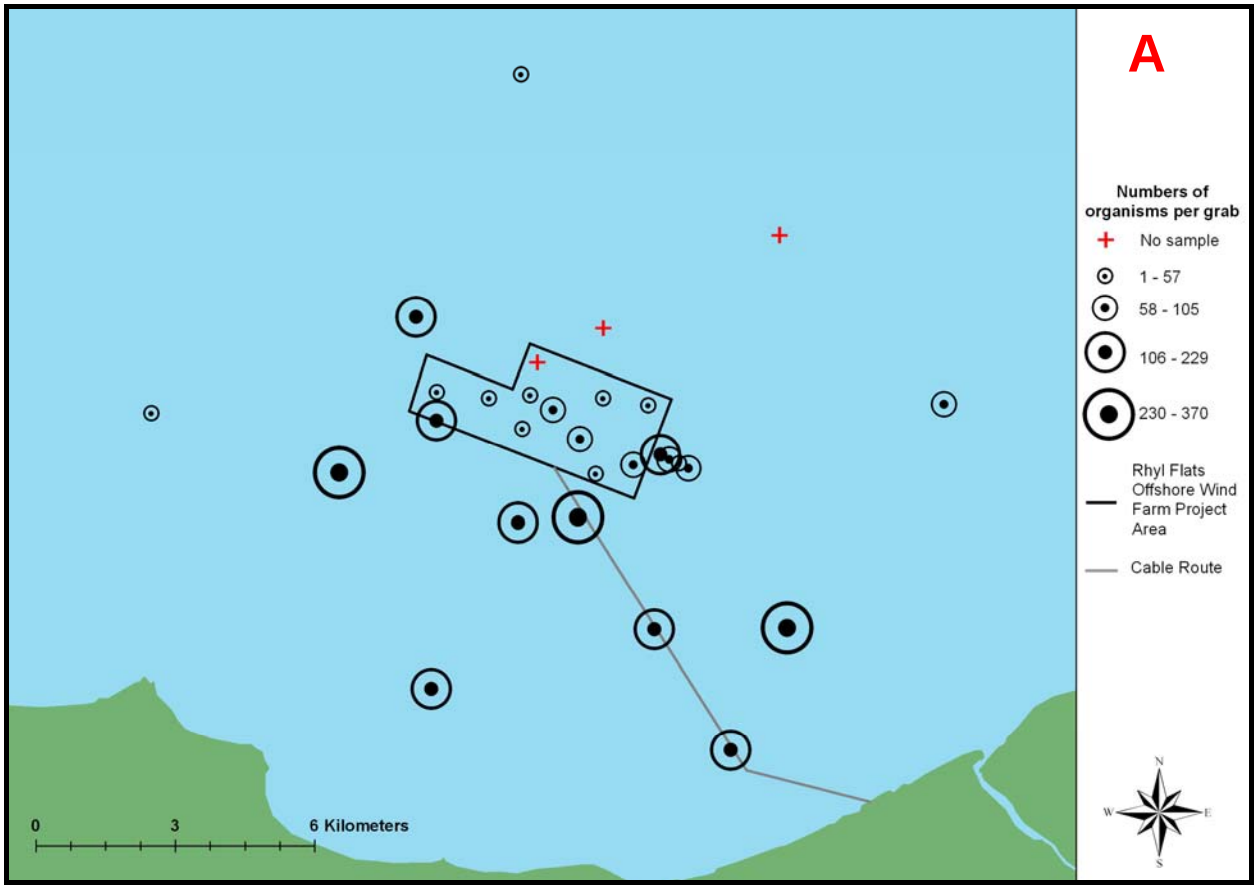
Figure 7 Maps displaying the distributional data from faunal analysis. (NB all values are the mean of three replicates. All values calculated on the basis of numbers per 0.1m^2 grab). Continued on subsequent pages.

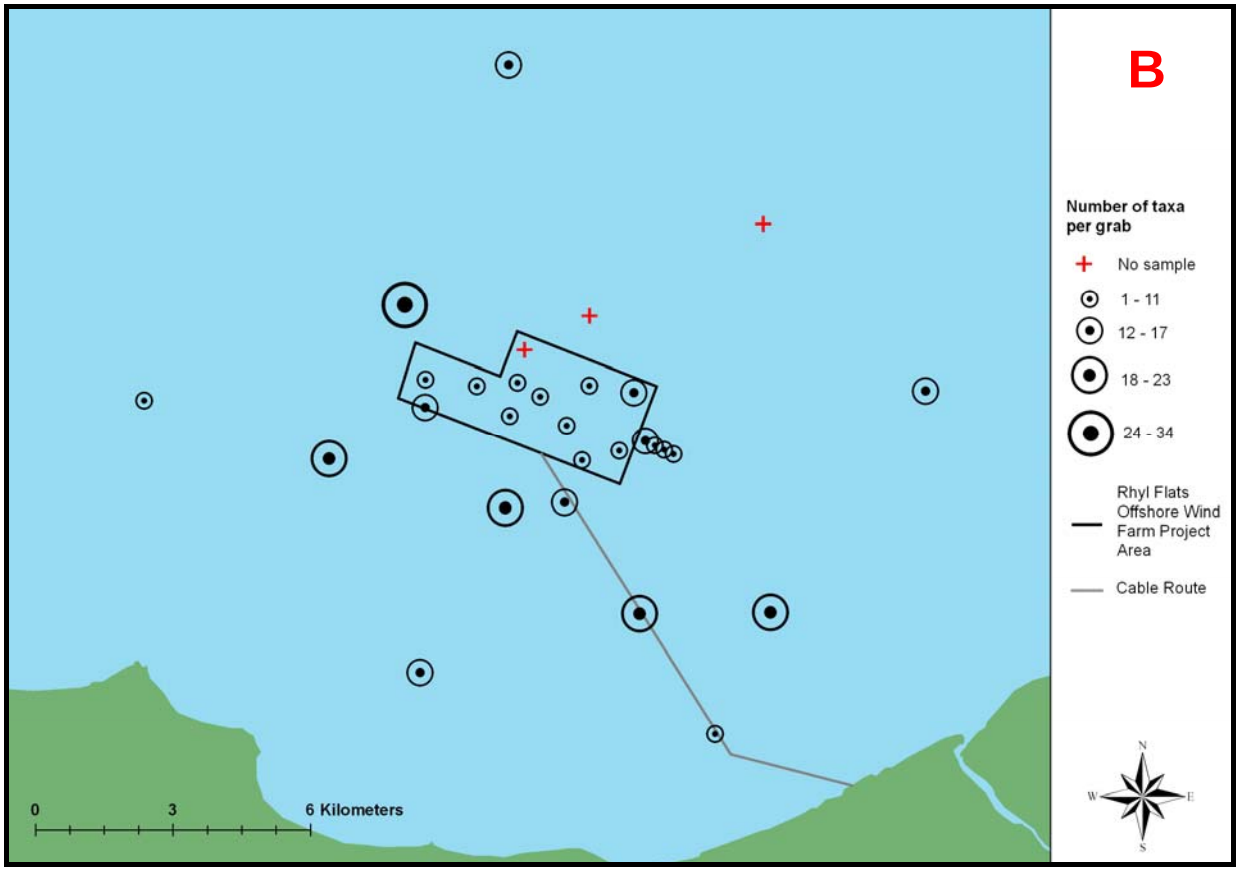
a-c summary statistics

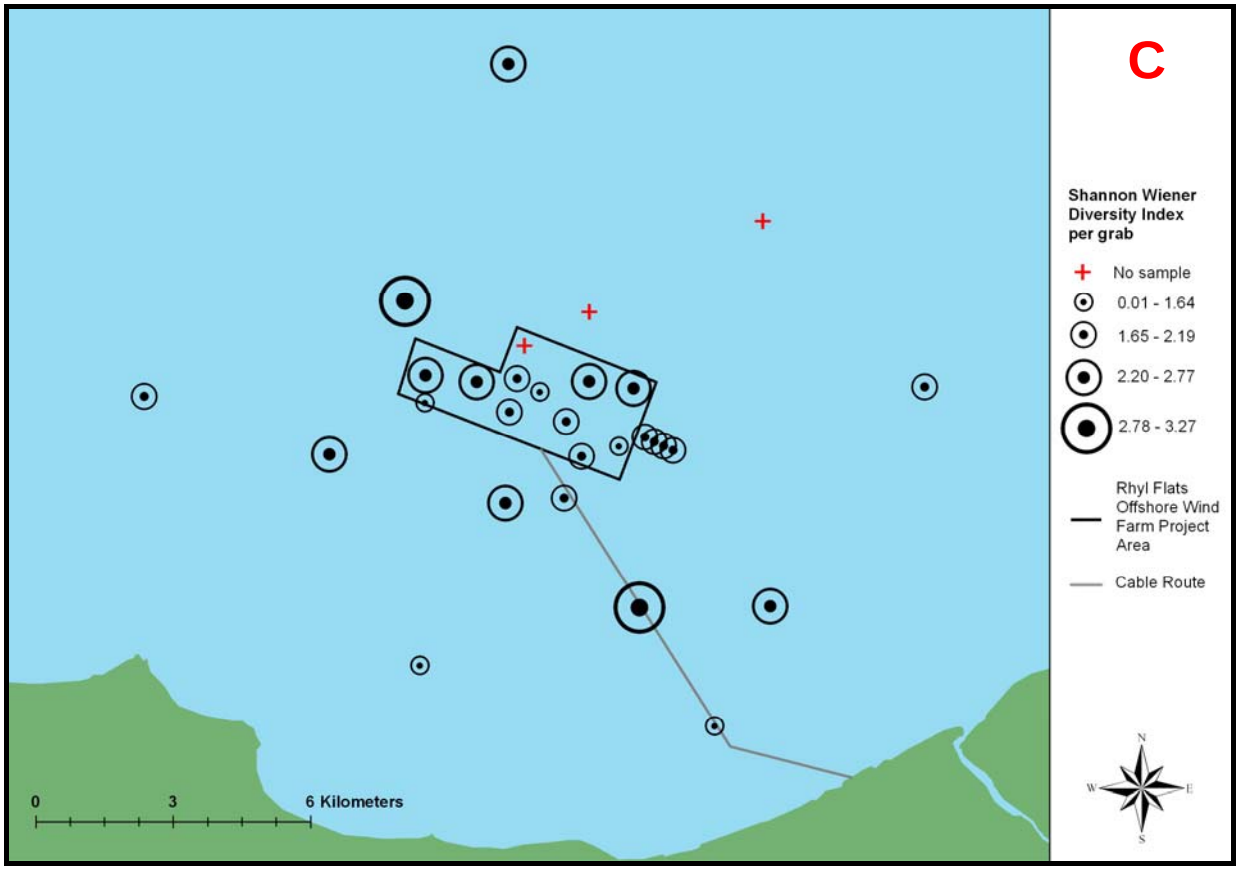
a no. of individuals
b no. of taxa
c Shannon Wiener diversity index

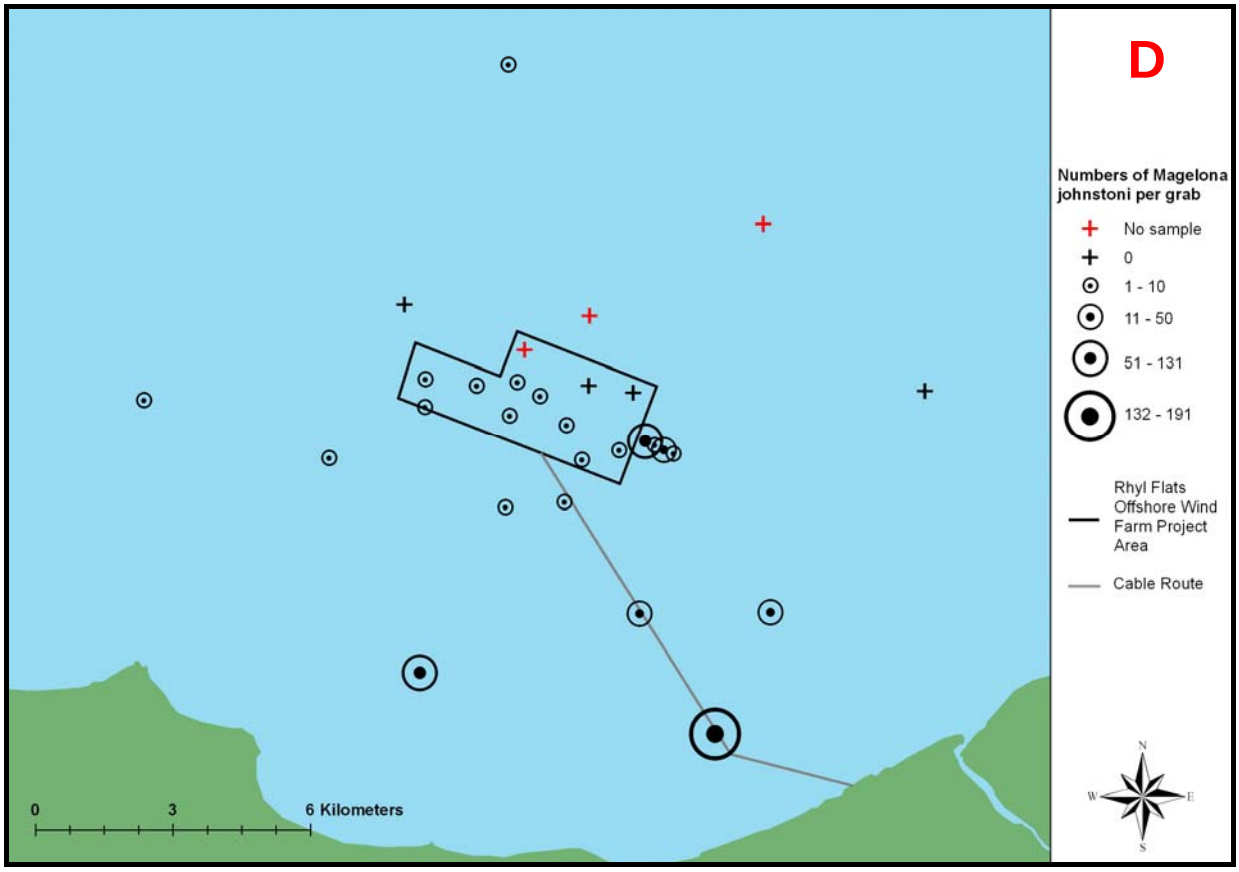
d-i numbers of the six most abundant species from the survey as a whole plus the thumbnail crab *Thia scutellata*

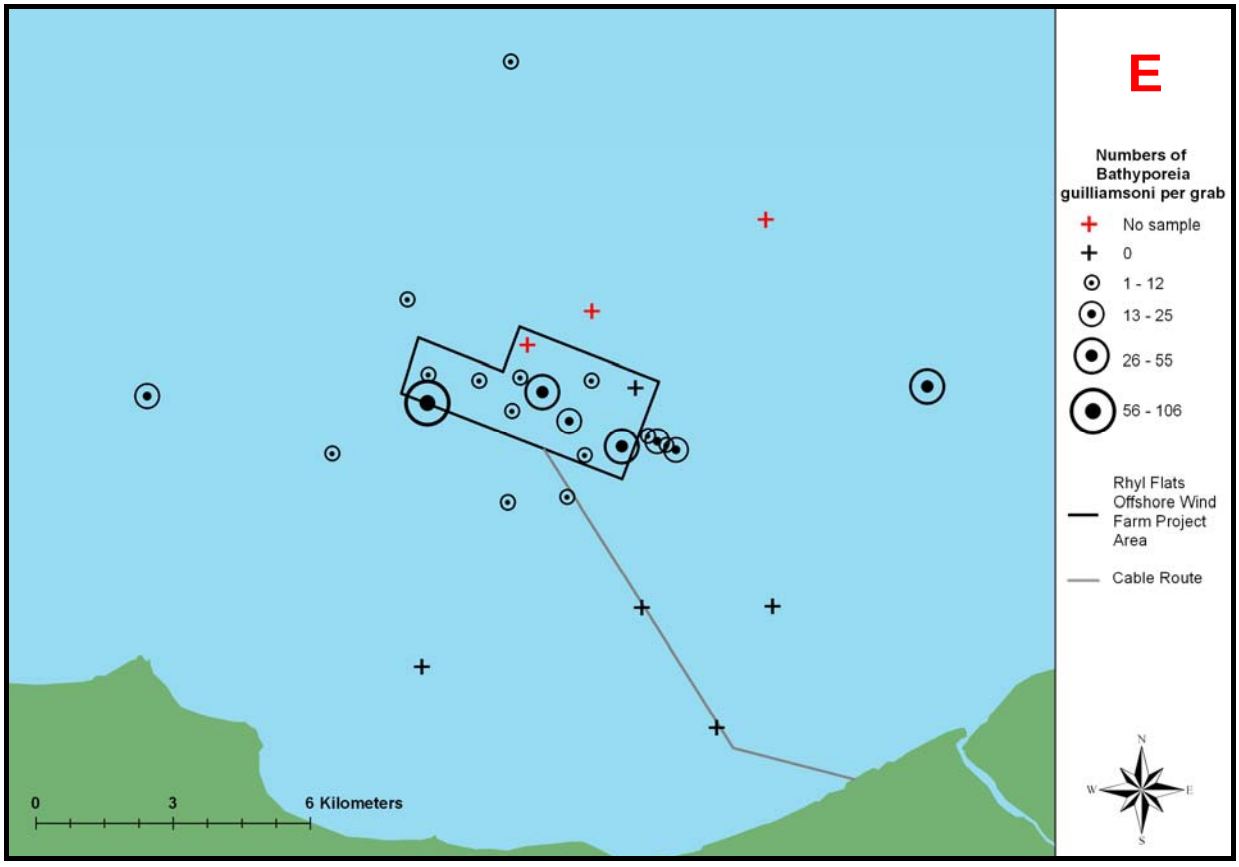
d *Magelona johnstoni*
e *Bathyporeia guilliamsoni*
f *Lagis koreni*
g *Spiophanes bombyx*
h *Cirriformia tentaculata*
i *Bathyporeia elegans*
j Thumbnail crab *Thia scutellata*

