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FRV *Alba na Mara*

Survey 1511A

PROGRAMME

19 October – 4 November 2011

Ports

Loading: Fraserburgh, 14 October 2011

Port Call: Stornoway / Ullapool / Mallaig, 26 October

Unloading: Ullapool, 4 November 2011

In setting the cruise programme and specific objectives, etc the Scientist-in-Charge needs to be aware of the restrictions on working hours and the need to build in adequate rest days and rest breaks as set out in Marine Scotland's Working Time Policy (Lab Notice 34/03). In addition, the Scientist-in-Charge must formally review the risk assessments for the cruise with staff on-board before work is commenced.

In the interest of efficient data management it is now mandatory to return the Cruise Report, to I Gibb and the Cruise Summary Report (old ROSCOP form) to M Geldart, within four weeks of a cruise ending. In the case of the Cruise Summary Report a nil return is required, if appropriate.

Personnel

M Robertson	(SIC)
C Hall	
J Mair	
M Carruthers	SNH
N Hirst	Heriot Watt University

Estimated days by project: 17 days – SP02q (10797)

Sampling Gear

Day grab, grab table and sieving stand
1mm sieves, 5mm sieves
Drop frame and TV sledge
UW TV cameras and digital still cameras
600m umbilical
MSS Triple Chamber fish traps

Objectives

The survey will encompass a region from the North Minch, including the East Shiant Bank and Shiant Islands and south to the Little Minch (see Figures 1 and 2). Contingency sampling stations along the east coast of the Outer Hebrides and on the west coast of the Scottish

mainland have also been included in the sampling programme. These will only be sampled if the weather conditions prevent work in the core sampling area.

This survey will gather biological data to help inform the importance of large scale features (LSFs) within Scottish waters. These LSFs represent areas of functional significance to the overall health and biological diversity of Scottish seas and are intended to compliment the MPA search feature habitats which, whilst not necessarily containing these MPA features, have a benefit by supporting wider ecosystem function. Using a combination of underwater video, grabs and fish traps, the survey will seek to gather information on the benthos and mobile fish species that utilise the LSFs.

General

Loading of the MSS sourced scientific gear will take place on the 13 and 14 October in Fraserburgh, other items supplied by SNH will be delivered to the vessel on or before the 19 October. Alba na Mara will then sail on the morning of 19 October and, once safety drills and vessel familiarisation tours have taken place, Alba na Mara will make passage to the first sampling positions in the Minch. A daily operational sampling plan will be formulated and agreed by the SIC, the Captain and the SNH representative. A half-landing will be take place around the 26 October, the port to be visited will be decided during the first half of the cruise. J Mair may have to leave the vessel at some point towards the end of the survey, again port and date to be decided nearer the time. Alba will be offloaded in Ullapool on 4 November when all scientific personnel, samples and sampling gear will return to Aberdeen

Procedures

Video and Stills (301 Stations, see Table 1)

Underwater video tows (5-20 minutes duration) will be attempted throughout the survey area. The video will be carried out either using a drop frame or a TV sledge. Despite a sledge being the preferred technique it is anticipated that much of the ground will not be conducive to this method, with large areas containing a mixture of stones, boulders and rocky outcrops (please refer to recent MSS (2009 and 2010) data and admiralty charts, principally on the tops and flanks of the banks and mounds. In situ video analysis will enable crude discrimination of biotopes and identification of common species, whilst allowing a critical assessment on the viability of other proposed methods (e.g. grabs, multigrabs etc.)

The video stations have been grouped into 4 categories: high priority (147), low priority (63), contingency (75) and contingency half-day (16). All high priority and almost all low priority stations are within the core boundary (Figure 1). In the event of bad weather a number of contingency stations are located along the east coast of the Outer Hebrides and the west coast of mainland Scotland. The contingency stations have a greater overlap with historic data and will contribute to regional data gaps and previous MPA related survey work (e.g. determining the extent of maerl distribution to the north and south of Loch Gairloch). In the event that Broad Bay offers a suitable shelter from poor weather a sub-group of contingency points have been designated within the bay.

Grabs (49 Stations, see Table 2)

These grabs, for the collection of infaunal animals, will be allocated the same priority categories as the video tows above. All of these stations will have a video component, however, it is likely

that some of these will not grab due to the nature of substratum on the site. A sediment sample will be taken from each successful grab and stored for PSA analysis.

Multigrabs (6 Stations, see Table 3)

These are given the priorities 'high' and 'contingency' only. A series of 5 grabs will be taken at each point. The sediment will be worked through a coarse sieve and any *Arctica*, *Glossus* or sandeels recorded (enumerated and length/width measured), and returned to the sea.

Grabs Only (9 Stations, see Table 4)

Video data from a number of locations will be complemented and ground-truthed by a single infaunal grab sample.

Fish Traps (21 Stations, see Table 5)

Classified as high and low priority, traps will be deployed in pairs at each station and left for ~24 hours. Upon retrieval all species of fish will be enumerated, weighed, measured and identified. Gut contents will be examined from a small percentage of these fish and recorded where possible. Length, weight data and otoliths will be collected from commercial species.

Submitted:
M. R. Robertson
12 October 2011

Approved:
I Gibb
15 October 2011

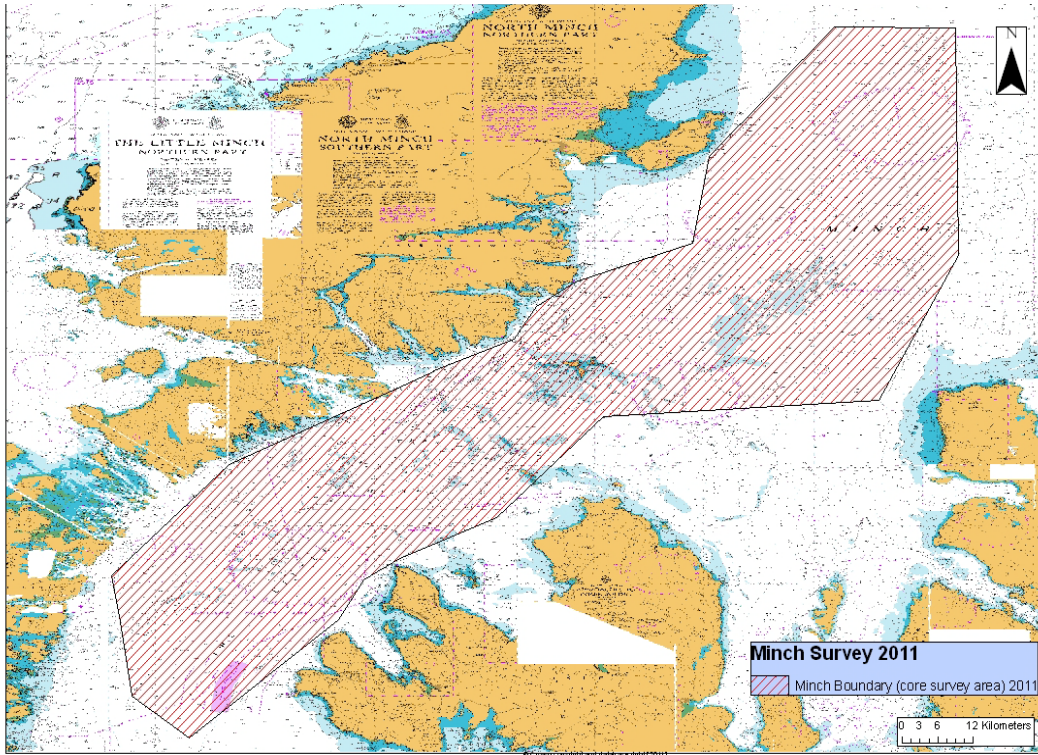


Figure 1: Boundary of Minch survey area.

