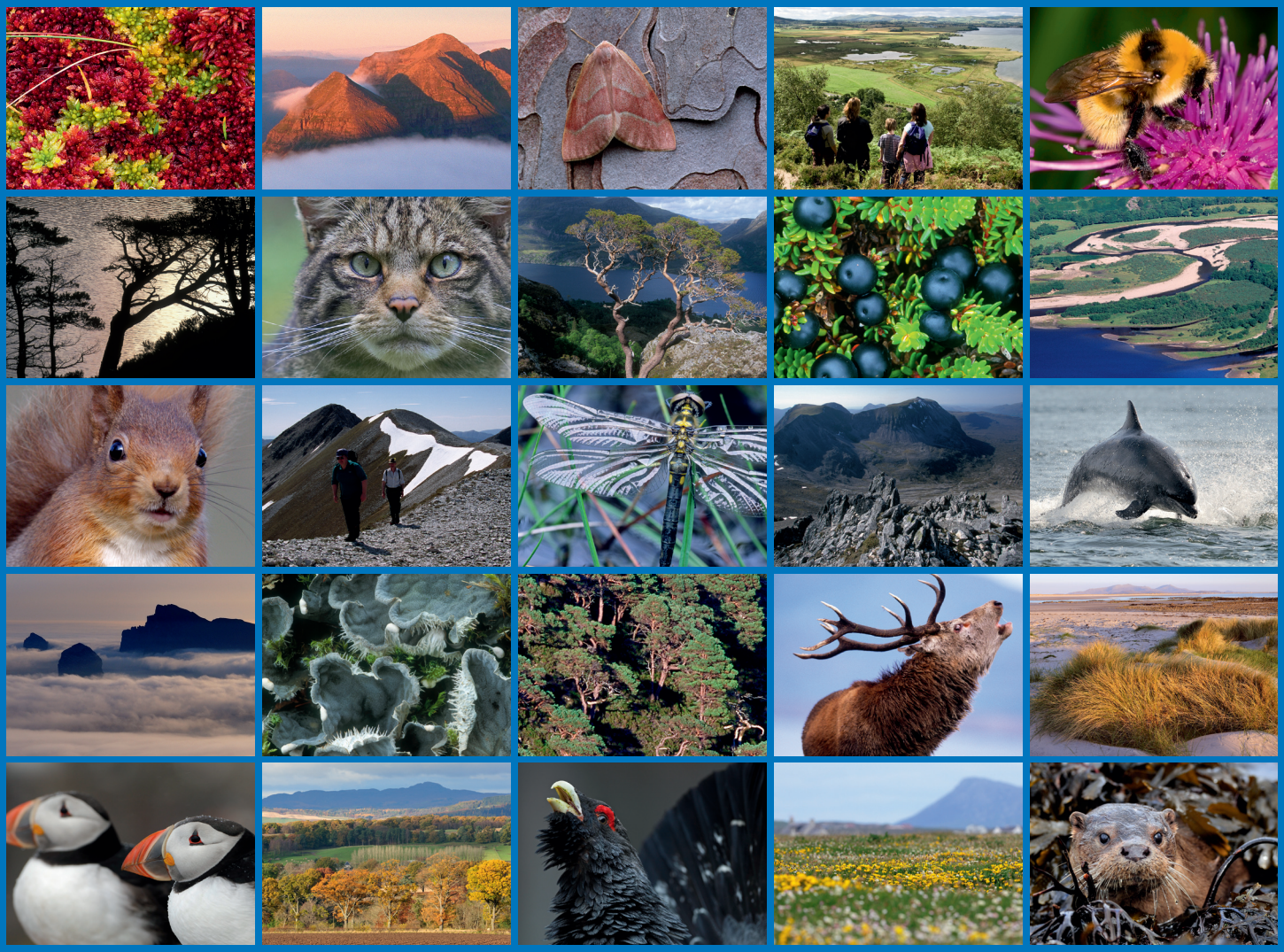
Scottish Natural Heritage
Commissioned Report No. 438

Marine biological survey to establish the distribution and status of fan mussels *Atrina fragilis* and other Marine Protected Area (MPA) search features within the Sound of Canna, Inner Hebrides



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COMMISSIONED REPORT

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Marine biological survey to establish the distribution and status of fan mussels *Atrina fragilis* and other Marine Protected Area (MPA) search features within the Sound of Canna, Inner Hebrides

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COMMISSIONED REPORT

Summary

Marine biological survey to establish the distribution and status of fan mussels *Atrina fragilis* and other Marine Protected Area (MPA) search features within the Sound of Canna, Inner Hebrides

Commissioned Report No. 438 (Contract no. 10769)
Contractor: Aquatic Survey & Monitoring Ltd.
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Background

Scotland's seas are of outstanding scenic, historic and cultural value and are part of the national identity at home and abroad. The Marine (Scotland) Act 2010 and the UK Marine and Coastal Access Act 2009 include new powers and duties to ensure that our seas are managed sustainably for future generations, integrating the economic growth of marine industries with the need to protect these assets. Measures to conserve our marine natural heritage will be based on a three pillar approach, with action at the wider seas level (e.g. marine planning or sectoral controls); specific species conservation measures (e.g. improved protection for seals); and through site protection measures - the identification of new Marine Protected Areas (MPAs).

To help target action under each of the three pillars, Scottish Natural Heritage (SNH) and the Joint Nature Conservation Committee (JNCC) have generated a focused list of habitats and species of marine conservation importance for which it would be appropriate to use both area based and non-area based mechanisms to achieve better protection - the Priority Marine Features (PMFs). A subset of these, together with the black guillemot and a number of functionally significant large-scale features will drive the selection of Nature Conservation MPAs (MPA search features).

The Sound of Canna in the Small Isles has, until recently, attracted relatively little attention from marine biologists. The discovery in 2009 of a population of the rare and fragile fan mussel *Atrina fragilis*, an MPA search feature, during monitoring studies of a dredge spoil ground has focused attention on the diversity of this small area. The purpose of the current study was to undertake a detailed survey of seabed MPA search features within the sound, with particular emphasis on the population of *Atrina fragilis*. The survey programme was designed to generate sufficient information on the distribution, quality and extent of the MPA search features present (and other PMFs) to enable a preliminary assessment of this area against the *Scottish MPA Selection Guidelines*.

The Sound of Canna is a steep-sided channel over-deepened by glaciation that separates the islands of Canna and Rum. It is just over 3 km wide at its narrowest point and has a deep channel running along its centre which reaches a maximum depth of 275 m. A gravel shelf at about 25 m depth extends along the whole of the north-west coast of Rum. This possible drowned wave-cut platform gives way to a steep sediment slope down to the floor of the channel which supports extensive areas of burrowed mud and mixed muddy sands and gravels. On the western side of the sound, steep sublittoral rock walls along the south and east coasts of Sanday (a small island connected to Canna by a road and sandbanks at low tide) drop to a sediment floor in over 60 m of water. Glacial moraines are a significant feature of the sound with small rock walls and boulder piles scattered throughout the deep channel. Along the coastal margins there are also sheltered mud and sand habitats.

Survey work during 2010 involved a drop-down video survey to capture footage of the seabed habitats (121 stations); detailed *in-situ*, diver observations, which included mapping the extent of seagrass beds and the collection of infaunal core samples (15 stations); and grab sampling (23 stations) within benthic sediment communities. The primary objective of the work was to provide an assessment of the current status of the fan mussels. The survey plans were developed from previous sampling records, Admiralty charts, and predictive habitat distribution maps covering this area (Foster-Smith, 2010).

Main Findings

- The Sound of Canna is a small but unusually biologically diverse area supporting ten MPA search features and two additional PMFs (the white cluster anemone *Parazoanthus anguicomus* and the burrowing sea anemone *Arachnanthus sarsi*).
- The aggregation of fan mussels *Atrina fragilis* was of particular significance, covering an area of at least 170 ha, representing the largest known area of fan mussels in UK waters. The northern extremity of the aggregation was not found in 2010. The underwater video footage showed that the fan mussels occurred as scattered individuals or in small clumps. Diverse assemblages of other species were observed living on, or in close association with these large semi-buried bivalves.
- A preliminary assessment of the relative nature conservation importance of the 2010 survey area concluded that the Sound of Canna could make an important contribution to the evolving Scottish MPA network. Four of the MPA search features present were considered to be of sufficient quality to have a particular bearing on the outcomes of the assessment, namely: fan mussel aggregations; burrowed mud; northern sea fan and sponge communities; and, northern feather star aggregations on mixed substrata.
- The report recommends that further work be carried out to clarify the full extent of the fan mussel aggregation, and the maerl bed at Guirdil Bay on Rum; and also, to ascertain the wider distribution of northern sea fan and sponge communities within the sound.
- Survey work to describe the seabed habitats present within areas used regularly by basking sharks to the west and south-west of Canna (Speedie *et al*., 2009) is also recommended.

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Acknowledgements

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Several of SNH's marine advisers contributed their thoughts to the project planning and the report and in particular we would like to thank Colin Trigg. Thanks also to Peter Garwood (Identichaet) who carried out the infaunal analyses and Andrew Wright (Motion Production Enterprises) who assisted with editing the videos.

1 INTRODUCTION

1.1 Background

The Scottish Government is committed to maintaining a healthy and biologically diverse marine and coastal environment that continues to provide economic, social and wider benefits to meet the long term needs of people and nature. The Marine (Scotland) Act 2010 and the UK Marine and Coastal Access Act 2009 include new powers and duties to help deliver these aspirations.

Future marine nature conservation measures in Scottish waters will be based on a three pillar approach, with action at the wider seas level (e.g. marine planning or sectoral controls); specific species conservation measures (e.g. improved protection for seals), and through site protection measures which will see the identification of new Marine Protected Areas (MPAs). Further details are provided in the *Strategy for Marine Nature Conservation in Scotland* (Marine Scotland, 2011a).

To help target marine nature conservation measures under each of the three pillars, Scottish Natural Heritage (SNH) and the Joint Nature Conservation Committee (JNCC) have generated a focused list of habitats and species of importance - the Priority Marine Features (PMFs) (Howson *et al*., 2011; and JNCC, 2011). A subset of these biological features, those for which area-based protection measures are an appropriate tool, together with the black guillemot and five large-scale features of functional significance for the overall health and diversity of Scotland's seas, will drive the selection of Nature Conservation MPAs (MPA search features).

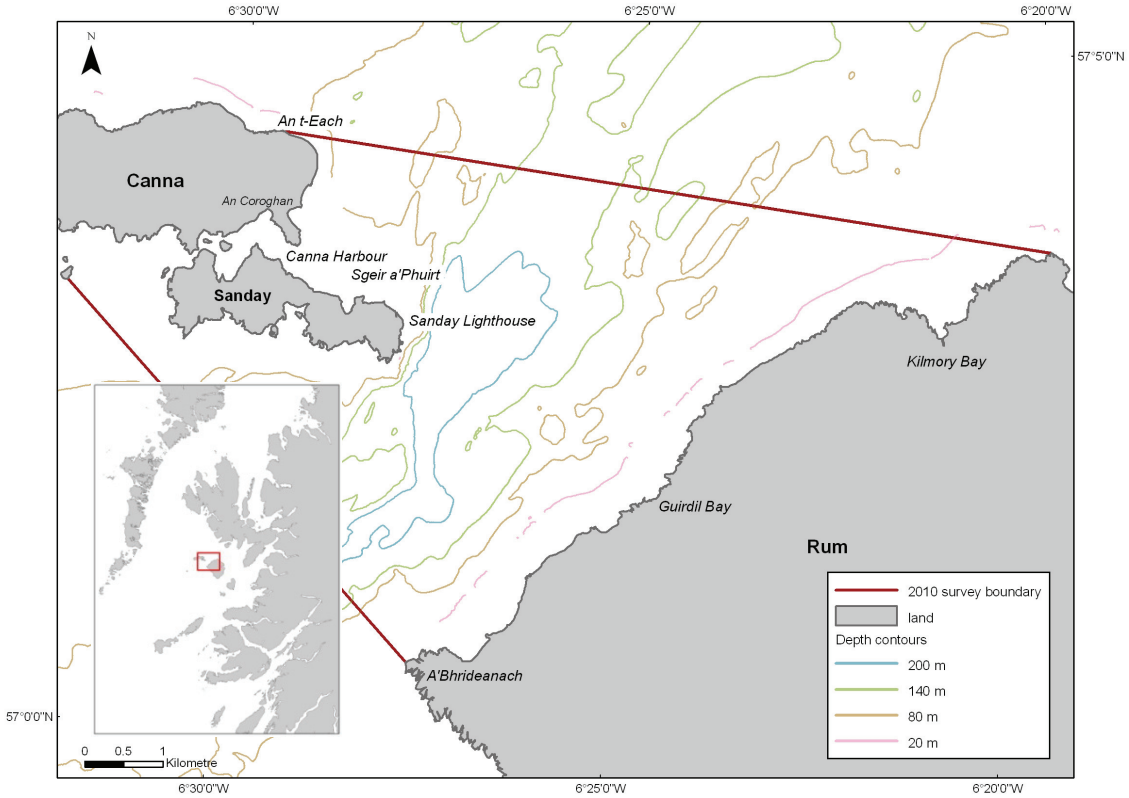
Recent research projects have collated available datasets detailing the distribution of the full suite of MPA search features and PMFs to ensure that the best practicable use is made of existing records in the identification of new MPAs. New survey work has also been commissioned to validate their continued presence in certain areas and to underpin the development of formal MPA proposals, established using the science-based *Scottish MPA Selection Guidelines* (Marine Scotland, 2011b).

The discovery in the Sound of Canna in 2009 of a population of the rare fan mussel *Atrina fragilis*, an MPA search feature, during routine monitoring studies of a dredge spoil ground (Marine Scotland Science, 2009) has served to focus attention on this small area, including the commissioning of new detailed marine biological survey work. The sound separates the islands of Canna and Rum in the Small Isles, an archipelago to the south of Skye. Whilst recognised as of importance for basking shark *Cetorhinus maximus* (one of several 'hotspots' on the west coast of Scotland - Speedie *et al.,* 2009), with dramatic underwater cliffs that are a favourite of recreational divers, the area has until recently attracted relatively little attention from marine biologists.

1.2 Survey objectives

The purpose of this study was to undertake a detailed seabed habitat survey within the Sound of Canna (Figure 1), with particular emphasis on the population of fan mussels. The survey programme was designed to generate sufficient information on the distribution, quality and extent of MPA search features present, to enable SNH to undertake a preliminary assessment of the merits of the 2010 survey area against the *Scottish MPA Selection Guidelines*.

Figure 1 The 2010 Sound of Canna survey area



The work programme encompassed the following six main tasks:

1. Review existing information on sublittoral MPA search features and PMFs within the survey area.
2. Design and undertake a survey programme to ascertain the current distribution, quality and extent of MPA search features and PMFs present within the sound.
3. Determine the extent of the population of *Atrina fragilis* and define areas of differing density (if applicable).
4. Produce a full coverage predictive habitat map of the area, building upon and refining existing broadscale mapping.
5. Note any human uses of the area.
6. Undertake a preliminary assessment of the merits of the 2010 survey area against a specified subset of the guidelines developed to support the identification of new Nature Conservation MPAs in Scottish waters (Marine Scotland, 2011b).

1.3 Review of existing data

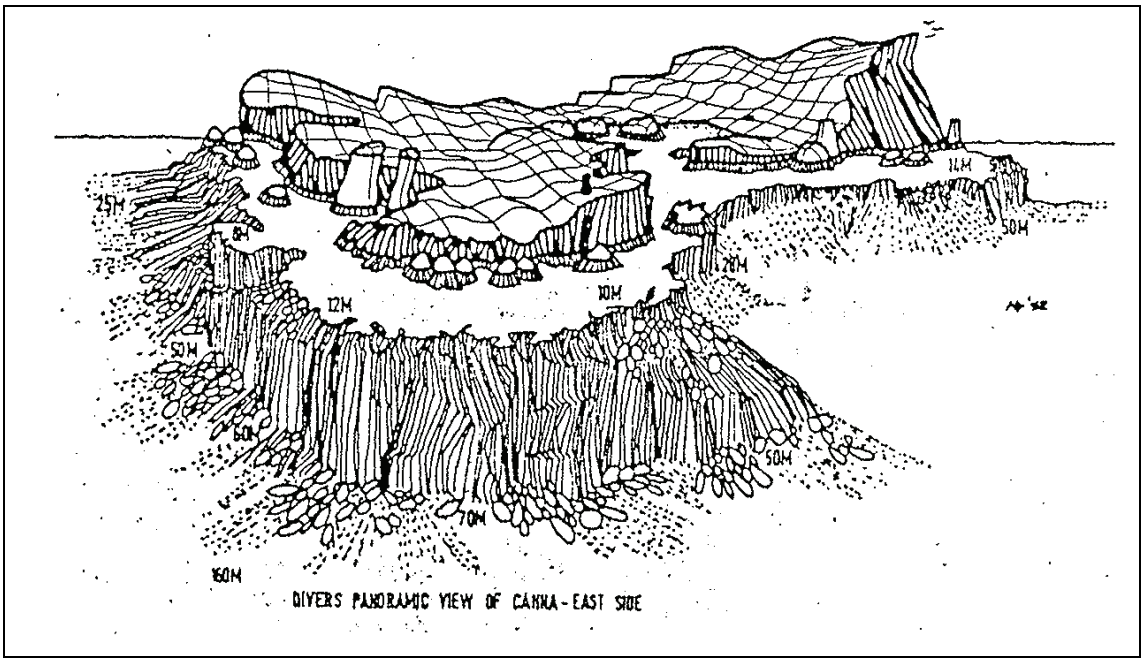
1.3.1 Geology and topography of the area

The islands of Canna and Sanday are formed largely of tertiary basaltic lava, which originated from an ancient volcano on the Isle of Skye. The basalt on Canna is exposed in a number of places as dramatic organ pipe pillars. Of particular interest to geologists are great thicknesses of boulder conglomerate, with rounded boulders of over a metre in diameter marking the routes of fast-flowing rivers that cut into the lava fields at the time of the volcanic eruptions.

Rum has a far more complex structure, with the jagged gabbro of the Rum Cuillins being the remains of another volcano. The rounded granite of the headland at A'Bhrideanach at the south-west entrance to the sound is also a product of this volcanic activity. The north-west coast bordering the Sound of Canna consists largely of Torridonian sandstone with a small area of more recent sedimentary rock. Glaciation and the subsequent rise of the land led to the formation of raised beaches which are evident around both Rum and Canna. The raised beach at Harris on the south-west coast of Rum (to the south of Figure 1 coverage) is 30 m above the present-day tidemark with a similar but smaller beach fragment at Kilmory Bay. Six metres above high tide level at Guirdil and Kilmory there is also a second set of post-glacial raised beaches, formed around 6,000 years ago (Goodenough and Bradwell, 2004).

The Sound of Canna is a steep-sided channel over-deepened by glaciation. It is just over 3 km wide at its narrowest point and reaches a maximum depth of 275 m, shallowing to about 90 m at the south-western end. A boulder slope along the Rum coast drops to a gravel shelf at about 20 to 25 m which extends along the whole north-west coast of the island. Below this is a steep sediment slope to the floor of the channel. There is a sandy beach at the head of Kilmory Bay and the clean sands extend into the subtidal. On the western side of the channel, a rock wall along the south and east coasts of Sanday drops vertically from about 15 m to over 60 m depth where a steep boulder and sediment slope continues to the channel floor (Figure 2). In shallower water along this coast there is a rock and boulder shelf with small skerries and patches of sand in the most sheltered parts. On the eastern end of Sanday the underwater cliffs extend eastwards, as a reef, and there is a short north facing wall known to local divers.

Figure 2 A diver's interpretation of the Sanday cliffs (Davidson, 1982)



The entrance to Canna Harbour is sheltered from the prevailing winds and supports areas of finer muddy sediments. The skerry of Sgeir a'Phuirt has a sheltered steep north wall dropping to about 30 m depth, with a shallower and more gradually sloping southern side which drops into a sheltered sediment channel. On the east coast of Canna there is very little inshore rock; a sediment slope, very steep in places, comes almost to the shoreline. However, on the north-east corner of the island at An t-Each there is a short stretch of steep, north facing underwater rock from about 20 m depth, outcropping from a sediment slope.

The floor of the sound supports a range of sedimentary substrates, from sand to mud, with large amounts of shell debris common. Boulder piles, which are probably glacial debris, either morainic or dropstones shed by decaying icebergs, are scattered throughout. There are also areas of uncharted bedrock along the edges of the deep central channel.

1.3.2 Previous marine biological sampling in the Sound of Canna

There has been relatively little formal survey work carried out in the Sound of Canna (see Table 1 below and Figure 3 overleaf). A diving team from the Nature Conservancy Council (NCC - the predecessor of SNH and its sister conservation agencies) visited Rum in 1980 and carried out several dives along both sides of the sound. The majority of their diving was shallower than 30 m and, as the northern sea fans in the area seem to be found below this depth, this species was not recorded.

Table 1 Marine biological surveys undertaken within the Sound of Canna

Year	Commissioning organisation	Survey type	Sites	MPA search features / *PMFs recorded	Reference
1980	Nature Conservancy Council / Underwater Conservation Society	Diving survey, Phase 2 style	10	• European spiny lobster *Palinurus elephas* • Burrowed mud (**CFiMu.MegMax**)	Dipper, 1981
1988	Nature Conservancy Council	Diving survey, Seasearch	3	none	MacKinnon, 1988
1993	Scottish Natural Heritage	ROV	4	• Seagrass beds (**SS.SMp.SSgr.Zmar**) • Burrowed mud (**CFiMu.MegMax** & **CFiMu.SpnMeg**) • Kelp and seaweed communities on sublittoral sediment (**KSwSS.LsacCho** & **KSwSS.LsacR.Sa**) • Burrowing sea anemone *Arachnanthus sarsi*	Scottish Natural Heritage, 1993
2004, 2006, 2007	Marine Conservation Society	Diving survey, Seasearch	7	• Northern sea fan and sponge communities (**CR.MCR.EcCr.CarSwi**); • *White cluster anemone *Parazoanthus anguicomus*	Seasearch, 2004. Individual recording forms only in 2006 & 2007
2009	Marine Scotland Science	Drop video	3 transects	• Fan mussel *Atrina fragilis* aggregations	Marine Science Scotland, 2009

The 1980 survey recorded jewel anemones, hydroids, sponges and a turf of bryozoans from the underwater cliffs. The cotton spinner sea cucumber *Holothuria forskali* and the European spiny lobster *Palinurus elephas*, an MPA search feature, were both reported. Of particular interest was the presence of the sea cucumber *Parastichopus tremulus*, an unusual deep water species, on Sgeir a'Phuirt. This species does not appear to have been recorded by more recent surveys. NCC divers surveyed kelp forest and gravel shelf communities along the Rum shore and did not consider the area to be of conservation interest (Dipper, 1981). Short diving surveys were also conducted by mixed teams of marine biologists and recreational divers in 1988 (MacKinnon, 1988) and 2004, 2006 and 2007 (Seasearch). These surveys included dives on the Sanday cliffs, with the 2004 and 2007 studies recording northern sea fan communities below the lighthouse.

In 1993 an SNH team conducted remotely operated vehicle (ROV) trials around Canna and collected a number of video samples from within the 2010 survey area. Of particular interest was a sighting of the rare burrowing anemone *Arachnanthus sarsi* off the east coast of Canna and the discovery of a small *Zostera marina* bed in the bay north of Rubha Carr-Innis. Some incorrect transcription of data had placed this bed in the little bay between north-west Sanday and Canna; this has now been resolved but it may appear in the wrong location in some literature. Most recently, following extensive construction work in Canna Harbour, monitoring work using drop-down video sampling techniques was carried out on the licensed dredge spoil disposal area to the north-east of Sanday. In 2009 this work revealed the presence of numbers of the fan mussel *Atrina fragilis* (Marine Scotland Science, 2009).