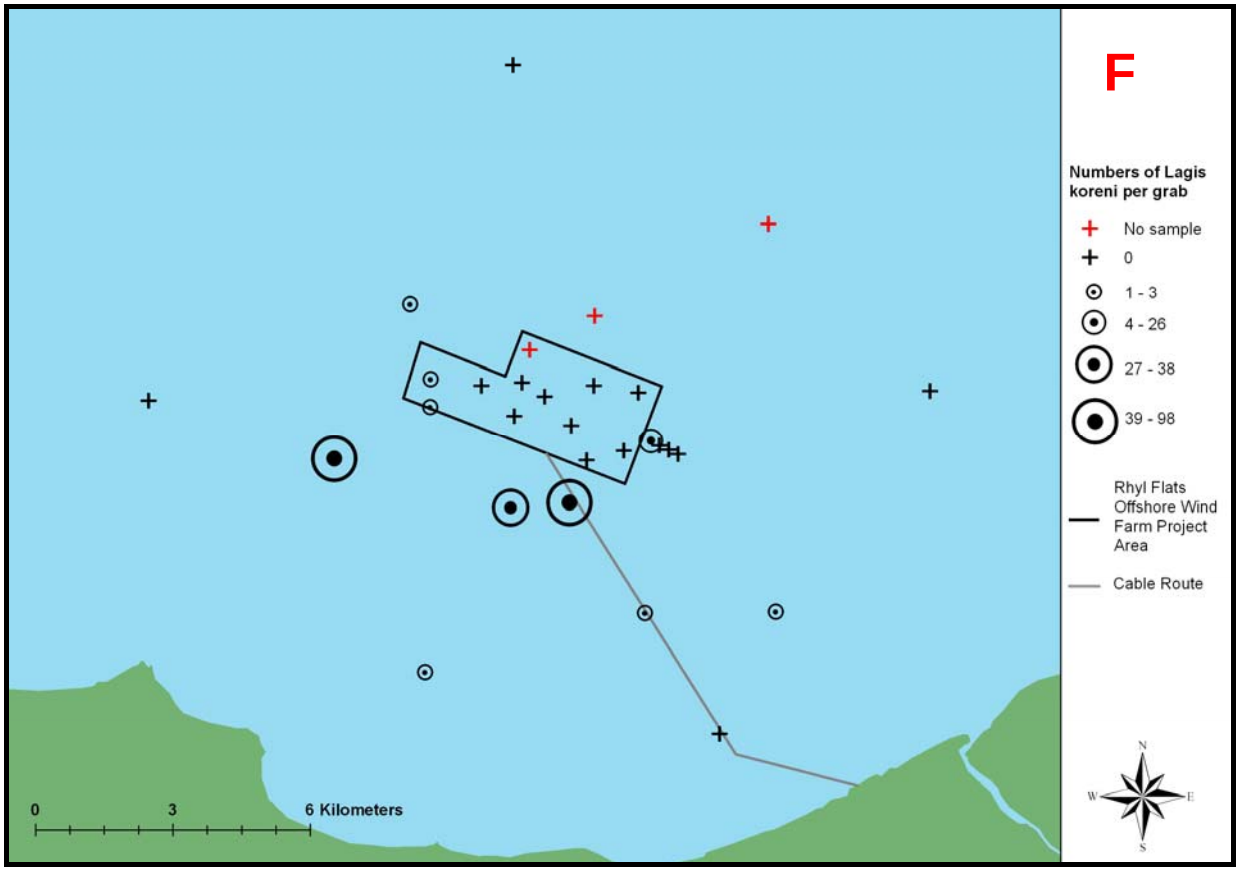


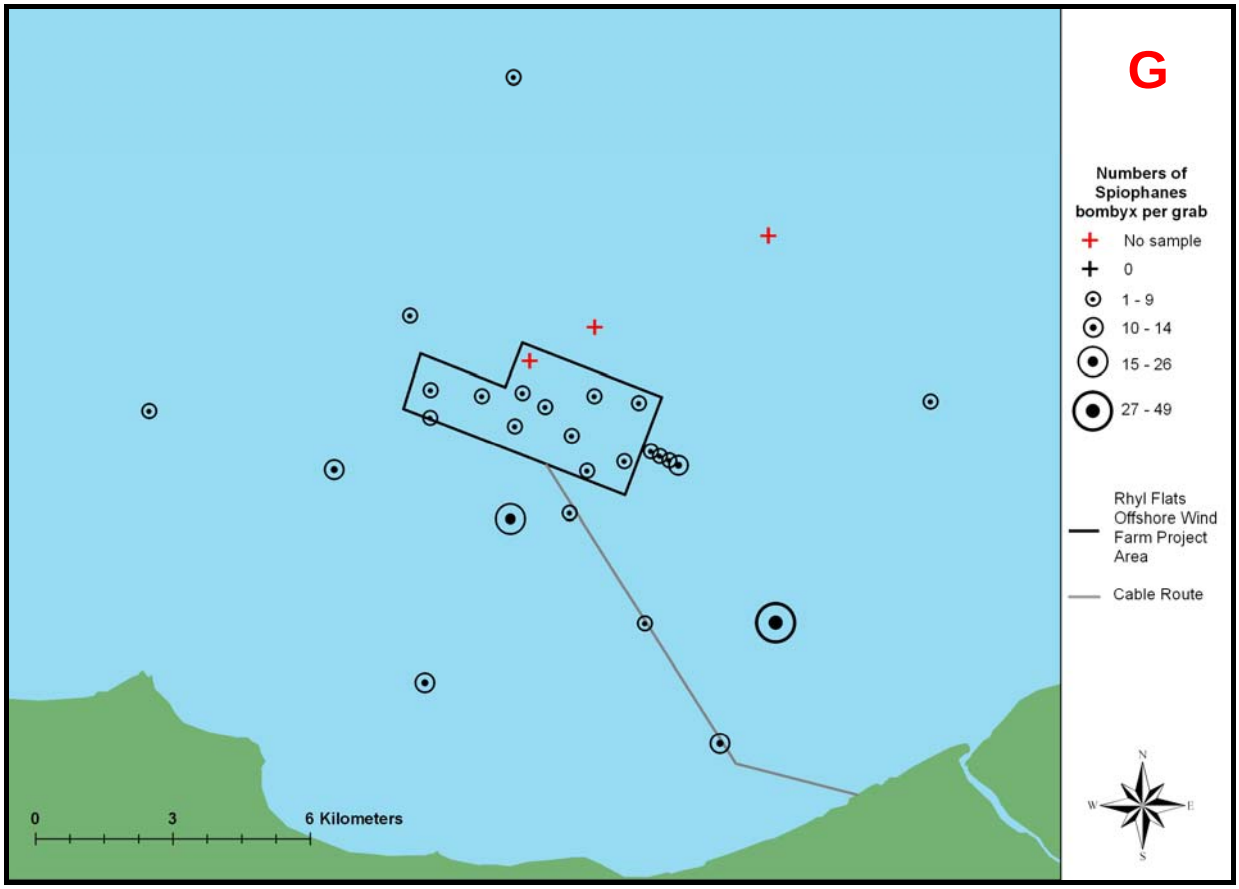

B
Number of taxa per grab
No sample
1 - 11
12 - 17
18 - 23
24 - 34
Rhyl Flats Offshore Wind Farm Project Area
Cable Route
0
3
6 Kilometers
N
W
E
S

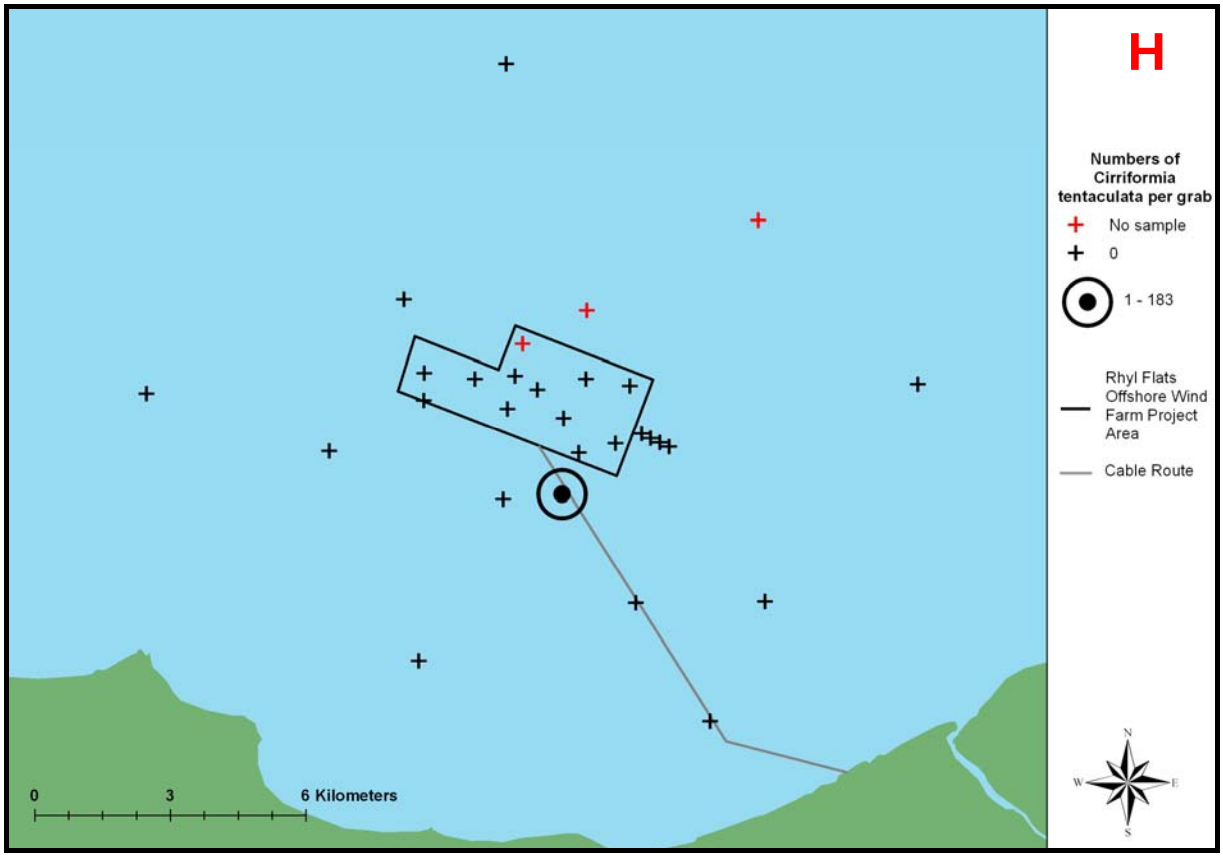

C
Shannon Wiener Diversity Index per grab
No sample
0.01 - 1.64
1.65 - 2.19
2.20 - 2.77
2.78 - 3.27
Rhyl Flats Offshore Wind Farm Project Area
Cable Route
0
3
6 Kilometers
N
W
E
S

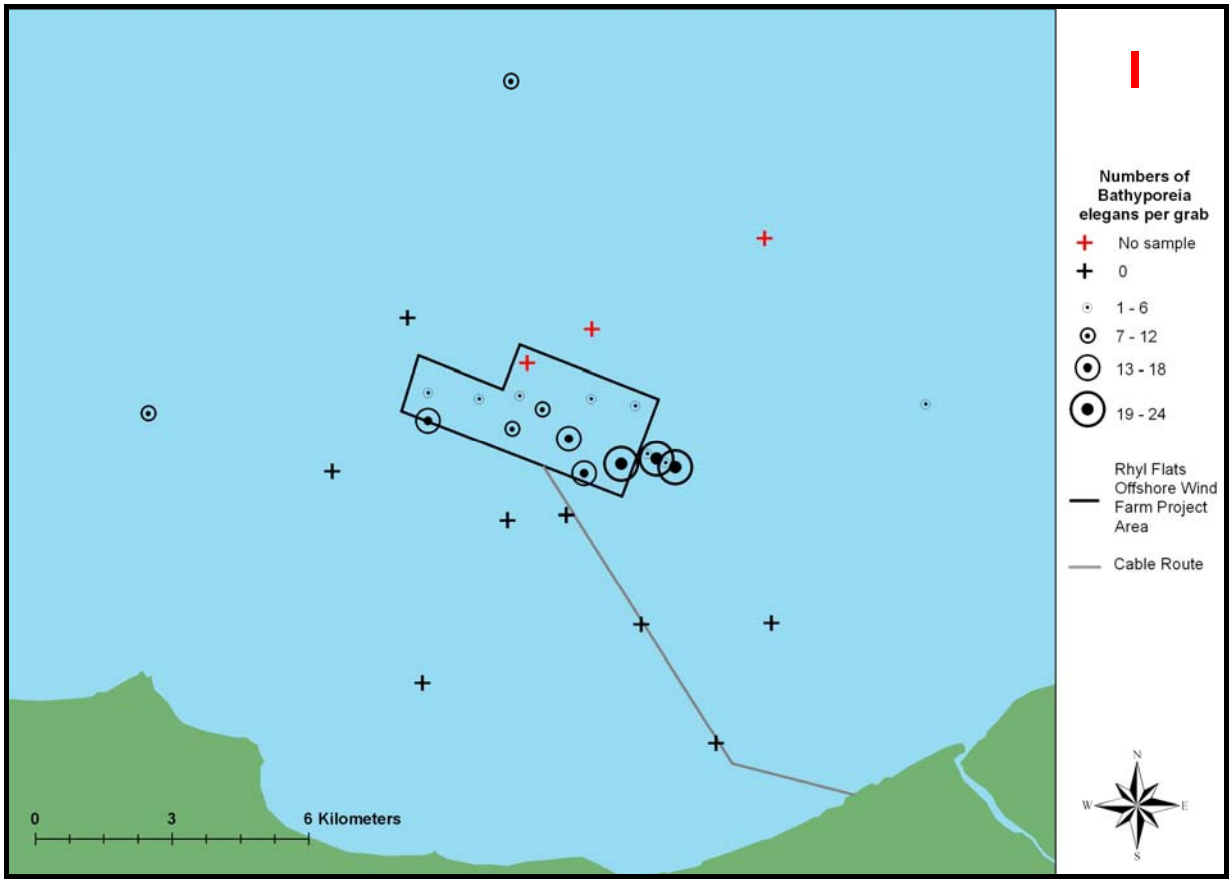

D
Numbers of Magelona johnstoni per grab
No sample
0
1 - 10
11 - 50
51 - 131
132 - 191
Rhyl Flats Offshore Wind Farm Project Area
Cable Route
0
3
6 Kilometers
N
W
E
S

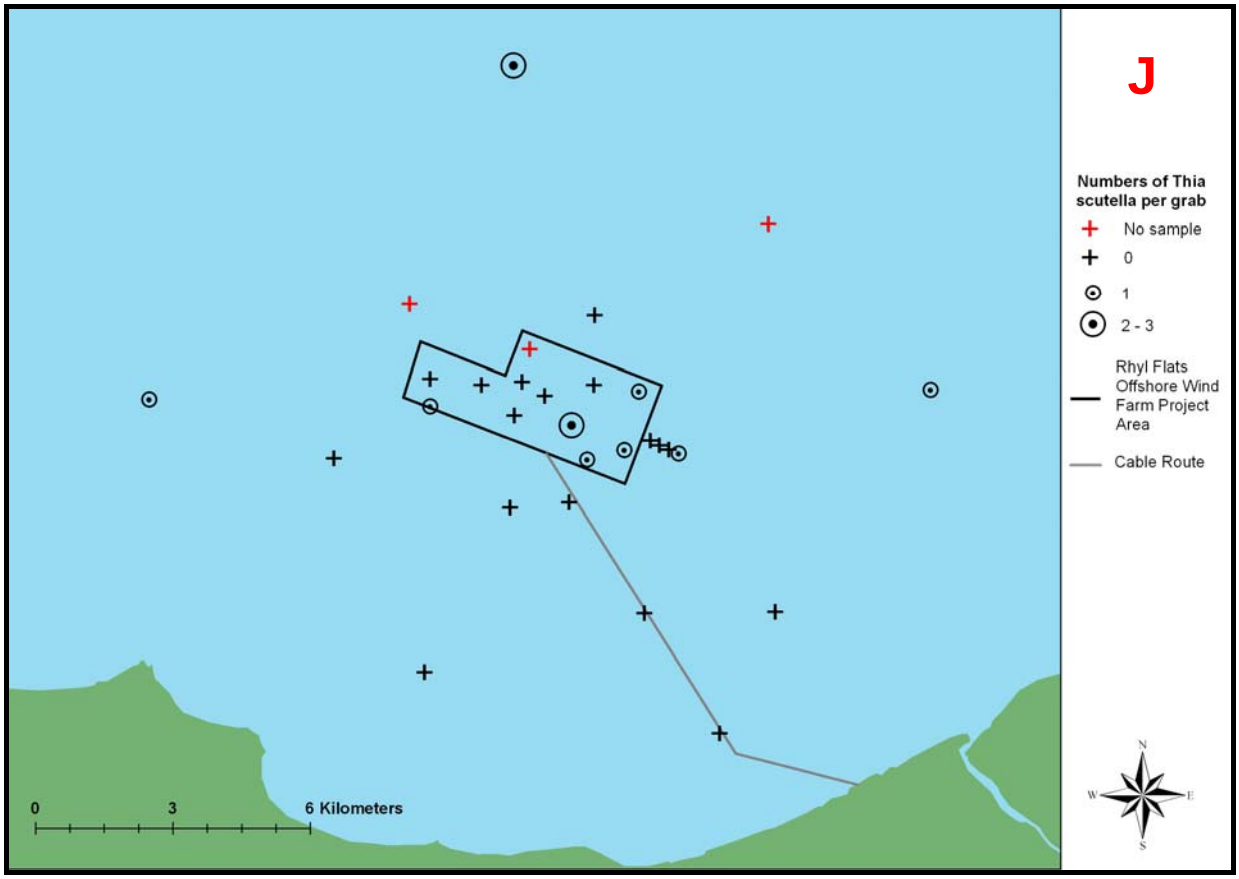

E
Numbers of Bathyporeia guilliamsoni per grab
No sample
0
1 - 12
13 - 25
26 - 55
56 - 106
Rhyl Flats Offshore Wind Farm Project Area
Cable Route
0
3
6 Kilometers
N
W
E
S


F
Numbers of Lagis koreni per grab
No sample
0
1 - 3
4 - 26
27 - 38
39 - 98
Rhyl Flats Offshore Wind Farm Project Area
Cable Route
0
3
6 Kilometers
N
W
E
S


G
Numbers of Spiophanes bombyx per grab
No sample
0
1 - 9
10 - 14
15 - 26
27 - 49
Rhyl Flats Offshore Wind Farm Project Area
Cable Route
0
3
6 Kilometers
N
W
E
S


H
Numbers of Cirriformia tentaculata per grab
No sample
0
1 - 183
Rhyl Flats Offshore Wind Farm Project Area
Cable Route
0
3
6 Kilometers
N
W
E
S


I
Numbers of Bathyporeia elegans per grab
No sample
0
1 - 6
7 - 12
13 - 18
19 - 24
Rhyl Flats Offshore Wind Farm Project Area
Cable Route
0
3
6 Kilometers
N
W
E
S


J
Numbers of Thia scutella per grab
No sample
0
1
2 - 3
Rhyl Flats Offshore Wind Farm Project Area
Cable Route
0
3
6 Kilometers
N
W
E
S

3.4 Multivariate Analysis

3.4.1 2006 monitoring survey

A dendrogram and multidimensional scaling plot diagrammatically display the relationships between the replicates from each sample and also between samples from different sites in Figures 8 and 9. Overall, it can be seen that relationships between replicate samples from each site are statistically very similar. Where there are noticeable exceptions to this e.g. sites 27 and 3 this is attributable to differences in sediment type identified from each grab causing different faunal species to dominate and an overall difference between the replicate samples. However, due to the majority of the samples clustering well together it was decided that the data from the samples could be pooled for analysis purposes.