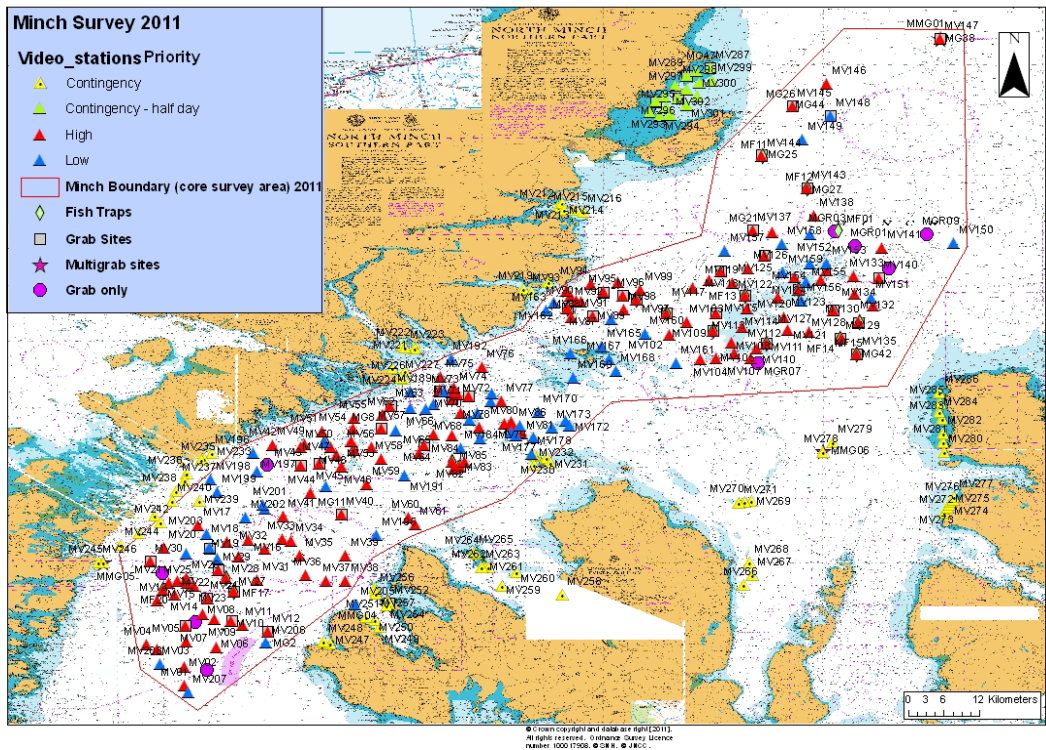


Figure 2: Minch survey area showing all sampling stations

Table 1: Video and digital still tow positions

Stn	Details	Priority	POINT_X	POINT_Y	Lat	Long
1	Muddy sand and shells? ~150m	High	-6.968889	57.399098	57d23'56.75"N	6d58'08"W
2	Muddy sand ~150m	High	-6.968889	57.426201	57d25'34.33"N	6d58'08"W
3	Top of small mound. ~90m. Burrowed mud	High	-7.010154	57.453304	57d27'11.9"N	7d00'36.56"W
4	Burrowed soft mud. ~150m	High	-7.026269	57.461117	57d27'40.02"N	7d01'34.57"W
5	Burrowed mud ~170m	High	-6.966203	57.465513	57d27'55.85"N	6d57'58.33"W
6	Muddy sand and gravel ~160m	High	-6.920299	57.455257	57d27'18.93"N	6d55'13.08"W
7	Burrowed Mud.Fun? ~150m. Grab	High	-6.967668	57.48822	57d29'17.6"N	6d58'03.61"W
8	Muddy sand. SpnMeg. ~150m	High	-6.941298	57.505312	57d30'19.13"N	6d56'28.67"W
9	Burrowed mud. ~200m	High	-6.922496	57.497987	57d29'52.76"N	6d55'20.99"W
10	Burrowed mud 150+. grab	High	-6.897591	57.495546	57d29'43.97"N	6d53'51.33"W
11	Burrowed mud ~170m	High	-6.880255	57.489686	57d29'22.87"N	6d52'48.92"W
12	Coarse sand. High ~70m. Grab	High	-6.842896	57.479674	57d28'46.83"N	6d50'34.43"W
13	Coarse sediment and rocks. Mound. ~50m	High	-7.01042	57.525964	57d31'33.47"N	7d00'37.52"W
14	between deep and bank. Rocks,sandy mud. ~110m	High	-6.983992	57.535539	57d32'07.94"N	6d59'02.37"W
15	Muddy sand ~120m. Trap (low priority)	High	-7.001611	57.542817	57d32'34.14"N	7d00'05.8"W
16	Top of mound. Rocks and coarse substratum ~30m	High	-6.871386	57.617504	57d37'03.02"N	6d52'16.99"W
17	Sandy mud. ~140m	High	-6.948181	57.639911	57d38'23.68"N	6d56'53.45"W
18	Rocks on muddy sand ~75m	High	-6.903943	57.614823	57d36'53.37"N	6d54'14.19"W
19	Rocks on coarse sediment ~80m	High	-6.886324	57.592608	57d35'33.39"N	6d53'10.77"W
20	Muddy sand ~150m.	High	-6.999888	57.605822	57d36'20.96"N	6d59'59.6"W
21	Bottom of bank. Coarse sediment ~120m	High	-6.992993	57.552966	57d33'10.68"N	6d59'34.78"W
22	Top of mound. Rocky ground. ~30m	High	-6.979779	57.555648	57d33'20.33"N	6d58'47.21"W
23	Small mound. ~45m	High	-6.954309	57.548179	57d32'53.45"N	6d57'15.51"W
24	Burrowed mud ~150m. Grab	High	-6.934201	57.529028	57d31'44.5"N	6d56'03.12"W
25	Coarse shell and sand. 100m. Grab and trap	High	-6.965033	57.552775	57d33'09.99"N	6d57'54.12"W
26	Top of rocky mound. ~40m	High	-6.965799	57.56101	57d33'39.64"N	6d57'56.88"W
27	Sandy mud. Spn Meg? ~160m. Grab and Trap	High	-6.894367	57.540327	57d32'25.18"N	6d53'39.72"W
28	Top of bank. Rock. ~40m. Trap	High	-6.905475	57.560052	57d33'36.19"N	6d54'19.71"W
29	Fine sand and shells? ~60m . Grab	High	-6.917923	57.5725	57d34'21"N	6d55'04.52"W
30	muddy sand. ~160m. Grab	High	-7.020953	57.586097	57d35'09.95"N	7d01'15.43"W
31	Sandy mud. ~121m	High	-6.858345	57.557483	57d33'26.94"N	6d51'30.04"W
32	Rock and coarse sediment. ~35m. Top of mound	High	-6.846893	57.604619	57d36'16.63"N	6d50'48.82"W
33	Rock and coarse sediment. ~35m. Top of mound	High	-6.820337	57.618727	57d37'07.42"N	6d49'13.21"W
34	Bank flank. coarse sediment. ~100m	High	-6.807059	57.615905	57d36'57.26"N	6d48'25.41"W
35	Burrowed mud. ~140m	High	-6.793283	57.593997	57d35'38.39"N	6d47'35.82"W