Figure 3 Historical marine biological sampling effort within the 2010 survey area

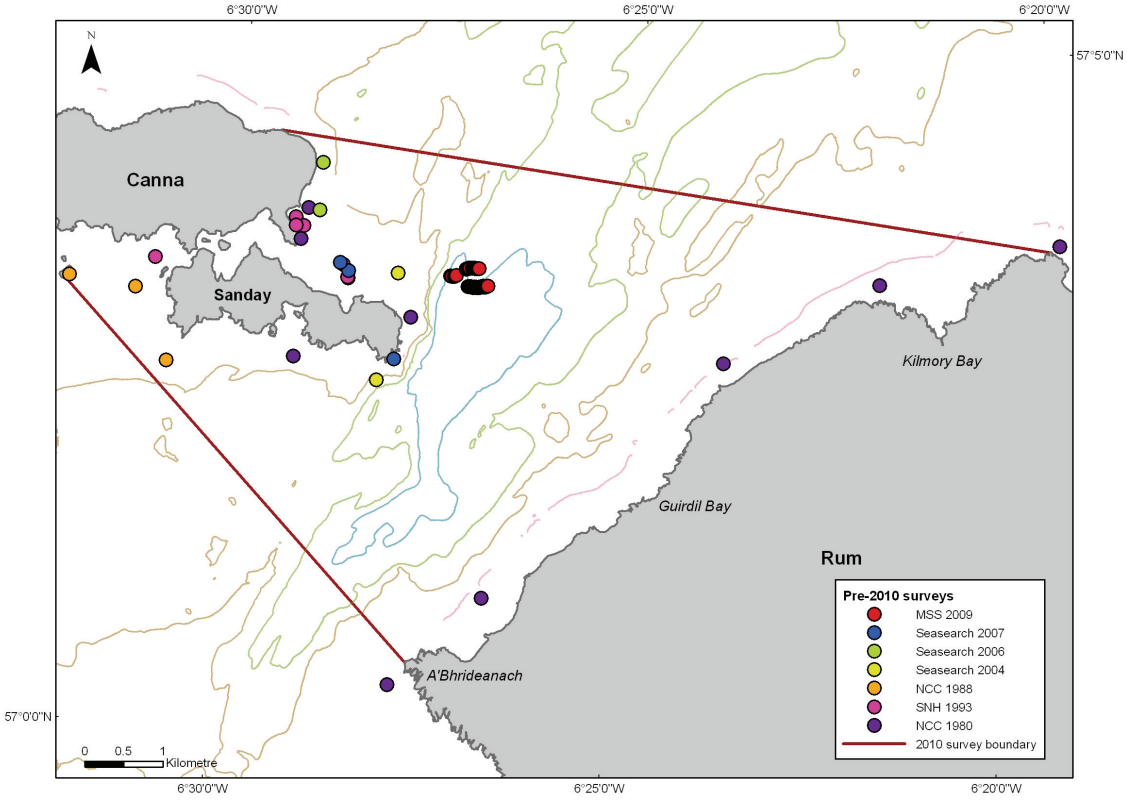
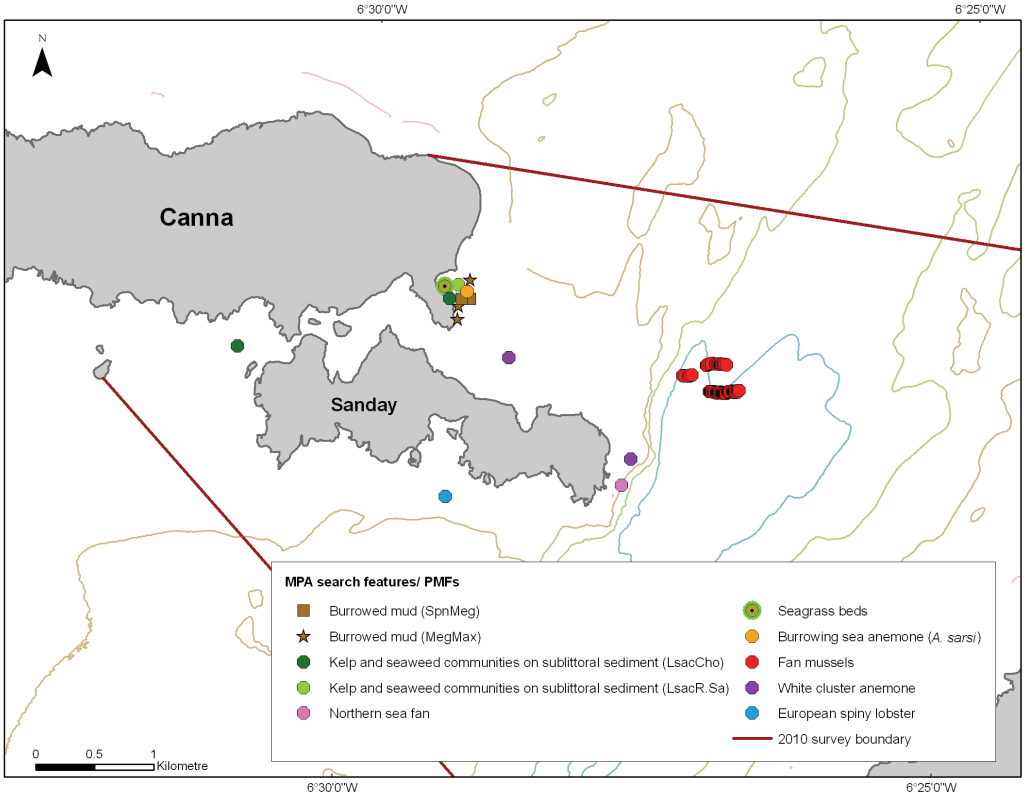


Figure 4 shows the distribution of MPA search features and PMFs found by these earlier surveys. Whilst Seasearch information is not routinely recorded in a biotope format, where it was possible to attribute a biotope to the raw survey data examined as part of this study, this was done and the information incorporated into the map.

1.3.3 The fan mussel Atrina fragilis

Atrina fragilis is the largest bivalve in UK waters with a triangular, fragile shell up to 48 cm in length. At one time it was found throughout the seas around the British Isles down to at least 400 m (UK Biodiversity Group, 1999a). Fan mussels live buried in mud, sand and gravel habitats with their broad end protruding from the surface whilst the pointed end attaches by byssal threads to material in the sediment. Historically the species was regularly caught in dredges, trawls or fishing nets, sometimes in aggregations, with ships' records from the middle of the 19th century describing the species as 'gregarious' (Jeffreys, 1863). The majority of modern records are of individuals only and the species is now thought to be one of the most endangered molluscs in Britain (Solandt, 2003).

Figure 4 The distribution of MPA search features / PMFs within the Sound of Canna recorded by surveys undertaken prior to 2010



The deep water dredge spoil disposal site within the Sound of Canna, where the fan mussel aggregation was recorded by Marine Scotland Science (MSS) in 2009 (Figure 4), was used for the Small Isles ferry dredging operations in the early 2000s, along with sites at the Isle of Muck and Isle of Eigg, but has not been used for a number of years. Fan mussels were observed during three of the four video runs completed in 2009 but the full spatial extent of the population was not determined.

Prior to 2009 there had only been three other confirmed 'live' records of individual fan mussels in Scottish waters since 2000, all from inshore waters around the west coast. The aggregation observed within the Sound of Canna represents the largest known population in UK waters. An unconfirmed record from early 2005 of thousands of individuals in a 60 square mile area off the Scilly Isles in south-west England has not been substantiated (S. McNair, pers. comm.). Other significant records include a 1991 cruise led by the Ministry of Agriculture, Fisheries and Food (MAFF - now Defra / Cefas) which collected 14 individual fan mussels, all in separate trawls, from depths of over 100 m in the western approaches of the English Channel (Solandt, 2003).

The small number of recent records suggest that *A. fragilis* exists within Scottish territorial waters, primarily at very low density, off the west coast and around the Inner Hebrides. There appears to be no information on the current status of the species in north-east Scotland or the Northern Isles where they have been recorded historically.

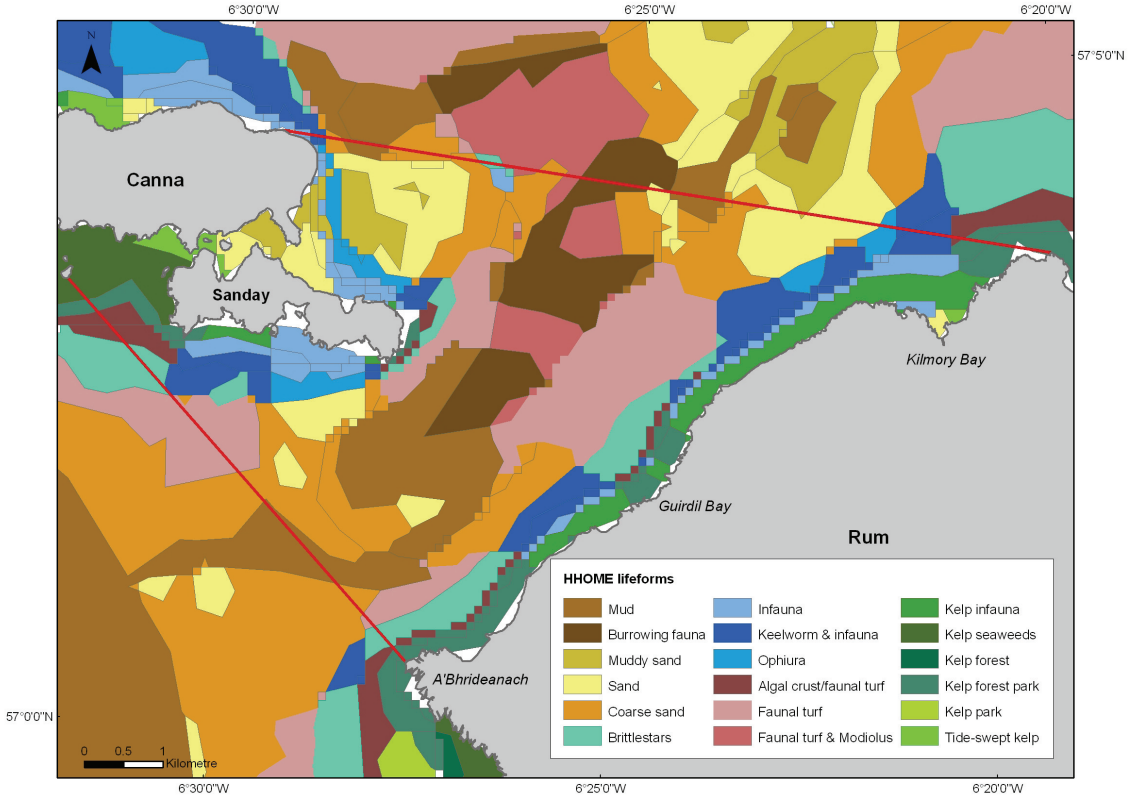
It is speculated that shallow water recruitment relies on larval production in deep water populations (Solandt, 2003). The longevity of *A. fragilis* is uncertain but the related *Pinna nobilis*, a Mediterranean species, is reported to live for up to 18 years (Butler *et al.,* 1993).

Richardson *et al*. (2004) showed that growth rates of *P. nobilis* in the Adriatic were related to sea surface temperature and were highest during the summer months. A study of annular growth rings in an Irish population of *A. fragilis* indicated that growth occurs at about 3 to 4 cm per year (UK Biodiversity Group, 1999a). However, water temperatures in the Sound of Canna are several degrees lower than those around the Irish coast so it is possible that these more northern fan mussels will have a slower growth rate.

1.4 Predictive broadscale seabed habitat mapping of the Sound of Canna

SNH commissioned the production of a GIS-based predictive seabed habitat map covering the Highland, Hebrides and Orkney Marine Environment (HHOME; Foster-Smith, 2010). The project took existing data on sediments, bathymetry, topography and other physical conditions, and combined them with known and geo-referenced biological data to produce predictive habitat maps for selected waters out to 12 nm. The predictive mapping generated for the Small Isles area (Figure 5) informed the design of the 2010 Sound of Canna survey.

Figure 5 Predictive habitat mapping of the Sound of Canna (Foster-Smith, 2010)



Detailed multibeam data from around the Small Isles, collected in 2009 as part of the Maritime and Coastguard Agency's Civil Hydrography Programme, were acquired by SNH through the Pan-Government agreement on the sharing of hydrographic data. However, these data were not processed in time to inform the 2010 survey work and are reported upon separately.

1.5 Human activities in the Sound of Canna

The Isle of Canna, owned by the National Trust for Scotland (NTS), has 10 working crofts and a population of 16; there is a slightly larger population on the neighbouring island of Rum, a National Nature Reserve. With the low numbers of people in the area there is relatively little human activity apparent within the sound.

1.5.1 Leisure activities

Leisure pursuits undertaken within the sound are seasonal, largely restricted to the summer months. Wildlife watching trips bring tourists on day trips from Skye and the mainland to see basking sharks, seals, whales and the bird life, including sea eagles. Live aboard dive boats visit Canna primarily for the cliffs around Sanday and Sgeir a'Phuirt.

The sheltered natural harbour on Canna is an attractive location for visiting boats and one of the more popular anchorages in the area as it makes a safe haven to stop overnight on the way to or from the Outer Hebrides. During the 2010 survey there were usually several yachts anchored overnight. Canna now boasts a small bar and restaurant, providing an added attraction for visitors.

The pier on Canna was rebuilt in 2005 and is used by a Caledonian MacBrayne ferry, linking the island, and the neighbouring Small Isles of Rum, Eigg and Muck, to the mainland port of Mallaig (2 hours and 30 minutes away).

1.5.2 Future maintenance dredging and spoil dumping

NTS have permission to dredge the harbour on Canna when necessary but need to obtain approval for dumping of spoil (Scottish Statutory Instruments No. 199).

1.5.3 Fishing

A boat was seen trawling on the deep mud to the south of Canna and Sanday and further afield throughout the week of the third fieldwork period in September 2010. It appeared to be following the 50 m contour and was assumed to be fishing for langoustine *Nephrops norvegicus*. Creels for *Nephrops* (from a single vessel) were observed in the centre of the sound and towards the Rum shore and a second boat was seen potting for crabs and lobsters in the nearshore rocky areas.

2 METHODS

2.1 Sampling strategy

The 2010 Sound of Canna benthic survey comprised four distinct phases, undertaken in the following chronological order:

1. A survey of shallow coastal waters from a small boat using a lightweight drop-down video system.
2. Targeted fine resolution *in-situ*, diver sampling.
3. A survey of the deeper parts of the sound using a heavier drop-down video camera system capable of operating in over 200 m of water.
4. Grab sampling within the range of sediment communities present.

Historical survey data, the HHOME predictive seabed habitat mapping and Admiralty charts were used to ensure coverage of the perceived benthic variation across the survey area.

2.2 Fieldwork safety and logistics

2.2.1 Video and grab surveys

The video survey was undertaken in two discrete phases. The shallow water work (less than 35 m) was carried out between 5th - 7th August 2010 by Christine Howson and Jon Moore of ASML and Laura Clark of SNH. The drop-down video camera system was deployed from the survey vessel *Lophelia* (Plate 1), skippered by Mark Woombs, a marine biologist based in Knoydart. *Lophelia* is a Redbay Stormforce 11 RIB, powered by twin 245 hp inboard engines capable of speeds up to 40 knots. The survey team mobilised from Mallaig on 5th August.

Plate 1 Survey vessel Lophelia at Rum pier and RV Aora at Canna pier

The deep water video survey took place between 20th - 28th September 2010. The survey team (Christine Howson and Tom Mercer of ASML and Tom Stephenson of University Marine Biological Station on Millport - UMBSM) was based on board the UMBSM research vessel *Aora* (Plate 1). This 22 m survey vessel has accommodation for four research staff. The survey mobilised at Millport on 20th September and steamed overnight to Canna. Video, grab and ROV work took place from 21st September to the morning of the 27th September. RV *Aora* left Canna at around midday on the 27th September and arrived back in Millport on

the morning of the 28th September. David Bova from Marine Scotland Science (MSS) joined the survey on Canna for a few days to operate the SNH / MSS Seaeye Falcon ROV. One day was spent grab sampling and one day was given to the ROV; the remainder of the time was spent using the UMBSM drop-down video.

2.2.2 Diver sampling

The diving fieldwork was carried out by a team of four divers from 28thAugust - 4th September 2010. *Lophelia* was used as the diving platform for this work. All of the diving was carried out in accordance with the Approved Code of Practice for scientific diving projects (Health and Safety Commission, 1998). An Enriched Air Nitrox system was deployed for divers to use at safety stops. Slack water was only required for diving on the outer parts of the Great Wall, on the south-east of Sanday.

The survey team travelled to Canna on the Caledonian MacBrayne ferry from Mallaig and returned to Mallaig in *Lophelia*. As no vehicles can be taken onto Canna, much of the equipment was transported on the freight van that serves the islands; diving cylinders were carried on separately. The team stayed at the guesthouse on Canna for the first part of the survey and moved to the hostel on Rum on the 1st September. The SNH compressor was used for air fills. Equipment was stored in the harbour sheds at Canna pier; microscopes were also set up here.

2.3 Remote video sampling

2.3.1 Shallow water video survey

The shallow water video sampling locations were selected to provide an overview of the full range of habitat types likely to be present in the nearshore area, within a maximum working depth of approximately 35 m. Greater densities of video stations were assigned to specific locations to determine the continued presence and extent of the following previously recorded MPA search features:

- Burrowed mud.
- Kelp and seaweed communities on sublittoral sediment.
- Northern sea fan and sponge communities.
- Seagrass beds.
- Tide-swept algal communities.

The 56 shallow water video stations sampled along the Canna and Rum coastal margins are illustrated in Figures 6 and 7.

The ASML drop-down video equipment (Plate 2) is a light-weight system that can be hand-hauled and operated from a RIB. It is based on a Sony 3CCD digital video camera (DRV 950) with mini DV format tapes and is designed to drift above the seabed rather than drag along it in contrast to systems which utilise the sledge mode of operation. The aluminium housing is rated to 130 m. The lights are powered by an independent surface 110 v system (generator or vessel supplied) and so do not rely on battery power. The system is controlled from the surface and the digital video footage can be recorded in the camera and simultaneously relayed to the surface via the umbilical where it is viewed and recorded on a Sony mini digital VCR. A surface control box provides remote control facilities for both the camera and the lights.

Figure 6 Shallow water video stations surveyed around Canna and Sanday

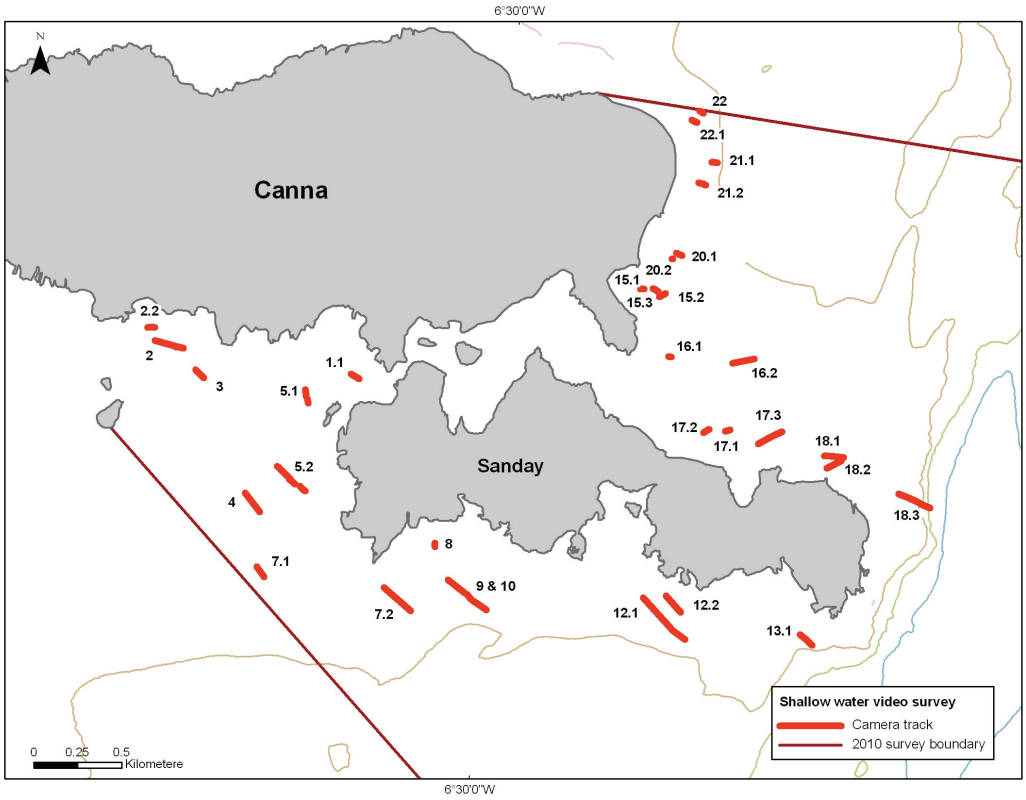


Figure 7 Shallow water video stations surveyed along the west coast of Rum

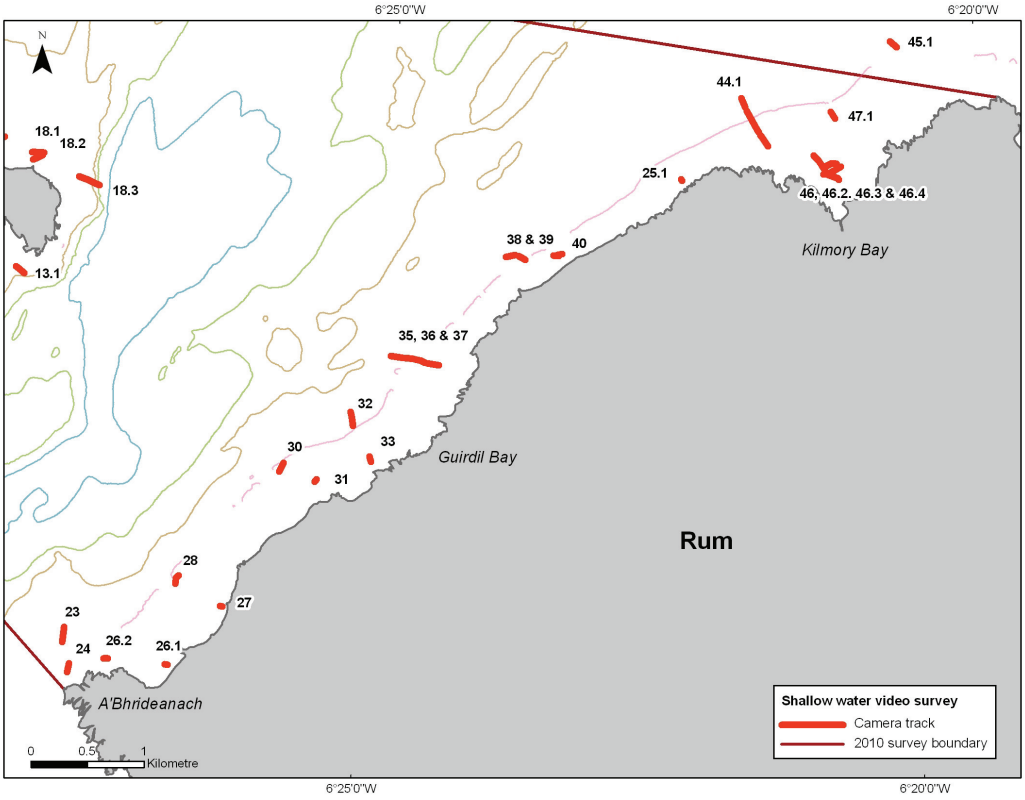


Plate 2 ASML drop camera and frame and hand deployment over the side of survey vessel Lophelia within the Sound of Canna

At each station, the video camera was lowered to the seabed. The boat and camera were allowed to drift until the biologist controlling the recording felt there was enough footage to categorise the benthic habitats present. At some stations, particularly along the coast of Rum, the camera drifted towards the shore across several depth zones. GPS waypoints were taken on these tows to mark biotope boundaries or particular features of interest.

Whilst the video tows were underway, notes were made by one of the biologists detailing the species visible and the seabed substrata displayed on the television screen. This initial field assessment identified any MPA search features or PMFs and their position was noted. Subsequent post-fieldwork analysis of the tapes involved reviewing the footage more thoroughly to identify as many species as possible and to produce a more detailed description of the seabed. In some cases, the low level of information retrievable from the tapes meant that the site could fit into any one of several biotopes. In these cases the biotope was assigned to a higher level in the classification. This was particularly pertinent at shallow sediment stations supporting algal communities but with few conspicuous animals (such biotopes are notoriously difficult to identify from video footage).

It proved impossible to survey the cliffs using the drop-down video and so SNH's mini ROV (VideoRay Pro400SE) was deployed in an effort to look at the vertical cliff walls beyond diving depths. However, the inadequate charting of the area combined with adverse weather conditions meant that the boat was unable to anchor in the shallow water above the cliffs and no additional footage was obtained.

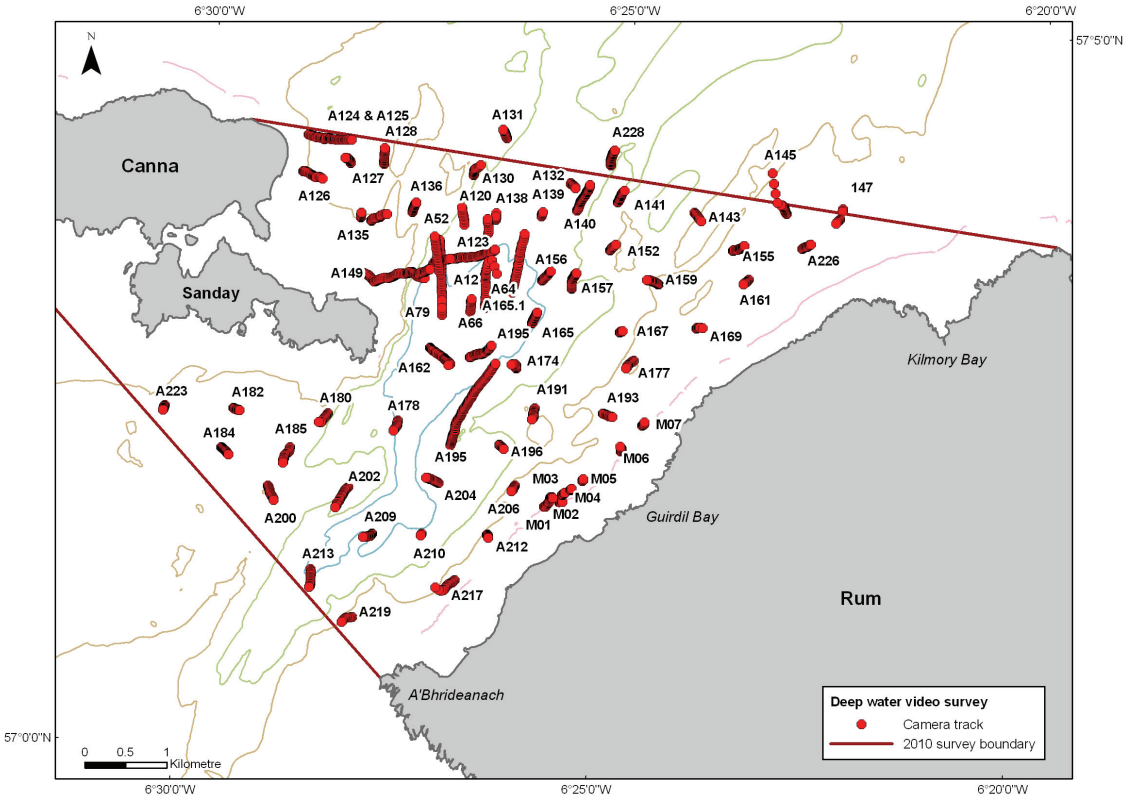
The results of the video work were entered into an Excel spreadsheet and Marine Recorder. No statistical analysis of the video results was deemed appropriate.

2.3.2 Deep water video survey

The deep water video survey was undertaken in conjunction with the grab sampling (covered in Section 2.4). As in the preceding shallow water work, sampling locations were selected to provide an overview of the full range of habitat types likely to be present throughout the sound but with significantly greater sampling intensity in areas of known or anticipated fan mussel occurrence. Unsuccessful attempts were made during the deep water video work to sample the deeper vertical bedrock cliff areas using the SNH/MSS Seaeye Falcon ROV.