This is displayed in Figures 10 and 11 which show the interrelationships between the monitoring sites more clearly. Samples appear to cluster together with those of a similar sediment type and thus those which also support a similar faunal community. Inshore sites show a strong correlation to each other e.g. 10, 20, 21, 22, 23 and 29. Site 24 which is located furthest inshore at the bottom of the proposed cable route does not show a strong correlation with any of the other sites. This site had sediments which were moderately sorted fine sand whereas the other sites all supported faunal communities associated with a medium sand sediment type. Site 19 also did not correlate well with other sites this is due to the sediment type being described as gravelly which supports differing faunal species when compared to the other sites of the area. The other remaining sites both within the wind farm area and offshore all showed similarities with each other in terms of both fauna and sediment type.

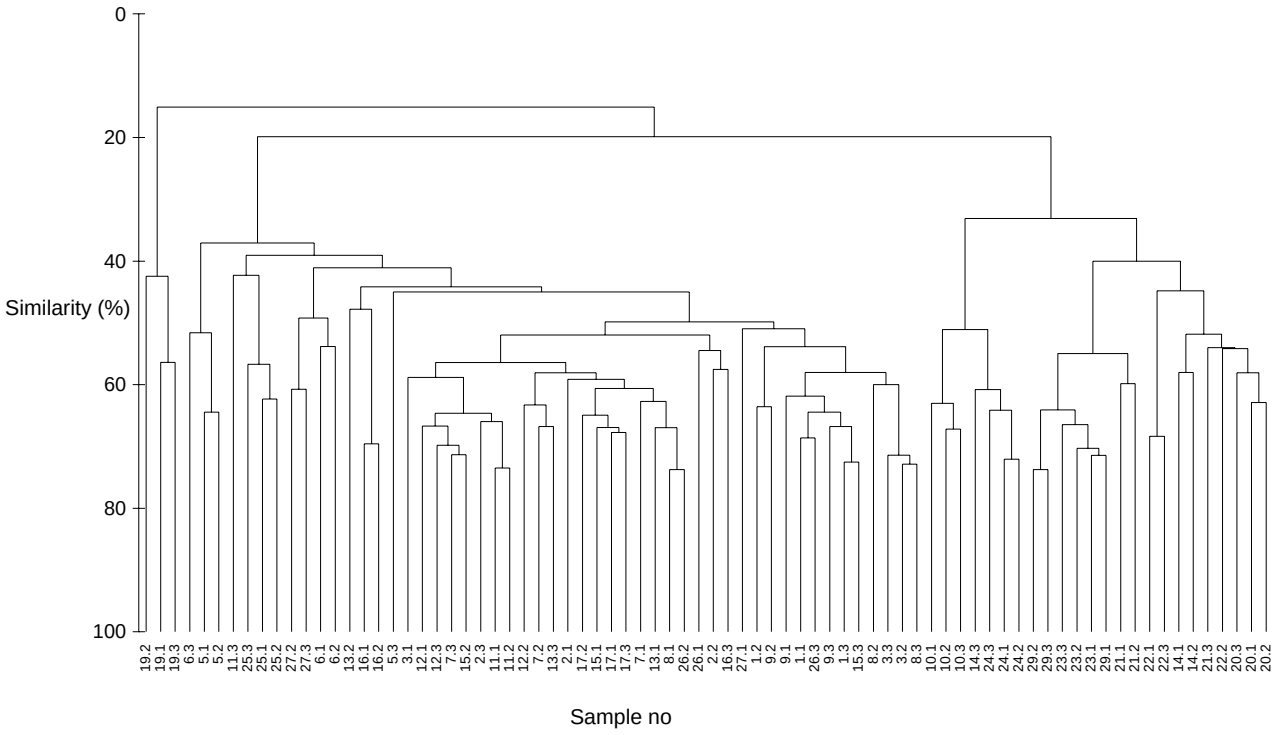


Figure 8 Dendrogram showing the percentage similarity between sample replicates from the 2006 monitoring survey

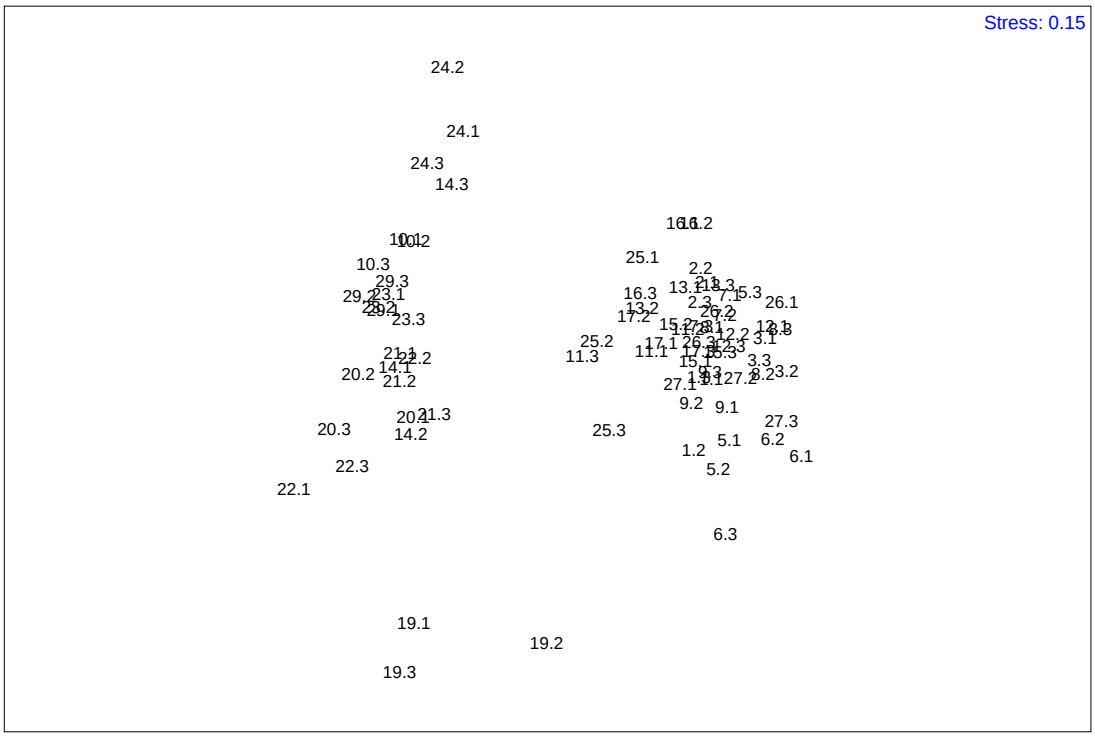


Figure 9 MDS plot displaying the statistical similarities between sample replicates and sites from the 2006 monitoring survey at Rhyl Flats.

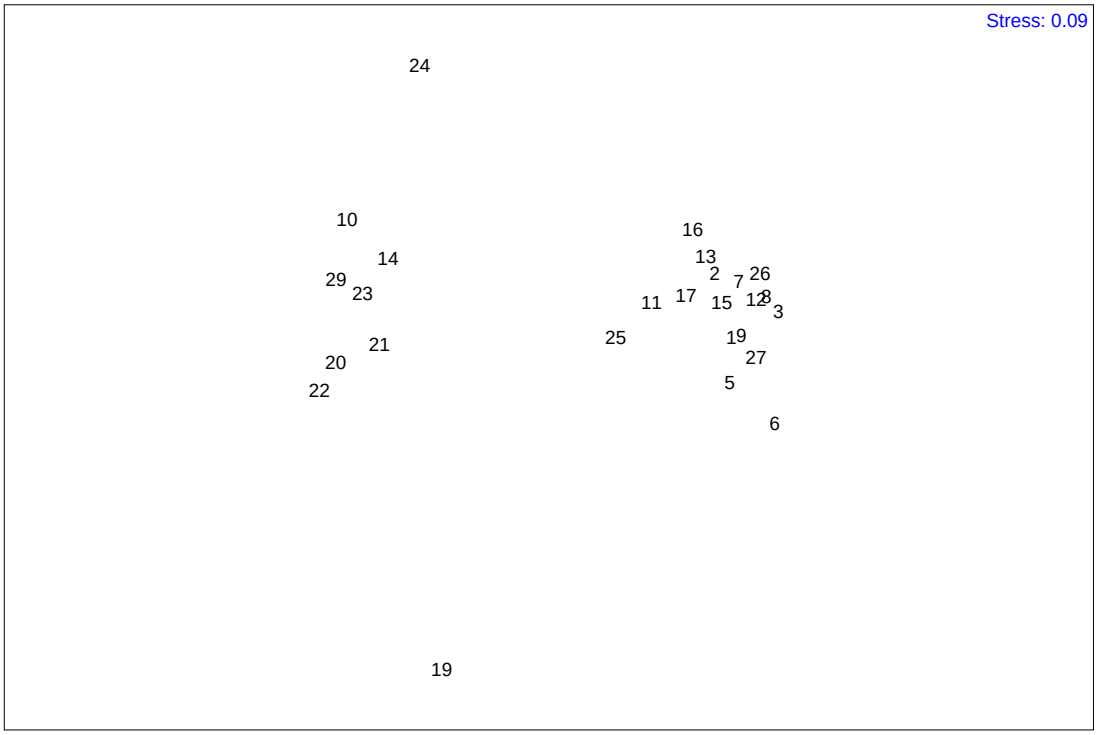


Figure 10 MDS plot displaying the statistical similarities between sites (based upon pooled data) from the 2006 monitoring survey at Rhyl Flats.

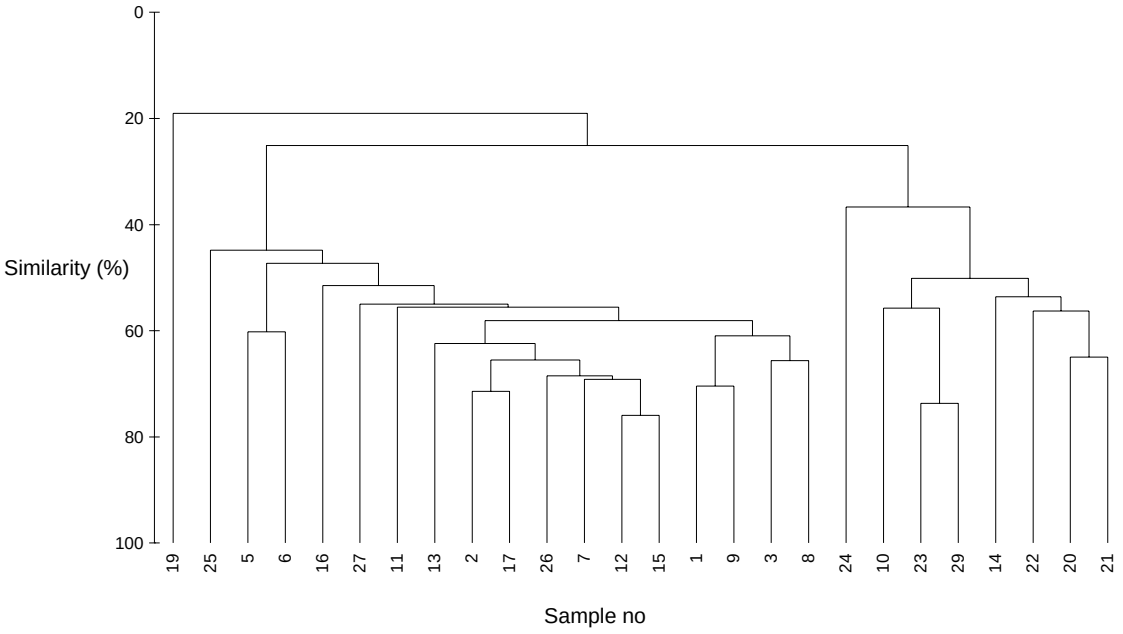


Figure 11 Dendrogram displaying the percentage similarity between sites (based upon pooled data) from the 2006 monitoring survey at Rhyl Flats.

3.4.2 Statistical comparison between 2005 and 2006 surveys

A statistical comparison with the faunal results from the 2005 monitoring survey has also been undertaken (NB this has not been done with the results from the characterisation surveys of 2001 due to the different site locations, methods and number of sites allowing only broad comparisons such as those detailed previously to be undertaken). The results of this comparison are displayed within Figure 12 as a dendrogram and as an MDS plot in Figure 13 which also displays the percentage similarity areas of 40% and 20%. Overall, it can be seen that the results for the majority of sites sampled in 2006 group closely to and thus display similar results as for those sampled within the previous years monitoring survey of 2005. This indicates that the benthic communities of the area remain largely unchanged with similar faunal and sediment characteristics as those recorded from the previous years monitoring study.

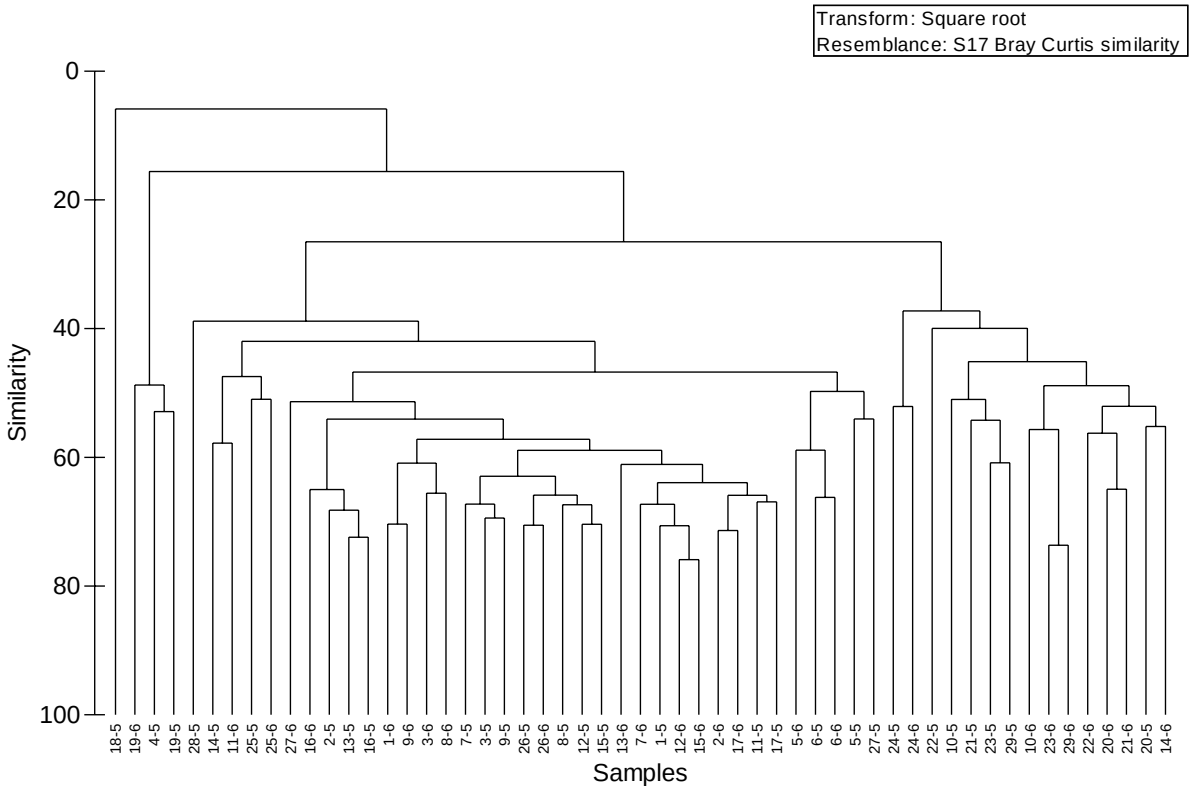


Figure 12 Dendrogram displaying the percentage similarity relationships between samples from the 2005 (-5 suffix) and the 2006 (-6 suffix) based upon pooled data

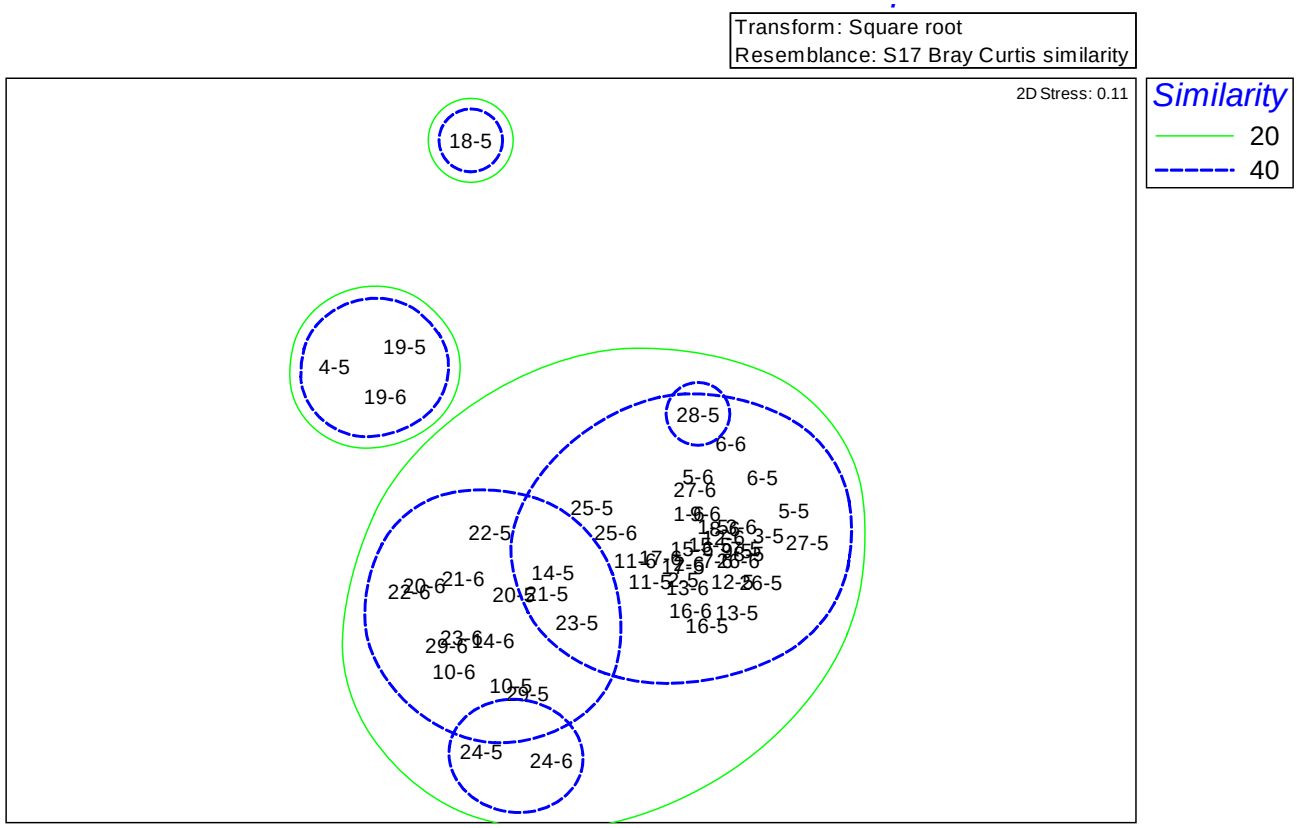


Figure 13 MDS plot (based upon pooled data) displaying the similarity between faunal communities from the 2005 (-5) and the 2006 (-6) monitoring surveys.