36	Sandy mud. SpnMeg? ~150m	High	-6.784819	57.564454	57d33'52.04"N	6d47'05.35"W
37	Burrowed Mud. 170m	High	-6.753616	57.555823	57d33'20.96"N	6d45'13.02"W
38	Burrowed mud? 200m+	High	-6.724571	57.556653	57d33'23.95"N	6d43'28.46"W
39	Sand and shell. ~170m	High	-6.724571	57.593665	57d35'37.2"N	6d43'28.46"W
40	Mud. ~150m. Grab	High	-6.730546	57.655573	57d39'20.06"N	6d43'49.97"W
41	Top of mound. Rocks and coarse sediment. ~30m	High	-6.819175	57.653083	57d39'11.1"N	6d49'09.03"W
42	Burrowed mud 150m	High	-6.835256	57.760755	57d45'38.72"N	6d50'06.92"W
43	Burrowed Mud. ~130m Grab	High	-6.791974	57.730009	57d43'48.03"N	6d47'31.11"W
44	Top of small mound. hard ground. ~45m	High	-6.777049	57.688369	57d41'18.13"N	6d46'37.38"W
45	Muddy sand. 100m+ Grab	High	-6.764811	57.732994	57d43'58.78"N	6d45'53.32"W
46	Rock mound ~30m	High	-6.730036	57.727621	57d43'39.44"N	6d43'48.13"W
47	Coarse substrate ~30m	High	-6.737349	57.745233	57d44'42.84"N	6d44'14.46"W
48	Between bank and deep.Sandy mud? ~130m	High	-6.747199	57.757023	57d45'25.29"N	6d44'49.92"W
49	Bank flank ~50m. Coarse	High	-6.786004	57.761799	57d45'42.48"N	6d47'09.62"W
50	Top of mound ~35m. Rock and coarse sediment	High	-6.79287	57.757173	57d45'25.82"N	6d47'34.33"W
51	Soft mud. 160m	High	-6.759438	57.780903	57d46'51.25"N	6d45'33.98"W
52	Coarse sediment ~50m Trap (low priority)	High	-6.710932	57.752844	57d45'10.24"N	6d42'39.36"W
53	Rocks on sandy mud. ~35m.	High	-6.715708	57.766426	57d45'59.14"N	6d42'56.55"W
54	Small mound. Coarse. ~50m	High	-6.712573	57.78553	57d47'07.91"N	6d42'45.27"W
55	Small mound. Coarse with rocks. ~85m	High	-6.711081	57.8015	57d48'05.4"N	6d42'39.89"W
56	Bank flank. Coarse mixed sediment. ~100m	High	-6.684365	57.757173	57d45'25.82"N	6d41'03.72"W
57	Sandy mud. ~150m. Grab	High	-6.670485	57.784933	57d47'05.76"N	6d40'13.75"W
58	Rocks on sandy mud. ~110m	High	-6.66959	57.739412	57d44'21.88"N	6d40'10.52"W
59	Burrowed mud? ~140m	High	-6.691977	57.700906	57d42'03.26"N	6d41'31.12"W
60	Nr top of bank. Stones-coarse sediment. ~45m	High	-6.628389	57.65168	57d39'06.05"N	6d37'42.2"W
61	Between banks and deep. coarse? ~100m	High	-6.619001	57.640697	57d38'26.51"N	6d37'08.4"W
62	Burrowed mud. SpnMeg. Fun. ~150m	High	-6.668191	57.805904	57d48'21.26"N	6d40'05.49"W
63	Fine sandy mud. ~150m Grab	High	-6.656236	57.81887	57d49'07.93"N	6d39'22.45"W
64	top of bank.Rocks-mixed sediment.Grab if poss 50m+	High	-6.605552	57.760778	57d45'38.8"N	6d36'19.99"W
65	Rocks on muddy sand. ~75m	High	-6.613298	57.748317	57d44'53.94"N	6d36'47.87"W
66	Top of mound. Hard ground. ~35m	High	-6.590229	57.775932	57d46'33.36"N	6d35'24.83"W
67	Edge of small mound. Mixed coarse, ~60m	High	-6.562109	57.775427	57d46'31.54"N	6d33'43.59"W
68	Top of bank. Rocks-hard ground. <20m	High	-6.550154	57.808599	57d48'30.96"N	6d33'00.56"W
69	Edge of mound. coarse-mixed. Grab 100m	High	-6.563119	57.829478	57d49'46.12"N	6d33'47.23"W
70	Burrowed mud. Deep ~160m. Grab	High	-6.582147	57.842107	57d50'31.59"N	6d34'55.73"W
71	Burrowed mud. ~140m Grab	High	-6.537357	57.834361	57d50'03.7"N	6d32'14.49"W
72	Top of mound. Hard ground-rocky. ~25m	High	-6.554027	57.83655	57d50'11.58"N	6d33'14.5"W
73	Top of mound. Hard ground-rocky. ~30m	High	-6.563119	57.840255	57d50'24.92"N	6d33'47.23"W

74	Flank of mound. Steep? Coarse/ ~30m	High	-6.559415	57.847327	57d50'50.38"N	6d33'33.9"W
75	Top of mound. Coarse. 35m	High	-6.579763	57.862877	57d51'46.36"N	6d34'47.15"W
76	Top of mound. Mixed coarse. ~30m	High	-6.517472	57.877626	57d52'39.46"N	6d31'02.9"W
77	Top of mound. Rocks and mixed coarse. ~25m	High	-6.488288	57.826162	57d49'34.19"N	6d29'17.84"W
78	Top of bank. Hard ground-rocks. ~20m. Swiftia?	High	-6.522336	57.786466	57d47'11.28"N	6d31'20.41"W
79	Edge of bank. ~50m. Coarse. St tides. Sponge/Swiftia	High	-6.473225	57.795409	57d47'43.47"N	6d28'23.61"W
80	Bottom of bank. Coarse sediment. ~50m	High	-6.482797	57.792271	57d47'32.18"N	6d28'58.07"W
81	Top of bank. Hard ground. Swiftia. ~20m	High	-6.457221	57.777836	57d46'40.21"N	6d27'26"W
82	Burrowed mud. 130m Trap here.	High	-6.563294	57.735461	57d44'07.66"N	6d33'47.86"W
83	Bank flank. ~30m Coarse. Grab if poss. Trap	High	-6.55116	57.727544	57d43'39.16"N	6d33'04.18"W
84	Bank flank. ~30m Coarse, rocks on sand,	High	-6.543539	57.735831	57d44'08.99"N	6d32'36.74"W
85	Bank flank. ~60m. sand and shells.	High	-6.559521	57.725621	57d43'32.24"N	6d33'34.28"W
86	Top of bank. v shallow! 10m+ Swiftia	High	-6.469815	57.789644	57d47'22.72"N	6d28'11.34"W
87	Mound flank. Mixed sediment. ~70m. Grab and trap	High	-6.387877	57.965876	57d57'57.15"N	6d23'16.36"W
88	Nr top of mound. Coarse. ~40m	High	-6.381559	57.952727	57d57'09.82"N	6d22'53.61"W
89	Burrowed mud. ~140m. Grab	High	-6.350139	57.955288	57d57'19.04"N	6d21'00.5"W
90	Bottom of bank/edge of deep. Mud? ~150m	High	-6.367557	57.976121	57d58'34.04"N	6d22'03.21"W
91	Top of mound. Hard ground. ~25m	High	-6.374729	57.977487	57d58'38.96"N	6d22'29.03"W
92	Burrowed mud. 210m+	High	-6.383608	57.985855	57d59'09.08"N	6d23'00.99"W
93	Edge of deep. Burrowed mud. 120-170m	High	-6.389073	57.992343	57d59'32.44"N	6d23'20.66"W
94	Coarse-gravel. ~130m	High	-6.352701	58.002589	58d00'09.32"N	6d21'09.72"W
95	Burrowed mud ~140m. Grab	High	-6.332892	57.990807	57d59'26.91"N	6d19'58.41"W
96	coarse mixed sediment. ~200m. Grab	High	-6.304034	57.985855	57d59'09.08"N	6d18'14.52"W
97	Muddy sand with shells. 150m. grab and trap	High	-6.28303	57.979878	57d58'47.56"N	6d16'58.91"W
98	Muddy sand. ~140m	High	-6.302839	57.964339	57d57'51.62"N	6d18'10.22"W
99	Coarse-gravel and pebbles. ~150m	High	-6.277908	57.99371	57d59'37.36"N	6d16'40.47"W
100	Muddy sand. ~170m	High	-6.310864	58.005663	58d00'20.39"N	6d18'39.11"W
101	Burrowed mud ~100m. Grab and trap	High	-6.237757	57.959363	57d57'33.71"N	6d14'15.93"W
102	Mixed sediments 120m	High	-6.233634	57.926385	57d55'34.99"N	6d14'01.09"W
103	Bottom of bank. Gravel. ~70m	High	-6.206938	57.945426	57d56'43.53"N	6d12'24.98"W
104	Bottom of bank. Coarse sediment. ~70m	High	-6.185542	57.889482	57d53'22.14"N	6d11'07.95"W
105	Bank flank. Coarse-rocky. 60m	High	-6.162968	57.891837	57d53'30.62"N	6d09'46.69"W
106	top of bank. coarse. 20m+	High	-6.134898	57.898119	57d53'53.23"N	6d08'05.63"W
107	Muddy sand-burrowed mud. SpnMeg.Fun ~85m	High	-6.109969	57.891052	57d53'27.79"N	6d06'35.89"W
108	Bank flank. Coarse sediment-gravel/shells ~50m	High	-6.139413	57.914608	57d54'52.59"N	6d08'21.89"W
109	Gravel and sand. Gran and Trap. ~55m	High	-6.16709	57.932078	57d55'55.48"N	6d10'01.53"W
110	Top of mound. Coarse-rocky. ~25m	High	-6.100939	57.90656	57d54'23.62"N	6d06'03.38"W
111	Gravel and sand ~70m. Grab and Trap.	High	-6.086806	57.913822	57d54'49.76"N	6d05'12.5"W