Sixty deep water stations were sampled (code A) and a further seven shallower locations, identified on the basis of the earlier video work and follow-up diver sampling (see Section 2.5) were assessed specifically looking for maerl (code M). The video runs are illustrated on Figure 8.

Figure 8 Video stations surveyed in the central Sound of Canna (A) and on the maerl bed at Guridil (M)



The deep water drop-down camera system operated by UMBSM on RV *Aora* (Plate 3) consists of a Kongsberg-Simrad colour UW video camera (OE 1362) and two Versabeam 500w lights (Remote Ocean Systems). The camera and lights can be positioned at will inside the frame to provide any required field of view. The umbilical is 400 m long, and connected through a slip ring winch to the dry lab onboard, where the monitors and video recorders are located. Date and time are overlaid onto the video signal. The video picture is also relayed to the wheelhouse. The winch is controlled either from the wheelhouse or by the camera observers in the dry lab. This minimises impact of the frame on the seabed, although this is somewhat dependent on the sea state.

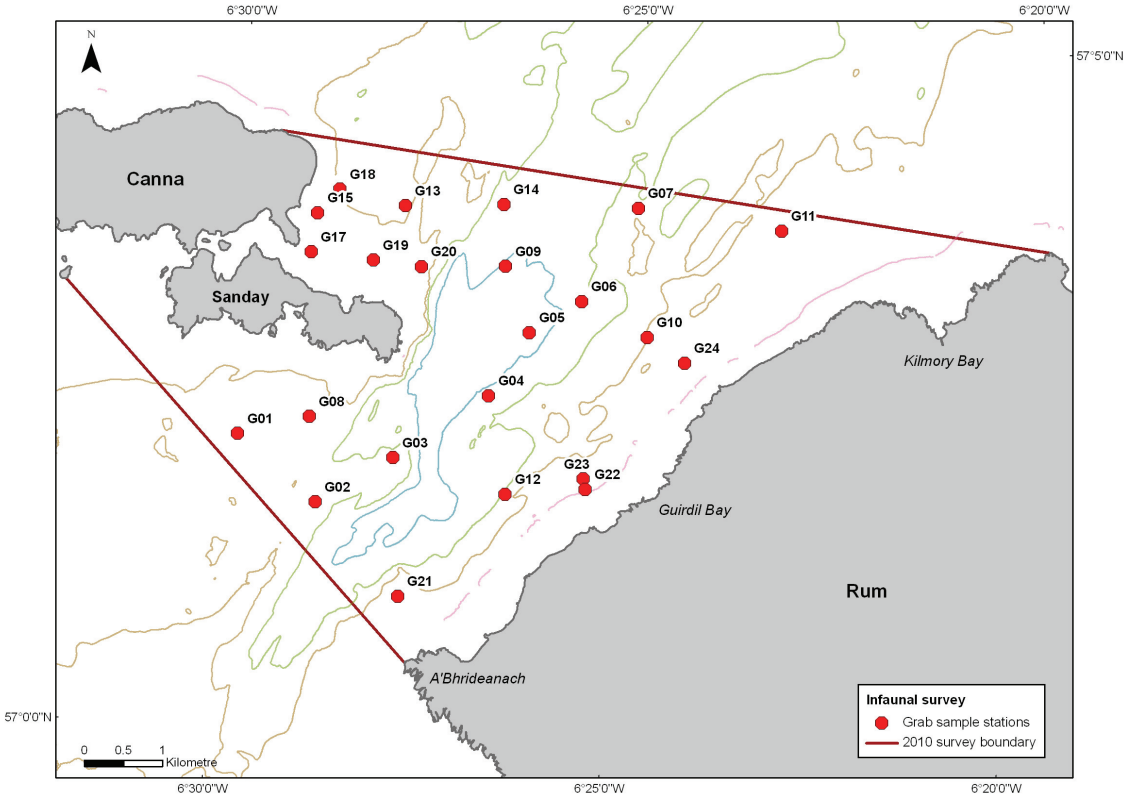
Plate 3 UMSBM drop-down camera and deployment over the stern of RV Aora

The video survey was carried out in depths of up to 275 m and this required a robust camera system heavy enough to reach the seabed without streaming too far behind the boat. Due to the time required to deploy the system in deep water, the camera was left down for much longer than the shallow water system, particularly when trying to ascertain the extent of the fan mussel bed. The longest video sample was approximately 42 minutes. The camera was controlled from the surface and it was generally possible to keep the frame just above the seabed enabling a biologist to record contemporaneous notes to accompany the footage. The video camera was not a digital system and the quality of the footage was lower than that obtained using the shallow water equipment.

2.4 Grab sampling

Towards the end of the deep video work, a full day (25th September) was dedicated to the collection of 23 infaunal samples using a Day Grab (0.1m^2 volume). The distribution of the grab stations is illustrated in Figure 9. Sample locations were selected on the basis of the preceding video survey, ensuring good coverage across the sound and targeting specific biotopes of interest. Two samples were taken at Guridil in an effort to sample the maerl observed there. The first sample (G23) was too deep so the boat moved in shallower for a second grab (G22).

Figure 9 Distribution of grab sampling stations within the Sound of Canna
(note - there was no Station G16)



The position of each grab station was recorded by GPS and each infaunal sample was processed on board. Only full grab samples were retained and no replicates were taken. A subsample (~200 g) was taken from the surface of each grab for sediment grain size distribution analyses and organic matter content determination for correlation of the sediment characteristics with the infaunal community.

Each discrete grab sample was emptied into a wash box on the deck of RV *Aora*. In the wash box the sediment was gently agitated with seawater from the deck hose and washed through a 1 mm sieve. After gentle sieving the residue was transferred to an airtight bucket, fixed with a 15% formal saline solution and labelled on both the inside and outside of the bucket with relevant station details. Once the formalin had been added to the storage buckets, they were carefully inverted to ensure that all the material was exposed to the fixative solution. No vital stain was added to the samples. Photographs were taken of each full grab before processing and of the sediment residue following sieving (Plate 4).

Plate 4 Example photographs showing the volume and contents of a successful grab sample (Station G09) and the residue retained in the 1 mm sieve

Laboratory extraction and identification to the finest practicable resolution and enumeration of the sampled fauna was carried out by Dr. Peter Garwood of *Identichaet*, a renowned international expert in the field of marine invertebrate taxonomy and macrobenthic infaunal identification. This was carried out according to NMBAQC guidelines. The sediment samples, which were kept frozen, were couriered to Hebog Environmental, an NMBAQC laboratory, for particle size distribution analysis using a combination of wet and dry sieving for particles larger than 63 μm and by electronic particle counting for material smaller than 63 μm. The organic matter determination was calculated by loss on ignition at 450°C.

2.5 Diver sampling

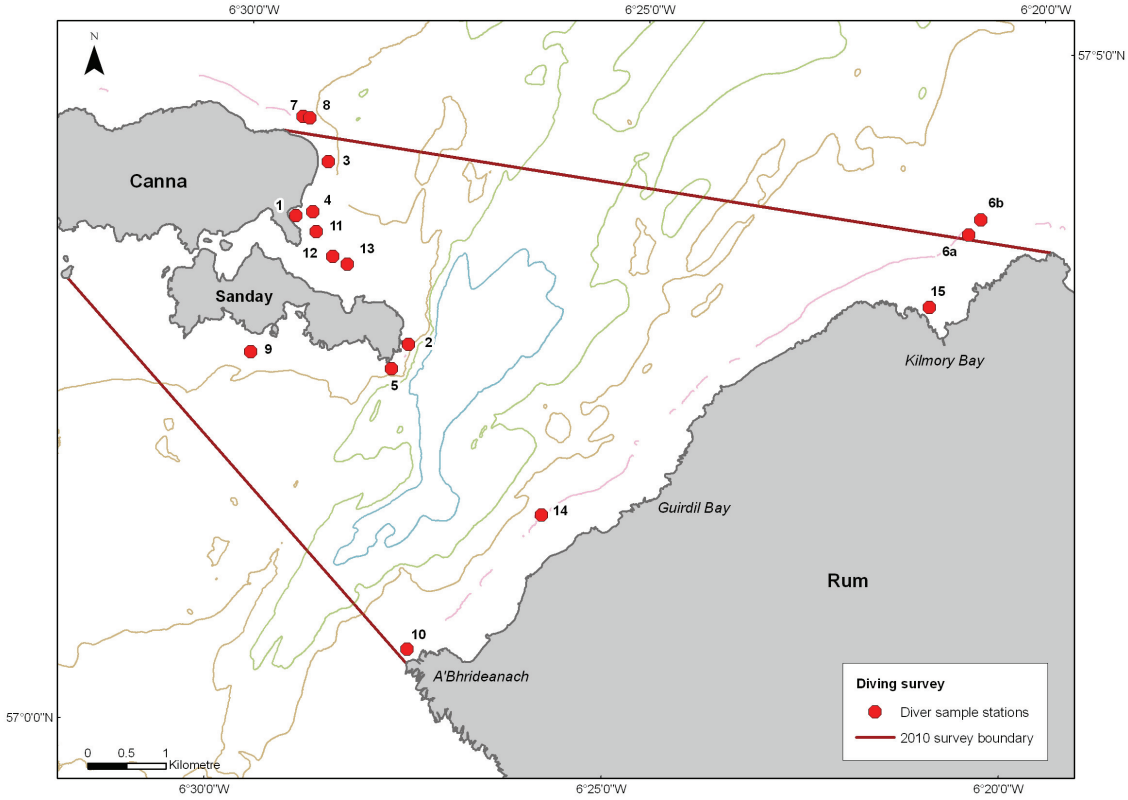
The main focus of the diving survey was to collect detailed *in-situ*, biological records from selected MPA search features within diving depths (<40 m). Sampling locations were identified through the shallow water video work with target habitats including:

- Burrowed mud.
- Northern sea fan and sponge communities on the bedrock cliffs.
- The cobble / gravel shelf on the Rum coast in a search for maerl.
- Two *Zostera marina* seagrass beds.

The 15 dive locations are illustrated in Figure 10. MNCR-style Phase II semi-quantitative survey techniques were employed (as described by Hiscock, 1996). This method involves a pair of divers swimming down to the maximum depth on a site and working back up any slope, recording species and their relative abundance together with associated physical habitat characteristics from within each biological zone they encounter. The information collected by the divers was transcribed to recording forms together with descriptions and

sketches of the site. These data were supplemented by digital video and digital SLR photography. Following the survey, biotope codes were assigned to the data which were entered into Excel spreadsheets and subsequently into Marine Recorder.

Figure 10 Distribution of dive sites surveyed in 2010 within the Sound of Canna



The divers were restricted to a maximum depth of 40 m. On the cliffs, the northern sea fan *Swiftia pallida* was not found shallower than 30 m and thus there was very little time available in this target MPA search feature. In order to maximise the information collected, both pairs of divers covered the same dive site. At less complex or shallower sites, only a single pair of divers was required to satisfactorily complete the survey tasks.

2.5.1 Seagrass beds

Two small *Zostera marina* seagrass beds were found during the video work and these were mapped during the diving survey. The water was clear enough to allow divers to snorkel around the perimeter with a GPS in a waterproof case attached to a small float. The tracks were later downloaded and the beds mapped. Meanwhile, divers carried out Phase 2 recording and took photographs and video.

The sediments within each bed were also described and cored with a 10.3 cm diameter, 15 - 20 cm depth core in order to sample the infauna. Five replicate cores were collected from each bed and washed with seawater through a 1 mm mesh sieve. The sediment and fauna retained on the sieve were preserved in a 15% formal saline solution for subsequent identification. A sample of sediment was also taken and later processed for Particle Size Analysis (PSA) and 'Loss on Ignition' (LoI), the former to help to characterise the particle size distribution and the latter to provide a measure of the organic content of the sediment. This sample consisted of a scrape of approximately 500 g of the top 50 mm of sediment.

Following the survey, the infauna was picked from the sieved macrobenthic samples for identification and enumeration. This was carried out according to NMBAQC guidelines by Tom Mercer of ASML. After the macrofauna had been identified, the data were analysed using the PRIMER 5 statistical package and a series of univariate and multivariate statistics were calculated. The sediment samples, which were kept frozen, were couriered to Hebog Environmental, an NMBAQC laboratory, for particle size distribution analysis using a combination of wet and dry sieving for particles larger than 63 μm and by electronic particle counting for material smaller than 63 μm. The organic matter determination was calculated by loss on ignition at 450°C.

3 RESULTS

Successful drop-down video recordings were made as a series of drifts over the seabed at 63 shallow water stations (of which seven stations were established specifically looking for maerl - these were completed during the deeper video component of the sampling) and 60 deep water stations. The sampling locations are illustrated in Figures 6, 7 and 8. Positional information and summary notes for each video sample (including biotope assignments and alignment with MPA search features / PMFs) are provided in Tables A1.1 and A1.2 (Appendix 1). The species recorded during the two phases of the video work are tabulated in Tables A1.5 and A1.6 for the shallow water and deep water stations respectively (all tables within Appendix 1).

The distribution of the grab stations is illustrated in Figure 9 and the detailed infaunal analyses are provided in Appendix 2

The 15 dive locations are illustrated in Figure 10 and detailed in Table A1.3. Habitat descriptions from the dive sites are given in Table A1.4 and the species recorded during the diving work are tabulated in Table A1.7 (all tables within Appendix 1). The detailed results of the infaunal survey of the seagrass beds are included in Appendix 3.

Logs of photographs and video footage collected during the 2010 survey are included in Appendix 4.

3.1 Biotope composition and distribution within the Sound of Canna

The 52 biotopes recorded during the survey in 2010 are listed in Table 2 (overleaf). Two of the MPA search features recorded within the Sound of Canna in 2010 are not classified as discrete biotopes within the current version of the national biotope classification (Connor *et al*., 2004). For the purposes of this report, the following provisional biotopes have been assigned to the northern featherstar and fan mussel aggregation search features respectively:

- Aggregations of the northern feather star *Leptometra celtica* on mixed muddy sediments (**SS.SMu.CSaMu.LceIt**); and
- Aggregations of the fan mussel *Atrina fragilis* in poorly sorted mixed muddy sediments (**SS.SBR.SMus.Afrag**).

Figures 11 and 12 show the distribution of all of the stations sampled in 2010, coded at the biotope complex level (colouring aligns with Table 2).

Infralittoral kelp biotopes were restricted to suitable habitat along the coastal margins on either side of the sound, primarily within the 20 m depth contour (with *Laminaria hyberborea* kelp forests **IR.HIR.KFaR.LhypFa** and **IR.HIR.KFaR.LhypR** recorded to ~18.5 m and individual kelp plants down to ~24 m). The *kelp with cushion fauna and/or foliose red seaweeds* (**IR.HIR.KFaR**) and *sediment-affected or disturbed kelp and seaweed communities* (**IR.HIR.KSed**) biotope complexes were present on the more exposed, high energy areas of coastline to the south and west of Canna and Sanday and along the west coast of Rum. The moderate and low energy kelp dominated biotope complexes (**IR.MIR.KR** and **IR.LIR.K**) were restricted to shallower water or areas afforded protection from wave action by virtue of geographical aspect (e.g. north-east of Sanday), nearshore rocks or within small embayments. In the lower infralittoral, in areas of high energy below the kelp zone, foliose red seaweeds were present on bedrock and mixed boulder and cobble substrates (**IR.HIR.KFaR.FoR**).

Table 2 Biotopes identified in the Sound of Canna in 2010 (all sampling methods) and their frequency of occurrence. Biotopes follow Connor et al., 2004

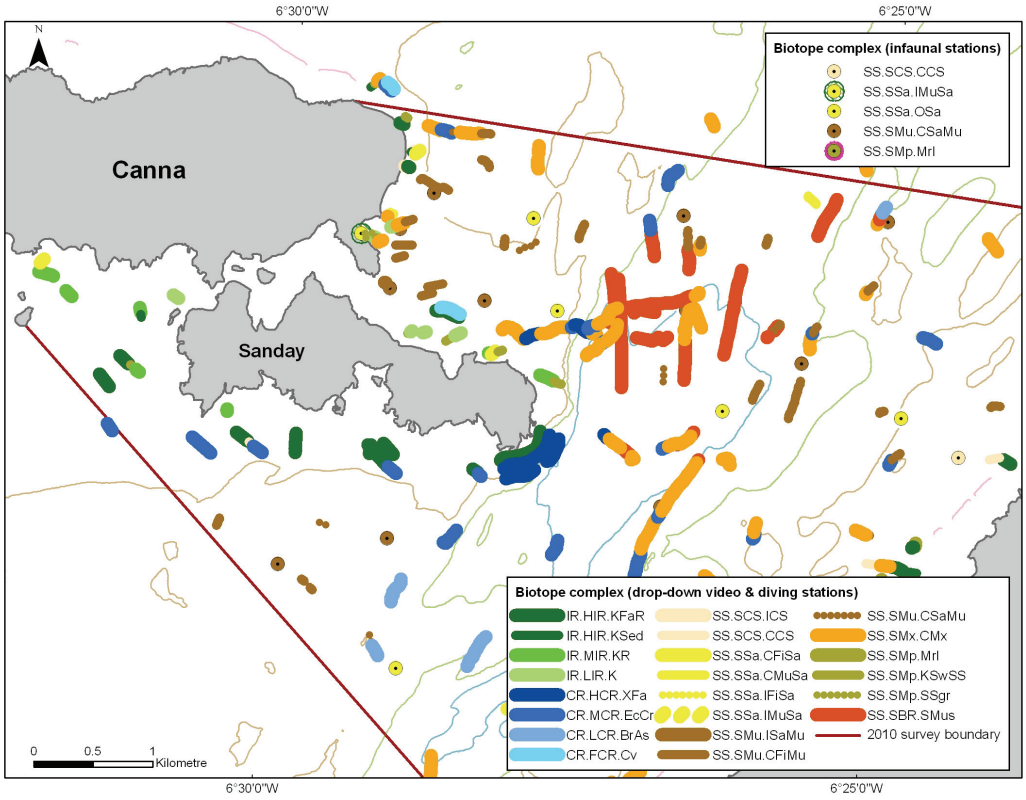
Key to biotope coding and table colours (coloured at habitat complex level)

Rock biotopes (IR = infralittoral rock; CR = circalittoral rock)		**Sublittoral Sediment biotopes** (SS)
High energy infralittoral rock (HIR)	High energy circalittoral rock (HCR)	Sublittoral coarse sediment (SCS)
Moderate energy infralittoral rock (MIR)	Moderate energy circalittoral rock (MCR)	Sublittoral sand (SSa)
Low energy infralittoral rock (LIR)	Low energy circalittoral rock (LCR)	Sublittoral mud (SMu)
Feature of infralittoral rock (FIR)	Feature of circalittoral rock (FCR)	Sublittoral mixed substrata (SMx)
Examples IR.HIR = Habitat complex (level 3 in classification)		Sublittoral macrophytes on sediment (SMp)
IR.HIR.KFaR = Biotope complex (level 4 in classification)		Sublittoral biogenic reefs on seds (SBR)
IR.HIR.KFaR.**LhypR** = Biotope level (anything longer = sub-biotope)		

Biotope	Description	Count
IR.HIR.KFaR.FoR	Foliose red seaweeds on exposed lower infralittoral rock	10
IR.HIR.KFaR.LhypFa	*Laminaria hyperborea* forest with a faunal cushion (sponges and polyclinids) and foliose red seaweeds on very exposed upper infralittoral rock	3
IR.HIR.KFaR.LhypR	*Laminaria hyperborea* with dense foliose red seaweeds on exposed infralittoral rock	4
IR.HIR.KFaR.LhypR.Ft	*Laminaria hyperborea* forest with dense foliose red seaweeds on exposed upper infralittoral rock	7
IR.HIR.KFaR.LhypR.Pk	*Laminaria hyperborea* park with dense foliose red seaweeds on exposed lower infralittoral rock	3
IR.HIR.KSed.LsacSac	*Laminaria saccharina* and/or *Saccorhiza polyschides* on exposed infralittoral rock	1
IR.HIR.KSed.Sac	*Saccorhiza polyschides* and other opportunistic kelps on disturbed sublittoral fringe rock	1
IR.HIR.KSed.XKScrR	Mixed kelps with scour-tolerant and opportunistic foliose red seaweeds on scoured or sand-covered infralittoral rock	4
IR.MIR.KR.Lhyp	*Laminaria hyperborea* on tide-swept, infralittoral rock	3
IR.MIR.KR.Lhyp.Ft	*Laminaria hyperborea* forest and foliose red seaweeds on moderately exposed upper infralittoral rock	3
IR.MIR.KR.Lhyp.GzFt	Grazed *Laminaria hyperborea* forest with coralline crusts on upper infralittoral rock	5
IR.LIR.K.LhypLsac	Mixed *Laminaria hyperborea* and *Laminaria saccharina* on sheltered infralittoral rock	3
IR.LIR.K.LhypLsac.Ft	Mixed *Laminaria hyperborea* and *Laminaria saccharina* forest on sheltered upper infralittoral rock	1
IR.LIR.K.Lsac	*Laminaria saccharina* on very sheltered infralittoral rock	3
IR.LIR.K.Lsac.Ft	*Laminaria saccharina* forest on very sheltered upper infralittoral rock	1
CR.HCR.XFa.CvirCri	*Corynactis viridis* and a mixed turf of crisiids, *Bugula*, *Scrupocellaria*, and *Cellaria* on moderately tide-swept exposed circalittoral rock	4
CR.HCR.XFa.SpAnVt	Sponges and anemones on vertical circalittoral bedrock	1
CR.HCR.XFa.SpNemAdia	Sparse sponges, *Nemertesia* spp. and *Alcyonidium diaphanum* on circalittoral mixed substrata	2
CR.HCR.XFa.SwiLgAs	Mixed turf of hydroids and large ascidians with *Swiftia pallida* and *Caryophyllia smithii* on weakly tide-swept circalittoral rock	1
CR.MCR.EcCr.CarSwi	*Caryophyllia smithii* and *Swiftia pallida* on circalittoral rock	9
CR.MCR.EcCr.FaAlCr	Faunal and algal crusts on exposed to moderately wave-exposed circalittoral rock	6
CR.MCR.EcCr.FaAlCr.Adig	*Alcyonium digitatum*, *Pomatoceros triqueter*, algal and bryozoan crusts on wave-exposed circalittoral rock	2
CR.MCR.EcCr.FaAlCr.Sec	*Alcyonium digitatum* with *Securiflustra securifrons* on tide-swept moderately wave-exposed circalittoral rock	3
CR.LCR.BrAs	Brachiopod and ascidian communities	6
CR.FCR.Cv.SpCup	Sponges, cup corals and anthozoans on shaded or overhanging circalittoral rock	2

Biotope	Description	Count
SS.SCS.ICS	Infralittoral coarse sediment	2
SS.SCS.CCS	Circalittoral coarse sediment	8
SS.SCS.CCS.MedLumVen	*Mediomastus fragilis*, *Lumbrineris* spp. and venerid bivalves in circalittoral coarse sand or gravel	3
SS.SCS.CCS.PomB	*Pomatoceros triqueter* with barnacles and bryozoan crusts on unstable circalittoral cobbles and pebbles	1
SS.SSa.CFiSa	Circalittoral fine sand	1
SS.SSa.CMuSa	Circalittoral muddy sand	3
SS.SSa.IFiSa	Infralittoral fine sand	3
SS.SSa.IFiSa.NcirBat	*Nephtys cirrosa* and *Bathyporeia* spp. in infralittoral sand	1
SS.SSa.IMuSa.AreISa	*Spisula subtruncata* and *Nephtys hombergii* in shallow muddy sand	5
SS.SSa.IMuSa.FfabMag	*Fabulina fabula* and *Magelona mirabilis* with venerid bivalves and amphipods in infralittoral compacted fine muddy sand	1
SS.SSa.IMuSa.SsubNhom	*Arenicola marina* in infralittoral fine sand or muddy sand	1
SS.SSa.OSa.OfusAfil	*Owenia fusiformis* and *Amphiura filiformis* in offshore circalittoral sand or muddy sand	7
SS.SMu.ISaMu	Infralittoral sandy mud	1
SS.SMu.CFiMu.MegMax	Burrowing megafauna and *Maxmuelleria lankesteri* in circalittoral mud	31
SS.SMu.CFiMu.SpnMeg.Fun	Seapens, including *Funiculina quadrangularis*, and burrowing megafauna in undisturbed circalittoral fine mud	6
SS.SMu.CSaMu	Circalittoral sandy mud	6
SS.SMu.CSaMu.AfilMysAnit	*Amphiura filiformis*, *Mysella bidentata* and *Abra nitida* in circalittoral sandy mud	12
SS.SMu.CSaMu.Lcelt	Aggregations of the northern feather star *Leptometra celtica* on mixed muddy sediments	5
SS.SMx.CMx	Circalittoral mixed sediment	5
SS.SMx.CMx.ClloMx	*Cerianthus lloydii* and other burrowing anemones in circalittoral muddy mixed sediment	24
SS.SMx.CMx.ClloMx.Nem	*Cerianthus lloydii* with *Nemertesia* spp. and other hydroids in circalittoral muddy mixed sediment	3
SS.SMp.Mrl.Pcal	*Phymatolithon calcareum* maerl beds in infralittoral clean gravel or coarse sand	9
SS.SMp.KSwSS	Kelp and seaweed communities on sublittoral sediment	1
SS.SMp.KSwSS.LsacR	*Laminaria saccharina* and red seaweeds on infralittoral sediments	9
SS.SMp.KSwSS.LsacR.Gv	*Laminaria saccharina* and robust red algae on infralittoral gravel and pebbles	1
SS.SMp.SSgr.Zmar	*Zostera marina/angustifolia* beds on lower shore or infralittoral clean or muddy sand	6
SS.SBR.SMus.Afrag	Aggregations of the fan mussel *Atrina fragilis* in poorly sorted mixed muddy sediments	16

Figure 11 2010 survey coverage off Canna and Sanday (all methodologies). Records displayed at biotope complex level, colour-coding aligns with Table 2



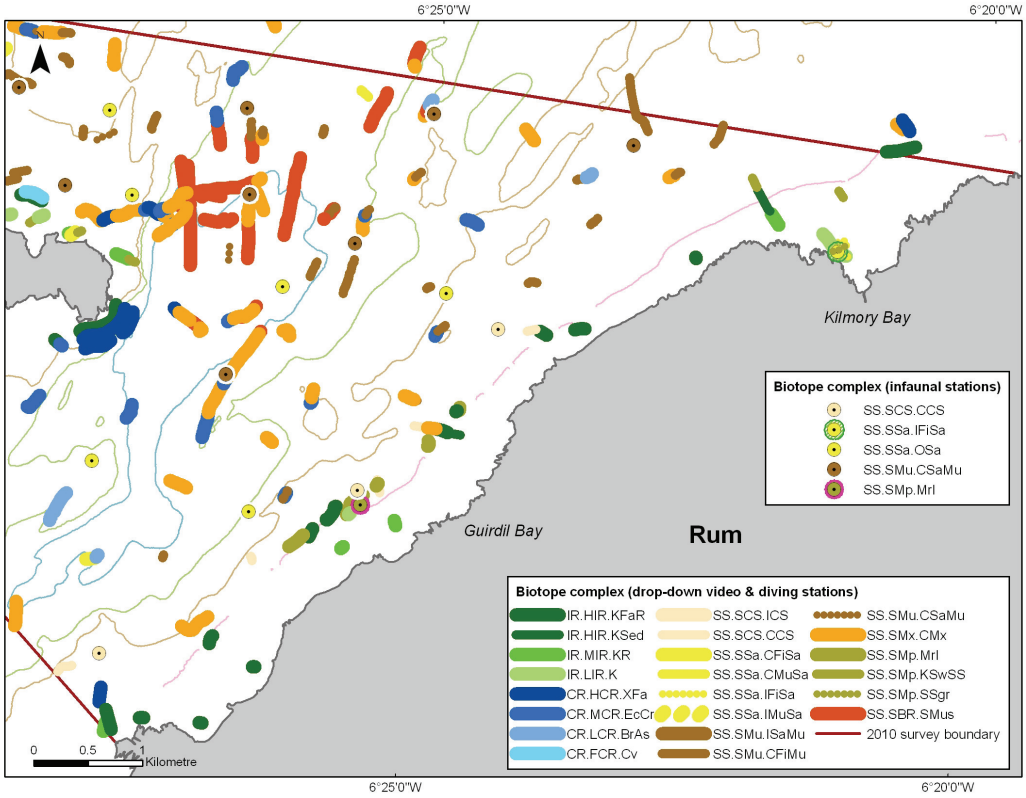
Circalittoral rock (**CR**) biotopes were recorded below the nearshore algal biotopes but also at scattered locations throughout the sound. The high energy *mixed faunal turf communities* biotope complex (**CR.HCR.XFa**) was restricted to deep water adjacent to the coast and comprised four discrete biotopes supporting differing compositions of bryozoans, sponges, anemones, ascidians and hydroids. The northern sea fan *Swiftia pallida* was recorded as a component of the **CR.HCR.XFa.SwiLgAs** biotope below ~34 m at the dive site on the eastern end of Sanday (Site 2; Figure 10). The *echinoderms and crustose communities* (**CR.MCR.EcCr**) biotope complex (comprising two biotopes and a further two sub-biotopes) and the lower energy circalittoral biotope complex (**CR.LCR.BrAs**) both had a wider distribution, associated with silty bedrock outcrops and boulder deposits (of glacial origin) scattered throughout the sound. The **CR.MCR.EcCr.CarSwi** biotope was assigned where northern sea fans were present. Cup corals *Caryophyllia smithii*, the bryozoan *Porella compressa* and the red cushion star *Porania pulvillus* were common to the biotopes. The *circalittoral caves and overhangs* (**CR.FCR.Cv**) biotope complex was represented by the **CR.FCR.Cv.SpCup** biotope which was recorded from vertical and overhanging cliff faces at two of the dive sites (Sites 8 and 13; Figure 10).