4 Summary

Sediments recorded from the 2006 survey were predominantly well-sorted medium to well-sorted fine sands, with increasing proportions of coarser material at a few sites. This was representative of the sediment type across the region and sites were very similar in sediment composition from the previous monitoring survey undertaken during 2005. TOC values demonstrated little obvious pattern between sites with the exception of slightly elevated levels at the inshore locations. This was consistent with the 2005 results and the highest TOC level was recorded at the same site in 2006 as it was previously in 2005.

Faunal species from the 2006 monitoring survey were similar to those recorded from 2005 with a marginally higher diversity compared to 2005, with an average of 121.4 countable individuals per grab and 22.9 taxa per $0.1m^2$ compared with 82.1 countable individuals per grab and 18.07 taxa per $0.1m^2$ in 2005. A very similar number of taxa per $0.1m^2$ was recorded during the characterisation survey of 2001 (23.15), although a higher number of countable individuals per grab was observed (191.4). Species number and taxa were also similar in 2006 to those recorded in 2005 and this is apparent from the statistical analysis with the same sites from the two different survey years generally clustering well together. The results from the 2006 faunal and sediment analysis also show the biotope classifications of the area to remain unchanged.

Overall, it can be seen that the results for the 2006 survey display a similarity with those results obtained as part of the 2005 monitoring survey. This indicates that the benthic communities of the area remain largely unchanged with similar faunal and sediment characteristics as those recorded and previously described. Therefore, it is considered that these two data sets provide a good baseline set of results from which to support the future assessment and further analysis regarding any potential impacts the construction of the Rhyl Flats Wind Farm may have upon the benthic communities of the area.

5 References

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6 Appendices

6.1 Appendix 1 Positional fixes for all samples collected during the 2006 Rhyl Flats OWF benthic grab sampling survey.

Site/Sample No	Latitude	Longitude	Site/Sample No	Latitude	Longitude
1.1	53.38320	-3.68378	16.1	53.36992	-3.60538
1.2	53.38323	-3.68375	16.2	53.36990	-3.60540
1.3	53.38316	-3.68367	16.3	53.36991	-3.60535
2.1	53.36970	-3.62005	17.1	53.36905	-3.60220
2.2	53.36971	-3.62002	17.2	53.36909	-3.60216
2.3	53.36969	-3.62001	17.3	53.36911	-3.60230
3.1	53.38276	-3.65361	18	NO SAMPLE- hard ground. Each grab returned to the surface with stones/cobbles in the jaw.	
3.2	53.38277	-3.65352			
3.3	53.38274	-3.65367			
4	NO SAMPLE- hard ground. Each grab returned to the surface with stones/cobbles in the jaw.		19.1	53.39758	-3.69077
			19.2	53.39757	-3.69074
			19.3	53.39760	-3.69077
5.1	53.38231	-3.63016	20.1	53.36767	-3.71504
5.2	53.38230	-3.63009	20.2	53.36765	-3.71505
5.3	53.38230	-3.63010	20.3	53.36764	-3.71503
6.1	53.38102	-3.61555	21.1	53.35851	-3.65720
6.2	53.38104	-3.61550	21.2	53.35852	-3.65730
6.3	53.38107	-3.61553	21.3	53.35853	-3.65726
7.1	53.37456	-3.63741	22.1	53.35967	-3.63791
7.2	53.37455	-3.63732	22.2	53.35965	-3.63785
7.3	53.37454	-3.63735	22.3	53.35964	-3.63777
8.1	53.37629	-3.65614	23.1	53.33836	-3.61282
8.2	53.37635	-3.65610	23.2	53.33842	-3.61294
8.3	53.37636	-3.65606	23.3	53.33840	-3.61289
9.1	53.38210	-3.66697	24.1	53.31537	-3.58807
9.2	53.38203	-3.66696	24.2	53.31534	-3.58794
9.3	53.38206	-3.66700	24.3	53.31535	-3.58790
10.1	53.32665	-3.68475	25.1	53.38182	-3.52001
10.2	53.32669	-3.68469	25.2	53.38185	-3.51987
10.3	53.32669	-3.68469	25.3	53.38188	-3.51988
11.1	53.37779	-3.68388	26.1	53.37860	-3.77593
11.2	53.37780	-3.68388	26.2	53.37860	-3.77592
11.3	53.37774	-3.68384	26.3	53.37860	-3.77594
12.1	53.38018	-3.64622	27.1	53.44383	-3.65756
12.2	53.38016	-3.64611	27.2	53.44390	-3.65752
12.3	53.38010	-3.64622	27.3	53.44384	-3.65747
13.1	53.36779	-3.63218	28	NO SAMPLE- hard ground. Each grab returned to the surface with stones/cobbles in the jaw.	
13.2	53.36781	-3.63223			
13.3	53.36786	-3.63220			
14.1	53.37170	-3.61144	29.1	53.33880	-3.56996
14.2	53.37162	-3.61146	29.2	53.33884	-3.57001
14.3	53.37165	-3.61155	29.3	53.33884	-3.57005
15.1	53.37071	-3.60838	26 out of 29 sites sampled in triplicate		

15.2	53.37076	-3.60845	
15.3	53.37085	-3.60844	

6.2 Appendix 2 Field observations recorded during the 2006 Rhyl Flats OWF benthic grab sampling survey.

Site	Replicate	Estimated Size (L)	Notes
1	1.1	8	Fine/ medium sand/ lots of shell fragments/ sand eel present
	1.2	7	Fine/ medium sand/ lots of shell fragments
	1.3	5	Fine/ medium sand/ lots of shell fragments
2	2.1	<5	Medium sand
	2.2	<5	Medium sand
	2.3	<5	Medium sand
3	3.1	8	Medium/ fine sand/ some shell fragments
	3.2	9	Medium/ fine sand/ some shell fragments
	3.3	9	Medium/ fine sand/ some shell fragments
4	NO FAUNA OR PSA SAMPLE. The grab consistently returned to the surface with large stones and cobbles in the jaw. *Macropodia sp, Metridium senile* and *Alcyonium digitatum* present. Very hard ground, with large cobbles and small boulders.		
5	5.1	7	Coarse sand/ lots of small pebbles/ stones
	5.2	6	Coarse sand/ lots of small pebbles/ stones
	5.3	8	Coarse sand/ lots of small pebbles/ stones/ some shell fragments
6	6.1	6	Coarse/ medium sand/ some shell fragments
	6.2	8	Coarse/ medium sand/ some shell fragments
	6.3	8	Coarse/ medium sand/ some shell fragments/ some pebbles and small stones
7	7.1	8	Medium/ fine sand/ some anoxia/ some shell fragments
	7.2	8	Medium/ fine sand/ some anoxia/ some shell fragments
	7.3	7	Medium/ fine sand/ some anoxia/ some shell fragments
8	8.1	8	Coarse/ medium sand/ small lesser weever fish present
	8.2	5	Coarse/ medium sand
	8.3	5	Coarse/ medium sand
9	9.1	6	Medium/ fine sand/ lots of shell fragments

Site	Replicate	Estimated Size (L)	Notes
	9.2	8	Medium/ fine sand/ lots of shell fragments
	9.3	8	Medium/ fine sand/ lots of shell fragments
10	10.1	8	Medium/ fine sand
	10.2	8	Medium/ fine sand/ *Echinocardium cordatum* and small *Ensis sp* present
	10.3	9	Medium/ fine sand
11	11.1	8	Coarse/ medium sand/ *Echinocardium cordatum* and *Corystes cassivelaunus*
	11.2	8	Coarse/ medium sand
	11.3	9	Coarse/ medium sand
12	12.1	7	Medium/ fine sand/ some anoxia/ some shell fragments
	12.2	7	Medium/ fine sand/ some anoxia/ some shell fragments
	12.3	6	Medium/ fine sand/ some anoxia/ some shell fragments
13	13.1	8	Medium/ fine sand/ lesser sand eel present
	13.2	8	Medium/ fine sand
	13.3	7	Medium/ fine sand
14	14.1	7	Coarse/ medium sand/ *Ophiura ophiura, Corystes cassivelaunus, Echinocardium cordatum* and polychaete tubes present
	14.2	8	Coarse/ medium sand
	14.3	7	Coarse/ medium sand
15	15.1	8	Coarse/ medium sand/ lots of shell fragments
	15.2	7	Coarse/ medium sand/ lots of shell fragments
	15.3	9	Coarse/ medium sand/ lots of shell fragments
16	16.1	6	Coarse/ medium sand/ *Echinocardium cordatum* present (dead)
	16.2	8	Coarse/ medium sand
	16.3	9	Coarse/ medium sand
17	17.1	7	Coarse/ medium sand/ *Ensis sp* present
	17.2	6	Coarse/ medium sand
	17.3	7	Coarse/ medium sand
18	NO FAUNA OR PSA SAMPLE. The grab consistently returned to the surface with large stones and cobbles in the jaw. A full grab was not obtained and only small volumes of sediment. Very hard ground, with large cobbles and small boulders.		

Site	Replicate	Estimated Size (L)	Notes
19	19.1	7	Coarse sand/ lots of shell fragments, stones and pebbles/ *Ophiura* sp and *Amphiura* sp
	19.2	8	Coarse sand/ shell fragments/ small stones
	19.3	8	Coarse sand/ shell fragments/ small stones
20	20.1	8	Coarse/ medium sand/ some anoxic mud/clay/*Corystes cassivelaunus* and *Amphiura sp*
	20.2	7	Coarse/ medium sand/ some anoxic mud/clay
	20.3	8	Coarse/ medium sand/ some anoxic mud/clay/H_2S
21	21.1	9	Medium sand/ anoxic mud/ *Corystes cassivelaunus*
	21.2	9	Medium sand/ anoxic mud
	21.3	9	Medium sand/ anoxic mud
22	22.1	10	Coarse/ medium sand/ anoxic clay and mud/ *Liocarcinus holsatus* and *Ophiura ophiura* present
	22.2	10	More sandy/ still some anoxic mud/ *Corystes cassivelaunus* present
	22.3	10	More sandy/ still some anoxic mud/ *Corystes cassivelaunus* present
23	23.1	7	Medium/ fine sand/ some shell fragments/ small *Ensis sp* and ploychaete tubes present
	23.2	6	Medium/ fine sand/ some shell fragments/ small *Ensis sp* and ploychaete tubes present
	23.3	7	Medium/ fine sand/ some shell fragments/ small *Ensis sp* and ploychaete tubes present
24	24.1	7	Medium/ fine sand/ some anoxia/ *Ophiura ophiura* present
	24.2	6	Medium/ fine sand
	24.3	7	Medium/ fine sand
25	25.1	5	Coarse sand/ stones and pebbles/ some mud
	25.2	6	Coarse sand/ stones and pebbles/ some mud/ *Ophiura ophiura* present and empty *Ensis sp* shells
	25.3	6	Coarse sand/ stones and pebbles/ some mud/ some anoxia
26	26.1	5	Coarse/ medium sand/ some shell fragments
	26.2	5	Coarse/ medium sand/ some shell fragments
	26.3	8	Coarse/ medium sand/ some shell fragments
27	27.1	5	Coarse/ medium sand/ some shell fragments/ some anoxia
	27.2	8	Coarse/ medium sand/ some shell fragments/ some anoxia
	27.3	5	Coarse/ medium sand/ some shell fragments/ some anoxia
28	NO FAUNA OR PSA SAMPLE. The grab consistently returned to the surface with large stones and cobbles in the jaw. A full grab was not obtained and		

Site	Replicate	Estimated Size (L)	Notes
	only small volumes of sediment. Very hard ground, with large cobbles and small boulders.		
29	29.1	7	Medium/ fine sand/ some anoxic clay
	29.2	6	Medium/ fine sand/ some anoxic clay
	29.3	7	Medium/ fine sand/ some anoxic clay

6.3 Appendix 3 Raw data for particle size analysis from September 2006 monitoring at Rhyl Flats, plus main summary statistics and descriptors. Total organic carbon content of 1mm size fraction, as indicated by % loss on ignition, is also given.

		Raw Data (contribution to each size class)												Summary Statistics and Descriptors						
Site	LOI %	% 10 mm	% 5 mm	% 4.00 mm	% 2.0 mm	% 1.0 mm	% 600 um	% 425 um	% 300 um	% 212 um	% 150 um	% 63 um	% <63 um	Mean phi	Mean mm	1 std	skew-ness	kurto-sis	Classification after Buchanan	Folk Triangles after BGS
1.1	0.623	0.08	0.54	0.32	0.23	3.22	3.50	7.04	37.04	38.49	9.11	0.37	0.07	1.704	0.307	0.584	-0.181	1.453	Moderately well sorted medium sand	Sand
1.2	0.599	0.00	0.37	0.27	1.93	2.70	3.02	5.13	50.07	28.09	8.17	0.21	0.04	1.655	0.318	0.597	-0.074	1.766	Moderately well sorted medium sand	Sand
1.3	0.480	0.00	0.15	0.23	0.10	0.63	0.62	2.71	43.87	36.04	14.90	0.69	0.07	1.787	0.290	0.422	0.162	0.870	Well sorted medium sand	Sand
2.1	0.459	0.00	0.00	0.00	0.01	0.04	0.05	0.31	43.97	31.75	23.05	0.78	0.04	1.882	0.271	0.455	0.189	0.791	Well sorted medium sand	Sand
2.2	0.455	0.00	0.00	0.00	0.04	0.03	1.09	1.28	26.27	50.90	19.64	0.68	0.07	1.930	0.262	0.418	-0.022	1.047	Well sorted medium sand	Sand
2.3	0.468	0.00	0.00	0.00	0.00	0.02	0.62	0.98	16.36	54.79	26.24	0.89	0.09	2.052	0.241	0.394	0.021	1.131	Well sorted fine sand	Sand
3.1	0.475	0.00	0.19	0.17	1.13	0.94	0.77	1.62	46.96	34.67	12.77	0.74	0.06	1.758	0.296	0.415	0.211	0.880	Well sorted medium sand	Sand
3.2	0.454	0.00	0.12	0.16	1.04	1.36	1.23	3.12	58.52	27.72	6.53	0.16	0.03	1.662	0.316	0.411	0.140	1.153	Well sorted medium sand	Sand
3.3	0.448	0.00	0.09	0.08	0.86	1.38	1.36	2.93	54.48	32.33	6.36	0.12	0.03	1.682	0.312	0.406	0.106	1.054	Well sorted medium sand	Sand
4	NO SAMPLE													NO SAMPLE						
5.1	0.543	6.99	8.80	2.52	6.13	2.33	1.27	1.97	30.54	33.19	5.99	0.23	0.04	0.403	0.756	2.014	-0.750	0.877	Very poorly sorted coarse sand	Gravelly Sand
5.2	0.532	19.04	14.15	4.19	8.30	2.42	1.19	2.47	26.17	17.95	3.86	0.21	0.05	-0.194	1.144	2.232	-0.584	0.536	Very poorly sorted very coarse sand	Gravelly Sand
5.3	0.548	0.00	0.00	0.01	0.91	2.11	2.62	6.44	64.49	20.33	2.98	0.08	0.03	1.572	0.336	0.411	0.000	1.720	Well sorted medium sand	Sand
6.1	0.533	0.00	0.00	0.05	0.55	1.72	2.34	4.71	67.68	19.34	3.48	0.10	0.04	1.579	0.335	0.375	0.067	1.578	Well sorted medium sand	Sand
6.2	0.602	0.00	0.00	0.00	0.47	2.08	3.14	5.59	62.93	21.00	4.56	0.19	0.06	1.596	0.331	0.426	0.027	1.649	Well sorted medium sand	Sand
6.3	0.600	7.25	4.09	1.74	5.00	4.47	3.39	4.78	33.77	29.74	5.39	0.30	0.08	0.724	0.606	1.748	-0.708	1.720	Poorly sorted coarse sand	Sand
7.1	0.498	0.00	0.08	0.28	0.90	0.84	0.54	0.95	23.12	52.83	19.59	0.80	0.06	1.938	0.261	0.419	-0.042	1.131	Well sorted medium sand	Sand
7.2	0.484	0.00	0.00	0.00	0.20	0.16	1.78	1.58	43.08	35.44	17.22	0.51	0.03	1.816	0.284	0.434	0.164	0.853	Well sorted medium sand	Sand
7.3	0.499	0.17	0.00	0.03	0.32	0.23	1.56	1.52	19.45	54.02	21.97	0.70	0.04	1.975	0.254	0.419	-0.042	1.216	Well sorted medium sand	Sand
8.1	0.497	0.00	0.00	0.00	0.29	0.21	1.75	3.11	55.50	27.21	11.54	0.36	0.02	1.711	0.306	0.414	0.290	0.954	Well sorted medium sand	Sand
8.2	0.495	0.00	0.00	0.00	0.23	0.26	0.38	3.37	37.79	44.27	13.23	0.42	0.06	1.810	0.285	0.406	0.028	0.904	Well sorted medium sand	Sand
8.3	0.487	0.00	0.00	0.00	0.00	0.15	0.34	1.90	53.91	32.80	10.58	0.26	0.05	1.733	0.301	0.390	0.269	0.892	Well sorted medium sand	Sand
9.1	0.602	0.20	0.96	0.49	2.22	1.89	1.40	2.47	31.90	43.98	13.92	0.50	0.06	1.796	0.288	0.673	-0.313	1.905	Moderately well sorted medium sand	Sand
9.2	0.546	0.13	0.24	0.08	1.08	1.59	1.43	2.85	39.48	42.11	10.72	0.26	0.02	1.765	0.294	0.466	-0.079	1.138	Well sorted medium sand	Sand
9.3	0.483	0.00	0.10	0.23	1.11	1.51	1.00	1.74	31.66	44.19	17.73	0.69	0.04	1.862	0.275	0.467	-0.065	1.040	Well sorted medium sand	Sand