112	Top of bank. Coarse-pebbles and shell sand. ~45m	High	-6.122728	57.938163	57d56'17.39"N	6d07'21.82"W
113	Bank flank. muddy sand. ~60m. Grab	High	-6.163361	57.95897	57d57'32.29"N	6d09'48.1"W
114	Top of bank. Coarse sediment. ~45m	High	-6.115465	57.965841	57d57'57.03"N	6d06'55.68"W
115	Top of bank. Coarse-gravel/shells. Grab and trap. 45m	High	-6.118998	57.98547	57d59'07.69"N	6d07'08.4"W
116	tween bank and deep. Mud/sand. SpnMeg. Fun. ~110m	High	-6.198498	57.997837	57d59'52.21"N	6d11'54.59"W
117	Bottom of bank. Muddy sand. ~80m	High	-6.173176	58.009222	58d00'33.2"N	6d10'23.43"W
118	Shells and Sand with rocks-poss Grab. 60m	High	-6.155902	58.022373	58d01'20.55"N	6d09'21.25"W
119	Coarse sandy sediment. ~60m	High	-6.138039	58.004511	58d00'16.24"N	6d08'16.94"W
120	Coarse mixed sediment. 60m	High	-6.06011	57.952885	57d57'10.39"N	6d03'36.4"W
121	Edge/bottom of bank. Sandy mud. 70m	High	-6.053828	57.933844	57d56'01.84"N	6d03'13.78"W
122	Top of bank. Coarse sediment wi rocks. 40m	High	-6.068943	57.982722	57d58'57.8"N	6d04'08.2"W
123	Top of bank. Coarse-rocky. Trap and poss Grab. 20m	High	-6.037928	57.994696	57d59'40.91"N	6d02'16.54"W
124	Top of bank. Coarse sediment. 55m	High	-6.043032	58.012951	58d00'46.63"N	6d02'34.92"W
125	Bank flank. Coarse sediment. ~85m Grab	High	-6.088965	58.046125	58d02'46.05"N	6d05'20.28"W
126	Bank flank. Coarse-gravel/sand. ~65m	High	-6.114287	58.026888	58d01'36.8"N	6d06'51.44"W
127	Bottom of bank. Sandy mud. ~80m	High	-6.021204	57.930782	57d55'50.82"N	6d01'16.34"W
128	Bank flank. Coarse-sand. ~65m	High	-5.984772	57.963446	57d57'48.41"N	5d59'05.18"W
129	Muddy sand. 110m Grab and Trap	High	-5.973465	57.921046	57d55'15.77"N	5d58'24.48"W
130	Coarse mixed sediment. ~70m. ~70m. Grab and Trap	High	-5.945984	57.94523	57d56'42.83"N	5d56'45.54"W
131	Top of bank. Rocky? 45m	High	-6.003616	58.008672	58d00'31.22"N	6d00'13.02"W
132	Edge of bank. coarse-gravel/shells.	High	-5.952265	57.988257	57d59'17.73"N	5d57'08.16"W
133	Mound slope. muddy sand. 50m	High	-5.953836	58.014639	58d00'52.7"N	5d57'13.81"W
134	Bank flank. Coarse wi rocks. 60m	High	-5.923999	57.970512	57d58'13.85"N	5d55'26.4"W
135	Burrowed mud ~140m. Grab and trap.	High	-5.949439	57.89702	57d53'49.27"N	5d56'57.98"W
136	Bottom of bank. Muddy sand? 85m	High	-6.077647	58.081046	58d04'51.77"N	6d04'39.53"W
137	Soft muddy sand ~100m. Grab	High	-6.107139	58.083995	58d05'02.38"N	6d06'25.7"W
138	Bottom of bank. Coarse sand. 70m	High	-6.014105	58.10598	58d06'21.53"N	6d00'50.78"W
139	Top of mound. Coarse-gravel. 35m	High	-5.994533	58.02367	58d01'25.21"N	5d59'40.32"W
140	Shelly gravel. ~90m. Grab	High	-5.916245	58.012678	58d00'45.64"N	5d54'58.48"W
141	Adjacent to bank. Sandy mud. Spnmeg? 100m	High	-5.911151	58.056916	58d03'24.9"N	5d54'40.14"W
142	Muddy sand. 70m	High	-5.995069	58.023938	58d01'26.18"N	5d59'42.25"W
143	Muddy Sand. 100m+ grab	High	-6.024829	58.147001	58d08'49.2"N	6d01'29.39"W
144	Burrowed mud. SpnMeg. ~125m. Grab	High	-6.092846	58.196464	58d11'47.27"N	6d05'34.25"W
145	Muddy sand. ~110m. SpnMeg? Grab	High	-6.047137	58.271318	58d16'16.75"N	6d02'49.69"W
146	Sandy Mud. ~115m SpnMeg. Fun?	High	-5.994937	58.30403	58d18'14.51"N	5d59'41.78"W
147	Fine sand and mud. Artica? Multigrab and grab	High	-5.823221	58.371774	58d22'18.39"N	5d49'23.6"W
148	Burrowed mud. ~120m. Grab	Low	-5.989174	58.255617	58d15'20.22"N	5d59'21.03"W
149	Burrowed mud. SpnMeg. ~125m	Low	-6.03159	58.221072	58d13'15.86"N	6d01'53.72"W