Coarse sediment biotope complexes were represented in both infralittoral and circalittoral zones (**SS.SCS.ICS** and **SS.SCS.CCS** respectively), distributed off the west coast of Rum within the 80 m depth contour. The finer resolution **SS.SCS.CCS.MedLumVen** biotope was assigned to three grab sampling stations within this band of coarse sediment, on the basis of infaunal and particle size analyses.

Sandy and muddy sand biotopes (under the **SS.SSa** habitat complex) were recorded on both sides of the sound in sheltered areas. Finer resolution biotopes were assigned under

five discrete biotope complexes on the basis of either infaunal sampling (e.g. **SS.SSa.IMuSa.FfabMag** and **SS.SSa.IFiSa.NcirBat** from diver core samples within the small *Zostera marina* seagrass beds on Canna and Rum respectively; and **SS.SSa.OSa.OfusAfil** from a series of grab samples across the sound) or detailed diver recording (e.g. **SS.SSa.IMuSa.SsubNhom** record from dive Site 3). Where conspicuous epiflora or fauna were not visible e.g. on remote video footage, then the sandy seabed communities present were allocated to an appropriate coarser resolution biotope complex only (e.g. **SS.SSa.CFiSa**, **SS.SSa.CMuSa** and **SS.SSa.IFiSa**). The species rich **SS.SSa.OSa.OfusAfil** biotope, which was widespread in the sound under a veneer of burrowed mud, is discussed in more detail in Sections 3.2.1 and 3.3.1.

Figure 12 2010 survey coverage off Rum (all methodologies). Records displayed at biotope complex level, colour-coding aligns with Table 2



Mud and sandy mud (**SS.SMu**) biotopes were interspersed with mixed circalittoral sediments (**SS.SMx**) across much of the floor of the sound. The infralittoral sandy mud (**SS.SMu.ISaMu**) biotope complex was only recorded at one shallow water video station (16.1), just outside the entrance to the harbour on Canna. The muddy sand at this location supported the burrowing sea anemones *Sagartiogeton laceratus* and *Cerianthus lloydii*, echinoderms and occasional slender seapens *Virgularia mirabilis*. The *circalittoral fine mud* (**SS.SMu.CFiMu**) biotope complex was represented by the two component biotopes of the burrowed mud MPA search feature (**SS.SMu.CFiMu.MegMax** and **SS.SMu.CFiMu.SpnMeg**). The **SS.SMu.CFiMu.MegMax** biotope was the most frequently assigned, this was on the basis of modest and variable seapen numbers. The burrowed seabed substrates assigned to this biotope tended to be sandier in composition (muddy sands and sandy muds rather than fine muds). Where the tall seapen *Funiculina quadrangularis* was observed, the video samples were assigned to the **SS.SMu.CFiMu.SpnMeg.Fun** biotope.

Circalittoral sandy mud (**SS.SMu.CSaMu**) biotopes included one dominated by bivalves and burrowing brittlestars (**SS.SMu.CSaMu.AfilMysAnit**), assigned to 12 grab sampling stations on the basis of infaunal and sediment particle size analyses, and the tentative northern feather star aggregations biotope **SS.SMu.CSaMu.LceIt**. Whilst assigned to sandy muds, this biotope was also associated with more mixed circalittoral sediments.

The deep water video sampling extended the known distribution of the fan mussel *Atrina fragilis* aggregation (**SS.SBR.SMus.Afrag**) across the deep central portion of the sound and northwards to beyond the 2010 survey boundary. The core area of this biotope was situated to the north-east of Sanday, straddling the 200 m depth contour. The poorly sorted mixed muddy seabed substrates present were representative of both **SS.SMu.CSaMu** and **SS.SMx.CMx** biotope complexes but the biological community was assigned to the *sublittoral mussel beds (on sublittoral sediment)* (**SS.SBR.SMus**) biotope complex.

The mud and sandy mud biotopes and all biotopes recorded under the *sublittoral macrophyte-dominated communities on sediments* (**SS.SMp**) biotope complex are discussed in more detail in Section 3.2.

3.2 MPA search features recorded in the Sound of Canna

The MPA search features recorded during the 2010 survey are listed in Table 3. Two additional PMFs were also noted. Aggregations of one of these, the burrowing sea anemone *Aracnanthus sarsi*, are considered an MPA search feature but only a single specimen was observed during the current study.

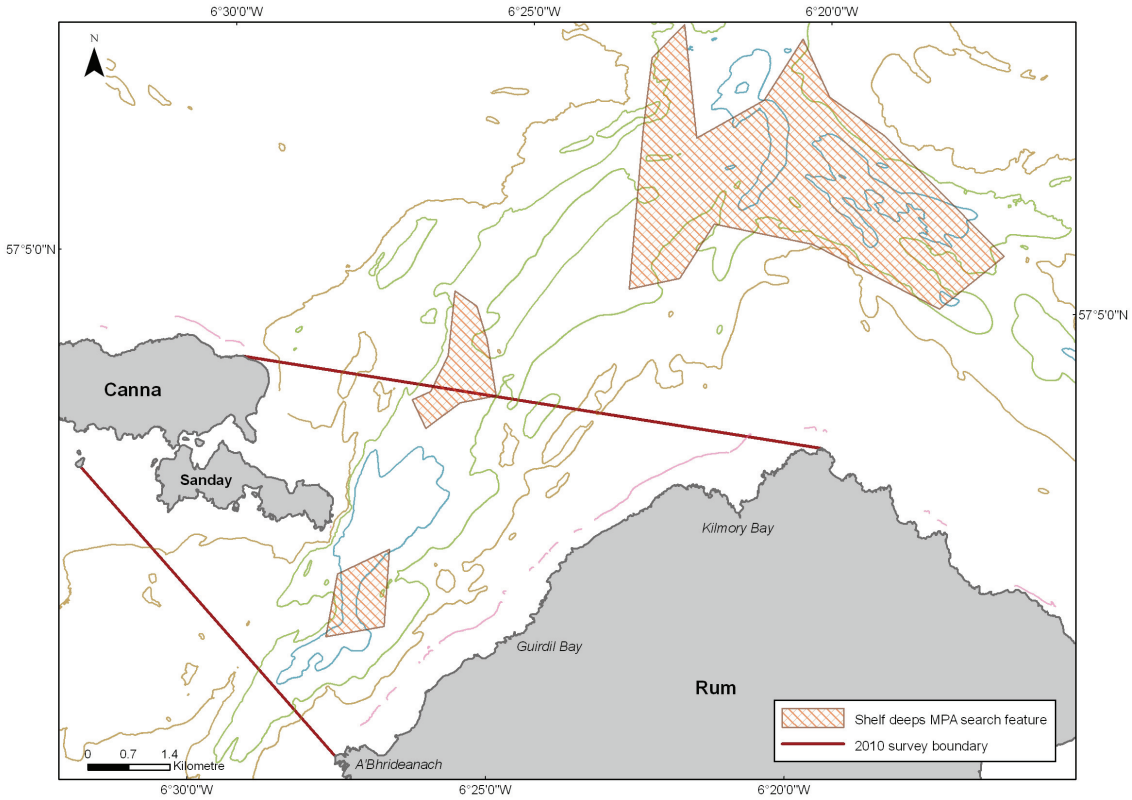
*Table 3 The 10 MPA search features (of which all but shelf deeps are also PMFs) and 2 other non-search feature PMFs (cells greyed and marked *) recorded during the 2010 Sound of Canna survey*

MPA search features and PMFs	
Seabed habitats	Burrowed mud
	Kelp and seaweed communities on sublittoral sediment
	Maerl beds
	Northern sea fan and sponge communities
	Seagrass beds
Low or limited mobility species	Burrowing sea anemone, *Arachnanthus sarsi**
	White cluster anemone, *Parazoanthus anguicomus**
	Northern feather star agg$^{s.}$ on mixed substrata, *Leptometra celtica*
	Fan mussel aggregations, *Atrina fragilis*
Mobile species	European spiny lobster, *Palinurus elephas*
	Basking shark, *Cetorhinus maximus*
Large-scale features	Shelf deeps

The associations between the MPA search features and the biotopes listed in Table 2 are outlined in the remainder of this section. Shelf deeps are a large-scale search feature of functional significance in Scottish waters. The predicted distribution of this feature within the Sound of Canna is illustrated in Figure 13. The current mapping of the shelf deeps is quite crude and the available bathymetric charting of the area was also found to be poor, but the presence of the feature was certainly confirmed in 2010 with multiple video and grab samples taken in water depths of up to 275 m.

The shelf deeps are not considered in any further detail within this report but will be described under separate cover once the new MCA multibeam data for the sound have been processed. The seabed habitats recorded in 2010, including the MPA search features, will be used to aid interpretation of this acoustic data, to generate a refined broadscale habitat distribution map that more accurately reflects the shape of the deeps feature and clarifies the relationship between this and the other MPA search features present.

Figure 13 Distribution of the large-scale shelf deeps MPA search feature within the Sound of Canna



3.2.1 Burrowed mud

The following component biotopes and species of the burrowed mud MPA search feature were recorded in 2010:

- Burrowing megafauna and *Maxmuelleria lankesteri* in circalittoral mud
  SS.SMu.CFiMu.MegMax
- Seapens, including *Funiculina quadrangularis*, and burrowing megafauna in undisturbed circalittoral fine mud
  SS.SMu.CFiMu.SpnMeg.Fun
- Tall seapen
  Funiculina quadrangularis

Distribution

- **Depth range: MegMax** 29 - 208 m; **SpnMeg.Fun** 70 - 140 m
- **Total area:** 1,292 ha

Description

The distribution of the burrowed mud search feature is illustrated in Figure 14. The muddy sediments on the floor of the sound were heavily burrowed (see Plate 5) with evidence of several crustacean species. Burrows of *Nephrops norvegicus* were readily identifiable and often had individual prawns in the entrance or on the sediment surface in the vicinity.

*Figure 14 Predicted distribution of the burrowed mud MPA search feature component biotope **SS.SMU.CFiMu.MegMax** within the Sound of Canna with individual records of burrows and seapens*

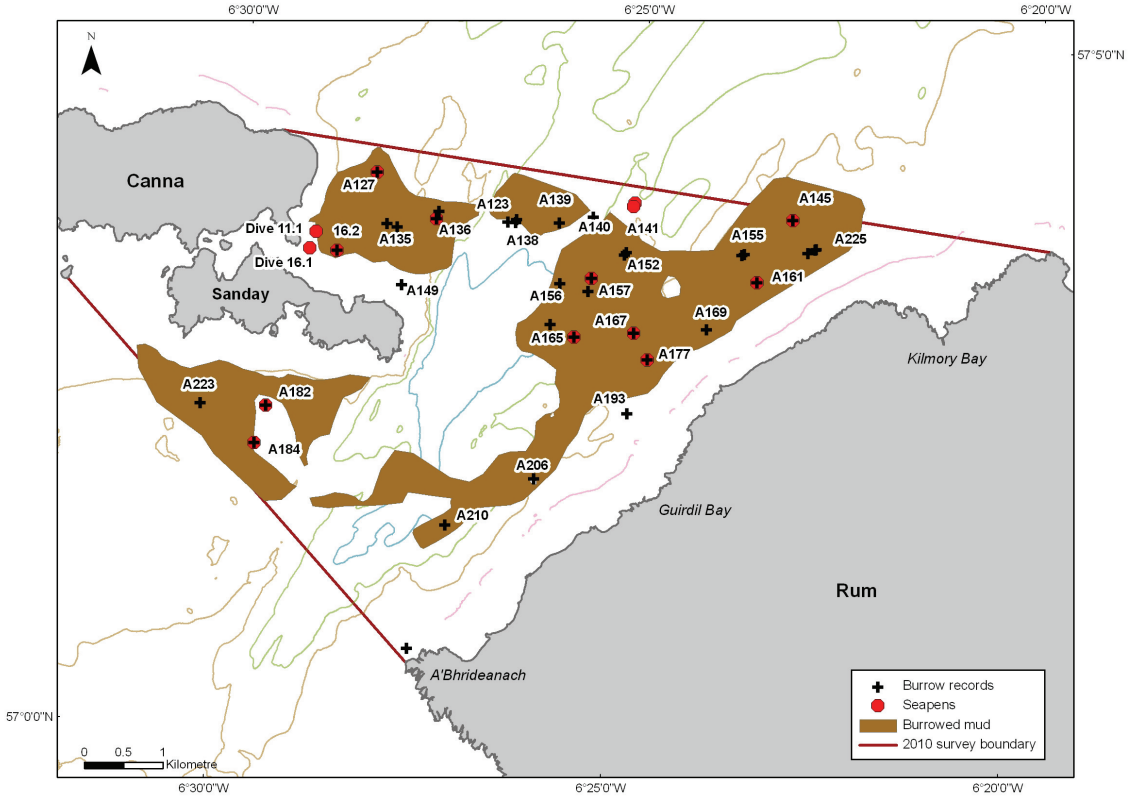
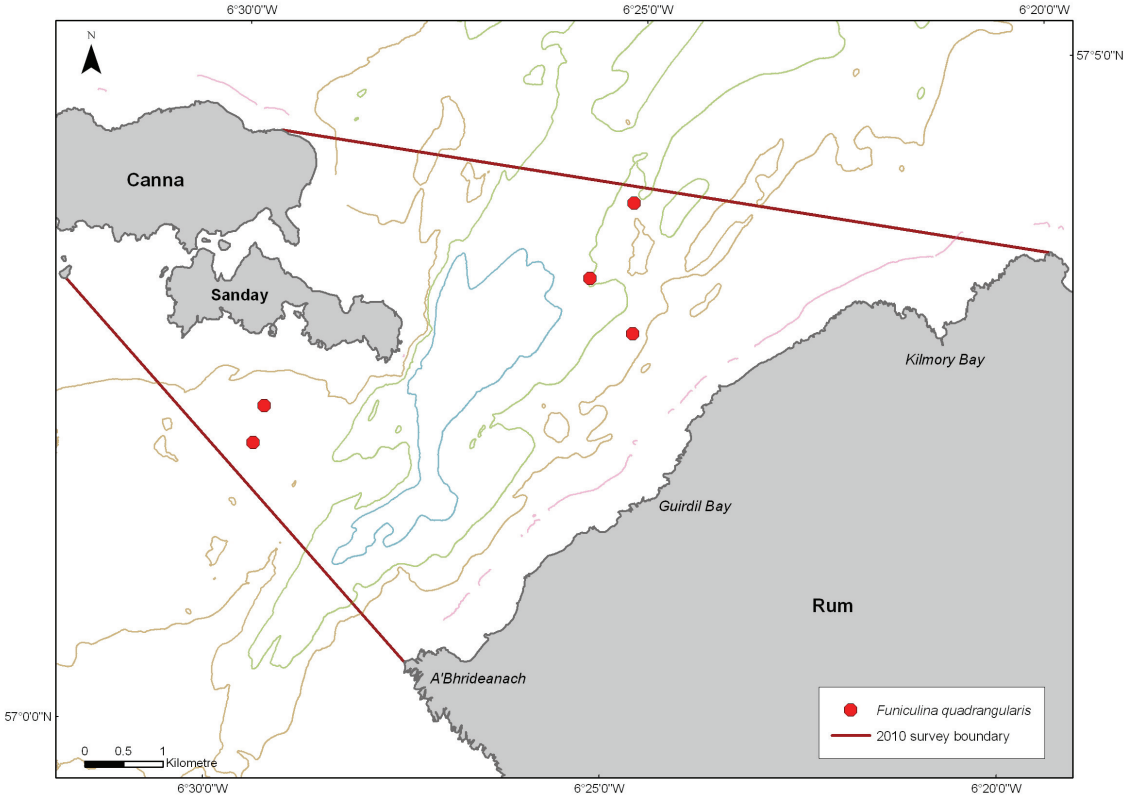


Plate 5 Screen grabs from drop-down video footage of burrowed mud within the Sound of Canna. A phosphorescent seapen Pennatula phosphorea is visible in the second image

The crab *Goneplax rhomboides* was seen on several occasions. Other burrows were attributed to callianassid and calocarid crustaceans. In addition to the crustacean burrows, two burrowing fish species were also observed, the snake blenny *Lumpenus lampretaeformis* and Fries' goby *Lesuerigobius friesii*. Species frequently seen on the sediment surface included large numbers of the tower shell *Turritella communis*, often with the pagurid *Pagurus prideaux* and it's commensal anemone *Adamsia carciniopados*. The anemones *Cerianthus lloydii* and *Sagartiogeton laceratus* were common and the fanworm *Sabella pavonina* was frequently seen. All three species of seapens were recorded, scattered across the area in low numbers. The distribution of the tall sea pen *Funiculina quadrangularis* is shown in Figure 15. The biotope **SS.SMu.SpnMeg.Fun** was considered to be present but was not mapped as an individual feature as there was no substantial single area of seapens.

Figure 15 Individual records of the tall seapen Funiculina quadrangularis *within the 2010 Sound of Canna survey area*



Boulders, cobbles and shell debris were present on the sediment surface at many sites and in these cases species such as the squat lobster *Munida rugosa* and the anemone *Urticina eques* were frequent. Where the northern feather star *Leptometra celtica* was common on mixed substrates, the stations were classed as **SS.SMu.CSaMu.LceIt** (see Section 3.2.6).

The burrowed mud biotopes were assigned primarily on the basis of the seabed surface features and the presence of megafaunal burrowers and seapens. The infaunal samples from within the burrowed mud area revealed two main infaunal biotopes associated with this feature **SS.SSa.OSa.OfusAfil** and **SS.SMu.CSaMu.AfilMysAnit** (Figure 16). **SS.SSa.OSa.OfusAfil** is itself recognised as a constituent of the PMF and MPA search feature 'offshore subtidal sands and gravels'. This habitat of mixed muddy sand (Figure 17) is discussed in more detail in Section 3.3.1.

*Figure 16 Division of the megafaunal burrowed mud habitat in the Sound of Canna into the infaunal biotopes **SS.SSa.OSa.OfusAfil** and **SS.SMu.CSaMu.AfilMysAnit***

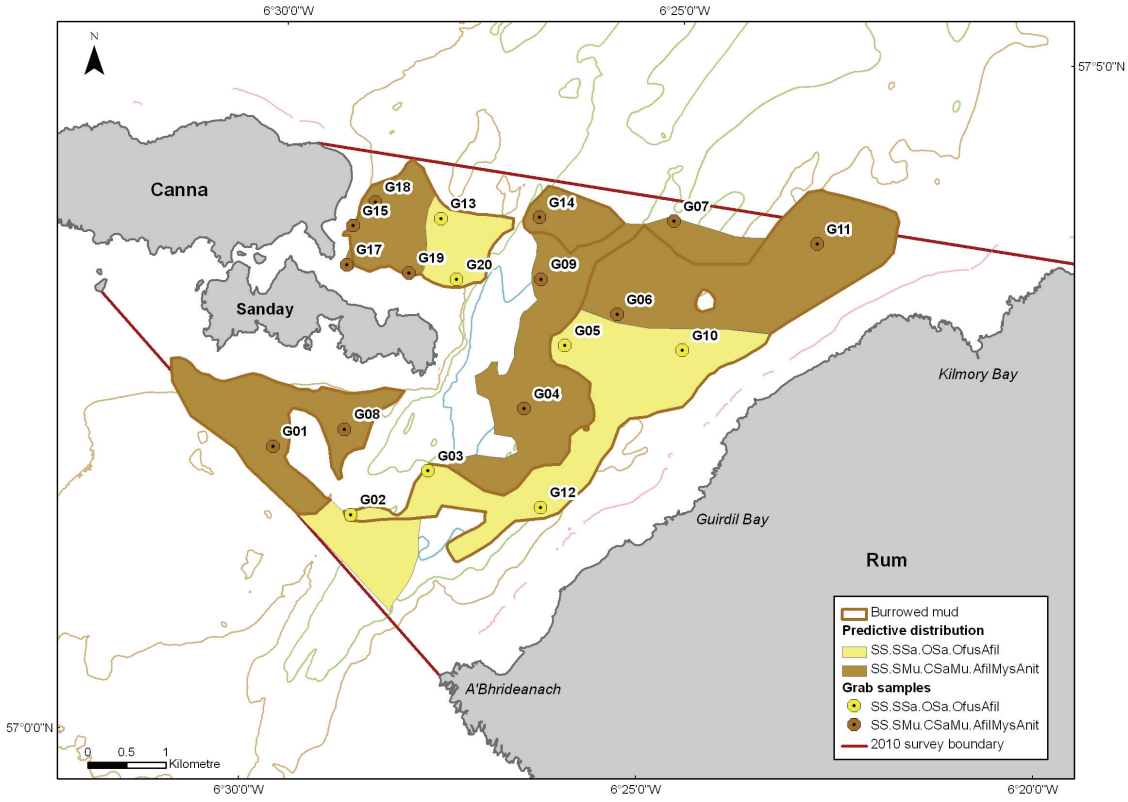
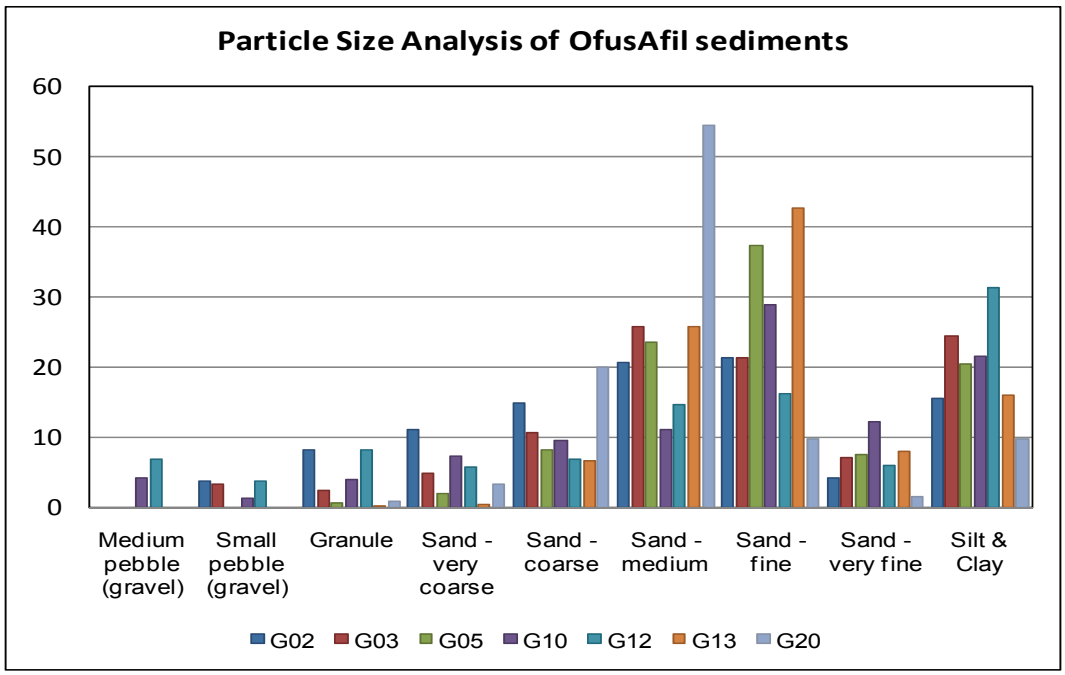
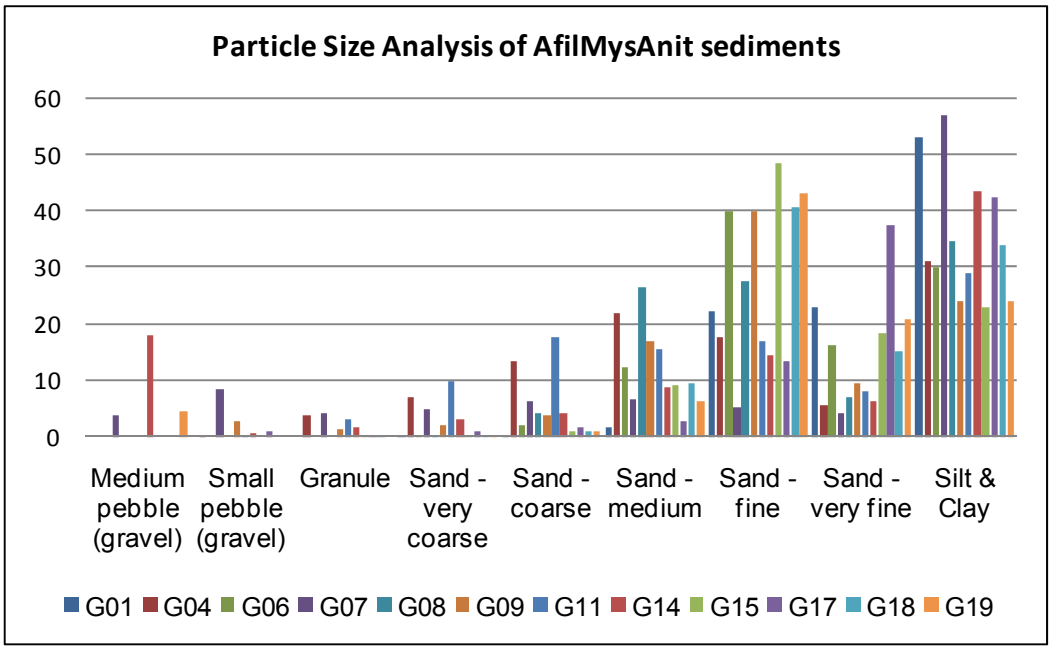


*Figure 17 Particle size analysis of the **SS.SSa.OSa.OfusAfil** sediment samples, showing the percentage of each sediment category*



The second biotope **SS.SMu.CSaMu.AfilMysAnit** was found in slightly muddier sediments (Figure 18) and was species rich and diverse (total taxa 245, mean taxa 59, mean H' 3.4). It was characterised by large numbers of the brittlestars *Amphiura filiformis* and *Amphiura chiajei*, the bivalve *Abra nitida*, and polychaetes including *Notomastus latericeus*, *Lumbrineris gracilis*, *Spiophanes kroyeri*, *Diplocirrus glaucus* and *Galthowenia oculata*.