Site	LOI %	Raw Data (contribution to each size class)												Summary Statistics and Descriptors						
		% 10 mm	% 5 mm	% 4.00 mm	% 2.0 mm	% 1.0 mm	% 600 um	% 425 um	% 300 um	% 212 um	% 150 um	% 63 um	% <63 um	Mean phi	Mean mm	1 std	skew-ness	kurto-sis	Classification after Buchanan	Folk Triangles after BGS
10.1	0.872	0.00	0.12	0.03	0.02	0.41	1.21	5.71	32.60	40.01	17.18	2.22	0.50	1.859	0.276	0.497	-0.013	1.012	Well sorted medium sand	Sand
10.2	0.746	0.00	0.04	0.01	0.18	0.73	2.05	8.36	43.06	26.39	16.94	2.00	0.24	1.768	0.294	0.533	0.159	1.005	Moderately well sorted medium sand	Sand
10.3	0.811	0.00	0.00	0.00	0.01	0.36	1.39	7.40	33.55	38.27	16.80	1.85	0.37	1.832	0.281	0.505	-0.017	1.013	Moderately well sorted medium sand	Sand
11.1	0.517	0.00	0.06	0.03	0.02	0.14	0.16	0.50	44.08	37.95	16.55	0.47	0.05	1.827	0.282	0.416	0.145	0.867	Well sorted medium sand	Sand
11.2	0.523	0.00	0.04	0.02	0.15	0.67	0.88	1.22	32.88	43.32	20.12	0.65	0.05	1.897	0.268	0.438	0.029	0.904	Well sorted medium sand	Sand
11.3	0.522	0.00	0.00	0.00	0.00	0.12	0.06	0.23	16.39	64.08	18.04	0.99	0.10	2.011	0.248	0.343	0.040	1.314	Very well sorted fine sand	Sand
12.1	0.467	0.00	0.00	0.03	0.28	0.15	0.12	0.75	56.56	29.53	11.99	0.51	0.10	1.737	0.300	0.399	0.319	0.905	Well sorted medium sand	Sand
12.2	0.477	0.00	0.00	0.00	0.17	0.12	0.24	1.39	58.00	28.49	11.15	0.37	0.06	1.723	0.303	0.394	0.327	0.918	Well sorted medium sand	Sand
12.3	0.450	0.00	0.00	0.00	1.20	0.95	0.79	1.74	59.11	27.87	8.07	0.23	0.04	1.684	0.311	0.375	0.308	0.932	Well sorted medium sand	Sand
13.1	0.465	0.00	0.00	0.00	0.14	0.09	1.24	0.92	38.00	30.49	28.13	0.95	0.04	1.927	0.263	0.476	0.097	0.736	Well sorted medium sand	Sand
13.2	0.490	0.00	0.00	0.01	0.43	0.24	0.18	1.42	8.81	49.93	37.25	1.68	0.05	2.153	0.225	0.387	-0.015	0.974	Well sorted fine sand	Sand
13.3	0.485	0.00	0.00	0.00	0.08	0.05	1.15	1.12	10.52	50.44	35.17	1.44	0.03	2.135	0.228	0.392	-0.004	0.997	Well sorted fine sand	Sand
14.1	0.697	0.00	0.00	0.00	0.04	0.08	1.23	2.34	13.63	53.63	27.08	1.52	0.46	2.070	0.238	0.409	0.009	1.137	Well sorted fine sand	Sand
14.2	0.626	0.00	0.00	0.00	0.05	0.09	1.22	2.38	12.70	49.48	32.06	1.74	0.28	2.105	0.232	0.413	-0.010	1.037	Well sorted fine sand	Sand
14.3	0.535	0.00	0.00	0.00	0.01	0.03	0.05	0.24	7.26	52.50	38.26	1.45	0.20	2.170	0.222	0.355	0.043	0.879	Well sorted fine sand	Sand
15.1	0.471	0.11	0.00	0.07	0.58	0.87	0.96	4.82	19.91	46.15	25.13	1.33	0.06	1.960	0.257	0.504	-0.128	1.168	Moderately well sorted medium sand	Sand
15.2	0.499	2.66	0.25	0.31	2.21	2.37	2.05	4.11	18.86	41.49	24.83	0.84	0.02	1.889	0.270	0.869	-0.389	2.181	Moderately sorted medium sand	Sand
15.3	0.509	0.06	0.43	0.42	2.73	2.60	4.10	8.73	30.78	30.54	18.70	0.85	0.06	1.711	0.306	0.790	-0.248	1.556	Moderately sorted medium sand	Sand
16.1	0.426	0.00	0.00	0.00	0.44	0.99	0.79	0.95	9.79	54.06	31.69	1.24	0.06	2.117	0.231	0.390	0.018	1.074	Well sorted fine sand	Sand
16.2	0.423	0.00	0.00	0.00	0.01	1.77	0.73	1.05	7.40	68.16	20.26	0.58	0.04	2.052	0.241	0.342	0.039	1.446	Very well sorted fine sand	Sand
16.3	0.416	0.00	0.03	0.00	0.67	0.91	0.59	0.76	28.44	40.53	27.10	0.90	0.06	1.964	0.256	0.460	-0.005	0.851	Well sorted medium sand	Sand
17.1	0.433	0.00	0.00	0.00	0.05	0.11	0.17	2.99	52.66	26.82	16.36	0.76	0.07	1.770	0.293	0.436	0.331	0.856	Well sorted medium sand	Sand
17.2	0.432	0.00	0.00	0.00	0.14	0.10	0.09	3.63	40.26	37.73	17.33	0.69	0.03	1.832	0.281	0.435	0.115	0.863	Well sorted medium sand	Sand
17.3	0.367	0.00	0.00	0.04	0.32	0.22	0.19	3.52	45.48	32.75	16.76	0.69	0.04	1.796	0.288	0.437	0.225	0.850	Well sorted medium sand	Sand
18	NO SAMPLE													NO SAMPLE						
19.1	0.788	2.92	11.58	2.62	6.79	4.11	3.21	4.27	26.98	27.38	8.27	1.30	0.58	0.476	0.719	1.942	-0.671	0.858	Poorly sorted coarse sand	Gravelly Sand
19.2	0.479	0.60	0.16	0.17	0.71	1.32	1.53	2.30	21.60	54.07	16.44	0.96	0.14	1.890	0.270	0.477	-0.200	1.421	Well sorted medium sand	Sand
19.3	0.962	8.18	19.02	4.46	11.03	5.34	2.78	3.55	21.82	16.88	5.28	1.12	0.55	-0.146	1.107	2.130	-0.388	0.571	Very poorly sorted very coarse sand	Gravelly Sand

Site	LOI %	Raw Data (contribution to each size class)												Summary Statistics and Descriptors						
		% 10 mm	% 5 mm	% 4.00 mm	% 2.0 mm	% 1.0 mm	% 600 um	% 425 um	% 300 um	% 212 um	% 150 um	% 63 um	% <63 um	Mean phi	Mean mm	1 std	skew-ness	kurto-sis	Classification after Buchanan	Folk Triangles after BGS
20.1	0.787	0.08	0.03	0.02	0.41	0.78	1.08	1.83	14.88	50.52	28.09	1.97	0.31	2.056	0.240	0.432	-0.026	1.088	Well sorted fine sand	Sand
20.2	0.478	0.00	0.14	0.02	0.32	1.02	1.55	2.54	15.94	48.62	27.36	2.09	0.40	2.028	0.245	0.470	-0.084	1.165	Well sorted fine sand	Sand
20.3	0.962	0.71	0.64	0.22	1.34	1.88	2.06	2.89	14.42	45.77	27.55	2.27	0.24	1.988	0.252	0.657	-0.289	1.841	Moderately well sorted medium sand	Sand
21.1	0.679	0.24	0.52	0.47	2.68	2.68	1.90	3.14	21.06	48.42	15.60	2.15	1.13	1.862	0.275	0.744	-0.349	2.161	Moderately sorted medium sand	Sand
21.2	0.770	0.00	0.43	0.14	1.37	1.79	2.17	3.86	27.86	41.87	18.53	1.68	0.28	1.864	0.275	0.590	-0.185	1.352	Moderately well sorted medium sand	Sand
21.3	0.843	1.44	1.38	0.65	2.33	4.32	3.60	5.06	22.27	42.36	14.23	1.69	0.67	1.688	0.310	0.928	-0.478	2.140	Moderately sorted medium sand	Sand
22.1	1.088	0.00	0.00	0.11	0.36	0.31	0.32	1.43	29.39	43.30	21.78	2.33	0.66	1.950	0.259	0.458	0.033	0.940	Well sorted medium sand	Sand
22.2	0.728	0.00	0.36	0.14	0.20	0.27	0.22	2.39	36.75	36.62	21.53	1.42	0.10	1.892	0.270	0.462	0.095	0.841	Well sorted medium sand	Sand
22.3	1.310	0.00	0.00	0.00	0.07	0.35	0.63	8.97	29.50	39.20	19.04	1.71	0.52	1.861	0.275	0.519	-0.050	0.999	Moderately well sorted medium sand	Sand
23.1	0.986	0.00	0.38	0.32	0.42	0.94	0.95	2.01	18.80	44.53	28.89	2.48	0.28	2.023	0.246	0.468	-0.059	0.999	Well sorted fine sand	Sand
23.2	0.608	0.00	0.00	0.00	0.00	0.23	0.46	1.22	24.49	45.24	26.18	1.92	0.25	1.998	0.250	0.447	-0.005	0.956	Well sorted medium sand	Sand
23.3	1.335	0.00	0.00	0.00	0.01	0.17	0.34	2.37	25.91	43.25	25.93	1.85	0.17	1.980	0.254	0.458	-0.008	0.912	Well sorted medium sand	Sand
24.1	0.698	0.00	0.00	0.00	0.12	0.16	0.37	2.26	7.61	25.94	52.25	11.00	0.29	2.301	0.203	0.527	-0.096	1.446	Moderately well sorted fine sand	Sand
24.2	0.679	0.00	0.00	0.00	0.30	0.90	1.08	1.47	6.94	26.22	54.24	8.61	0.23	2.289	0.205	0.507	-0.149	1.397	Moderately well sorted fine sand	Sand
24.3	0.635	0.00	0.00	0.00	0.03	0.21	0.46	2.48	9.08	29.79	47.95	9.77	0.23	2.265	0.208	0.528	-0.078	1.329	Moderately well sorted fine sand	Sand
25.1	0.638	0.96	2.01	1.22	2.90	2.05	2.50	3.06	33.37	42.28	8.85	0.67	0.14	1.726	0.302	0.867	-0.381	2.595	Moderately sorted medium sand	Sand
25.2	0.625	0.00	0.31	0.05	0.36	0.78	1.44	3.23	20.28	62.49	10.34	0.60	0.11	1.867	0.274	0.404	-0.212	1.423	Well sorted medium sand	Sand
25.3	0.647	0.00	0.06	0.04	0.65	1.29	1.78	3.43	24.28	57.82	9.98	0.57	0.10	1.835	0.280	0.438	-0.233	1.291	Well sorted medium sand	Sand
26.1	0.604	0.00	0.00	0.00	0.15	0.07	0.10	0.35	29.80	48.50	20.30	0.71	0.02	1.931	0.262	0.418	0.010	0.983	Well sorted medium sand	Sand
26.2	0.602	0.00	0.00	0.00	0.02	0.05	0.10	0.12	60.33	20.70	18.01	0.62	0.04	1.775	0.292	0.440	0.422	0.854	Well sorted medium sand	Sand
26.3	0.579	0.00	0.00	0.00	0.12	0.10	0.10	0.39	39.02	45.21	14.72	0.30	0.03	1.836	0.280	0.394	0.038	0.910	Well sorted medium sand	Sand
27.1	0.457	0.00	0.12	0.03	0.08	0.07	0.09	0.35	61.08	30.21	7.30	0.58	0.10	1.702	0.307	0.364	0.308	0.921	Well sorted medium sand	Sand
27.2	0.463	0.00	0.21	0.25	1.00	1.34	0.99	1.91	50.58	34.85	7.88	0.87	0.11	1.716	0.304	0.416	0.142	1.011	Well sorted medium sand	Sand
27.3	0.459	0.00	0.00	0.00	0.32	0.40	0.27	1.04	38.82	50.50	8.02	0.55	0.08	1.803	0.287	0.368	-0.016	0.898	Well sorted medium sand	Sand
28	NO SAMPLE													NO SAMPLE						
29	0.594	0.00	0.02	0.00	0.28	0.81	0.86	1.76	23.37	43.74	26.76	2.18	0.19	1.993	0.251	0.462	-0.026	0.938	Well sorted medium sand	Sand