150	Historic Fun 1999-FRS. Mud. ~100m	Low	-5.802443	58.064387	58d03'51.8"N	5d48'08.8"W
151	burrowed mud? 110m	Low	-5.927972	57.982301	57d58'56.29"N	5d55'40.7"W
152	Sand/shell/gravel 65m	Low	-6.019386	58.077713	58d04'39.77"N	6d01'09.79"W
153	Top of bank. Coarse wi rocks. 30m	Low	-5.994867	58.034271	58d02'03.38"N	5d59'41.52"W
154	Coarse wi rocks. 60m	Low	-6.020452	58.034005	58d02'02.42"N	6d01'13.63"W
155	Top of bank. Hard ground. 35m	Low	-6.026049	58.006021	58d00'21.68"N	6d01'33.78"W
156	Top of bank. Coarse sediment wi rocks. ~35m	Low	-6.033245	57.978836	57d58'43.81"N	6d01'59.68"W
157	Bottom of bank. 70m	Low	-6.14951	58.053605	58d03'12.98"N	6d08'58.24"W
158	Bankl flank. Coarse-shells/gravel. ~80m	Low	-6.062548	58.063784	58d03'49.62"N	6d03'45.17"W
159	Top of bank. shells and rock. 40m	Low	-6.061094	58.020594	58d01'14.14"N	6d03'39.94"W
160	Between bank & deep. sandy mud. 100m	Low	-6.270521	57.927997	57d55'40.79"N	6d16'13.88"W
161	Sandy mud. 60m	Low	-6.22329	57.883394	57d53'00.22"N	6d13'23.85"W
162	Sand wi rocks. 100m	Low	-6.407784	57.974571	57d58'28.46"N	6d24'28.03"W
163	Edge of small mound. Coarse sand? 50m	Low	-6.419476	57.96288	57d57'46.37"N	6d25'10.11"W
164	Adj to deep. shell mud. 110m	Low	-6.322169	57.950649	57d57'02.34"N	6d19'19.81"W
165	Rocky. ~20m	Low	-6.335839	57.90946	57d54'34.06"N	6d20'09.02"W
166	Coarse gravel? 25m. Tide swept	Low	-6.384042	57.899208	57d53'57.15"N	6d23'02.55"W
167	Muddy sand. 50m	Low	-6.324687	57.889855	57d53'23.48"N	6d19'28.88"W
168	Coarse-gravel. Currents. ~50-70m	Low	-6.314615	57.872588	57d52'21.32"N	6d18'52.61"W
169	Coarse? 45m	Low	-6.379546	57.861976	57d51'43.12"N	6d22'46.37"W
170	Mixed coarse sediment. ~80m	Low	-6.432606	57.810895	57d48'39.22"N	6d25'57.38"W
171	Rocky mound. 30m	Low	-6.391417	57.797585	57d47'51.31"N	6d23'29.1"W
172	Rocky mound 30-40m	Low	-6.384942	57.789491	57d47'22.17"N	6d23'05.79"W
173	Top of small round. Rocky. 26m	Low	-6.411921	57.786253	57d47'10.51"N	6d24'42.92"W
174	Top of small rocky mound. 30m	Low	-6.4398	57.772404	57d46'20.65"N	6d26'23.28"W
175	Flank of rocky mound. Sponge communities. 40m	Low	-6.459406	57.789311	57d47'21.52"N	6d27'33.86"W
176	Top of small mound. coarse mixed sediment? 30m	Low	-6.473795	57.779958	57d46'47.85"N	6d28'25.66"W
177	Coarse. 30m	Low	-6.465881	57.775281	57d46'31.01"N	6d27'57.17"W
178	Historic, 1988 MNCR. Parazoanthus. Rock wall.	Low	-6.442318	57.747762	57d44'51.95"N	6d26'32.35"W
179	Coarse sediment. ~35m	Low	-6.503472	57.827082	57d49'37.5"N	6d30'12.5"W
180	Top of rocky mound. 25m	Low	-6.503113	57.837694	57d50'15.7"N	6d30'11.21"W
181	Mud with pebbles. Leptometra? 90m	Low	-6.524337	57.808376	57d48'30.16"N	6d31'27.61"W
182	Rocky mound. 30m	Low	-6.536208	57.799383	57d47'57.78"N	6d32'10.35"W
183	Rocks on sand. 40m.	Low	-6.51984	57.771324	57d46'16.77"N	6d31'11.43"W
184	Adj banks and deeps. Burrowed mud. 90m	Low	-6.549338	57.756396	57d45'23.03"N	6d32'57.62"W
185	Adj banks and deeps. 110m+	Low	-6.574519	57.841292	57d50'28.65"N	6d34'28.27"W
186	Coarse. Top of mound. 50m	Low	-6.590527	57.822406	57d49'20.66"N	6d35'25.9"W
187	Coarse. 65m	Low	-6.602398	57.815391	57d48'55.41"N	6d36'08.63"W

188	Coarse/rocky? 45m	Low	-6.62614	57.815931	57d48'57.35"N	6d37'34.11"W
189	Rocks on sand. 100m+	Low	-6.62614	57.842011	57d50'31.24"N	6d37'34.11"W
190	Sandy mud. SpnMeg. ~140m	Low	-6.648263	57.782116	57d46'55.62"N	6d38'53.75"W
191	Sandy mud. 100m+	Low	-6.634953	57.715207	57d42'54.75"N	6d38'05.83"W
192	Burrowed mud 140m	Low	-6.563941	57.889362	57d53'21.7"N	6d33'50.19"W
193	Sandy mud ~150m	Low	-6.754871	57.764926	57d45'53.73"N	6d45'17.54"W
194	Shells on muddy sand. 100m	Low	-6.753941	57.69828	57d41'53.81"N	6d45'14.19"W
195	sand and pebbles with shells. 140m	Low	-6.67743	57.625171	57d37'30.62"N	6d40'38.75"W
196	Burrowed mud. 130-140m	Low	-6.86455	57.749235	57d44'57.25"N	6d51'52.38"W
197	Soft mud. SpnMeg.Fun 100m+	Low	-6.858862	57.720021	57d43'12.08"N	6d51'31.9"W
198	Burrowed mud 140m+	Low	-6.928408	57.70955	57d42'34.38"N	6d55'42.27"W
199	Coarse sediment. 70m	Low	-6.919359	57.690031	57d41'24.11"N	6d55'09.69"W
200	Bottom of Bank. coarse sediment.	Low	-6.84684	57.664177	57d39'51.04"N	6d50'48.63"W
201	Top of rocky mound. 50m	Low	-6.850072	57.67077	57d40'14.77"N	6d51'00.26"W
202	Adj to bank. Shelly gravel. 90m	Low	-6.876184	57.651509	57d39'05.44"N	6d52'34.26"W
203	Bottom of bank. Mud? 110m	Low	-6.935259	57.626949	57d37'37.02"N	6d56'06.93"W
204	Bank. ~60m. coarse?	Low	-6.931122	57.605361	57d36'19.3"N	6d55'52.04"W
205	Edge of deep . Burrowed mud. SpnMeg. 140m	Low	-6.709783	57.521294	57d31'16.66"N	6d42'35.22"W
206	Edge of rocky mounds. 50m	Low	-6.845292	57.463194	57d27'47.5"N	6d50'43.05"W
207	Burrowed mud. 160m	Low	-6.963405	57.388916	57d23'20.1"N	6d57'48.26"W
208	Adj to deep. 110-130m mud?	Low	-7.006024	57.431013	57d25'51.65"N	7d00'21.69"W
209	Bottom of bank . Mud. 100m	Low	-6.966537	57.597485	57d35'50.95"N	6d57'59.53"W
210	Middle of bank. sand? 90m	Low	-6.919048	57.590005	57d35'24.02"N	6d55'08.57"W
212	Leptometra? stones on mud? 40m	Contingency	-6.402892	58.119106	58d07'08.78"N	6d24'10.41"W
213	Leptometra? mud with stones 25m	Contingency	-6.396029	58.125761	58d07'32.74"N	6d23'45.71"W
214	Lepto. ~20m	Contingency	-6.39291	58.114946	58d06'53.81"N	6d23'34.48"W
215	Historic-NeoPen on coarse sed./maerl. 1988 MNCR	Contingency	-6.37648	58.114738	58d06'53.06"N	6d22'35.33"W
216	Mixed coarse sediment. 30m	Contingency	-6.364418	58.112035	58d06'43.33"N	6d21'51.91"W
217	Burrowed mud. spnmeg. 25m	Contingency	-6.417788	58.005927	58d00'21.34"N	6d25'04.04"W
218	Burrowed mud. Spn.Meg 70m	Contingency	-6.444304	57.990953	57d59'27.43"N	6d26'39.5"W
219	Tide swept? coarse. 35m	Contingency	-6.454755	57.995477	57d59'43.72"N	6d27'17.12"W
220	Rocky reef. 15-20m	Contingency	-6.616836	57.9075	57d54'27"N	6d37'00.61"W
221	Historic-MNCR1988. Leptometra.	Contingency	-6.62071	57.906251	57d54'22.5"N	6d37'14.56"W
222	Mud and shells. 30m+ SpnMeg?	Contingency	-6.637541	57.910088	57d54'36.32"N	6d38'15.15"W
223	Burrowed mud. SpnMeg? 30m	Contingency	-6.634213	57.90713	57d54'25.67"N	6d38'03.17"W
224	Coarse tide-swept? 35m	Contingency	-6.653809	57.877182	57d52'37.86"N	6d39'13.71"W
225	Mud. 40m	Contingency	-6.635323	57.872746	57d52'21.89"N	6d38'07.16"W
226	Mud? Rocky? (Swiftia if rocky?) 30m	Contingency	-6.636461	57.860547	57d51'37.97"N	6d38'11.26"W