*Figure 18 Particle size analysis of the **SS.SMu.CSaMu.AfilMysAnit** sediment samples, showing the percentage of each sediment category*



3.2.2 Kelp and seaweed communities on sublittoral sediment

The following component biotopes of the kelp and seaweed communities on sublittoral sediment MPA search feature (**SS.SMp.KSwSS**) were recorded in 2010:

- *Laminaria saccharina* and red seaweeds on infralittoral sediments
  SS.SMp.KSwSS.LsacR
- *Laminaria saccharina* and robust red algae on infralittoral gravel and pebbles
  SS.SMp.KSwSS.LsacR.Gv

Distribution

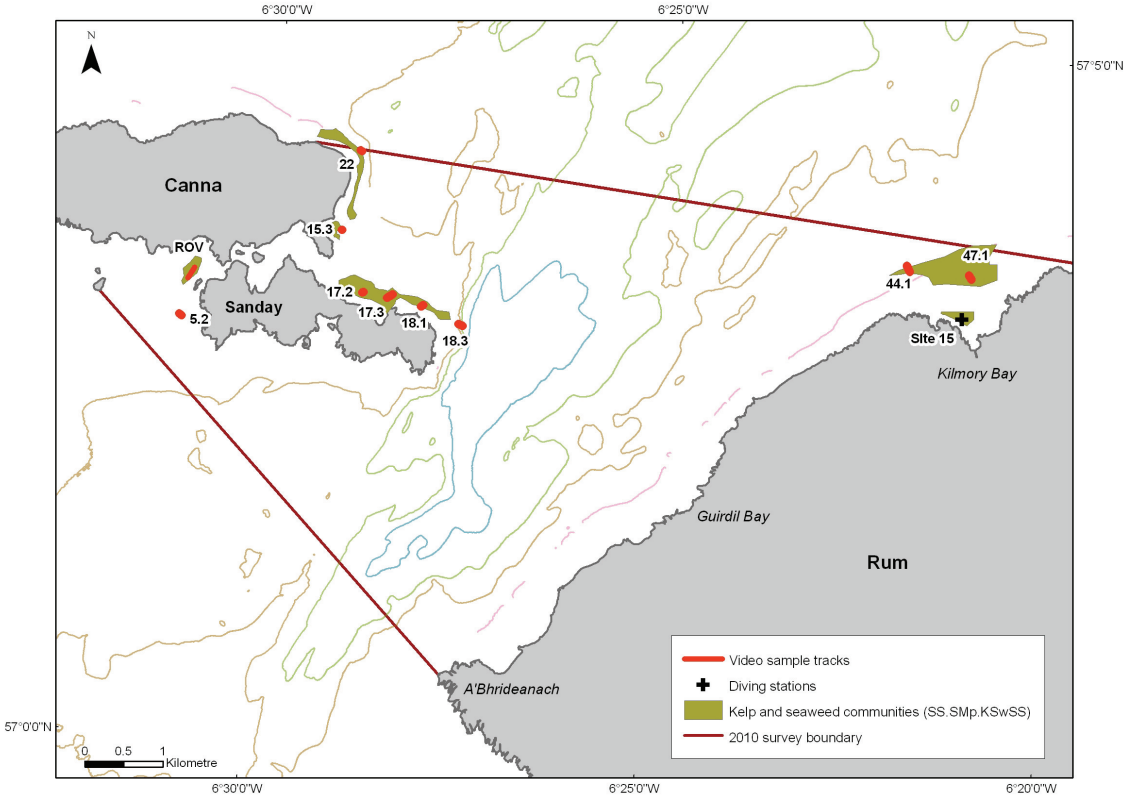
- **Depth range:** 4 - 23 m
- **Total area:** 84 ha

Description

Kelp and seaweed communities on sublittoral sediment were recorded from the shallow shelf of sand, muddy sand and gravel along the east side of Canna and the north of Sanday, and also from the sediment channel behind the skerry of Sgeir a'Phuirt (Figure 19). The seabed in Kilmory Bay on Rum supported similar algal communities on muddy sand as did patches of sand in the embayment to the west of Sanday, although this area had a greater proportion of boulder and bedrock. Several biotopes were recorded from or adjacent to the infralittoral sediment with the most widely distributed being characterised by sugar kelp *Laminaria saccharina* (*Saccharina latissima*) plants and scattered red algae (**SS.SMp.KSwSS.LsacR**). At dive Site 7 this community was encountered on coarser gravelly substrates (**SS.SMp.KSwSS.LsacR.Gv**).

Some *L. saccharina* forest (**IR.LIR.K.Lsac.Ft**) to the south-west of Sgeir a'Phuirt is included in the mapping polygon in this location where this biotope formed a narrow band that bordered the sand. The map also includes interspersed examples of the mixed kelp biotope **IR.HIR.KSed.XKScrR**. Neither kelp biotope is a component of the MPA search feature.

*Figure 19 Predicted distribution of kelp and seaweed communities on sublittoral sediment biotopes (**SS.SMp.KSwSS**) within the Sound of Canna*



The **SS.SMp.KSwSS.LsacR** biotope consisted of well-worked sand or muddy sand, sometimes with gravel mixed in, with scattered *L. saccharina* plants often accompanied by lugworm *Arenicola marina* mounds, pagurids and the burrowing anemone *Cerianthus lloydii*. Characteristic algae included *Gracilaria gracilis*, *Desmarestia aculeata*, *Ceramium* spp., *Rhodophyllis divaricata*, *Acrosorium venulosum* and *Ulva* spp.. The non-native algae *Heterosiphonia japonica* was also found. The goby *Pomatoschistus* sp., dragonet *Callionymus* sp. and crabs *Cancer pagurus* and *Liocarcinus depurator* were all frequent. The starfish *Astropecten irregularis* and *Luidia ciliaris* were seen at a number of sites.

3.2.3 Maerl beds

The following component biotope of the maerl beds MPA search feature was recorded in 2010:

- *Phymatolithon calcareum* maerl beds in infralittoral clean gravel or coarse sand
  SS.SMp.Mrl.Pcal

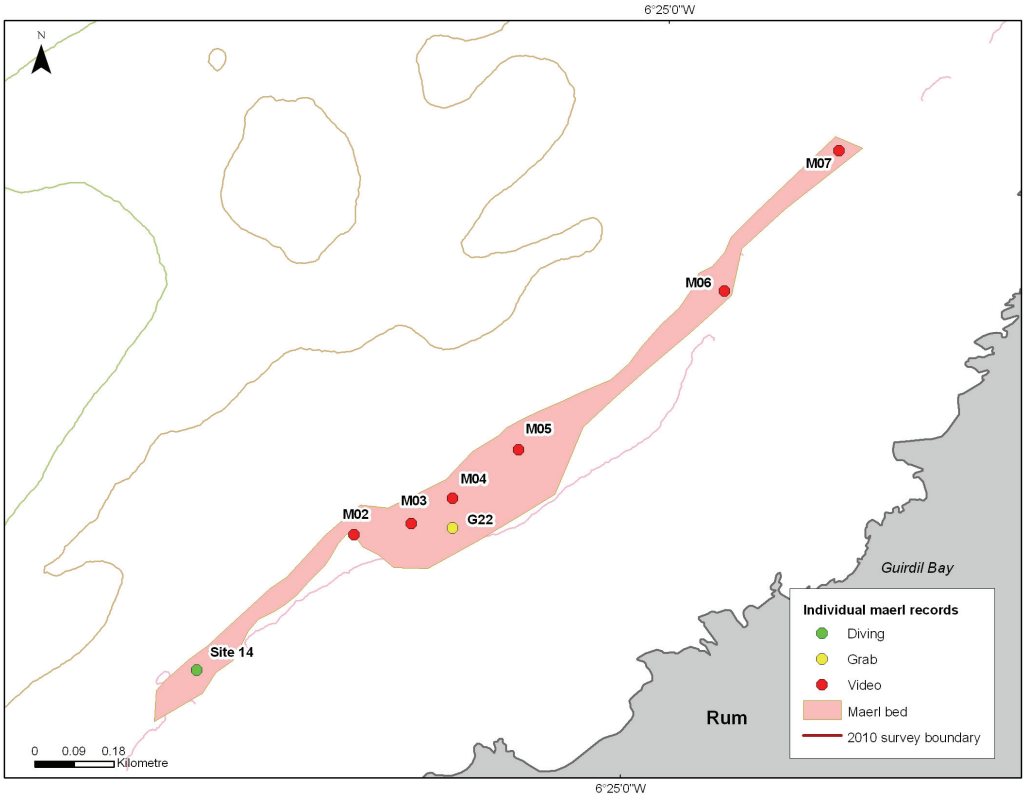
Distribution

- **Depth range:** 14 - 28 m
- **Total area:** 16 ha

Description

Maerl, *Phymatolithon calcareum,* was found on a gravel shelf below the kelp forest at Guirdil (Figure 20). It was mixed with large quantities of gravel, pebble and cobble and was not easy to spot on the video. The particle size analysis of the grab sample from this habitat (G22), at 20 m in the small bay at Guirdil, contained a considerable quantity of live maerl (Plate 6) as a component of the sand dominated mixed sediment (Figure 21). Fragments of live maerl were found in a second grab at 28 m (G23).

*Figure 20 Estimated area of maerl bed (**SS.SMp.Mrl.Pcal**) off the coast of Rum at Guirdil, with individual records of maerl*



A dive at 22 m to the south-east of Guirdil (Site 14) found scattered maerl medallions amongst the gravel (Plate 7). The mearl bed is located on a glacial shelf feature which extends along the Rum shore and there may well be more maerl in places although none was found in 2010. There was a slight tidal stream along this coast. The bed of mixed substrates had waves of gravel and maerl evident in places. The substratum was heavily excavated by crabs and *Cancer pagurus, Munida rugosa* and *Necora puber* were frequent. It was noted that there were an unusually large number of small squat lobsters *Galathea intermedia*; these were visible on the video and were found to be abundant in the grab sample.

The hydroids *Nemertesia antennina* and *N. ramosa* were conspicuous on the video footage and the dive records showed that several other hydroid species, including *Halopteris catharina* and *Antennella secundaria*, were present in small quantities. The anemone *Epizoanthus couchii* was found and the worms *Lanice conchilega* and *Sabella pavonina* were present in the sediment. *Pecten maximus* was occasional and there were barnacles *Balanus crenatus* and the tube worm *Pomatoceros* sp. encrusting stones. Scattered foliose red algae included *Delesseria sanguinea*, *Kallymenia reniformis*, *Acrosorium uncinatum*,

Rhodophyllis werneri and *Scinaia interrupta* with encrusting calcareous and dark red algae on the pebbles.

Plate 6 *Live maerl medallions (pink), interspersed with maerl gravel and red algae in the grab sample taken at Guirdil (G22), Sound of Canna*

Eighty-six taxa were recorded from the grab sample and a diversity index (H') of 3.49 was calculated (Table A2.4, Appendix 2). The squat lobster *Galathea intermedia* was the dominant species, with 87 individuals recorded. The chiton *Leptochiton asellus* was common (22 individuals); two other chiton species were also found (*Leptochiton cancellatus* and *Callochiton septemvalvis*).

Figure 21 *Results of the particle size analysis of the maerl sediment sample taken at grab station G22, showing the percentage of each sediment category*

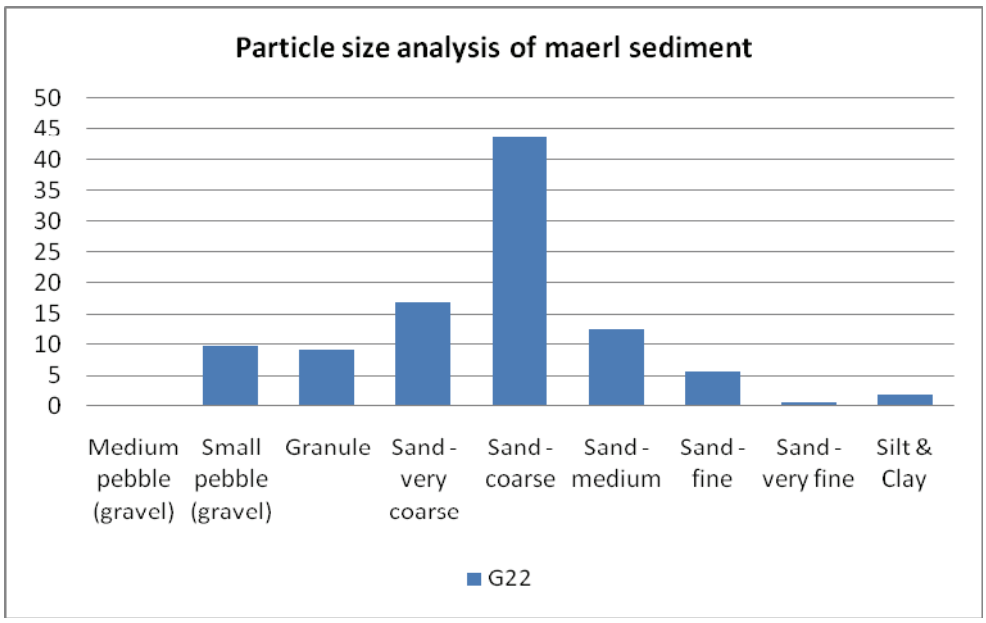
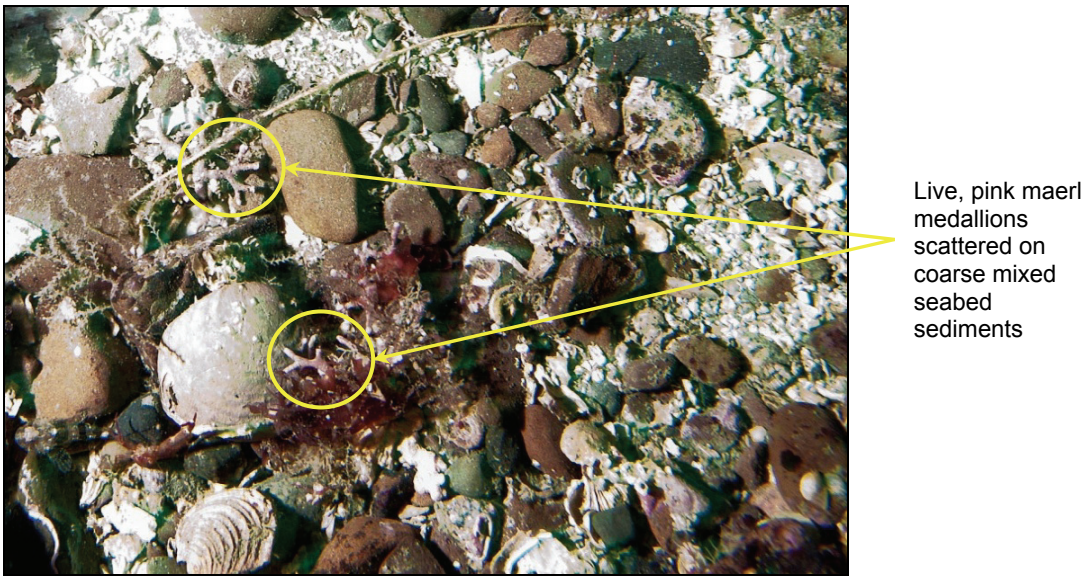


Plate 7 *Scattered maerl medallions amongst pebbles and cobbles at the southern edge of the Guirdil maerl bed, Sound of Canna*



Other frequent species included the amphipods *Iphimedia nexa*, *Ceradocus semiserratus*, *Maera othonis, Phtisica marina* and an unidentified gammarid, the brittlestar *Amphipholis squamata* and the prawn *Eualus pusiolus*. The most numerous polychaetes found were *Sphaerosyllis bulbosa*, *Aonides paucibranchiata*, *Polycirrus medusa*, *Trypanosyllis coeliaca*, *Hydroides norvegica* and an unidentified polynoid.

3.2.4 Northern sea fan and deep sponge communities

The following component biotopes and species of the northern sea fan and deep sponge communities MPA search feature were recorded in 2010:

- *Caryophyllia smithii* and *Swiftia pallida* on circalittoral rock
  CR.MCR.EcCr.CarSwi
- Mixed turf of hydroids and large ascidians with *Swiftia pallida* and *Caryophyllia smithii* on weakly tide-swept circalittoral rock
  CR.HCR.XFa.SwiLgAs
- Northern sea fan
  Swiftia pallida

Distribution

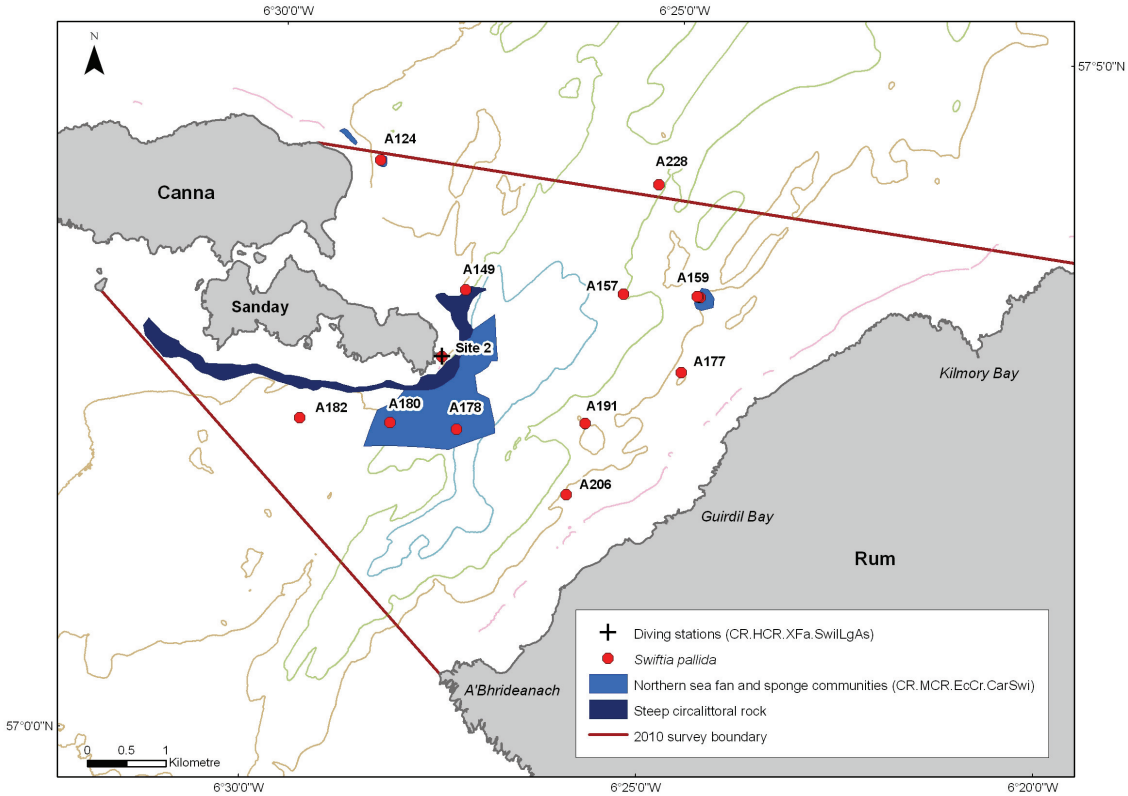
- **Depth range: CarSwi** 46 - 220 m; **SwiLgAs** 24 - 34 m (limit of single dive record)
- **Total area:** 141 ha

Description

The northern sea fan *Swiftia pallida* (Plate 8) was found on boulders and patches of bedrock on muddy sediment in deep water (**CR.MCR.EcCr.CarSwi**), and on steep and vertical rock (**CR.HCR.XFa.SwiLgAs**). The main area of boulders with *Swiftia* (**CR.MCR.EcCr.CarSwi**) was off the eastern end of Sanday, with smaller boulder piles scattered throughout the area (Figure 22). Sublittoral cliffs around the east and south of Sanday and off An t-Each on the north-east of Canna were only partially surveyed. *S. pallida* was present at three locations around Sanday and is likely to be more widely distributed on these cliffs. It was reported from An t-Each by local divers although none was found during the survey.

Plate 8 *A northern sea fan Swiftia pallida with a silty hydroid turf on vertical bedrock of the Great Wall of Canna*

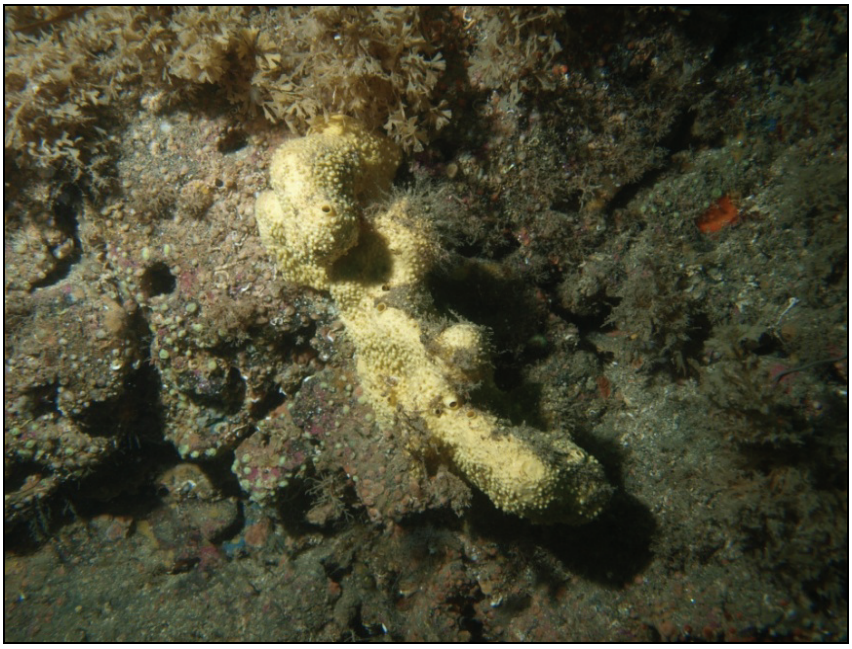
Figure 22 *Predicted distribution of northern sea fan biotopes in the Sound of Canna with individual records of Swiftia pallida*



Silty bedrock and boulders on the floor of the sound supported occasional *S. pallida* colonies. Other species that could be identified included the cup coral *Caryophyllia smithii*, often present in large numbers, dead men's fingers *Alcyonium digitatum*, the anemones *Parazoanthus anguicomus*, *Urticina felina* and *Metridium senile*, axinellid sponges including

Axinella infundibuliformis and possibly *Phakellia ventilabrum*, and the boring sponge *Cliona celata*. There were bryozoan crusts on rock surfaces, probably *Parasmittina trispinosa* and echinoderms were frequent including *Echinus esculentus*, *Luidia ciliaris*, *Henricia* sp. and occasionally *Leptometra celtica*. At a few sites where there was a significant tidal stream the jewel anemone *Corynactis viridis* covered the boulders. White clumps, thought to be colonies of the worm *Salmacina dysteri*, were frequently seen.