6.4 Appendix 4 Raw data for fauna from September 2006 monitoring at Rhyl Flats

Group	Class	Order	Name	RF 1.1	RF 1.2	RF 1.3	RF 2.1	RF 2.2	RF 2.3	RF 3.1	RF 3.2	RF 3.3	RF 5.1	RF 5.2	RF 5.3	RF 6.1	RF 6.2	RF 6.3	RF 7.1	RF 7.2	RF 7.3	RF 8.1	RF 8.2	RF 8.3	RF 9.1	RF 9.2	RF 9.3	RF 10.1	RF 10.2	RF 10.3
Protozoa	Protozoa		Lagotia viridis	P	P	P	-	-	-	P	P	P	-	-	P	P	P	-	P	-	-	P	P	P	P	P	P	-	-
Porifera			Porifera crusts indet.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Capitata	Tubularia sp.	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Capitata	Tubularia indivisa	P	P	P	-	-	-	-	P	P	P	P	-	-	-	P	-	P	-	-	-	-	P	P	P	P	-	P
Cnidaria	Leptolida	Filifera	Bougainvillia sp.	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Phialella quadrata	P	P	P	P	-	P	-	P	P	-	P	P	P	-	-	P	-	P	P	P	P	P	P	P	-	-	-
Cnidaria	Leptolida	Conica	Calycella syringa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Halecium sp.	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Hydrallmania falcata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Sertularella gayi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Sertularia cupressina	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Proboscoida	Campanulariidae	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	P	-	P
Cnidaria	Leptolida	Proboscoida	Clytia hemisphaerica	P	P	P	-	-	-	-	-	-	P	P	-	-	-	P	-	-	-	-	-	-	P	P	P	-	P	-
Cnidaria	Octocorallia	Alcyonacea	Alcyonium digitatum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Ceriantharia	Cerianthus lloydii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Actinaria	Actinaria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Actinaria	Urticina felina?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Actiniaria	Sagartia troglodytes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Actiniaria	Peachia cylindrica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Actiniaria	Edwardsia claparedii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nemertea			Nemertea spp.	2	2	1	-	-	3	1	-	-	-	-	1	1	2	-	5	1	2	1	1	-	4	1	2	2	5	7
Nematoda			Nematoda spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entoprocta		Coloniales	Pedicellina sp.	P	P	P	-	-	-	P	P	P	-	-	-	-	-	-	-	-	P	-	P	P	-	P	P	-	-	-
Annelida	Polychaeta	Phyllodocida	Aphrodita aculeata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Polynoidae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Malmgreniella sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Harmothoe impar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 1.1	RF 1.2	RF 1.3	RF 2.1	RF 2.2	RF 2.3	RF 3.1	RF 3.2	RF 3.3	RF 5.1	RF 5.2	RF 5.3	RF 6.1	RF 6.2	RF 6.3	RF 7.1	RF 7.2	RF 7.3	RF 8.1	RF 8.2	RF 8.3	RF 9.1	RF 9.2	RF 9.3	RF 10.1	RF 10.2	RF 10.3
Annelida	Polychaeta	Phyllodocida	Malmgreniella arenicolae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Pholoe baltica	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Annelida	Polychaeta	Phyllodocida	Sthenelais boa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Sthenelais limicola	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	2	-
Annelida	Polychaeta	Phyllodocida	Eteone longa/flava (agg.)	-	2	-	-	1	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Hesionura elongata	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Mysta picta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides groenlandica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides mucosa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides rosea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Annelida	Polychaeta	Phyllodocida	Eumida sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Eumida bahusiensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Annelida	Polychaeta	Phyllodocida	Eumida sanguinea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera falax? (=gigantea)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera lapidum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera oxycephala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera tridactyla	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	8	7	6
Annelida	Polychaeta	Phyllodocida	Glycinde nordmanni	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Psamathe fusca	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Podarkeopsis capensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Annelida	Polychaeta	Phyllodocida	Eusyllis blomstrandi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nereis longissima	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nereis zonata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys sp. (Juv.)	-	-	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys assimilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys cirrosa	5	6	11	3	8	6	8	7	10	14	8	8	6	5	7	5	6	4	3	4	3	11	4	4	2	1	1
Annelida	Polychaeta	Phyllodocida	Nephtys hombergii	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys kersivalensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 1.1	RF 1.2	RF 1.3	RF 2.1	RF 2.2	RF 2.3	RF 3.1	RF 3.2	RF 3.3	RF 5.1	RF 5.2	RF 5.3	RF 6.1	RF 6.2	RF 6.3	RF 7.1	RF 7.2	RF 7.3	RF 8.1	RF 8.2	RF 8.3	RF 9.1	RF 9.2	RF 9.3	RF 10.1	RF 10.2	RF 10.3
Annelida	Polychaeta	Eunicida	Protodorvillea kefersteini	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Orbiniida	Scoloplos armiger	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Annelida	Polychaeta	Orbiniidae	Aricidea minuta	3	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4	1	-	-	-	-
Annelida	Polychaeta	Orbiniidae	Paradoneis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Poecilochaetus serpens	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	7	10	10
Annelida	Polychaeta	Spionida	Spionidae genus A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Aonides oxycephala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Aonides paucibranchiata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Polydora caeca	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Pseudopolydora pulchra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Scolelepis (Scolelepis) bonnieri	-	-	-	-	1	-	-	-	-	-	1	1	-	-	-	1	1	-	1	-	-	-	-	1	-	-	-
Annelida	Polychaeta	Spionida	Scolelepis (Scolelepis) squamata	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Spio armata (agg.)	1	-	2	-	-	-	1	2	1	2	1	-	3	4	-	-	1	1	-	2	1	1	-	2	-	-	-
Annelida	Polychaeta	Spionida	Spio decorata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Spiophanes bombyx	4	7	8	14	3	9	2	3	4	2	5	6	3	6	4	5	10	7	6	2	6	7	6	6	10	14	15
Annelida	Polychaeta	Spionida	Magelona sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Magelona filiformis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	1
Annelida	Polychaeta	Spionida	Magelona johnstoni	1	1	1	3	2	4	-	-	4	-	-	-	-	-	-	1	2	1	1	-	1	-	2	-	132	148	112
Annelida	Polychaeta	Spionida	Cirratulidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Caulleriella alata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Caulleriella zetlandica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Chaetozone christie	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	-	1
Annelida	Polychaeta	Spionida	Cirriformia tentaculata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Capitellida	Mediomastus fragilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Annelida	Polychaeta	Capitellida	Notomastus sp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Opheliida	Ophelia borealis	-	1	-	-	-	-	-	1	-	-	1	1	1	2	1	-	-	-	1	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Opheliida	Travisia forbesi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Opheliida	Scalibregma inflatum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Oweniida	Galathowenia oculata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 1.1	RF 1.2	RF 1.3	RF 2.1	RF 2.2	RF 2.3	RF 3.1	RF 3.2	RF 3.3	RF 5.1	RF 5.2	RF 5.3	RF 6.1	RF 6.2	RF 6.3	RF 7.1	RF 7.2	RF 7.3	RF 8.1	RF 8.2	RF 8.3	RF 9.1	RF 9.2	RF 9.3	RF 10.1	RF 10.2	RF 10.3
Annelida	Polychaeta	Oweniida	Owenia fusiformis	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	13	21
Annelida	Polychaeta	Terebellida	Lagis koreni	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
Annelida	Polychaeta	Terebellida	Ampharete lindstroemi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Terebellida	Terebellidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Terebellida	Lanice conchilega	1	1	-	1	-	-	-	-	-	3	-	1	-	-	-	-	-	1	-	-	-	-	1	1	5	2	7
Annelida	Polychaeta	Terebellida	Nicolea venustula	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Terebellida	Polycirrus sp.	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Sabellida	Pomatoceros triqueter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Oligochaeta	Tubificidae	Tubificoides benedii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chelicerata	Pycnogonida		Anoplodactylus petiolatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Mysidacea	Gastrosaccus spinifer	1	1	-	-	2	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	4	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Monoculodes carinatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Perioculodes longimanus	-	-	-	-	-	-	1	-	-	-	1	-	-	-	1	-	-	1	-	-	-	-	-	1	1	-
Crustacea	Eumalacostraca	Amphipoda	Pontocrates arenarius	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Synchelidium maculatum	-	-	-	-	1	1	1	-	-	-	1	-	-	-	1	4	-	-	-	-	-	1	1	1	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Leucothoe incisa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Crustacea	Eumalacostraca	Amphipoda	Stenothoe marina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Urothoe brevicornis	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Urothoe elegans	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Orchomene nanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Atylus falcatus	3	-	4	-	-	1	1	-	-	1	1	-	-	1	-	-	-	-	-	2	-	1	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Ampelisca spinipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Ampelisca tenuicornis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Bathyporeia sp.	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Bathyporeia elegans	5	-	13	12	8	44	11	4	1	3	3	-	3	2	-	30	15	7	20	9	2	5	1	7	-	1	-
Crustacea	Eumalacostraca	Amphipoda	Bathyporeia guilliamsoniana	4	-	11	8	57	100	30	4	2	4	-	5	-	-	-	20	15	39	5	2	3	2	2	17	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Megaluropus agilis	-	1	-	1	-	1	-	-	1	1	2	-	1	2	-	-	-	-	-	-	-	-	1	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Abludomelita obtusata	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Crustacea	Eumalacostraca	Amphipoda	Cheirocratus sundevallii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 1.1	RF 1.2	RF 1.3	RF 2.1	RF 2.2	RF 2.3	RF 3.1	RF 3.2	RF 3.3	RF 5.1	RF 5.2	RF 5.3	RF 6.1	RF 6.2	RF 6.3	RF 7.1	RF 7.2	RF 7.3	RF 8.1	RF 8.2	RF 8.3	RF 9.1	RF 9.2	RF 9.3	RF 10.1	RF 10.2	RF 10.3
Crustacea	Eumalacostraca	Amphipoda	Gammaropsis cornuta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Microprotopus maculatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Photis longicaudata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Ericthonius punctatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Lembos longipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Corophium sp. juv	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Corophium bonnellii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Corophium sextonae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Pariambus typicus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Crustacea	Eumalacostraca	Isopoda	Gnathia sp. Females & juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Bodotria pulchella	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Bodotria scorpioides	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Iphinoe trispinosa	-	-	-	-	-	-	1	-	-	1	2	-	-	-	1	-	-	-	-	-	-	-	-	-	2	3
Crustacea	Eumalacostraca	Cumacea	Pseudocuma similis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Diastylis bradyi	-	-	2	-	-	1	-	-	-	1	2	-	-	1	1	-	-	-	1	-	-	3	1	2	-	-	-
Crustacea	Eumalacostraca	Cumacea	Diastylis laevis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Crangon trispinosus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Callianassidae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Upogebia deltaura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Paguridae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Pagurus bernhardus	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea			Decapoda larvae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Portunidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Pisidia longicornis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Majidae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Corystes cassivelaunus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Thia scutellata	-	-	1	2	2	-	-	-	-	-	-	1	1	1	-	5	-	-	1	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Liocarcinus holsatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Portumnus latipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 1.1	RF 1.2	RF 1.3	RF 2.1	RF 2.2	RF 2.3	RF 3.1	RF 3.2	RF 3.3	RF 5.1	RF 5.2	RF 5.3	RF 6.1	RF 6.2	RF 6.3	RF 7.1	RF 7.2	RF 7.3	RF 8.1	RF 8.2	RF 8.3	RF 9.1	RF 9.2	RF 9.3	RF 10.1	RF 10.2	RF 10.3
Crustacea	Eumalacostraca	Decapoda	Pinnotheres pisum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Gastropoda	Mesogastropoda	Polinices pulchellus	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-
Mollusca	Gastropoda	Cephalaspidea	Acteon tornatilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Gastropoda		Cylichna cylindracea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Gastropoda		Philine aperta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Gastropoda		Nudibranchia spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Nuculoida	Nucula sp. (Juv.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Mytiloida	Mytilidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Ostreoida	Aequipecten opercularis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Tellimya ferruginosa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	1
Mollusca	Pelecypoda	Veneroida	Mysella bidentata	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
Mollusca	Pelecypoda	Veneroida	Mactra stultorum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
Mollusca	Pelecypoda	Veneroida	Spisula sp. Juv.	-	-	-	-	2	-	-	-	-	-	-	1	-	3	-	3	-	-	-	-	-	1	2	-	-	-
Mollusca	Pelecypoda	Veneroida	Spisula elliptica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Spisula solida	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Spisula subtruncata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Lutrariinae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Lutraria lutraria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Mollusca	Pelecypoda	Veneroida	Solenidae sp. Damaged	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3
Mollusca	Pelecypoda	Veneroida	Ensis arcuatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Veneroida	Ensis ensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Pharus legumen	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Mollusca	Pelecypoda	Veneroida	Phaxas pellucidus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1
Mollusca	Pelecypoda	Veneroida	Fabulina fabula	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5	4
Mollusca	Pelecypoda	Veneroida	Moerella pygmaea	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Donax vittatus	-	-	-	1	2	1	1	-	-	-	-	1	-	-	-	2	-	1	-	-	1	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Gari fervensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroidea	Abra alba	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Veneroidea	Abra prismatica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 1.1	RF 1.2	RF 1.3	RF 2.1	RF 2.2	RF 2.3	RF 3.1	RF 3.2	RF 3.3	RF 5.1	RF 5.2	RF 5.3	RF 6.1	RF 6.2	RF 6.3	RF 7.1	RF 7.2	RF 7.3	RF 8.1	RF 8.2	RF 8.3	RF 9.1	RF 9.2	RF 9.3	RF 10.1	RF 10.2	RF 10.3
Mollusca	Pelecypoda	Veneroida	Chamelea gallina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Veneroida	Clausinella fasciata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Veneroida	Timoclea ovata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Dosinia sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	2
Mollusca	Pelecypoda	Veneroida	Dosinia lupinus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Mollusca	Pelecypoda	Veneroida	Dosinia exoleta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Myoida	Mya sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Pholadomyoida	Thracia phaseolina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Mollusca	Pelecypoda	Pholadomyoida	Cochlodesma praetenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	12	1
Phoronida			Phoronis spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Stenolaemata	Cyclostomatida	Crisia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidium sp.	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidium diaphanum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P
Bryozoa		Cheilostomatida	Membranipora membranacea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Conopeum reticulum	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Electra pilosa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P
Bryozoa	Gymnolaemata	Cheilostomatida	Flustra foliacea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Bicellariella ciliata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Bugula sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Scrupocellaria scruposa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Asteroidea		Astropecten irregularis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Asteroidea		Asteriidae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Asteroidea	Forcipulatida	Asterias rubens	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Echinodermata	Ophiuroidea		Ophiurida sp. Juv.	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	3	6	9
Echinodermata	Ophiuroidea	Ophiurida	Ophiothrix fragilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Acronida brachiata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Echinodermata	Ophiuroidea	Ophiurida	Amphiura sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Echinodermata	Ophiuroidea	Ophiurida	Amphipholis squamata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura sp. Juv.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	2	-	-

Group	Class	Order	Name	RF 1.1	RF 1.2	RF 1.3	RF 2.1	RF 2.2	RF 2.3	RF 3.1	RF 3.2	RF 3.3	RF 5.1	RF 5.2	RF 5.3	RF 6.1	RF 6.2	RF 6.3	RF 7.1	RF 7.2	RF 7.3	RF 8.1	RF 8.2	RF 8.3	RF 9.1	RF 9.2	RF 9.3	RF 10.1	RF 10.2	RF 10.3
Echinodermata	Ophiuroidea	Ophiurida	Ophiura affinis	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura albida	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura ophiura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-	-	3
Echinodermata	Echinoidea	Clypeasteroidea	Echinocyamus pusillus	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Echinoidea	Spatangoida	Echinocardium cordatum	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Pisces	Osteichthyes		Echiichthys vipera	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Pisces	Osteichthyes	Perciformes	Hyperoplus lanceolatus	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 11.1	RF 11.2	RF 11.3	RF 12.1	RF 12.2	RF 12.3	RF 13.1	RF 13.2	RF 13.3	RF 14.1	RF 14.2	RF 14.3	RF 15.1	RF 15.2	RF 15.3	RF 16.1	RF 16.2	RF 16.3	RF 17.1	RF 17.2	RF 17.3	RF 19.1	RF 19.2	RF 19.3	RF 20.1	RF 20.2	RF 20.3
Protozoa	Protozoa		Lagotia viridis	P	P	-	P	P	P	-	-	-	-	-	-	P	P	P	-	-	-	-	-	-	-	-	-	-	-	-
Porifera			Porifera crusts indet.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-
Cnidaria	Leptolida	Capitata	Tubularia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	P	-	-	-	-	-
Cnidaria	Leptolida	Capitata	Tubularia indivisa	P	P	-	-	-	P	-	-	P	-	-	-	P	-	P	-	-	-	-	-	-	P	P	P	P	-	P
Cnidaria	Leptolida	Filifera	Bougainvillia sp.	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	P
Cnidaria	Leptolida	Conica	Phialella quadrata	P	P	-	P	-	P	-	P	-	-	-	-	P	P	P	-	-	-	P	-	P	P	-	-	P	P	-
Cnidaria	Leptolida	Conica	Calycella syringa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Halecium sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Hydrallmania falcata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	P	P	-	P
Cnidaria	Leptolida	Conica	Sertularella gayi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Sertularia cupressina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-
Cnidaria	Leptolida	Proboscoida	Campanulariidae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	P	-	-	P
Cnidaria	Leptolida	Proboscoida	Clytia hemisphaerica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	P	P	P	P	-	P
Cnidaria	Octocorallia	Alcyonacea	Alcyonium digitatum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-
Cnidaria	Hexacorallia	Ceriantharia	Cerianthus lloydii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	1
Cnidaria	Hexacorallia	Actinaria	Actinaria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	1	-	-	-
Cnidaria	Hexacorallia	Actinaria	Urticina felina?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Actiniaria	Sagartia troglodytes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Actiniaria	Peachia cylindrica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 11.1	RF 11.2	RF 11.3	RF 12.1	RF 12.2	RF 12.3	RF 13.1	RF 13.2	RF 13.3	RF 14.1	RF 14.2	RF 14.3	RF 15.1	RF 15.2	RF 15.3	RF 16.1	RF 16.2	RF 16.3	RF 17.1	RF 17.2	RF 17.3	RF 19.1	RF 19.2	RF 19.3	RF 20.1	RF 20.2	RF 20.3
Cnidaria	Hexacorallia	Actiniaria	Edwardsia claparedii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2
Nemertea			Nemertea spp.	2	2	1	-	1	2	2	1	-	23	21	6	3	4	2	-	-	1	2	3	-	13	5	28	13	4	22
Nematoda			Nematoda spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Entoprocta		Coloniales	Pedicellina sp.	P	-	-	P	-	P	-	-	-	-	-	-	P	P	P	-	-	-	-	-	P	-	-	P	-	-	-
Annelida	Polychaeta	Phyllodocida	Aphrodita aculeata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Polynoidae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
Annelida	Polychaeta	Phyllodocida	Malmgreniella sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Harmothoe impar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Annelida	Polychaeta	Phyllodocida	Malmgreniella arenicolae	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	1
Annelida	Polychaeta	Phyllodocida	Pholoe baltica	-	-	-	-	-	-	-	-	-	2	12	1	-	-	-	-	-	-	-	-	-	6	-	3	2	6	13
Annelida	Polychaeta	Phyllodocida	Sthenelais boa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	-	-	-
Annelida	Polychaeta	Phyllodocida	Sthenelais limicola	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	2	1	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Eteone longa/flava (agg.)	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	3	-	-	10	6	18
Annelida	Polychaeta	Phyllodocida	Hesionura elongata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Mysta picta	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides groenlandica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides mucosa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides rosea	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Annelida	Polychaeta	Phyllodocida	Eumida sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Eumida bahusiensis	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Eumida sanguinea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera falax? (=gigantea)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera lapidum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera oxycephala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera tridactyla	-	-	-	-	-	-	2	2	-	1	-	4	1	-	-	3	2	-	-	2	-	-	-	-	-	2	3
Annelida	Polychaeta	Phyllodocida	Glycinde nordmanni	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-
Annelida	Polychaeta	Phyllodocida	Psamathe fusca	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Annelida	Polychaeta	Phyllodocida	Podarkeopsis capensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4