227	Historic Swiftia -MCS 2000. 20-30m	Contingency	-6.641633	57.861676	57d51'42.04"N	6d38'29.88"W
228	Historic Swiftia. MCS-2005. rocky wall	Contingency	-6.434932	57.744082	57d44'38.7"N	6d26'05.76"W
229	Historic Swiftia in area. Rocky wall.	Contingency	-6.438999	57.745931	57d44'45.35"N	6d26'20.4"W
230	Current swept-coarse?. 40m	Contingency	-6.419404	57.741864	57d44'30.71"N	6d25'09.86"W
231	Current swept-coarse ~40m	Contingency	-6.414598	57.734469	57d44'04.09"N	6d24'52.55"W
232	Mud?? 50m	Contingency	-6.439369	57.731511	57d43'53.44"N	6d26'21.73"W
233	Mixed sediment. 25m	Contingency	-6.927648	57.747978	57d44'52.72"N	6d55'39.53"W
234	Historic-MCS 1980. Swiftia. Rocky outcrop	Contingency	-6.939657	57.7394	57d44'21.84"N	6d56'22.77"W
235	Swiftia/sponge communities	Contingency	-6.943946	57.737685	57d44'15.67"N	6d56'38.21"W
236	Mixed coarse sediment. 80m	Contingency	-6.965962	57.718528	57d43'06.7"N	6d57'57.47"W
237	Mixed coarse sediment. 85m	Contingency	-6.968821	57.708234	57d42'29.64"N	6d58'07.76"W
238	Sand and shell? 50m	Contingency	-6.981974	57.691936	57d41'30.97"N	6d58'55.11"W
239	Shell and mud. 50-70m,	Contingency	-6.946805	57.677354	57d40'38.48"N	6d56'48.5"W
240	Muddy sand. SpnMeg?	Contingency	-6.987979	57.677354	57d40'38.48"N	6d59'16.73"W
241	Coarse-gravel. 100m	Contingency	-7.01457	57.655051	57d39'18.19"N	7d00'52.45"W
242	Burrowed mud. 110m	Contingency	-7.005706	57.644758	57d38'41.13"N	7d00'20.54"W
243	Coarse sediment. 100m+	Contingency	-7.038016	57.62846	57d37'42.46"N	7d02'16.86"W
244	Coarse sediment wi rocks. ~50m	Contingency	-7.066037	57.611018	57d36'39.67"N	7d03'57.74"W
245	Sand eels? Arctica?. 70m	Contingency	-7.092967	57.583883	57d35'01.98"N	7d05'34.68"W
246	Historic-MCS2002. Swiftia and sponge.	Contingency	-7.100009	57.583311	57d34'59.92"N	7d06'00.03"W
247	Historic MNCR 1988 and 1994. SpnMeg and Fun.	Contingency	-6.747729	57.462021	57d27'43.28"N	6d44'51.83"W
248	Burrowed mud? Fun. 90m	Contingency	-6.758183	57.464686	57d27'52.87"N	6d45'29.46"W
249	Burrowed mud 80m	Contingency	-6.672704	57.487029	57d29'13.31"N	6d40'21.74"W
250	Burrowed mud 80m	Contingency	-6.681108	57.497279	57d29'50.21"N	6d40'51.99"W
251	Burrowed mud. Fun? 60m	Contingency	-6.693203	57.501789	57d30'06.44"N	6d41'35.53"W
252	Historic-NeoPen on coarse sed./maerl.1988 MNCR.MG	Contingency	-6.65774	57.521877	57d31'18.76"N	6d39'27.87"W
253	Maerl/Neo? Arctica? Multigrab	Contingency	-6.66061	57.524747	57d31'29.09"N	6d39'38.2"W
254	Maerl/Neo? Arctica? Multigrab	Contingency	-6.66307	57.519007	57d31'08.43"N	6d39'47.05"W
255	Burrowed mud. 50m.	Contingency	-6.680083	57.545246	57d32'42.89"N	6d40'48.3"W
256	Burrowed mud 50m	Contingency	-6.679674	57.540941	57d32'27.39"N	6d40'46.83"W
257	Burrowed mud 80m	Contingency	-6.678854	57.537456	57d32'14.84"N	6d40'43.87"W
258	Burrowed mud 45m	Contingency	-6.396669	57.535893	57d32'09.22"N	6d23'48.01"W
259	Burrowed mud 65m	Contingency	-6.488261	57.548071	57d32'53.06"N	6d29'17.74"W
260	Burrowed mud 45 m spnmeg. fun	Contingency	-6.465934	57.568876	57d34'07.95"N	6d27'57.36"W
261	Nr to historic Swiftia site. rock wall	Contingency	-6.514166	57.576707	57d34'36.15"N	6d30'51"W
262	Nr to historic CarSwi.LgAs site. rock wall	Contingency	-6.508812	57.577248	57d34'38.1"N	6d30'31.72"W
263	Historic MCS 2007. Swiftia and sponge. Rock wall	Contingency	-6.519275	57.57643	57d34'35.15"N	6d31'09.39"W
264	Nr to Historic maerl bed-MCS 1988.	Contingency	-6.526318	57.596531	57d35'47.51"N	6d31'34.75"W