Plate 9 Sponges, jewel anemones and bryozoans in the Swiftia pallida ***CR.HCR.XFa.SwiLgAs*** *biotope on the Great Wall of Canna*



The cliffs were surveyed in a few places by divers (see Figure 10) and *Swiftia pallida* was found below about 30 m depth (the **CR.HCR.XFa.SwiLgAs** biotope was recorded at dive Site 2). The bedrock wall on the east of Sanday (Great Wall of Canna) had many small ledges, overhangs, fissures and crevices. Much of the rock surface was covered with *Corynactis viridis* (Plate 9) and a bryozoan turf, with *Securiflustra securifrons* common. There were frequent large colonies of *Cliona celata* and the hydroid *Nemertesia antennina* was common. Overhangs had scyphistomae, small hydroids and the anemones *Epizoanthus couchii* and *Parazoanthus anguicomus* (a PMF). *Sagartia elegans* was frequent on the open rock. The European spiny lobster *Palinurus elephas*, the lobster *Homarus gammarus* and the edible crab *Cancer pagurus* were all present. There were several axinellid sponge species from about 25 m downwards.

Shallower rock on the cliffs above the *Swiftia pallida* biotope was dominated by *Corynactis viridis* with foliose red algae (**CR.HCR.XFa.CvirCri**) whilst in the areas of cliff exposed to stronger tides, *S. pallida* was absent and the hydroid *Tubularia indivisa* was common with *C. viridis*, sponges, bryozoan turf including *Securiflustra securifrons* and the white cluster anemone *Parazoanthus anguicomus* (**CR.HCR.XFa.SpAnVt**). It is probable that *S. pallida* is present in deeper water beyond diving depths along these more exposed stretches of cliff, possibly in lower abundance with increasing numbers of sponges (**CR.HCR.DpSp**).

3.2.5 Seagrass beds

The following component biotope of the seagrass beds MPA search feature was recorded in 2010:

- *Zostera marina/angustifolia* beds on lower shore or infralittoral clean or muddy sand
  SS.SMp.SSgr.Zmar

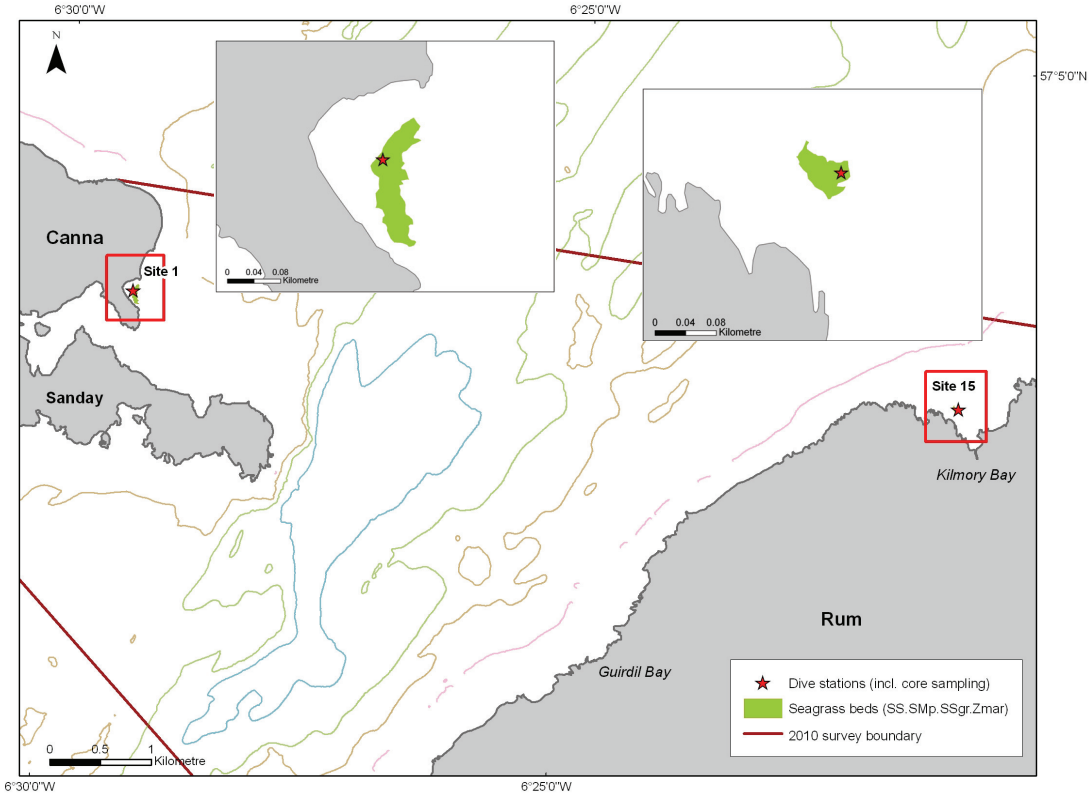
Distribution

- **Depth range:** Bay at An Coroghan, Canna 0 - 2 m; Kilmory Bay, Rum 4 - 6.5 m
- **Total area:** Bay at An Coroghan, Canna 0.68 ha; Kilmory Bay, Rum 0.25 ha

Description

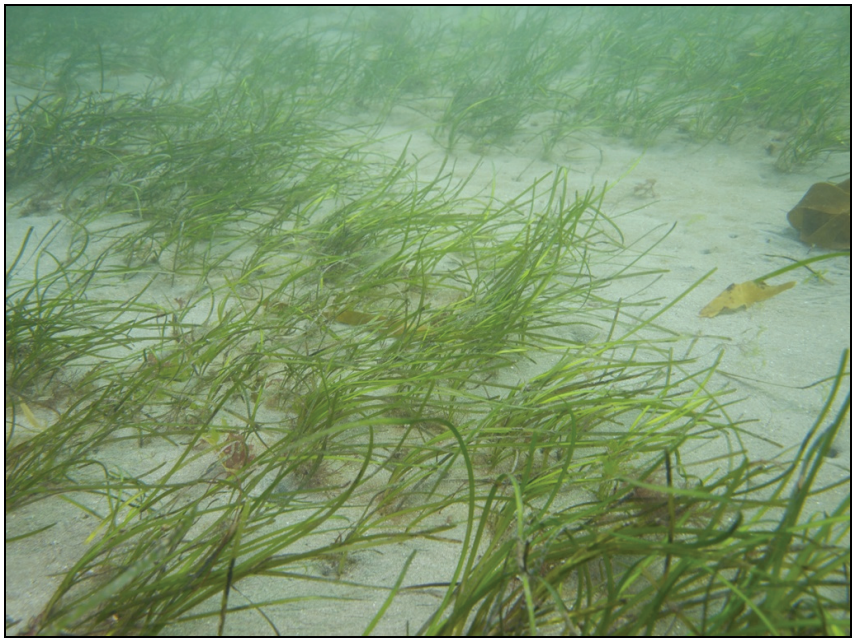
Two small beds of the seagrass *Zostera marina* were found in the sound (Figure 23). The larger and shallower bed was in the bay at An Coroghan on Canna with a second smaller bed in Kilmory Bay on Rum (Plate 10). In both cases the substratum was fine sand (Figure 24) and clumps of plants were generally rare to frequent. On Canna the highest density of plants was found on the northern edge of the bay.

Figure 23 The two seagrass beds situated on opposite sides of the Sound of Canna with close-up inset maps of the bay at An Coroghan on Canna and Kilmory Bay on Rum



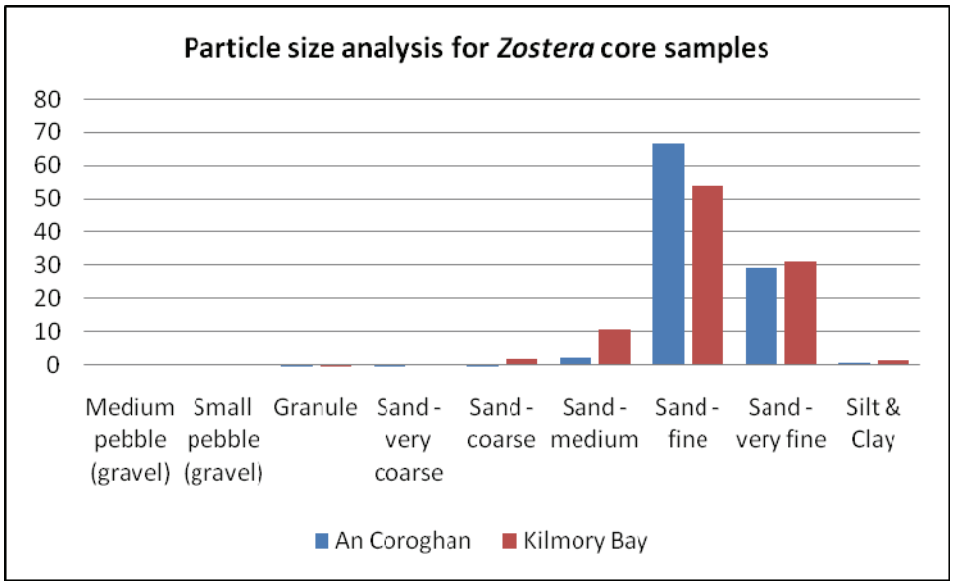
The seagrass plants supported a number of epibiotic species including coralline crusts, the algae *Ceramium secundatum* and *Nitophyllum punctatum*, amphipods, the gastropod *Lacuna vincta*, the anemone *Anemonia viridis* and stalked jellyfish *Lucernariopsis campanulata*. The sand had occasional *Cerianthus lloydii* and *Pagurus bernhardus* with scattered clumps of filamentous brown algae and *Ceramium* sp. The green algae *Ulva* spp. and *Enteromorpha* spp. were frequent. In Kilmory Bay there were many *Arenicola marina* burrows and the fanworm *Sabella pavonina* was noted.

Plate 10 Zostera marina seagrass bed in the shallow sublittoral in Kilmory Bay, Rum



The infaunal communities at the two sites had a relatively low diversity with mean Shannon-Wiener indices (H') of 2.07 for An Coroghan and 1.38 for Kilmory Bay (Table A2.4, Appendix 2). This compares with a value of 2.63 for a larger and more sheltered bed at Old House Point in Loch Ryan, south-west Scotland. The other infaunal communities in the Sound of Canna had considerably higher diversity. The number of infaunal species recorded from the An Coroghan samples ranged from 11 to 18, with the polychaete *Magelona filiformis* and the amphipod *Corophium crassicorne* dominant. The comparable figures for Kilmory Bay were 3 to 8 with low numbers of individuals and no clear dominant species. Whilst the communities had characteristics of the biotopes **SS.SSa.IMuSa.FfabMag** (An Coroghan) and **SS.SSa.IFiSa.NcirBat** (Kilmory Bay), they could also be considered to be part of the **SS.SSa.IMuSa.EcorEns** biotope; this can be regarded as a biotope complex encompassing both **FfabMag** and **NcirBat**.

Figure 24 Results of particle size analysis of seagrass bed sediment samples, showing the percentage of each sediment category



This is consistent with infaunal communities generally associated with a typical *Zostera marina* biotope. Therefore although there were significant differences between the two sites, the communities can be considered to be related and to represent different elements of a seagrass biotope complex.

3.2.6 Northern feather star aggregations on mixed substrata

This MPA search feature has been assigned to the following provisional biotope for the purposes of this report:

- Aggregations of the northern feather star *Leptometra celtica* on mixed muddy sediments
  SS.SMu.CSaMu.LceIt

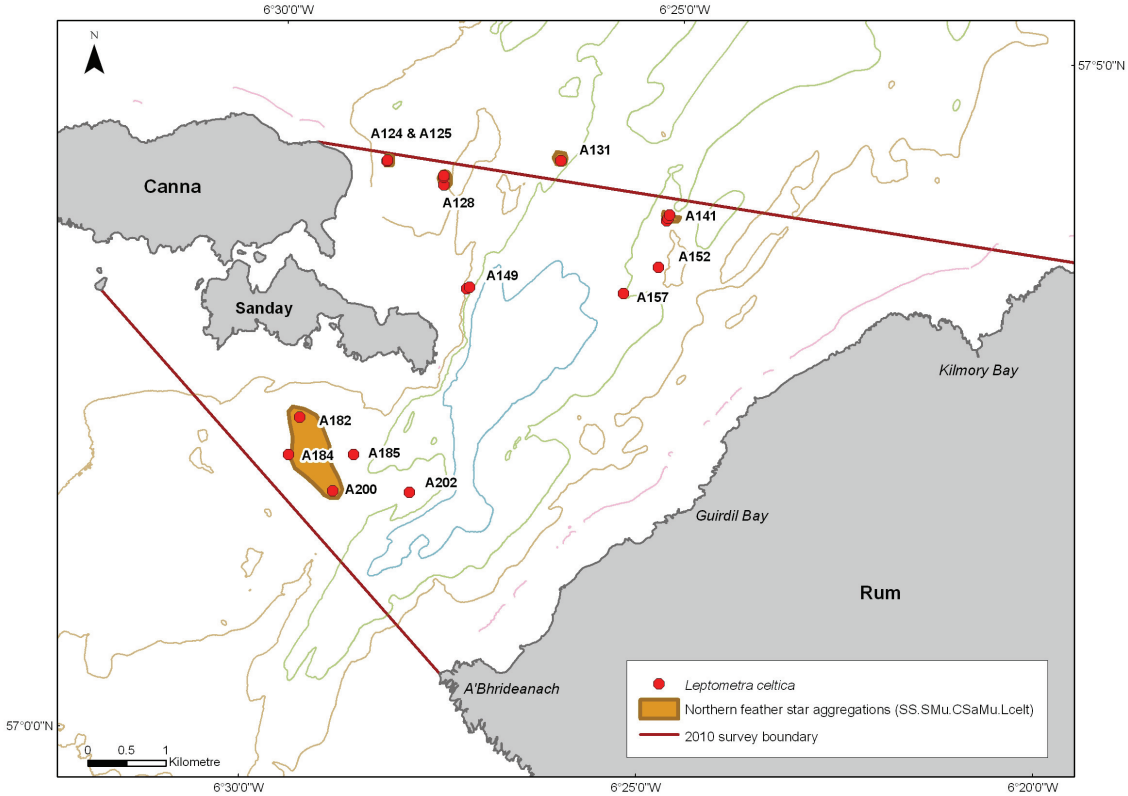
Distribution

- **Depth range:** 83 - 125 m
- **Total area:** 54 ha

Description

Aggregations of the northern feather star *Leptometra celtica* were found at five locations on the floor of the sound, with small numbers of individuals present at a number of additional sampling stations (Figure 25, Plate 11).

Figure 25 Predicted distribution of northern feather star aggregations on mixed substrata within the Sound of Canna with individual records of Leptometra celtica



The largest area was situated to the south of Sanday. The substratum appeared to be a mixture of occasional boulders or small bedrock outcrops with some cobbles and shell on burrowed mud or muddy fine sand. There were generally more species present on the sediment surface than in the adjacent areas classified as burrowed mud (**SS.SMu.CFiMu.MegMax**). Species present included the rugose squat lobster *Munida rugosa* and edible crab *Cancer pagurus* with the burrowing anemones *Cerianthus lloydii* and *Sagartiogeton laceratus* common. *Pagurus prideaux* with *Adamsia carciniopados* were frequent and *Pecten maximus, Neptunea antiqua, Echinus esculentus* and *Luidia ciliaris* were seen. The more unusual northern species of *Luidia* starfish, *L. sarsi* was seen at two stations. Where there were boulders *Caryophyllia smithii* was invariably seen, *Swiftia pallida* was sometimes present and there were axinellid sponges, particularly *Axinella infundibuliformis.* Other species recorded included the bryozoan *Porella compressa*, hydroids *Nemertesia antennina* and the white cluster anemone *Parazoanthus anguicomus*. Species characteristic of the burrowed mud were also found such as the seapens *Funiculina quadrangularis* and *Pennatula phosphorea*.

Plate 11 Screen grabs from drop-down video footage of Leptometra celtica aggregations on mixed substrata in the Sound of Canna

3.2.7 Fan mussel aggregations

This MPA search feature has been assigned to the following provisional biotope for the purposes of this report:

- Aggregations of the fan mussel *Atrina fragilis* in poorly sorted mixed muddy sediments
  SS.SBR.SMus.Afrag

Distribution

- **Depth range:** 102 - 275 m
- **Total area:** 170 ha

Description

Fan mussels *Atrina fragilis* were recorded in the centre of the sound to the north-east of Sanday (Figure 26). They were in deep water, with no mussels found shallower than 100 m. The sediment was mostly very mixed muddy sand with cobbles, gravel, large amounts of shell debris and occasional boulders. One station (A79) with dense *A. fragilis*, had rippled sand with burrows. At some stations the shell debris consisted largely of *Modiolus* shells suggesting that there may be or had been a horse mussel bed in the vicinity. The density of

the fan mussels ranged from an estimated 2 to 4 per m^2 in the densest patches, where mussels sometimes occurred in clumps, to widely scattered individuals (Plate 12, Figure 27).

Figure 26 The predicted distribution of the fan mussel aggregation in the Sound of Canna showing individual records of Atrina fragilis

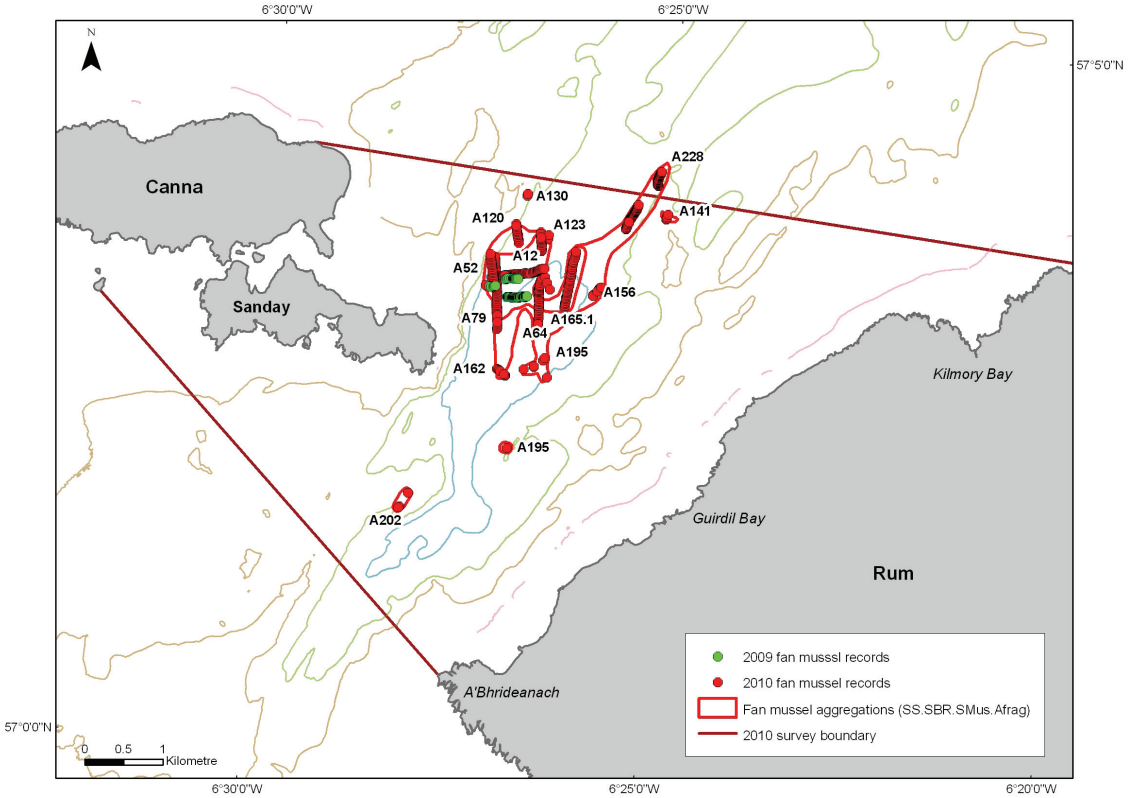
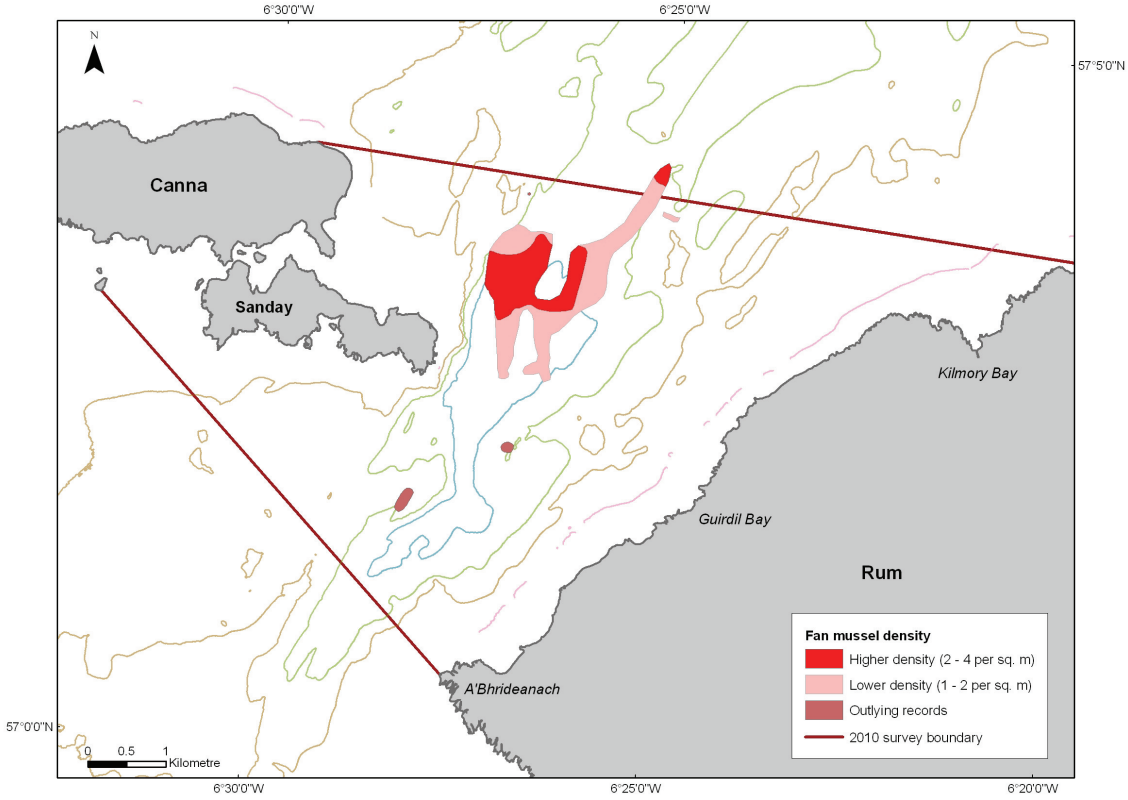


Plate 12 Screen grabs from drop-down video footage showing fan mussels on mixed muddy substrates in the Sound of Canna. Second image courtesy of Marine Scotland Science

Live, fan mussels protruding slightly from the seabed, clearly distinguishable by the pale creamy / green coloured edge of the mantle visible between the slightly gaping shells. The fan mussels are adorned with dead man's fingers, hydroids and brittlestars.

A characteristic feature of the *Atrina* bed is that the mussels project from the sediment and provide attachment for other species. Many of the mussels supported tasselly sponges, dead men's fingers *Alcyonium digitatum* and hydroids. The fanworm *Sabella pavonina* and colonies of the calcareous tubeworm *Salmacina dysteri* were frequent and burrowing anemones *Cerianthus lloydii* and *Sagartiogeton laceratus* were common. There were several species of crustacean seen, with the squat lobster *Munida rugosa* particularly numerous. Other species included *Cancer pagurus*, *Inachus* sp., *Macropodia* sp., *Hyas araneus* and *Monodaeus couchi*. Echinoderms on the mussels and sediment surface included *Ophiocomina nigra*, *Ophiura ophiura*, *Luidia ciliaris*, *Porania pulvillus* and *Solaster endeca*. Whelks *Neptunea antiqua* and *Buccinum undatum* and queen scallops *Aequipecten opercularis* were observed at many stations.

Figure 27 The predicted extent of the fan mussel aggregation within the Sound of Canna illustrating areas of different Atrina fragilis density and outlying records

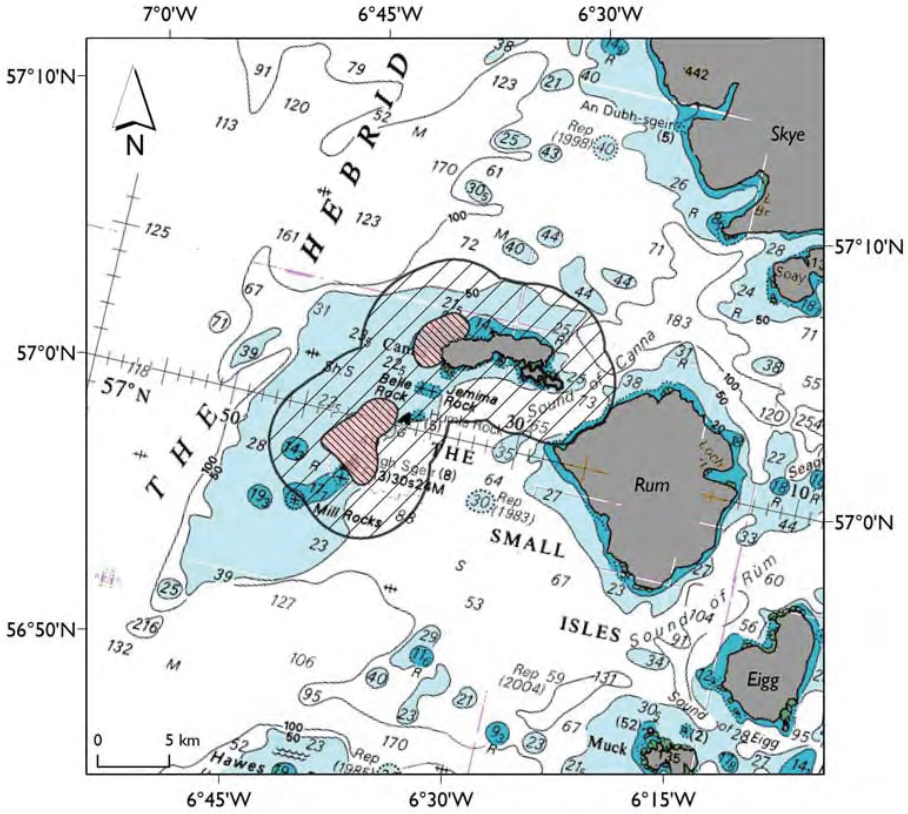


3.2.8 Basking shark

Basking sharks *Cetorhinus maximus*, are regular visitors to the Small Isles (Plate 13), with two areas around Canna and Hyskeir considered as 'hotspots' for the species (Speedie *et al.*, 2009, Figure 28). Several basking sharks were seen in the sound during the survey team's visits. Four sharks were seen feeding on the morning of the 7th August around the south and east of Sanday. Two small sharks, probably juveniles, were seen feeding in Canna Harbour during the middle of the day on the 1st September 2010.