Group	Class	Order	Name	RF 11.1	RF 11.2	RF 11.3	RF 12.1	RF 12.2	RF 12.3	RF 13.1	RF 13.2	RF 13.3	RF 14.1	RF 14.2	RF 14.3	RF 15.1	RF 15.2	RF 15.3	RF 16.1	RF 16.2	RF 16.3	RF 17.1	RF 17.2	RF 17.3	RF 19.1	RF 19.2	RF 19.3	RF 20.1	RF 20.2	RF 20.3
Annelida	Polychaeta	Phyllodocida	Eusyllis blomstrandi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	-	-	-
Annelida	Polychaeta	Phyllodocida	Nereis longissima	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Annelida	Polychaeta	Phyllodocida	Nereis zonata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys sp. (Juv.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-
Annelida	Polychaeta	Phyllodocida	Nephtys assimilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys cirrosa	4	9	7	8	9	8	7	17	11	-	1	4	7	2	13	6	7	14	9	5	6	-	-	-	-	-	1
Annelida	Polychaeta	Phyllodocida	Nephtys hombergii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	3	2
Annelida	Polychaeta	Phyllodocida	Nephtys kersivalensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Annelida	Polychaeta	Eunicida	Protodorvillea kefersteini	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Annelida	Polychaeta	Orbiniida	Scoloplos armiger	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-	-	-
Annelida	Polychaeta	Orbiniidae	Aricidea minuta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Orbiniidae	Paradoneis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Poecilochaetus serpens	-	-	-	-	-	-	-	-	-	3	3	-	-	-	-	-	-	-	-	1	-	1	-	1	7	9	44
Annelida	Polychaeta	Spionida	Spionidae genus A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Annelida	Polychaeta	Spionida	Aonides oxycephala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	11	-	-	-
Annelida	Polychaeta	Spionida	Aonides paucibranchiata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	2	14	-	-	-
Annelida	Polychaeta	Spionida	Polydora caeca	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Annelida	Polychaeta	Spionida	Pseudopolydora pulchra	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Annelida	Polychaeta	Spionida	Scolelepis (Scolelepis) bonnieri	1	2	1	1	-	-	1	-	1	-	-	-	-	-	1	3	1	1	1	1	1	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Scolelepis (Scolelepis) squamata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Spio armata (agg.)	-	-	1	1	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Spio decorata	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	1	-	-	-	-	1	-	2	1	-	1	-
Annelida	Polychaeta	Spionida	Spiophanes bombyx	8	9	8	3	7	2	7	6	6	2	-	1	2	13	6	1	4	10	8	15	9	1	1	1	17	14	11
Annelida	Polychaeta	Spionida	Magelona sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Magelona filiformis	-	-	-	-	-	-	-	-	1	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	2	3	-
Annelida	Polychaeta	Spionida	Magelona johnstoni	1	-	1	-	1	2	9	2	1	15	13	217	3	1	2	7	8	22	1	4	1	-	-	-	2	7	-
Annelida	Polychaeta	Spionida	Cirratulidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Caulleriella alata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Annelida	Polychaeta	Spionida	Caulleriella zetlandica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Group	Class	Order	Name	RF 11.1	RF 11.2	RF 11.3	RF 12.1	RF 12.2	RF 12.3	RF 13.1	RF 13.2	RF 13.3	RF 14.1	RF 14.2	RF 14.3	RF 15.1	RF 15.2	RF 15.3	RF 16.1	RF 16.2	RF 16.3	RF 17.1	RF 17.2	RF 17.3	RF 19.1	RF 19.2	RF 19.3	RF 20.1	RF 20.2	RF 20.3
Annelida	Polychaeta	Spionida	Chaetozone christie	-	2	2	-	-	-	1	1	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	2	4	1
Annelida	Polychaeta	Spionida	Cirriformia tentaculata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Capitellida	Mediomastus fragilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	18	-	-	-
Annelida	Polychaeta	Capitellida	Notomastus sp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
Annelida	Polychaeta	Opheliida	Ophelia borealis	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	1	-	-	-	-
Annelida	Polychaeta	Opheliida	Travisia forbesi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Opheliida	Scalibregma inflatum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	1
Annelida	Polychaeta	Oweniida	Galathowenia oculata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Annelida	Polychaeta	Oweniida	Owenia fusiformis	-	-	-	-	-	-	-	-	-	3	1	-	-	-	-	-	-	-	1	-	-	3	-	4	5	4	6
Annelida	Polychaeta	Terebellida	Lagis koreni	1	-	7	-	-	-	-	-	-	19	59	-	-	-	-	-	-	-	-	-	1	1	3	3	55	77	161
Annelida	Polychaeta	Terebellida	Ampharete lindstroemi	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	1	2	-	-	-
Annelida	Polychaeta	Terebellida	Terebellidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Terebellida	Lanice conchilega	1	1	2	-	-	-	-	3	1	6	10	-	-	1	-	-	-	1	2	2	-	1	1	4	3	10	19
Annelida	Polychaeta	Terebellida	Nicolea venustula	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Annelida	Polychaeta	Terebellida	Polycirrus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	2	-	-	-
Annelida	Polychaeta	Sabellida	Pomatoceros triqueter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Annelida	Oligochaeta	Tubificidae	Tubificoides benedii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chelicerata	Pycnogonida		Anoplodactylus petiolatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Crustacea	Eumalacostraca	Mysidacea	Gastrosaccus spinifer	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	1	1	-	1	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Monoculodes carinatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Perioculodes longimanus	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	2	1	-	-	1
Crustacea	Eumalacostraca	Amphipoda	Pontocrates arenarius	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Synchelidium maculatum	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Leucothoe incisa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Stenothoe marina	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Urothoe brevicornis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Urothoe elegans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	22	22	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Orchomene nanus	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	1	2	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Atylus falcatus	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 11.1	RF 11.2	RF 11.3	RF 12.1	RF 12.2	RF 12.3	RF 13.1	RF 13.2	RF 13.3	RF 14.1	RF 14.2	RF 14.3	RF 15.1	RF 15.2	RF 15.3	RF 16.1	RF 16.2	RF 16.3	RF 17.1	RF 17.2	RF 17.3	RF 19.1	RF 19.2	RF 19.3	RF 20.1	RF 20.2	RF 20.3
Crustacea	Eumalacostraca	Amphipoda	Ampelisca spinipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Ampelisca tenuicornis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Bathyporeia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Bathyporeia elegans	8	15	21	16	6	6	36	7	10	-	2	-	33	20	13	2	-	1	21	32	20	-	-	-	1	-	-
Crustacea	Eumalacostraca	Amphipoda	Bathyporeia guilliamsoniana	88	70	160	56	13	36	7	-	9	6	14	1	12	47	11	7	6	16	32	15	17	-	28	-	2	2	1
Crustacea	Eumalacostraca	Amphipoda	Megaluropus agilis	-	-	-	1	-	-	-	-	-	-	-	-	2	-	1	-	-	-	1	1	1	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Abludomelita obtusata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	1	-	-
Crustacea	Eumalacostraca	Amphipoda	Cheirocratus sundevallii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Gammaropsis cornuta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Microprotopus maculatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Photis longicaudata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Ericthonius punctatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Lembos longipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Corophium sp. juv	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Corophium bonnellii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	12	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Corophium sextonae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	20	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Pariambus typicus	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Crustacea	Eumalacostraca	Isopoda	Gnathia sp. Females & juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Bodotria pulchella	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Bodotria scorpioides	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	8	-	-	-
Crustacea	Eumalacostraca	Cumacea	Iphinoe trispinosa	1	-	1	-	-	-	-	-	-	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3
Crustacea	Eumalacostraca	Cumacea	Pseudocuma similis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Diastylis bradyi	2	-	2	-	1	-	-	1	1	3	3	-	1	1	2	1	-	-	-	2	2	1	2	1	1	-	-
Crustacea	Eumalacostraca	Cumacea	Diastylis laevis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Crangon trispinosus	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Callianassidae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Upogebia deltaura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	15	33	-	-	-
Crustacea	Eumalacostraca	Decapoda	Paguridae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Crustacea	Eumalacostraca	Decapoda	Pagurus bernhardus	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 11.1	RF 11.2	RF 11.3	RF 12.1	RF 12.2	RF 12.3	RF 13.1	RF 13.2	RF 13.3	RF 14.1	RF 14.2	RF 14.3	RF 15.1	RF 15.2	RF 15.3	RF 16.1	RF 16.2	RF 16.3	RF 17.1	RF 17.2	RF 17.3	RF 19.1	RF 19.2	RF 19.3	RF 20.1	RF 20.2	RF 20.3
Crustacea			Decapoda larvae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Portunidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Pisidia longicornis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	22	1	-	-
Crustacea	Eumalacostraca	Decapoda	Majidae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Crustacea	Eumalacostraca	Decapoda	Corystes cassivelaunus	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	1
Crustacea	Eumalacostraca	Decapoda	Thia scutellata	1	-	1	1	-	-	2	-	-	-	1	-	1	-	-	-	-	1	1	-	1	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Liocarcinus holsatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Portumnus latipes	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Pinnotheres pisum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Gastropoda	Mesogastropoda	Polinices pulchellus	-	1	3	-	1	-	-	-	-	2	1	-	1	-	-	-	-	-	1	1	1	2	-	4	3	3	5
Mollusca	Gastropoda	Cephalaspidea	Acteon tornatilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Gastropoda		Cylichna cylindracea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Mollusca	Gastropoda		Philine aperta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Gastropoda		Nudibranchia spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Mollusca	Pelecypoda	Nuculoida	Nucula sp. (Juv.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Mytiloida	Mytilidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Ostreoida	Aequipecten opercularis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Tellimya ferruginosa	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	6	4
Mollusca	Pelecypoda	Veneroida	Mysella bidentata	-	-	2	-	-	-	-	-	-	19	40	1	-	-	-	-	-	-	-	-	-	2	-	2	11	22	23
Mollusca	Pelecypoda	Veneroida	Mactra stultorum	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Spisula sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	2	-
Mollusca	Pelecypoda	Veneroida	Spisula elliptica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Spisula solida	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Spisula subtruncata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3
Mollusca	Pelecypoda	Veneroida	Lutrariinae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Veneroida	Lutraria lutraria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Mollusca	Pelecypoda	Veneroida	Solenidae sp. Damaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Ensis arcuatus	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Ensis ensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-

Group	Class	Order	Name	RF 11.1	RF 11.2	RF 11.3	RF 12.1	RF 12.2	RF 12.3	RF 13.1	RF 13.2	RF 13.3	RF 14.1	RF 14.2	RF 14.3	RF 15.1	RF 15.2	RF 15.3	RF 16.1	RF 16.2	RF 16.3	RF 17.1	RF 17.2	RF 17.3	RF 19.1	RF 19.2	RF 19.3	RF 20.1	RF 20.2	RF 20.3
Mollusca	Pelecypoda	Veneroida	Pharus legumen	-	-	6	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	4	-
Mollusca	Pelecypoda	Veneroida	Phaxas pellucidus	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	1	-	-	6	1	2
Mollusca	Pelecypoda	Veneroida	Fabulina fabula	-	-	-	-	-	-	-	-	-	4	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	7	3
Mollusca	Pelecypoda	Veneroida	Moerella pygmaea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Donax vittatus	-	-	-	-	-	-	-	-	-	-	1	10	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Gari fervensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Veneroidea	Abra alba	-	-	1	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	2	-	1	-	5	3
Mollusca	Pelecypoda	Veneroidea	Abra prismatica	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Chamelea gallina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Veneroida	Clausinella fasciata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Mollusca	Pelecypoda	Veneroida	Timoclea ovata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Dosinia sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Mollusca	Pelecypoda	Veneroida	Dosinia lupinus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	1
Mollusca	Pelecypoda	Veneroida	Dosinia exoleta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Myoida	Mya sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Pholadomyoida	Thracia phaseolina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Mollusca	Pelecypoda	Pholadomyoida	Cochlodesma praetenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-
Phoronida			Phoronis spp.	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	34	1	13	-	-	6
Bryozoa	Stenolaemata	Cyclostomatida	Crisia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P	-	-	-
Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidium sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P	P	-	-	P
Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidium diaphanum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa		Cheilostomatida	Membranipora membranacea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Conopeum reticulum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	P	P	P	-
Bryozoa	Gymnolaemata	Cheilostomatida	Electra pilosa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	P	P	P	-	-	P
Bryozoa	Gymnolaemata	Cheilostomatida	Flustra foliacea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Bicellariella ciliata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Bugula sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Scrupocellaria scruposa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P	-	-	-
Echinodermata	Asteroidea		Astropecten irregularis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 11.1	RF 11.2	RF 11.3	RF 12.1	RF 12.2	RF 12.3	RF 13.1	RF 13.2	RF 13.3	RF 14.1	RF 14.2	RF 14.3	RF 15.1	RF 15.2	RF 15.3	RF 16.1	RF 16.2	RF 16.3	RF 17.1	RF 17.2	RF 17.3	RF 19.1	RF 19.2	RF 19.3	RF 20.1	RF 20.2	RF 20.3
Echinodermata	Asteroidea		Asteriidae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Echinodermata	Asteroidea	Forcipulatida	Asterias rubens	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea		Ophiurida sp. Juv.	4	-	6	-	-	1	-	1	-	4	-	2	2	1	-	-	-	-	2	2	1	2	2	2	-	1	2
Echinodermata	Ophiuroidea	Ophiurida	Ophiothrix fragilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Acronida brachiata	-	-	-	-	-	-	1	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	4	-	4	1	3	-
Echinodermata	Ophiuroidea	Ophiurida	Amphiura sp. Juv.	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Amphipholis squamata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura sp. Juv.	1	3	2	-	-	-	-	1	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	2	1	-	1
Echinodermata	Ophiuroidea	Ophiurida	Ophiura affinis	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura albida	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura ophiura	-	-	-	1	-	-	-	-	-	7	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Echinoidea	Clypeasteroidea	Echinocyamus pusillus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	2	12	-	-	-
Echinodermata	Echinoidea	Spatangoida	Echinocardium cordatum	1	2	1	-	-	-	-	1	-	1	1	1	-	-	-	1	1	1	1	-	-	1	1	1	2	1	-
Pisces	Osteichthyes		Echiichthys vipera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pisces	Osteichthyes	Perciformes	Hyperoplus lanceolatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 21.1	RF 21.2	RF 21.3	RF 22.1	RF 22.2	RF 22.3	RF 23.1	RF 23.2	RF 23.3	RF 24.1	RF 24.2	RF 24.3	RF 25.1	RF 25.2	RF 25.3	RF 26.1	RF 26.2	RF 26.3	RF 27.1	RF 27.2	RF 27.3	RF 29.1	RF 29.2	RF 29.3
Protozoa	Protozoa		Lagotia viridis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P	P	P	P	-	-	-
Porifera			Porifera crusts indet.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Capitata	Tubularia sp.	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Capitata	Tubularia indivisa	P	P	-	-	-	-	P	P	-	-	-	-	-	-	-	-	-	-	P	-	-	P	P	P
Cnidaria	Leptolida	Filifera	Bougainvillia sp.	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	P	-	-	-	-	-
Cnidaria	Leptolida	Conica	Phialella quadrata	-	P	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	P	P	P	P	-	-	-
Cnidaria	Leptolida	Conica	Calycella syringa	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Halecium sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Hydrallmania falcata	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Sertularella gayi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-
Cnidaria	Leptolida	Conica	Sertularia cupressina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 21.1	RF 21.2	RF 21.3	RF 22.1	RF 22.2	RF 22.3	RF 23.1	RF 23.2	RF 23.3	RF 24.1	RF 24.2	RF 24.3	RF 25.1	RF 25.2	RF 25.3	RF 26.1	RF 26.2	RF 26.3	RF 27.1	RF 27.2	RF 27.3	RF 29.1	RF 29.2	RF 29.3
Cnidaria	Leptolida	Proboscoida	Campanulariidae	P	-	P	-	-	-	P	P	P	-	-	-	-	-	P	-	-	-	-	-	-	P	-	P
Cnidaria	Leptolida	Proboscoida	Clytia hemisphaerica	P	-	-	-	-	-	-	P	-	-	-	P	-	P	P	-	-	P	P	-	-	P	-	P
Cnidaria	Octocorallia	Alcyonacea	Alcyonium digitatum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Ceriantharia	Cerianthus lloydii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Actinaria	Actinaria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Cnidaria	Hexacorallia	Actinaria	Urticina felina?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
Cnidaria	Hexacorallia	Actiniaria	Sagartia troglodytes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Cnidaria	Hexacorallia	Actiniaria	Peachia cylindrica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cnidaria	Hexacorallia	Actiniaria	Edwardsia claparedii	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nemertea			Nemertea spp.	9	8	7	2	10	5	3	3	7	1	-	1	-	2	-	1	2	2	1	2	2	3	2	1
Nematoda			Nematoda spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entoprocta		Coloniales	Pedicellina sp.	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P	-	-	-
Annelida	Polychaeta	Phyllodocida	Aphrodita aculeata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Polynoidae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Malmgreniella sp.	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Harmothoe impar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Malmgreniella arenicolae	-	3	2	-	-	-	1	4	3	-	-	2	1	-	-	-	-	-	-	-	-	4	12	10
Annelida	Polychaeta	Phyllodocida	Pholoe baltica	-	1	4	11	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Annelida	Polychaeta	Phyllodocida	Sthenelais boa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Sthenelais limicola	-	1	-	-	1	-	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	2	1	-
Annelida	Polychaeta	Phyllodocida	Eteone longa/flava (agg.)	1	2	3	3	5	2	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	8	13	5
Annelida	Polychaeta	Phyllodocida	Hesionura elongata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Mysta picta	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides groenlandica	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Anaitides mucosa	-	2	-	4	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	8	29	12
Annelida	Polychaeta	Phyllodocida	Anaitides rosea	1	2	-	-	-	-	1	1	1	-	-	-	-	1	-	-	-	-	-	2	-	1	3	2
Annelida	Polychaeta	Phyllodocida	Eumida sp.	-	6	-	2	1	2	20	16	13	-	-	2	-	-	-	-	-	-	-	-	-	21	28	10
Annelida	Polychaeta	Phyllodocida	Eumida bahusiensis	4	-	-	-	-	-	7	10	3	1	-	-	-	-	-	-	-	-	-	-	-	3	5	7

Group	Class	Order	Name	RF 21.1	RF 21.2	RF 21.3	RF 22.1	RF 22.2	RF 22.3	RF 23.1	RF 23.2	RF 23.3	RF 24.1	RF 24.2	RF 24.3	RF 25.1	RF 25.2	RF 25.3	RF 26.1	RF 26.2	RF 26.3	RF 27.1	RF 27.2	RF 27.3	RF 29.1	RF 29.2	RF 29.3
Annelida	Polychaeta	Phyllodocida	Eumida sanguinea	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera falax? (=gigantea)	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera lapidum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera oxycephala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Glycera tridactyla	1	2	-	-	1	1	4	4	1	9	3	4	-	1	1	-	-	-	-	-	-	6	1	7
Annelida	Polychaeta	Phyllodocida	Glycinde nordmanni	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Psamathe fusca	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Podarkeopsis capensis	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Eusyllis blomstrandi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nereis longissima	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nereis zonata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys sp. (Juv.)	-	-	-	1	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys assimilis	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys cirrosa	5	5	13	-	2	2	2	2	5	1	-	-	8	7	5	7	3	6	4	2	2	4	5	2
Annelida	Polychaeta	Phyllodocida	Nephtys hombergii	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Phyllodocida	Nephtys kersivalensis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Eunicida	Protodorvillea kefersteini	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Orbiniida	Scoloplos armiger	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Annelida	Polychaeta	Orbiniidae	Aricidea minuta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Orbiniidae	Paradoneis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Annelida	Polychaeta	Spionida	Poecilochaetus serpens	7	2	2	1	13	4	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Annelida	Polychaeta	Spionida	Spionidae genus A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Aonides oxycephala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Aonides paucibranchiata	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Polydora caeca	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Pseudopolydora pulchra	1	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Scolelepis (Scolelepis) bonnieri	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	2	-	-	-	1
Annelida	Polychaeta	Spionida	Scolelepis (Scolelepis) squamata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Spio armata (agg.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	5	-	-	-

Group	Class	Order	Name	RF 21.1	RF 21.2	RF 21.3	RF 22.1	RF 22.2	RF 22.3	RF 23.1	RF 23.2	RF 23.3	RF 24.1	RF 24.2	RF 24.3	RF 25.1	RF 25.2	RF 25.3	RF 26.1	RF 26.2	RF 26.3	RF 27.1	RF 27.2	RF 27.3	RF 29.1	RF 29.2	RF 29.3
Annelida	Polychaeta	Spionida	Spio decorata	-	-	-	-	-	-	3	10	2	-	-	-	-	-	-	-	-	-	1	-	-	2	3	3
Annelida	Polychaeta	Spionida	Spiophanes bombyx	30	30	17	1	10	4	9	12	4	12	17	7	7	5	3	1	9	4	8	12	3	27	52	67
Annelida	Polychaeta	Spionida	Magelona sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Magelona filiformis	1	1	-	-	-	-	6	6	-	4	5	1	-	-	-	-	-	-	-	-	-	4	4	4
Annelida	Polychaeta	Spionida	Magelona johnstoni	1	2	-	-	9	-	37	30	13	236	158	179	-	-	-	-	1	5	4	-	-	36	22	17
Annelida	Polychaeta	Spionida	Cirratulidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Caulleriella alata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Spionida	Caulleriella zetlandica	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Annelida	Polychaeta	Spionida	Chaetozone christie	1	-	-	-	3	-	4	14	9	1	-	1	1	-	-	-	-	-	-	-	-	9	16	16
Annelida	Polychaeta	Spionida	Cirriformia tentaculata	-	-	-	312	20	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Capitellida	Mediomastus fragilis	-	-	-	7	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Capitellida	Notomastus sp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Opheliida	Ophelia borealis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1	-	-	-
Annelida	Polychaeta	Opheliida	Travisia forbesi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Opheliida	Scalibregma inflatum	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Oweniida	Galathowenia oculata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Oweniida	Owenia fusiformis	13	28	30	11	13	3	8	7	7	-	-	-	3	2	3	-	-	-	-	-	-	27	71	27
Annelida	Polychaeta	Terebellida	Lagis koreni	28	9	78	146	28	90	2	1	1	-	-	-	-	-	-	-	-	-	-	-	1	5	3	1
Annelida	Polychaeta	Terebellida	Ampharete lindstroemi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Annelida	Polychaeta	Terebellida	Terebellidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Terebellida	Lanice conchilega	15	31	9	25	4	13	28	35	19	2	-	2	-	-	-	-	-	-	1	-	-	12	36	20
Annelida	Polychaeta	Terebellida	Nicolea venustula	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Polychaeta	Terebellida	Polycirrus sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Annelida	Polychaeta	Sabellida	Pomatoceros triqueter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annelida	Oligochaeta	Tubificidae	Tubificoides benedii	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chelicerata	Pycnogonida		Anoplodactylus petiolatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Mysidacea	Gastrosaccus spinifer	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	4	-	-	1	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Monoculodes carinatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Perioculodes longimanus	-	1	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	1	-	1	-	-	-