265	Nr to Historic maerl bed-MCS 1988	Contingency	-6.530124	57.598814	57d35'55.73"N	6d31'48.45"W
266	Muddy sand ~60m	Contingency	-6.121291	57.549447	57d32'58.01"N	6d07'16.65"W
267	Muddy sand 70m	Contingency	-6.107882	57.56504	57d33'54.14"N	6d06'28.38"W
268	Sand and shells. 65m	Contingency	-6.11256	57.583438	57d35'00.38"N	6d06'45.22"W
269	Coarse sandy sediment. 75m	Contingency	-6.109441	57.676057	57d40'33.81"N	6d06'33.99"W
270	Historic MNCR 1988. Swiftia and sponge. Wall?	Contingency	-6.119732	57.675121	57d40'30.44"N	6d07'11.04"W
271	Swiftia? rockwall	Contingency	-6.128464	57.673562	57d40'24.82"N	6d07'42.47"W
272	South extent of Gairloch Maerl	Contingency	-5.8176	57.65892	57d39'32.11"N	5d49'03.36"W
273	South extent of Gairloch Maerl	Contingency	-5.813049	57.666333	57d39'58.8"N	5d48'46.98"W
274	South extent of Gairloch Maerl	Contingency	-5.809798	57.670234	57d40'12.84"N	5d48'35.27"W
275	South extent of Gairloch Maerl	Contingency	-5.807587	57.674786	57d40'29.23"N	5d48'27.31"W
276	South extent of Gairloch Maerl	Contingency	-5.803816	57.678167	57d40'41.4"N	5d48'13.74"W
277	South extent of Gairloch Maerl	Contingency	-5.801995	57.682198	57d40'55.92"N	5d48'07.18"W
278	Historic-Glossus-FRS2001~150m.Sandy Mud.MultiG	Contingency	-6.000257	57.750758	57d45'02.73"N	6d00'00.93"W
279	Burrowed Mud. SpnMeg.Fun? 150m	Contingency	-5.985551	57.765464	57d45'55.67"N	5d59'07.99"W
280	North extent of Gairloch Maerl	Contingency	-5.81748	57.750266	57d45'00.96"N	5d49'02.93"W
281	North extent of Gairloch Maerl	Contingency	-5.819133	57.764731	57d45'53.03"N	5d49'08.88"W
282	North extent of Gairloch Maerl	Contingency	-5.818926	57.777957	57d46'40.65"N	5d49'08.14"W
283	North extent of Gairloch Maerl	Contingency	-5.820579	57.800482	57d48'01.74"N	5d49'14.09"W
284	North extent of Gairloch Maerl	Contingency	-5.824919	57.810402	57d48'37.45"N	5d49'29.71"W
285	North extent of Gairloch Maerl	Contingency	-5.823473	57.824041	57d49'26.55"N	5d49'24.5"W
286	North extent of Gairloch Maerl	Contingency	-5.824506	57.83954	57d50'22.34"N	5d49'28.22"W
287	Broad Bay - sand eels	Contingency - half day	-6.171361	58.328914	58d19'44.09"N	6d10'16.9"W
288	Broad Bay - sand eels	Contingency - half day	-6.192262	58.32381	58d19'25.72"N	6d11'32.15"W
289	Broad Bay - sand eels	Contingency - half day	-6.206925	58.316654	58d18'59.95"N	6d12'24.93"W
290	Broad Bay - sand eels	Contingency - half day	-6.224582	58.301973	58d18'07.1"N	6d13'28.5"W
291	Broad Bay - sand eels	Contingency - half day	-6.240654	58.285726	58d17'08.61"N	6d14'26.36"W
292	Broad Bay - sand eels	Contingency - half day	-6.254094	58.277577	58d16'39.28"N	6d15'14.74"W
293	Broad Bay - sand eels	Contingency - half day	-6.262841	58.261967	58d15'43.08"N	6d15'46.23"W
294	Broad Bay - sand eels	Contingency - half day	-6.247817	58.256202	58d15'22.33"N	6d14'52.14"W
295	Broad Bay - sand eels	Contingency - half day	-6.237684	58.269479	58d16'10.13"N	6d14'15.66"W
296	Broad Bay - sand eels	Contingency - half day	-6.220277	58.283205	58d16'59.54"N	6d13'13"W
297	Broad Bay - sand eels	Contingency - half day	-6.206937	58.295684	58d17'44.46"N	6d12'24.97"W
298	Broad Bay - sand eels	Contingency - half day	-6.187895	58.305991	58d18'21.57"N	6d11'16.42"W
299	Broad Bay - sand eels	Contingency - half day	-6.168678	58.308961	58d18'32.26"N	6d10'07.24"W
300	Broad Bay - sand eels	Contingency - half day	-6.190865	58.285376	58d17'07.36"N	6d11'27.11"W
301	Broad Bay - sand eels	Contingency - half day	-6.207461	58.272973	58d16'22.7"N	6d12'26.86"W
302	Broad Bay - sand eels	Contingency - half day	-6.231919	58.257949	58d15'28.62"N	6d13'54.91"W

Table 2: Grab site positions

Stn	Details	Priority	POINT_X	POINT_Y	Lat	Long
1	Burrowed Mud.Fun? ~150m	High	-6.96754	57.487861	57d29'16.3"N	6d58'03.15"W
2	Coarse sand. High ~70m	High	-6.842753	57.479548	57d28'46.38"N	6d50'33.91"W
3	Burrowed mud ~150m	High	-6.934276	57.528868	57d31'43.93"N	6d56'03.4"W
4	Fine sand and shells? ~60m	High	-6.918001	57.57233	57d34'20.39"N	6d55'04.8"W
5	Burrowed mud? ~180m	High	-6.897373	57.495389	57d29'43.4"N	6d53'50.55"W
6	top of mound. coarse-may not grab	High	-6.551259	57.727513	57d43'39.05"N	6d33'04.53"W
7	Rocks on mixed sediment-may not grab 50m+	High	-6.605633	57.760659	57d45'38.37"N	6d36'20.28"W
8	Sandy mud. ~150m	High	-6.670496	57.784737	57d47'05.05"N	6d40'13.79"W
9	Sandy mud wi shells ~150m	High	-6.656173	57.818794	57d49'07.66"N	6d39'22.22"W
10	Muddy sand. 100m+	High	-6.764826	57.733027	57d43'58.9"N	6d45'53.37"W
11	Mud. ~150m	High	-6.73043	57.655387	57d39'19.39"N	6d43'49.55"W
12	muddy sand. ~160m	High	-7.020793	57.58589	57d35'09.21"N	7d01'14.86"W
13	Mud. ~140m	High	-6.332838	57.990586	57d59'26.11"N	6d19'58.22"W
14	Mud ~140m	High	-6.349944	57.955064	57d57'18.23"N	6d20'59.8"W
15	Gravel and sand. Trap here. ~55m	High	-6.166937	57.932024	57d55'55.29"N	6d10'00.97"W
16	Coarse sediment. ~70m	High	-5.984792	57.963518	57d57'48.67"N	5d59'05.25"W
17	Shells and Sand wi rocks-may not grab	High	-6.155662	58.022098	58d01'19.55"N	6d09'20.38"W
18	Gravel. ~50m	High	-6.118979	57.985477	57d59'07.72"N	6d07'08.33"W
19	Shelly gravel. ~90m	High	-5.915929	58.012411	58d00'44.68"N	5d54'57.35"W
20	Coarse sediment. ~85m	High	-6.088762	58.046107	58d02'45.99"N	6d05'19.54"W
21	Soft muddy sand ~100m	High	-6.107238	58.083798	58d05'01.68"N	6d06'26.06"W
22	Gravel and sand ~70m	High	-6.086442	57.913731	57d54'49.43"N	6d05'11.19"W
23	muddy sand. ~60m	High	-6.163208	57.958993	57d57'32.38"N	6d09'47.55"W
24	coarse mixed sediment. ~200m	High	-6.304098	57.985617	57d59'08.22"N	6d18'14.76"W
25	Burrowed mud. SpnMeg. ~125m	High	-6.092867	58.196906	58d11'48.87"N	6d05'34.32"W
26	Muddy sand. ~110m	High	-6.046933	58.271323	58d16'16.77"N	6d02'48.96"W
27	Muddy sand 100m+	High	-6.024908	58.146872	58d08'48.74"N	6d01'29.67"W
28	Burrowed mud ~100m	High	-6.237616	57.959178	57d57'33.04"N	6d14'15.42"W
29	Burrowed mud. Deep ~160m	High	-6.582203	57.841952	57d50'31.03"N	6d34'55.93"W
30	Burrowed mud. ~140m	High	-6.537433	57.834302	57d50'03.49"N	6d32'14.76"W
31	Edge of mound. coarse-mixed	High	-6.562789	57.829501	57d49'46.2"N	6d33'46.04"W
32	Top of east Shiant bank. Hard ground	High	-6.037726	57.994731	57d59'41.03"N	6d02'15.81"W
33	Burrowed Mud	High	-6.791956	57.730041	57d43'48.15"N	6d47'31.04"W
34	High priority. Mixed sediment?	High	-6.473678	57.779598	57d46'46.55"N	6d28'25.24"W