Plate 13 A small basking shark in Canna Harbour, 1st September 2010

Figure 28 Basking shark hotspots around Canna and Hyskeir (red hatch fill) within a proposed buffer zone (black hatch), from Speedie et al. (2009)



3.2.9 European spiny lobster

A single European spiny lobster *Palinurus elephas* was observed on the cliffs on the eastern tip of Sanday during the diving survey. *P. elephas* was also reported by local divers to be

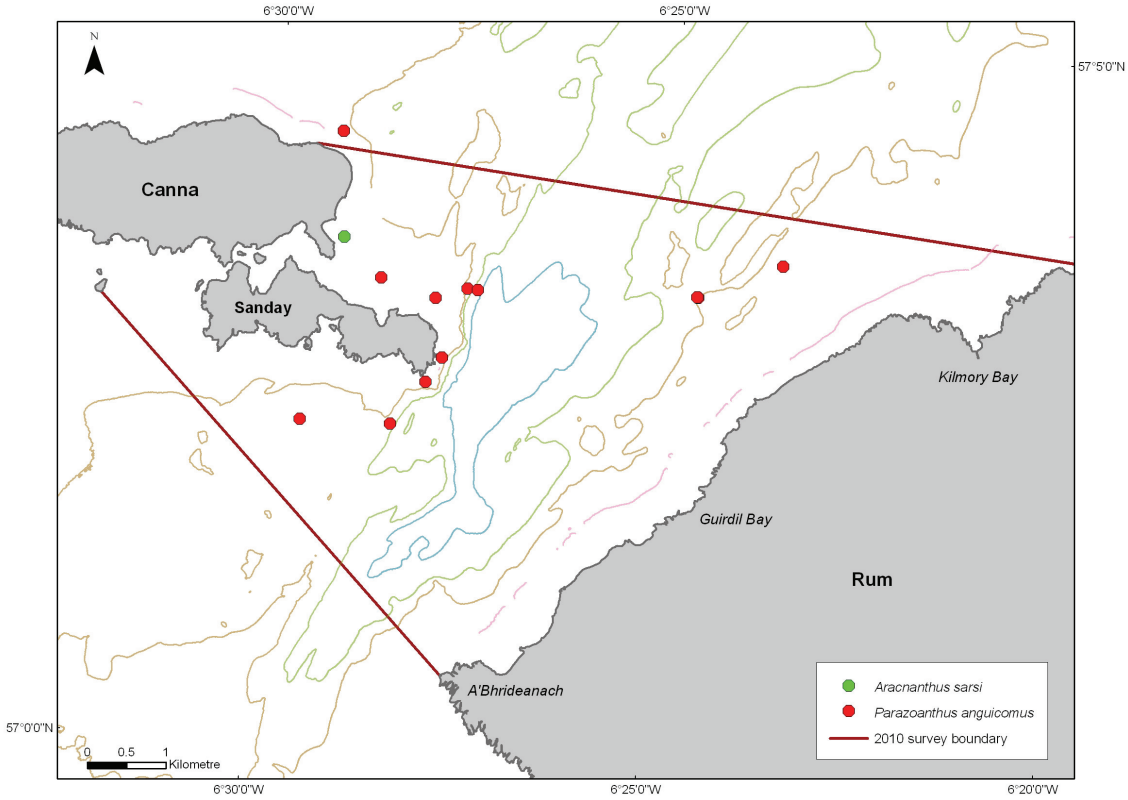
present on the reef to the north of Kilmory Bay but dives here did not reveal any suitable habitat. The species may well be present at other locations within the 2010 survey area.

3.2.10 Other PMFs in the Sound of Canna

A single *Arachnanthus sarsi,* a burrowing sea anemone, was seen on one of the video drops on muddy sand on the east coast of Canna (Figure 29). This is the area in which another individual *A. sarsi* was found during an SNH ROV survey in 1993. This PMF is considered to be an MPA search feature only when the species occurs in aggregations.

The white cluster anemone *Parazoanthus anguicomus*, was found on much of the circalittoral rock in the sound and was common on the cliff sites surveyed by the divers (Figure 29). It was frequently associated with the northern sea fan and sponge communities MPA search feature.

Figure 29 The distribution of other PMFs recorded during the 2010 Sound of Canna survey



3.3 Other seabed habitats and species of interest

3.3.1 Offshore subtidal sands and gravels

Offshore subtidal sands and gravels is a broad habitat identified as a MPA search feature and PMF in Scottish offshore waters (>12 nm from land). The following component biotope of this MPA search feature was found to be widespread within the Sound of Canna in 2010:

- *Owenia fusiformis* and *Amphiura filiformis* in offshore circalittoral sand or muddy sand **SS.SSa.OSa.OfusAfil**

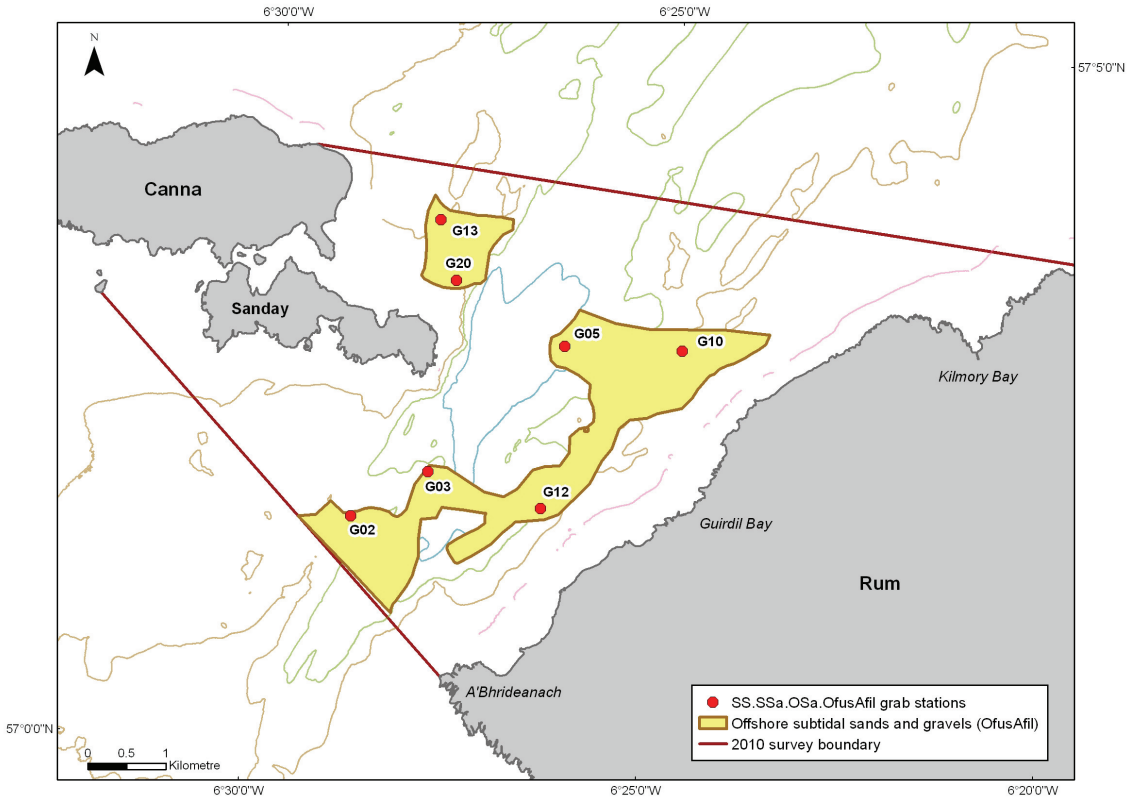
Distribution

- **Depth range:** 72 - 214 m
- **Total area:** 585 ha

Description

The biotope was recorded from seven of the grab stations sampled (Figure 30). These samples had a rich fauna with a total of 194 species recorded, 63 of these occurring in three or more of the samples. The samples had a mean diversity index (H') of 3.5 (Table A2.4, Appendix 2). The sediments were very mixed but were predominantly sand with 10 - 30 % mud (Figure 17, Section 3.2.1).

*Figure 30 The predicted distribution of the Owenia fusiformis and Amphiura filiformis in offshore circalittoral sand or muddy sand biotope (**SS.SSa.OSa.OfusAfil**) in the Sound of Canna with grab sampling locations assigned to this biotope*



There is little information available for this biotope in the JNCC marine habitat classification (Connor *et al.,* 2004) but it is described as follows -

> "Areas of slightly muddy sand (generally <20% mud) in offshore waters may be characterised by high numbers of the tube building polychaete *Owenia fusiformis* often with the brittlestar *Amphiura filiformis*. Whilst *O. fusiformis* is also found in other circalittoral or offshore biotopes it usually occurs in lower abundances than in **SS.SSa.OfusAfil**. Other species found in this community are the polychaetes *Goniada maculata*, *Pholoe inornata*, *Diplocirrus glaucus*, *Chaetozone setosa* and *Spiophanes kroyeri* with occasional bivalves such as *Timoclea ovata* and *Thyasira equalis*. The sea cucumber *Labidoplax buski* and the cumacean *Eudorella truncatula* are also commonly often found in this biotope."

The Sound of Canna samples matched this description well. They were dominated by the brittlestar *Amphiura filiformis* with several polychaetes common (*Chaetozone* species D, *Spiophanes kroyeri*, *Polycirrus norvegicus*, *Owenia fusiformis, Pholoe inornata*, *Notomastus latericeus, Cirrophorus branchiatus*, *Lumbrineris gracilis* and *Galthowenia oculata*). The anemone *Edwardsia claparedii* and an unidentified nemertean were also present in all the samples. A number of bivalves were present with *Timoclea ovata* and *Thyasira flexuosa* found in the majority of the samples. The sea cucumber *Labidoplax buski* was also present.

3.3.2 Other species of interest

The distribution of the species of interest outlined in this section, within the Sound of Canna in 2010, is given in Figure 31 (overleaf).

- **Flame shells *Limaria hians***

  Several flame shells *Limaria hians* were found in two of the grab samples from the gravel shelf that runs along the eastern side of the sound (G23 and G24). This is a highly cryptic species which builds nests beneath the surface of gravel and is the basis of the flame shell beds (**SS.SMx.IMx.Lim**) MPA search feature and PMF. The biotope, which occurs in mixed muddy gravels and is often associated with maerl beds, is extremely difficult to identify from remote video. The presence of several live shells in two grabs approximately 2 km apart suggests that there could possibly be a bed of *L. hians* along the west coast of Rum. However, further survey work would be needed to confirm the existence of more than just scattered individuals of this species.

- **Couch's crab *Monodaeus couchii***

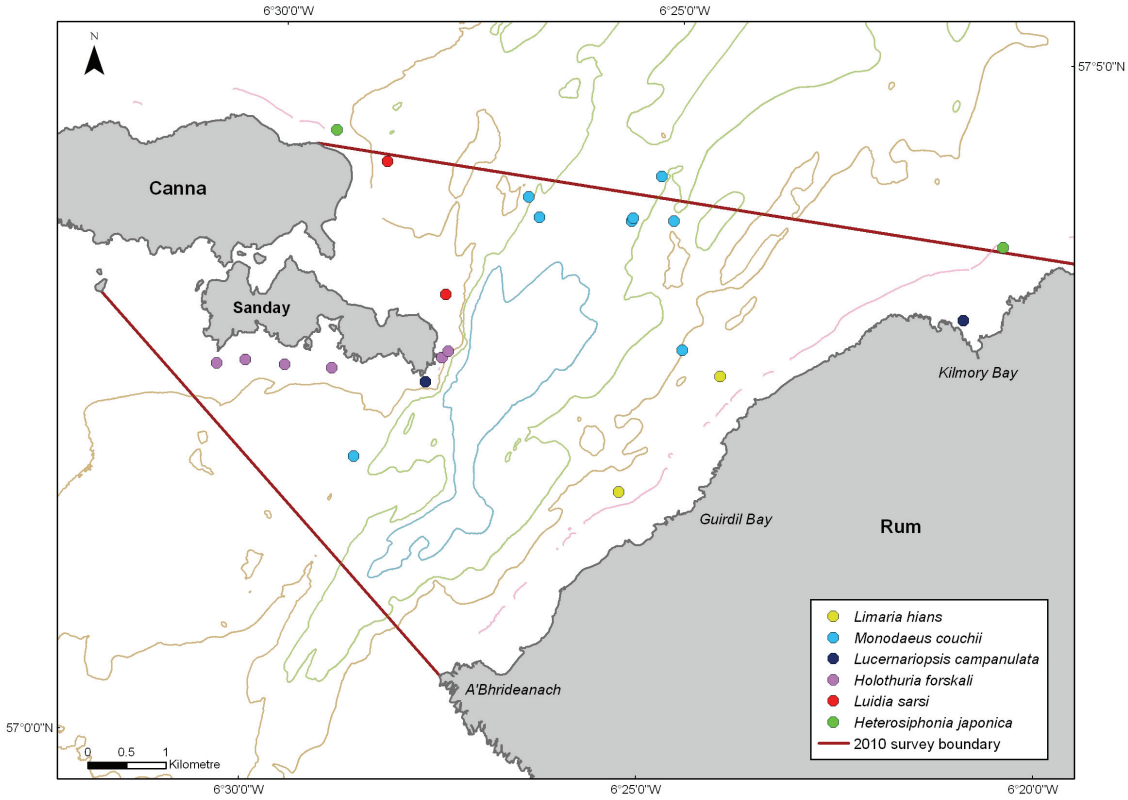
  This small xanthid (Plate 14) was found amongst shelly gravel and boulders at depths between 100 and 170 m, and appeared to be associated with the fan mussel beds. This species used to be found regularly in the Clyde but is now rarely seen (Prof. J. Atkinson, pers. comm.) and there are few recent British records. Its reported depth limit in inshore British waters is 183 m (Ingle, 1996).

Plate 14 Couch's crab Monodaeus couchii from the Sound of Canna

- **Stalked jellyfish *Lucernariopsis campanulata***

  This inconspicuous and infrequently recorded stalked jellyfish (JNCC, 2010) was observed during the diver sampling on seagrass and algal biotopes at two discrete locations (Sites 5 and 15; Figures 10 and 31).

Figure 31 Other species of interest recorded in the Sound of Canna in 2010



- **Cotton spinner sea cucumber *Holothuria forskali***

  This holothurian (Plate 15) which was frequent on rock along the south of Sanday is a south-western species that appears to be becoming increasingly common on the west coast of Scotland. Its distribution within the Sound of Canna delimits the south-western extent of exposed infralittoral and circalittoral bedrock within the 2010 survey area.

Plate 15 Cotton spinner sea cucumber Holothuria forskali in the Sound of Canna

- **Northern species of starfish *Luidia sarsi***

  This species of *Luidia* is less common than the seven-armed *Luidia ciliaris*. It has a more northerly distribution from Norway to the Mediterranean, but it is only occasionally encountered in nearshore waters.

- **Siphoned Japan weed *Heterosiphonia japonica***

  This is a non-native species of red alga, first recorded in the British Isles in 2001 in the Fal Estuary, Cornwall. Since then, it has spread around our coastline (Bunker *et al*., 2010). There is one previous record of the species in the Small Isles, from the north shore of Eigg in 2009 (C. Moore *pers. comm.*).

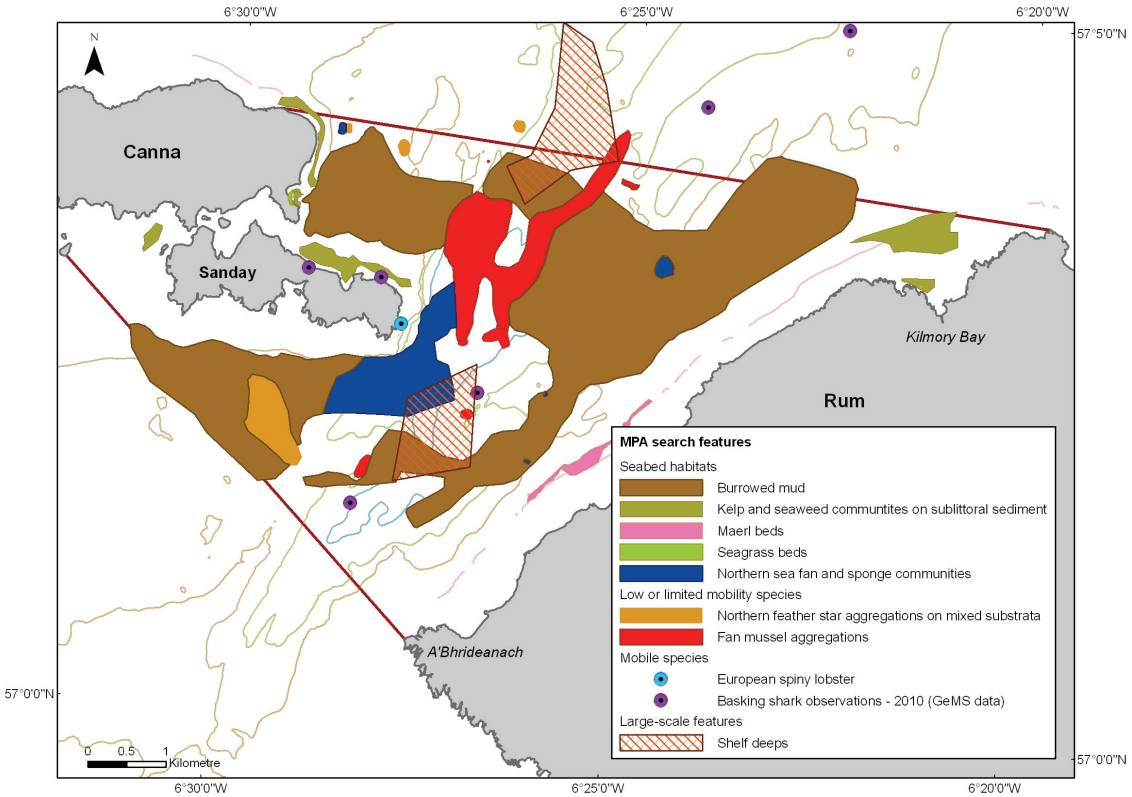
- **Wireweed *Sargassum muticum***

  Also of note, although outside the 2010 survey area, was an observation of *Sargassum muticum* growing next to the slipway in Loch Scresort on Rum. This brown, non-native species of algae, has been spreading up the west coasts of the British Isles and its presence has been confirmed at Tarskavaig in southern Skye, marginally further north than Loch Scresort. It may well occur further north than this although there are as yet no confirmed sightings.

3.4 Refined predictive seabed biotope mapping for the Sound of Canna

The distribution of MPA search features within the Sound of Canna is illustrated in Figure 32.

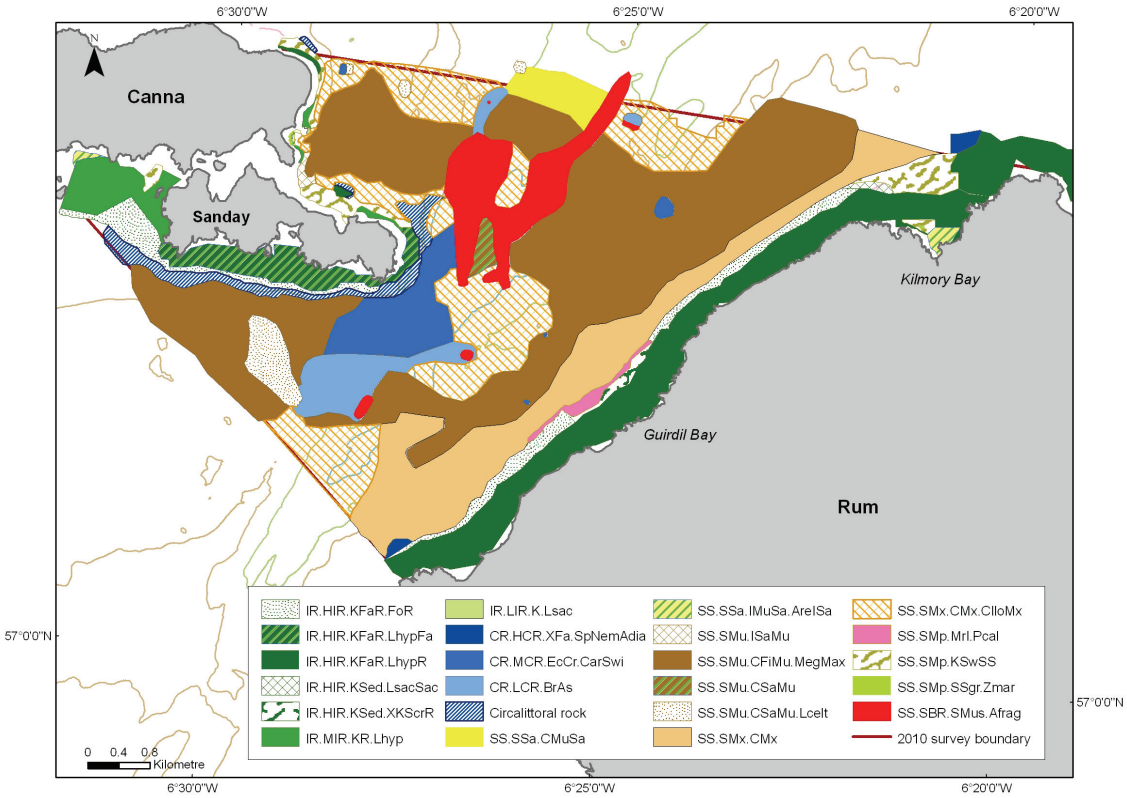
Figure 32 The predicted distribution of MPA search features within the Sound of Canna



It was not possible to correlate the infaunal biotopes (from grabs and diver cores) with those identified from the remote video sampling, so the MPA search features, which are based largely on epibenthic communities, have been used as the principal building blocks in the full

coverage predictive biotope distribution map for the Sound of Canna (Figure 33). Similar biotopes have been combined for mapping purposes in a number of cases. For example, on the cliffs around Sanday it proved difficult to map the vertical zonation and so all of the biotopes recorded here were mapped as circalittoral rock. These rock walls were not investigated in detail due to the problems encountered whilst surveying with the ROVs. Some Phase 2 data were collected by divers but this necessarily only covered a small area and was depth limited. A topographic feature of note on the map is the area of bedrock and boulders on sediment to the south-east of Sanday (**CR.MCR.EcCr.CarSwi** and **CR.LCR.BrAs**). This is thought to be a glacial moraine deposit.

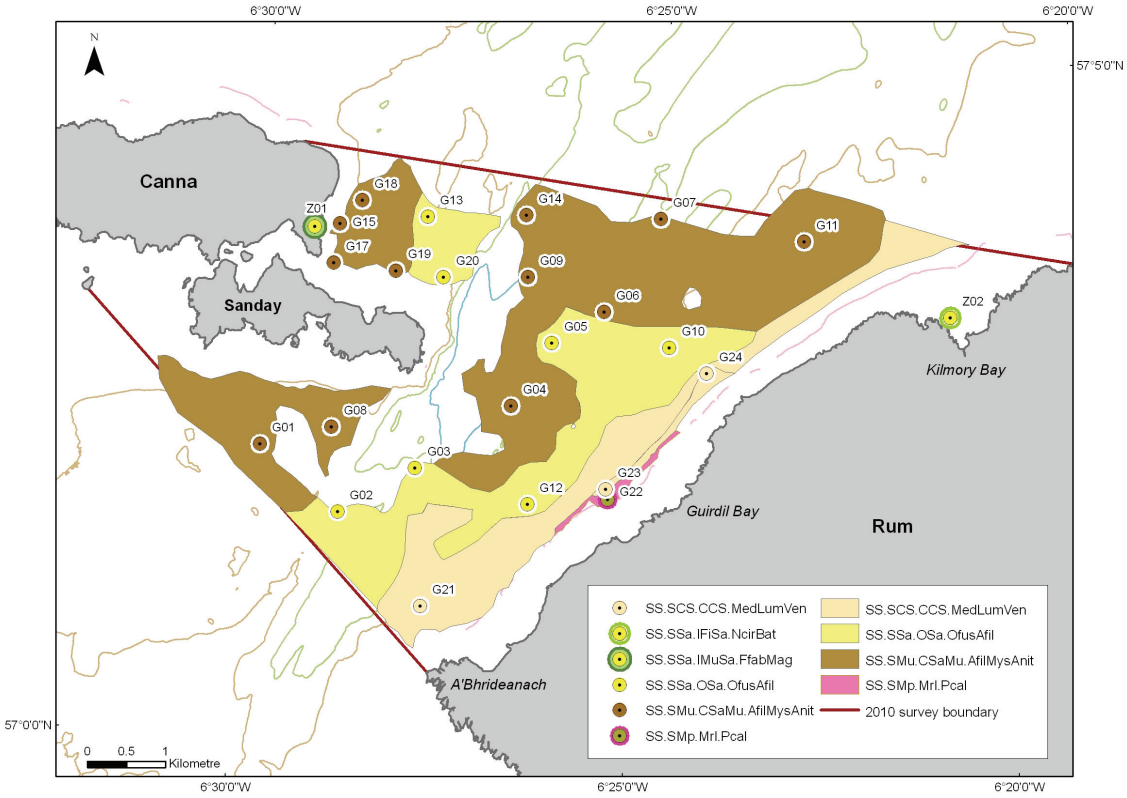
Figure 33 Full coverage predictive epibenthic biotope map for the Sound of Canna. Biotopes follow Connor et al., 2004



The 2010 survey data have refined the previous predictive seabed habitat map for the Sound of Canna produced by the HHOME project (Figure 5). The correlation between the 2010 biotope data and the predictive HHOME mapping was variable and undoubtedly adversely affected by the previously poor charting of the area. However, a number of basic predictions held true including the likely distribution of kelp biotopes along the coastal margins of the islands, the presence of burrowed mud and muddy sand biotopes in the deepest parts of the sound and, most interestingly, the predicted distribution of a circalittoral faunal community with horse mussels interspersed with the muddy substrates in much the same area as the fan mussel aggregation. The original HHOME map was used as a guide in the production of the new map, particularly at the edges of the 2010 survey area. It is likely that the accuracy of the predictive biotope distribution mapping could be further improved with the incorporation of the new and highly detailed MCA bathymetric data for this area.