Group	Class	Order	Name	RF 21.1	RF 21.2	RF 21.3	RF 22.1	RF 22.2	RF 22.3	RF 23.1	RF 23.2	RF 23.3	RF 24.1	RF 24.2	RF 24.3	RF 25.1	RF 25.2	RF 25.3	RF 26.1	RF 26.2	RF 26.3	RF 27.1	RF 27.2	RF 27.3	RF 29.1	RF 29.2	RF 29.3
Crustacea	Eumalacostraca	Amphipoda	Pontocrates arenarius	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Synchelidium maculatum	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	1	-	-	-	1	-
Crustacea	Eumalacostraca	Amphipoda	Leucothoe incisa	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Stenothoe marina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Urothoe brevicornis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Urothoe elegans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Orchomene nanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Atylus falcatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Ampelisca spinipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Ampelisca tenuicornis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Bathyporeia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Bathyporeia elegans	-	-	-	-	-	-	-	-	-	-	-	-	-	4	1	4	23	10	17	4	10	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Bathyporeia guilliamsoniana	-	1	7	2	6	2	-	-	-	-	-	-	51	56	15	20	18	10	3	3	-	-	-	1
Crustacea	Eumalacostraca	Amphipoda	Megaluropus agilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Abludomelita obtusata	1	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Cheirocratus sundevallii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Gammaropsis cornuta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Microprotopus maculatus	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Crustacea	Eumalacostraca	Amphipoda	Photis longicaudata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Ericthonius punctatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Lembos longipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Corophium sp. juv	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Corophium bonnellii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Corophium sextonae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Amphipoda	Pariambus typicus	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Isopoda	Gnathia sp. Females & juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Crustacea	Eumalacostraca	Cumacea	Bodotria pulchella	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Bodotria scorpioides	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Iphinoe trispinosa	7	1	3	1	-	1	-	2	2	-	-	1	-	4	-	-	-	-	-	-	-	1	1	1

Group	Class	Order	Name	RF 21.1	RF 21.2	RF 21.3	RF 22.1	RF 22.2	RF 22.3	RF 23.1	RF 23.2	RF 23.3	RF 24.1	RF 24.2	RF 24.3	RF 25.1	RF 25.2	RF 25.3	RF 26.1	RF 26.2	RF 26.3	RF 27.1	RF 27.2	RF 27.3	RF 29.1	RF 29.2	RF 29.3
Crustacea	Eumalacostraca	Cumacea	Pseudocuma similis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Cumacea	Diastylis bradyi	-	1	-	-	-	-	1	-	1	-	-	1	1	2	-	-	-	-	-	-	-	1	-	-
Crustacea	Eumalacostraca	Cumacea	Diastylis laevis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Crustacea	Eumalacostraca	Decapoda	Crangon trispinosus	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Callianassidae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Upogebia deltaura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Paguridae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Pagurus bernhardus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea			Decapoda larvae	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Portunidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Crustacea	Eumalacostraca	Decapoda	Pisidia longicornis	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Crustacea	Eumalacostraca	Decapoda	Majidae sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Corystes cassivelaunus	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Thia scutellata	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1	1	3	-	2	4	4	-	-	-
Crustacea	Eumalacostraca	Decapoda	Liocarcinus holsatus	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Portumnus latipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Crustacea	Eumalacostraca	Decapoda	Pinnotheres pisum	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-
Mollusca	Gastropoda	Mesogastropoda	Polinices pulchellus	1	-	-	1	1	-	-	2	1	-	-	-	-	-	2	-	-	-	-	-	1	5	-	-
Mollusca	Gastropoda	Cephalaspidea	Acteon tornatilis	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Mollusca	Gastropoda		Cylichna cylindracea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Gastropoda		Philine aperta	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Mollusca	Gastropoda		Nudibranchia spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Nuculoida	Nucula sp. (Juv.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Mytiloida	Mytilidae sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Ostreoida	Aequipecten opercularis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Tellimya ferruginosa	1	1	-	-	-	-	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Mysella bidentata	-	1	16	27	9	13	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-
Mollusca	Pelecypoda	Veneroida	Mactra stultorum	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-
Mollusca	Pelecypoda	Veneroida	Spisula sp. Juv.	1	1	6	3	8	-	2	-	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-	1

Group	Class	Order	Name	RF 21.1	RF 21.2	RF 21.3	RF 22.1	RF 22.2	RF 22.3	RF 23.1	RF 23.2	RF 23.3	RF 24.1	RF 24.2	RF 24.3	RF 25.1	RF 25.2	RF 25.3	RF 26.1	RF 26.2	RF 26.3	RF 27.1	RF 27.2	RF 27.3	RF 29.1	RF 29.2	RF 29.3
Mollusca	Pelecypoda	Veneroida	Spisula elliptica	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Spisula solida	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Spisula subtruncata	9	5	-	1	-	1	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-
Mollusca	Pelecypoda	Veneroida	Lutrariinae sp.	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Lutraria lutraria	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Veneroida	Solenidae sp. Damaged	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Mollusca	Pelecypoda	Veneroida	Ensis arcuatus	3	1	-	-	1	1	2	-	2	-	2	-	-	-	-	-	-	-	-	-	-	1	6	3
Mollusca	Pelecypoda	Veneroida	Ensis ensis	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mollusca	Pelecypoda	Veneroida	Pharus legumen	1	5	2	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Mollusca	Pelecypoda	Veneroida	Phaxas pellucidus	-	3	-	1	1	1	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-	2	3	-
Mollusca	Pelecypoda	Veneroida	Fabulina fabula	3	1	-	1	3	-	-	1	1	3	3	2	-	-	-	-	-	-	-	-	-	1	-	2
Mollusca	Pelecypoda	Veneroida	Moerella pygmaea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Donax vittatus	-	-	-	-	2	-	1	-	-	-	1	1	-	-	-	-	-	-	-	-	-	1	-	-
Mollusca	Pelecypoda	Veneroida	Gari fervensis	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroidea	Abra alba	-	2	-	-	2	-	2	2	1	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-
Mollusca	Pelecypoda	Veneroidea	Abra prismatica	-	-	1	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Chamelea gallina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Clausinella fasciata	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Timoclea ovata	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Dosinia sp. Juv.	1	3	-	-	-	-	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Dosinia lupinus	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Veneroida	Dosinia exoleta	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Myoida	Mya sp. Juv.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Pholadomyoida	Thracia phaseolina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mollusca	Pelecypoda	Pholadomyoida	Cochlodesma praetenue	-	4	2	-	1	-	1	2	3	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1
Phoronida			Phoronis spp.	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Stenolaemata	Cyclostomatida	Crisia sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidium sp.	-	-	-	-	-	P	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Ctenostomatida	Alcyonidium diaphanum	-	-	-	-	-	-	-	-	-	-	-	P	-	P	-	-	-	-	-	-	-	-	-	-

Group	Class	Order	Name	RF 21.1	RF 21.2	RF 21.3	RF 22.1	RF 22.2	RF 22.3	RF 23.1	RF 23.2	RF 23.3	RF 24.1	RF 24.2	RF 24.3	RF 25.1	RF 25.2	RF 25.3	RF 26.1	RF 26.2	RF 26.3	RF 27.1	RF 27.2	RF 27.3	RF 29.1	RF 29.2	RF 29.3
Bryozoa		Cheilostomatida	Membranipora membranacea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Conopeum reticulum	-	P	-	-	P	-	-	P	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Electra pilosa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Flustra foliacea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Bicellariella ciliata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Bugula sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bryozoa	Gymnolaemata	Cheilostomatida	Scrupocellaria scruposa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Asteroidea		Astropecten irregularis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Asteroidea		Asteriidae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Asteroidea	Forcipulatida	Asterias rubens	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea		Ophiurida sp. Juv.	9	17	2	-	2	-	9	11	21	-	-	1	6	10	6	-	1	6	1	1	1	7	8	3
Echinodermata	Ophiuroidea	Ophiurida	Ophiothrix fragilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Acronida brachiata	-	-	4	-	-	-	1	2	-	-	-	-	1	1	1	-	-	-	-	-	-	1	1	1
Echinodermata	Ophiuroidea	Ophiurida	Amphiura sp. Juv.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Amphipholis squamata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura sp. Juv.	-	-	1	-	-	1	6	1	5	-	-	-	-	-	-	-	1	1	-	-	-	7	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura affinis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura albida	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Ophiuroidea	Ophiurida	Ophiura ophiura	1	-	-	2	-	-	-	2	2	1	-	1	1	1	2	-	-	-	-	-	-	1	1	-
Echinodermata	Echinoidea	Clypeasteroidea	Echinocyamus pusillus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Echinodermata	Echinoidea	Spatangoida	Echinocardium cordatum	1	1	1	-	-	-	-	1	1	-	-	-	3	2	2	-	-	-	-	1	-	-	2	1
Pisces	Osteichthyes		Echiichthys vipera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pisces	Osteichthyes	Perciformes	Hyperoplus lanceolatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

6.5 Total numbers of Fish and Epifauna recorded from the 2006 Rhyl Flats Offshore Wind Farm Beam Trawl Survey.

		Rhyl Flats Trawls															
Common Name	**Species Name**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**Totals**
Fish																	
Pogge	*Agonus cataphractus*	0	2	0	0	1	0	0	0	0	0	14	8	0	0	0	**25**
Lesser sand eel	*Ammodytes tobianus*	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
Scald Fish	*Arnoglossus laterna*	0	1	0	0	0	0	2	0	1	2	0	1	1	4	0	**12**
Red gurnard	*Aspitriglia cuculus*	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
Solenette	*Buglossidium luteum*	1	8	0	9	4	33	1	20	4	6	8	18	15	30	5	**162**
Dragonet	*Callionymus lyra*	0	5	0	0	2	0	2	0	0	0	8	1	2	2	0	**22**
Weever	*Echiichthys vipera*	0	0	0	8	0	3	4	5	4	5	0	0	0	4	6	**39**
Mermaids Purse	Empty elasmobranch egg case	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
Grey gurnard	*Eutrigla gurnardus*	0	0	0	2	1	1	1	0	0	1	9	0	0	0	0	**15**
Dab	*Limanda limanda*	0	1	0	1	0	0	0	3	0	2	8	135	69	7	3	**229**
Whiting	*Merlangius merlangus*	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	**4**
Thickback sole	*Microchirus variegatus*	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	**2**
Lemon sole	*Microstomus kitt*	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	**2**
Bull rout, Father Lasher	*Myoxocephalus scorpius*	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	**3**
Butterfish	*Pholis gunnellus*	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
Plaice	*Pleuronectes platessa*	0	4	0	2	2	5	2	1	2	1	1	5	1	4	0	**30**
Sand Goby	*Pomatoschistus minutus*	1	6	0	10	3	10	1	22	13	6	5	60	68	0	1	**206**
Atlantic mackerel	*Scomber scombrus*	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**1**
Lesser Spotted Dogfish	*Scyliorhinus caniculus*	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	**2**
Greater Spotted Dogfish	*Scyliorhinus stellaris*	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Sole	*Solea solea*	0	0	0	0	0	1	0	0	0	0	0	0	1	3	0	**5**
Sprat	*Sprattus sprattus*	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
Lesser pipefish	*Syngnathus rostellatus*	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	**3**
Poor cod	*Trisopterus minutus*	1	144	0	1	0	0	4	0	0	0	26	11	0	0	0	**187**
Cnidarians																	

		Rhyl Flats Trawls															
Common Name	**Species Name**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**Totals**
Dead Mans Fingers	*Alcyonium digitatum*	0	6820	<10	0	18240	0	0	0	0	0	0	0	0	P	P	**N/A**
Plumose Anemone	*Metridium senile*	12	417	0	0	521	0	100	0	1	0	0	6	0	0	0	**1057**
Bryozoans																	
Erect bryozoan*	*Alcyonidium diaphranum*	0	0	0	0	P	0	0	0	0	0	0	0	0	0	0	**N/A**
Erect bryozoan*	*Alcyonidium parasiticum*	0	0	0	0	0	0	0	0	0	0	0	0	0	P	0	**N/A**
Hornwrack*	*Flustra foliacea*	260	9460	0	0	7800	0	<10	0	P	P	<450	0	P	0	P	**N/A**
Hydroids																	
Whiteweed*	*Hydrallmania falcata*	0	0	0	0	0	0	0	0	0	P	P	0	0	P	P	**N/A**
Sea Beard*	*Nemertesia antennina*	0	0	0	0	P	0	0	0	0	0	0	0	0	0	0	**N/A**
Sponge*	Unidentified	P	P	0	0	0	0	0	0	0	0	0	0	0	0	0	**N/A**
Crustaceans																	
Masked Crab	*Corystes cassivelaunus*	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	**2**
Brown Shrimp	*Crangon crangon*	1	0	0	0	12	0	0	0	2	0	0	13	39	1	0	**68**
Scorpion Spider Crab	*Inachus dorsettensis*	1	32	0	0	12	0	0	0	0	0	0	0	0	0	537	**582**
Harbour crab	*Liocarcinus depurator*	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	**18**
Crab	*Liocarcinus holsatus*	0	0	0	3	12	3	1	7	1	0	8	35	14	8	1	**93**
Longed-legged spider crab	*Macropodia sp*	14	87	0	3	48	6	6	0	0	0	72	3	0	20	2	**261**
Hermit crab	*Pagurus bernhardus*	0	0	0	0	12	0	2	0	0	0	0	2	0	0	0	**16**
Pink Shrimp	*Pandalus montagui*	0	0	0	0	4	0	1	0	0	0	0	0	0	4	0	**9**
Long-clawed Porcelain crab*	*Pisidia longicornis*	P	P	P	0	P	0	0	0	0	0	8	0	0	0	0	**N/A**
Broad-clawed Porcelain crab	*Porcellana platycheles*	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	**2**
Molluscs																	
Queen scallop	*Aequipecten opercularis*	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	**12**
Sea lemon	*Archidoris pseudoargus*	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	**48**
Common whelk	*Buccinum undatum*	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	**8**
Common Razor shell	*Ensis ensis*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**
Squid	*Loligo forbesii*	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	**2**
Little Cuttlefish	*Sepiola atlantica*	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	**3**
Thick Trough Shell	*Spisula solida*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	**2**

		Rhyl Flats Trawls															
Common Name	**Species Name**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**Totals**
Nudibranch	*Tritonia hombergi*	0	1	0	0	72	0	0	0	0	0	0	0	0	0	0	**73**
Echinoderms																	
Common starfish	*Asterias rubens*	6	436	0	14	157	8	28	10	27	65	496	57	4	67	39	**1414**
Sand star	*Astropecten irregularis*	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	**3**
Brittle star	*Ophiura ophiura*	4	16	0	9	0	17	40	13	50	39	16	22	10	340	22	**598**
Sea urchin	*Psammechinus milliaris*	0	0	0	0	0	0	0	0	0	0	136	0	0	0	0	**136**

* ‘P’ = Present, and numbers represent weight in grammes

6.6 Appendix 2 Total Fish length data from the 2006 Rhyl Flats Offshore Wind Farm Beam Trawl Survey

		Length (mm)										
Site	Individual	Atlantic Mackerel	Dab		Greater Spotted Dogfish	Lemon Sole	Lesser Spotted Dogfish	Plaice	Sole	Sprat	Thickback Sole	Whiting
1	no commercial fish											
2	1		196		Female 740L			190				
	2							241				
	3							239				
	4							242				
3	no commercial fish											
4	1							209				98
	2							194				
5	1							243				
	2							325				
6	1						Female 610L	227	237			
	2							272				
	3							224				
	4							230				
	5							182				
7	1							234				
	2							318				
8	1		317				Male 594L	207		68		92
	2		218									
	3		200									
9	1							279				82
	2							198				
10	1		152					190				
	2		70									
11	1		249					247				
	2		192									
	3		190									
	4		142									
	5		155									
	6		179									
	7		140									
	8		62									
12	1/69		173	145		95		209			260	115
	2/70		170	132				250			265	
	3/71		195	80				225				
	4/72		160	145				135				
	5/73		130	110				110				
	6/74		143	134								
	7/75		169	150								
	8/76		150	126								
	9/77		161	126								
	10/78		160	74								

		Length (mm)											
Site	Individual	Atlantic Mackerel	Dab		Greater Spotted Dogfish	Lemon Sole	Lesser Spotted Dogfish	Plaice	Sole	Sprat	Thickback Sole	Whiting
	11/79		152	250								
	12/80		142	123								
	13/81		146	90								
	14/82		120	71								
	15/83		157	72								
	16/84		141	135								
	17/85		145	80								
	18/86		149	75								
	19/87		170	80								
	20/88		137	78								
	21/89		175	75								
	22/90		132	75								
	23/91		135	62								
	24/92		138	78								
	25/93		135	80								
	26/94		164	80								
	27/95		145	71								
	28/96		135	78								
	29/97		158	150								
	30/98		185	72								
	31/99		132	85								
	32/100		160	81								
	33/101		140	78								
	34/102		159	87								
	35/103		160	85								
	36/104		140	69								
	37/105		152	65								
	38/106		148	135								
	39/107		138	126								
	40/108		95	75								
	41/109		123	134								
	42/110		180	80								
	43/111		115	75								
	44/112		129	82								
	45/113		130	74								
	46/114		120	80								
	47/115		140	123								
	48/116		115	82								
	49/117		125	83								
	50/118		79	70								
	51/119		80	70								
	52/120		159	140								
	53/121		65	80								
	54/122		75	80								
	55/123		86	125								
	56/124		83	74								
	57/125		76	135								
	58/126		105	70								

		Length (mm)											
Site	Individual	Atlantic Mackerel	Dab		Greater Spotted Dogfish	Lemon Sole	Lesser Spotted Dogfish	Plaice	Sole	Sprat	Thickback Sole	Whiting
	59/127		74	80								
	60/128		75	72								
	61/129		62	82								
	62/130		90	85								
	63/131		84	81								
	64/132		86	75								
	65/133		68	86								
	66/134		70	90								
	67/135		85	75								
	68		75									
13	1	239	217			117		167				
	2		152									
	3		183									
	4		150									
	5		196									
	6		147									
	7		142									
	8		128									
	9		183									
	10		122									
	11		38									
	12		69									
	13		163									
	14		131									
	15		151									
	16		175									
	17		81									
	18		76									
	19		72									
	20		133									
	21		51									
	22		159									
	23		126									
	24		137									
	25		72									
	26		51									
	27		70									
	28		88									
	29		70									
	30		81									
	31		73									
	32		89									
	33		80									
	34		127									
	35		122									
	36		133									
	37		127									
	38		78									

		Length (mm)										
Site	Individual	Atlantic Mackerel	Dab		Greater Spotted Dogfish	Lemon Sole	Lesser Spotted Dogfish	Plaice	Sole	Sprat	Thickback Sole	Whiting
	39		64									
	40		61									
	41		53									
	42		59									
	43		138									
	44		57									
	45		68									
	46		65									
	47		60									
	48		74									
	49		59									
	50		71									
	51		82									
	52		64									
	53		68									
	54		136									
	55		87									
	56		72									
	57		71									
	58		64									
	59		70									
	60		80									
	61		72									
	62		60									
	63		64									
	64		78									
	65		70									
	66		71									
	67		58									
	68		57									
	69		55									
14	1		75					180	165	80		
	2		133					233	171			
	3		152					179	100			
	4		150					110				
	5		113									
	6		134									
	7		70									
15	1		41									
	2		48									
	3		43									