35	Mound flank. Mixed sediment. ~70m	High	-6.387734	57.965807	57d57'56.91"N	6d23'15.84"W
36	Muddy sand with shells. 150m	High	-6.282852	57.979927	57d58'47.74"N	6d16'58.27"W
37	Coarse shell and sand. 100m	High	-6.964936	57.552752	57d33'09.91"N	6d57'53.77"W
38	Arctica - sand eels? ~100m	High	-5.823242	58.371715	58d22'18.17"N	5d49'23.67"W
39	Sandy mud. Spn Meg? ~160m	High	-6.894148	57.540285	57d32'25.03"N	6d53'38.94"W
40	Coarse mixed sediment. ~70m	High	-5.945779	57.945028	57d56'42.1"N	5d56'44.81"W
41	Muddy sand ~110	High	-5.973681	57.920825	57d55'14.97"N	5d58'25.25"W
42	Burrowed mud ~140m	High	-5.949354	57.897199	57d53'49.92"N	5d56'57.68"W
43	Bank. ~60m. coarse? Low priority	Low	-6.930934	57.605252	57d36'18.91"N	6d55'51.37"W
44	Burrowed mud. ~120m	Low	-5.989219	58.255445	58d15'19.6"N	5d59'21.19"W
45	Maerl/Arctica. ~20m.	Contingency	-6.65771	57.521883	57d31'18.78"N	6d39'27.76"W
46	Broad Bank-sand eels	Contingency-half day	-6.220301	58.283154	58d16'59.36"N	6d13'13.09"W
47	Broad Bank-sand eels	Contingency-half day	-6.171333	58.32888	58d19'43.97"N	6d10'16.8"W
48	Broad Bank-sand eels	Contingency-half day	-6.207005	58.316719	58d19'00.19"N	6d12'25.22"W
49	Broad Bank-sand eels	Contingency-half day	-6.25419	58.277479	58d16'38.93"N	6d15'15.09"W

Table 3: Multi grab positions

Stn	Details	Priority	POINT_X	POINT_Y	Lat	Long
1	Sand eels - Arctica?	High	-5.823242	58.371715	58d22'18.17"N	5d49'23.67"W
2	Historic maerl and Arctica	Contingency	-6.65771	57.521883	57d31'18.78"N	6d39'27.76"W
3	Maerl/Neo? Arctica?	Contingency	-6.660664	57.524985	57d31'29.95"N	6d39'38.39"W
4	Maerl/Neo? Arctica?	Contingency	-6.663175	57.518929	57d31'08.15"N	6d39'47.43"W
5	Sand eels? Arctica?	Contingency	-7.09296	57.583888	57d35'02"N	7d05'34.66"W
6	Historic Glossus	Contingency	-6.000273	57.750984	57d45'03.55"N	6d00'00.98"W

Table 4: Grab only positions

Stn	Detail	Priority	POINT_X	POINT_Y	Lat	Long
1	ROV track James Cook 2011. High priority	High	-5.952147	58.061205	58d03'40.34"N	5d57'07.73"W
2	ROV track James Cook 2011. High priority	High	-5.901299	58.026957	58d01'37.05"N	5d54'04.68"W
3	ROV track James Cook 2011. High priority	High	-5.983153	58.08319	58d04'59.49"N	5d58'59.35"W
4	Muddy sand, some rocks. Burrowed mud	High	-6.93566	57.421518	57d25'17.47"N	6d56'08.38"W
5	Historic Funiculina-FRS 1999. High priority	High	-6.952146	57.494173	57d29'39.03"N	6d57'07.73"W
6	Historic MSS-2009. Varied fauna inc coral.	High	-7.002896	57.567522	57d34'03.08"N	7d00'10.43"W
7	Muddy sand - MSS 2010.	Low	-6.100123	57.883581	57d53'00.89"N	6d06'00.44"W
8	Historic MSS - 2009. SpnMeg.fun	Low	-6.843101	57.730543	57d43'49.96"N	6d50'35.17"W
9	Historic MSS - 2009. SpnMeg.Fun	Low	-5.843583	58.078365	58d04'42.11"N	5d50'36.9"W

Table 5: Fish trap positions

Stn	Details	Priority	POINT_X	POINT_Y	Lat	Long
1	Bank flank, coarse sediment	High	-5.977941	58.083533	58d05'00.72"N	5d58'40.59"W
2	Top of bank. Rock. ~40m	High	-6.905289	57.560096	57d33'36.35"N	6d54'19.04"W
3	Burrowed mud ~100m	High	-6.237653	57.959217	57d57'33.18"N	6d14'15.55"W
4	Sandy mud . ~160m	High	-6.89413	57.540274	57d32'24.99"N	6d53'38.87"W
5	Top of mound. shallow ~20m. Coarse	High	-6.550987	57.727515	57d43'39.06"N	6d33'03.55"W
6	Muddy sand ~150m	High	-6.28285	57.979907	57d58'47.67"N	6d16'58.26"W
7	Top of bank. Hard ground. ~20m	High	-6.03768	57.994585	57d59'40.51"N	6d02'15.65"W
8	Mixed coarse sediment ~55m	High	-6.167066	57.932068	57d55'55.45"N	6d10'01.44"W
9	bank flank. gravel and sand. ~65m	High	-6.08646	57.913894	57d54'50.02"N	6d05'11.26"W
10	coarse mixed sediment ~70m	High	-5.945627	57.945341	57d56'43.23"N	5d56'44.26"W
11	Burrowed Mud. ~125m	High	-6.092696	58.196428	58d11'47.14"N	6d05'33.71"W
12	Muddy sand. 100m+	High	-6.024223	58.146939	58d08'48.98"N	6d01'27.21"W
13	Gravel. ~50m	High	-6.118056	57.985732	57d59'08.64"N	6d07'05"W
14	Muddy sand ~110m	High	-5.973681	57.920825	57d55'14.97"N	5d58'25.25"W
15	Burrowed mud. ~140m	High	-5.949354	57.897199	57d53'49.92"N	5d56'57.68"W
16	Mixed sediment ~70m	High	-6.387813	57.965867	57d57'57.12"N	6d23'16.13"W
18	Mud 130m - high	High	-6.56322	57.735441	57d44'07.59"N	6d33'47.59"W
19	coarse mixed sediment. ~100m - Low	Low	-6.964944	57.552791	57d33'10.05"N	6d57'53.8"W
20	Muddy sand ~120m - low	Low	-7.001416	57.542861	57d32'34.3"N	7d00'05.1"W
21	Coarse sediment ~50m - low	Low	-6.710882	57.752621	57d45'09.44"N	6d42'39.18"W
22	Sandy mud ~150m -low	Low	-6.754866	57.764649	57d45'52.74"N	6d45'17.52"W