Figure 34 presents a suggested distribution of the infaunal biotopes in a mapped format, providing supplementary information on the richness of the area. The polygons follow the epibenthic biotopes where possible but given the diversity of features within the sound, and the widely distributed nature of the grab samples, this mapping should be considered as illustrative only.

Figure 34 Predicted distribution of infaunal biotopes within the Sound of Canna



4 DISCUSSION

This section presents an initial assessment of the biodiversity interests of the Sound of Canna against Stages 1 and 2 of the *Scottish MPA Selection Guidelines* (Marine Scotland, 2011b). It is not appropriate to consider all of the guidelines within this report. Those requiring more detailed information on relevant activities and likely management issues have not been considered. The large-scale shelf deeps search feature has been excluded from this initial review pending analysis of recently acquired multibeam bathymetry data.

4.1 Identification of MPA search locations

The Stage 1 guidelines are intended to be applied to Broad Search Areas (e.g. sea lochs, groups of coastal islands or muddy sediment plains etc.) to identify search locations containing MPA search features. For an area to be identified as a search location and pass through to consideration at Stage 2, at least one of the Stage 1 guidelines must be met. The geographical scope of the 2010 project was determined on the basis of the presence and anticipated extent of the fan mussel aggregation recorded by MSS in 2009. For the purposes of this assessment the 2010 survey area was taken to represent a Broad Search Area.

4.1.1 Presence of key features (MPA Guideline 1a)

The Sound of Canna is a small but unusually diverse area which contains at least 10 MPA search features and two additional PMFs (Table 3). The MPA search features provide the basis for the biodiversity assessment under Guideline 1a (i.e. they are key features). The guideline recommends that consideration be given to features for which Scotland is a stronghold, those which are characteristic of Scotland's marine environment and any which are of exceptional scientific importance. This section concentrates on the first two of these.

The aggregation of fan mussels, *Atrina fragilis,* is of particular significance. The 2010 survey work revealed that this MPA search feature covered an area of at least 170 ha, with the northern extremity not found. The geomorphology of the Sound of Canna with glacial moraine and rock outcrops on the sides of an over-deepened channel (the shelf deeps search feature) is thought to have contributed to the protection of this species. Once widespread in Scotland it is now one of the most endangered molluscs in the British Isles (UK Biodiversity Group, 1999a). This is the largest known aggregation of fan mussels in UK waters. Video work showed that the fan mussels occurred as scattered individuals and as small clumps and that they supported a range of other species, considerably increasing the diversity of the biotope. The fan mussel aggregation showed similarities to a sparse horse mussel *Modiolus modiolus* bed (e.g. **SS.SBR.SMus.ModMx**).

The burrowed mud search feature covered much of the floor of the sound with patches of seapens at low density, including the tall seapen *Funiculina quadrangularis*. There were large areas of seaweeds on shallow sediment along the coastal margins of the sound, particularly along the Canna shore (**SS.SMp.KSwSS**).

A small bed of maerl *Phymatolithon calcareum* was recorded off the Rum coast at Guirdil. Northern sea fan communities were found on the cliffs around Sanday and on the deeper rock outcrops and morainic deposits. The sound supported excellent, biologically rich examples of this MPA search feature which is particularly characteristic of the west coast of Scotland.

Two small beds of the seagrass *Zostera marina* were present on opposite sides of the sound and aggregations of the northern feather star *Leptometra celtica* were found on deep sediment at both entrances to the channel.

Two highly mobile species search features were also recorded, with a single record of the European spiny lobster *Palinurus elephas* and basking sharks *Cetorhinus maximus* sighted on two occasions during the survey period.

The Sound of Canna contains some of the most characteristic features of the Scottish marine environment. The Canna and Sanday cliffs support biotopes and species typical of the moderately exposed habitats found amongst the islands including northern sea fan communities and the white cluster anemone *Parazoanthus anguicomus* (a PMF but not an MPA search feature) whilst the burrowed mud is typical of more sheltered conditions and deeper water. Perhaps the only search features on the list which might no longer be considered typical of the Scottish marine environment are aggregations of fan mussels and the European spiny lobster, populations of which are thought to have been severely depleted by overfishing (Jackson *et al.,* 2009). The remaining features encountered all have strongholds in Scotland. They divide into those which are largely confined to Scotland, including northern sea fan communities, northern feather star aggregations and the PMFs *P. anguicomus* and *Arachnanthus sarsi* and those which are more widely distributed but have a significant proportion of their records in Scotland such as maerl beds and kelps and seaweeds on sublittoral sediment. More detail on the distribution of these features can be found within the JNCC marine habitat classification (Connor *et al.,* 2004).

4.1.2 Features under threat or subject to rapid decline (MPA Guideline 1b)

MPA guideline 1b specifically refers to those habitats and species on the OSPAR threatened and / or declining list (OSPAR, 2008). The guideline also indicates that consideration should be given to other MPA search features that occur in and are considered to be threatened and / or declining in Scottish waters.

Decline or the threat of decline was one of the criteria used to help identify the Scottish PMFs (Howson *et al*., 2011). The MPA search features are primarily a subset of these and all those recorded within the Sound of Canna have therefore been subject to a national level assessment of the degree to which they have declined or the perceived level of threat to which they are exposed (see Table 4 and Howson *et al*., 2011 for more details).

4.1.3 Functional significance of search features (MPA Guideline 1c)

This guideline is applied to areas that whilst not necessarily containing key and / or threatened / declining features, do provide ecological resources or processes considered critical to the functioning of wider marine ecosystems (e.g. places for feeding, breeding, resting, nurseries, juveniles and / or spawning or sediment supply). This guideline is not applicable in the context of the seabed habitat focus of the 2010 survey work.

4.1.4 Assessment against Stage 1 guidelines

The assessment of the Sound of Canna 2010 survey area against the Stage 1 guidelines is summarised in Table 4. More than one guideline has been met (1a and 1b) and the area supports multiple MPA search feature interests so could be considered to represent an MPA search location (or part thereof). As highlighted in the Section 4.1, the survey area was originally identified for more detailed biological survey following the discovery of the fan mussel aggregation by MSS in 2009. What the Stage 1 guidelines do not do in isolation is to determine whether the search location or original Broad Search Area were of an appropriate or optimal geographical scale. This concept is explored in greater detail through a consideration of the qualities of the discrete habitats and species present; the application of the Stage 2 guidelines (see Section 4.2).

Table 4 Summary of the assessment of MPA search features found in the Sound of Canna in relation to Stage 1 of the Scottish MPA Selection Guidelines (Marine Scotland, 2011b). [T&D] denotes an MPA search feature listed on the OSPAR Threatened and / or Declining list (OSPAR Commission, 2008).
The shelf deeps MPA search feature is not included in this assessment

MPA search feature	Component biotopes / species	Presence of key features		Threatened and / or declining in Scottish waters?
		Scotland is a stronghold	Characteristic of Scottish marine env.	
Seabed habitats (with any component species)				
[T&D]Burrowed mud	Seapens and burrowing megafauna in circalittoral fine mud (**SS.SMu.CfiMu.SpnMeg[.Fun]**) Burrowing megafauna and *Maxmuelleria lankesteri* in circalittoral mud (**SS.SMu.CfiMu.MegMax**) Tall seapen (*Funiculina quadrangularis*)	Yes; majority of British records are in Scotland	Yes	Yes OSPAR T&D
Kelp & seaweed communities on sublittoral sediment	Kelp and seaweed communities on sublittoral sediment (**SS.SMp.KSwSS**)	Yes; particularly common in Scotland although recorded all round British Isles	Yes	Yes
[T&D]Maerl beds	*Phymatolithon calcareum* (**SS.SMp.Mrl.Pcal**)	Yes; found down entire west coasts of British Isles, but majority of beds are in Scotland. Scotland has about 30% of maerl beds in OSPAR area	Yes	Yes OSPAR T&D
Northern sea fan and sponge communities	*Caryophyllia smithii* and *Swiftia pallida* on circalittoral rock (**CR.MCR.EcCr.CarSwi**) Mixed turf of hydroids and large ascidians with *Swiftia pallida* and *Caryophyllia smithii* on weakly tide-swept circalittoral rock (**CR.HCR.XFa.SwiLgAs**) Northern sea fan (*Swiftia pallida*)	Yes; almost all UK records are in Scotland	Yes	Yes
[T&D]Seagrass beds	*Zostera marina/angustifolia* beds on lower shore or infralittoral clean or muddy sand (**SS.SMp.SSgr.Zmar**)	Yes; Scotland has about 20% of seagrass beds in OSPAR region	Yes	Yes OSPAR T&D historical declines in 1920s & 1930s
Low or limited mobility species				
Northern feather star aggregations on mixed substrata	*Leptometra celtica*	Yes; territorial waters records seem confined to Scotland	Yes	Yes
Fan mussel aggregations	*Atrina fragilis*	Yes; largest confirmed record in UK waters	Yes (historically)	Yes, severely declined
Highly mobile species				
European spiny lobster	*Palinurus elephas*	Not currently, although approximately 30% of British records are from Scotland. Heavily overfished and now rarely found inshore in Scottish waters. Could be expected to increase with protection and warming seas	Yes (historically)	Yes, severely declined
[T&D]Basking shark	*Cetorhinus maximus*	Yes	Yes	Yes OSPAR T&D

4.2 Qualities of the MPA search features

The Stage 2 guidelines are used to prioritise between search locations, according to the qualities of the MPA search features within them. When undertaken at a holistic national scale the comparisons will have a regional dimension for the biodiversity features with more weight being given to search locations meeting a greater number of the guidelines under Stage 2. Search locations considered to contain unique or rare features may still pass through this stage because of the potentially valuable contribution that they could make to the MPA network.

4.2.1 Search location contains combinations of features (MPA Guideline 2a)

Guideline 2a seeks to determine whether a search location contains combinations of features and whether the features present are functionally linked (including a consideration of linkages between biodiversity and geodiversity features).

Despite the small size of the survey area, the Sound of Canna is highly diverse with 10 confirmed MPA search features recorded at a range of scales. This biological diversity is a result of the geomorphological composition of the area with its complex volcanic and glacial history giving rise to a range of environmental conditions. Physical features include a glacially over-deepened basin with steep, and in places rocky sides, moraines, a drowned wave-cut platform, small embayments and sublittoral basalt cliffs. The area is subject to grades of wave exposure ranging from the exposed south and south-west facing entrance of the sound to more sheltered northern coasts. There are moderate tidal streams around the headlands, along the cliffs and in parts of the deep channel but there is very little water movement in other parts of the 2010 survey area.

The geomorphology is reminiscent of a sea loch, with an over-deepened basin behind a shallower sill created in part by moraines. As this lies across the south-west entrance to the channel, the shallow water will provide considerable shelter from the prevailing winds and seas to the deeper basin behind. This is reflected in the presence of the burrowed mud biotope **SS.SMu.CFiMu.MegMax**, often associated with sea lochs. The tiny holothurian *Labidoplax media*, which was present in the infaunal samples, is an uncommon species which is also more often found in very sheltered sea lochs such as Strangford Lough in Northern Ireland and Loch nam Madadh in the Western Isles. In contrast, the offshore subtidal sands and gravels, represented by the infaunal biotope **SS.SSa.OSa.OfusAfil**, is an open coast feature which physically overlaps the burrowed mud in the sound.

Several of the MPA search features in the area have functional linkages (Lancaster *et al*., 2011). European spiny lobsters *Palinurus elephas* are found within the northern sea fan biotopes. The white cluster anemone PMF is also associated with this biotope. There is also a clear association between the fan mussels *Atrina fragilis* and burrowed mud, as the latter contained fan mussels in many places and the two search features often graded into one another. *Leptometra celtica* aggregations were also found on the burrowed mud. The fan mussels provide some stability in the sediment whilst the bioturbation created by the megafaunal burrowers, who increase oxygen penetration into the sediment and enhance the ability of benthic systems to process organic matter, may increase the food supply for the suspension feeding fan mussels and feather stars.

4.2.2 Search features with a high natural biological diversity (MPA Guideline 2b)

The five seabed habitat search features recorded in the sound have high intrinsic natural diversity. They are all structurally complex, providing shelter for mobile and predatory species and substratum for attachment.

The burrowed mud supported langoustine *Nephrops norvegicus*, a commercially important species which is fished in the area. The mud macro-infauna and meiofauna are important food sources for fish and crustaceans whilst the burrows of the larger crustaceans increase the habitat complexity, providing shelter for a number of other species. It proved impossible to correlate specific infaunal communities directly with the burrowed mud. The majority of the infaunal samples, which were actually either coarse sandy sediments beneath the muddy veneer (**SS.SSa.OSa.OfusAfil**) or sandy mud (**SS.SMu.CSaMu.AfilMysAnit**), were extremely diverse, with a large number of species and no clear dominants (Table A2.3, Appendix 2). Up to 92 taxa were recorded from a single grab and diversity indices calculated ranged from 2.88 to 3.5 (Shannon Wiener H'; Table A2.4, Appendix 2). Two exceptions were Station G01 which lay on the south-west edge of the survey area, just west of a large *Leptometra celtica* aggregation and G05, east of the *Atrina fragilis* aggregation. These samples were relatively depauperate with only 23 (G01) and 40 (G05) species recorded and diversity indices (H') on the lower edge of the range at 2.9 and 2.88 respectively.

Kelp and seaweed communities on sediment play similar functional roles to seagrass beds as a significant source of particulate organic matter for filter feeders in other habitats. This search feature formed one of the more prolific mapping units within the 2010 survey area. These communities can be very diverse, supporting a large number of algal species as well as a rich infauna. However, only one site was surveyed by divers and no infaunal samples were collected so the information available on the flora and fauna is limited.

The maerl bed consisted of maerl mixed with sand and shell gravel; the full extent of the bed was not determined but it is likely to be restricted to the slight embayment within which it was found, protected from disturbance by the adjacent rock and boulders. The bed was in relatively deep water (14 - 27 m) but the epiflora and fauna were diverse and typical of this habitat on the west coast of Scotland. Maerl beds support a highly diverse community with the lattice structure created by interlocking thalli providing a habitat for many species, a number of which are confined to maerl. The beds provide feeding areas for juvenile fish such as cod and act as important nursery areas for commercially valuable molluscs such as scallops (*Pecten maximus* and *Aequipecten opercularis*) and razor shells (*Ensis* spp.). The maerl infaunal community was one of the more diverse sampled in the sound, with 86 taxa recorded and a diversity index (H') of 3.49 (Table A2.4, Appendix 2).

The northern sea fan communities present on the cliffs around Sanday and on boulders and rock in the deep sound were comparatively rich examples of this habitat. A comparison with similar habitats in the Firth of Lorn (also surveyed by divers using Phase 2 techniques - Howson *et al.*, 2006), indicated that around 25% more species were recorded from the Sound of Canna (39 to 46 species per station, total species number of 85, compared with 25 to 30 per station and total number of 62 for the Firth of Lorn). However, it was not possible to survey the Canna cliffs in detail, with diving restricted to a small area. The scope of video sampling within this MPA search feature was also constrained by terrain and adverse weather conditions.

Seagrass beds stabilise the sediment and are an important source of organic matter for other habitats. The two *Zostera* beds found in the Sound of Canna were very small and, although functionally important at a localised scale and for the diversity of the area as a whole, they were not particularly rich examples of this MPA search feature (H' Canna 2.01; Rum 1.38). A total of 37 taxa (mean 15) was recorded from the Canna cores and 13 (mean 4.6) from those taken within the Rum seagrass bed. The difference probably reflects the more exposed conditions of the bed in Kilmory Bay, Rum.

Although the fan mussels were generally scattered, with individuals in the denser patches occurring at densities of between 1 - 4 m^2, occasionally in clumps, it was clear from the

video that the diversity was considerably higher amongst the fan mussels than in adjacent areas. The byssal threads stabilise the sediment and the mussels themselves supported additional epifaunal species such as sponges and hydroids which were not present on the surrounding sediment. This is structurally comparable with horse mussel beds supporting a low density of *Modiolus modiolus*. No infaunal samples were collected from the main fan mussel aggregation.

4.2.3 Coherent examples of features (MPA Guideline 2c)

Guideline 2c seeks to determine whether a search location contains coherent examples of features, rather than smaller, potentially more fragmented ones.

Burrowed mud was the largest feature recorded in the survey area, covering ~1,292 ha within four mapping units across the centre of the sound. The kelp and seaweed communities on sublittoral sediment search feature (84 ha) was broken into six separate, fragmented patches in the nearshore areas on both sides of the sound, including one isolated patch on the south of Sanday. Similarly, the two seagrass beds found, which were both very small (<1 ha), were located on opposite sides of the sound.

A single unfragmented maerl bed (~16 ha) was recorded. The northern sea fan communities (221 ha) were also concentrated within one primary area, along the south and east of Sanday (209 ha) with just small scattered patches elsewhere in the sound. The northern feather star aggregations (54 ha) were mapped in five discrete polygons. Four of these represented small patches across the northern entrance to the sound but the majority of the feather stars were found in the fifth polygon, a much larger area (48 ha) to the south of Sanday. This single area was estimated to be three times the size of the maerl bed.

The 2010 survey area is believed to have encompassed most of the fan mussel *Atrina fragilis* aggregation, one of the larger features by area (~170 ha), although the northern limit of the feature was not confirmed. Some fragmentation was evident towards the southern extremities of the fan mussel aggregation.

4.2.4 Least damaged/more natural (MPA Guideline 2d)

The MPA Selection Guidelines (Marine Scotland, 2011b) recommend that the identification of MPA search locations focus initially on 'least damaged / more natural' marine areas. This preliminary coarse filter, used to help identify Broad Search Areas before the guidelines are actually applied, is informed by data layers that map the distribution of human activities in Scottish waters (Chaniotis *et al*., 2011). The Sound of Canna was not identified as a least damaged / more natural location.

The application of Guideline 2d is a completely distinct step, entailing a more specific appraisal of the status of the MPA search features present within a search location. The assessment at this finer resolution should be undertaken using biological survey data where these exist.

On the basis of a purely subjective analysis of the 2010 video data it would appear that the burrowed mud search feature may have been trawled in some areas including along the eastern side of the sound and to the south of Sanday. It is likely that the burrowed mud biotopes therefore represent a mixture of natural and modified areas. One indicator may be the presence of seapens and although these were seen they were only found in small numbers and in scattered locations. Without previous data, it is not possible to say whether the small numbers of seapens represent a natural density or are a result of human activities. A review of the burrowed mud feature (Lancaster *et al*., 2011) notes that the tall seapen *Funiculina quadrangularis* has very specific habitat requirements and is likely to be clustered

in areas where it is protected from seabed trawling activities, particularly for *Nephrops norvegicus*. Only scattered individuals of this species were found in the 2010 survey area.

The species composition of the maerl bed at Guirdil was typical of similar habitats elsewhere. The infauna was particularly rich. There was no reason to think that the bed, situated in a small rocky embayment, had been disturbed in any way. The northern sea fan and sponge communities on the cliffs appeared undisturbed with a diverse flora and fauna (see Section 3.2.4). Sea fans *Swiftia pallida* were also seen in several deeper parts of the sound on isolated boulder piles. *S. pallida* and a number of other species in these communities, such as the branching sponges, are slow growing and long lived. It is thought that populations of *S. pallida* are self-sustaining due to the limited dispersal potential of their short-lived larvae (Hill *et al*., 2010). It is therefore probable that the populations of sea fans have been undisturbed for some time.

The two seagrass beds found in the area were small and not biologically diverse, with the *Zostera marina* plants occurring as scattered clumps rather than a dense sward. The area of suitable habitat was restricted and, although it is possible that the beds may at one time have been larger and denser, this seems unlikely. Given their location in shallow bays they may be exposed to damage from anchoring but there is only a low level of boat traffic in the sound.

Little is known about the expected composition and longevity of northern feather star aggregations. This large feather star is mobile but unlikely to travel any great distance. Aggregations may be the result of a single settlement event or they may be self-sustaining. Regardless, the fragile nature of the species suggests that areas supporting these aggregations are relatively undisturbed - they would certainly be sensitive to trawling for *Nephrops norvegicus*.

The fan mussels were first recorded during routine MSS monitoring of the licensed dredge spoil site in 2009. There has been no spoil disposal here for several years but if further dredging were required in the harbour, an alternative disposal site should be selected. Due to the rarity of the fan mussel biotope, there is no readily available information on its expected composition. Historical records suggest that *Atrina fragilis* was often found in clumps (Jeffreys, 1863), as seen in the Sound of Canna in 2010. The best source of information as to the expected composition of a fan mussel bed might be to consider the fauna of a horse mussel *Modiolus modiolus* bed, although there are relatively few such open coast beds in Scotland. The considerable depth of the Sound of Canna fan mussels (102 - 274 m) allows for comparison with shallower horse mussel beds in more sheltered locations. A review by Lancaster *et al*. (2011) notes that dense *M. modiolus* beds can support a rich epifauna dominated by a wide diversity of hydroids, ascidians and ophiuroids, as well as mobile species such as decapods. It was clear from the video that the fan mussels supported a much wider range of species than were present on the surrounding sediment, with sponges, ophiuroids and crustaceans particularly apparent. It is highly probable that the fan mussel aggregation is both natural and largely undisturbed. A better description of the community composition than can be obtained from video footage is highly desirable; but this could be only be achieved destructively by sampling a very small area with a biological dredge.

Muddy sand and gravel along the eastern side of the sound, adjacent to the area where small numbers of individual flame shells *Limaria hians* were recorded, was superficially depauperate on the basis of the video footage. However, this area produced the most diverse of the infaunal samples (G21) with 90 taxa recorded and a diversity index of 4.15. In contrast, the infaunal sample from the muddy sand on the south of Sanday (G01), an area which also appeared potentially modified from the video, was depauperate when compared to the rest of the sound. Only 23 taxa were recorded from this station and the diversity index

was 2.9, one of the lowest calculated. It was close to this area, outside the glacial moraine, that a trawler was seen working during the final fieldwork period.

4.2.5 Assessment against Stage 2 guidelines

The assessment of the Sound of Canna search location against the Stage 2 guidelines is summarised in Table 5.

Table 5 Summary of the assessment of the Sound of Canna search location (the 2010 survey area) against Stage 2 of the Scottish MPA Selection Guidelines (Marine Scotland, 2011b)

The shelf deeps large-scale feature is not considered within this table. The European spiny lobster and basking shark mobile species interests are not considered against Guidelines 2b - 2d

Guideline	Summary assessment conclusions
Guideline 2a: Combinations of features	Ten MPA search features present. High diversity for a small area. Functional linkages between several of the features. Biodiversity presence linked to localised geodiversity. The fan mussel aggregation is considered rare.
Guideline 2b: Features with high natural biological diversity	Burrowed mud - complex structure, underlying sediments highly diverse. Kelp and seaweed communities on sublittoral sediment - not particularly diverse. Maerl bed - mixed with gravel in a narrow band, epifauna / flora diverse but not exceptional. Infauna very diverse. Northern sea fan and sponge communities - very diverse. Seagrass beds - very small and of low biological diversity. Northern feather star aggregations on mixed substrata - diversity not assessed but appeared low. Fan mussel aggregations - form patchy biogenic reef similar to horse mussel beds and are highly diverse.
Guideline 2c: Coherent examples of features	**Unfragmented features:** Maerl bed; northern sea fan and sponge communities; fan mussel aggregation. **Slightly fragmented features:** Burrowed mud; northern feather star aggregations; seagrass beds. **Fragmented features:** Kelp and seaweed communities on sublittoral sediment.
Guideline 2d: Least damaged / more natural features	**Most natural features:** Maerl bed; northern sea fan and sponge communities; seagrass beds; northern feather star aggregations; fan mussel aggregations. **Undisturbed in parts:** Burrowed mud.

The Stage 2 guidelines are designed to prioritise between search locations according to the qualities of the MPA search features present. The Sound of Canna is not being compared or prioritised against other search locations within the West Scotland MPA region as part of this project but it is clear that aspects of guidelines 2a - 2d have been met.

Assessment against the Stage 1 and 2 guidelines (summarised in Table 6 overleaf) highlights the following MPA search features as of primary biodiversity importance within the Sound of Canna:

- Fan mussel aggregations
- Burrowed mud
- Northern feather star aggregations on mixed substrata
- Northern sea fan and sponge communities

Table 6 Summary of a preliminary assessment of the 2010 Sound of Canna survey area against Stages 1 and 2 of the Scottish MPA Selection Guidelines

The shelf deeps large-scale feature is not considered within this table

MPA search feature	Guideline 1 - Scottish importance	Guideline 2 - Qualities
Seabed habitats (with any component species)		
Burrowed mud	Majority of British records are in Scotland; characteristic of Scottish marine environment. An OSPAR T&D habitat in Scottish waters.	Intrinsically diverse habitat. Several large habitat units within site; large parts of habitat probably very undisturbed although may be trawled down eastern side of the sound and south of Sanday.
Kelp and seaweed communities on sublittoral sediment	Particularly common in Scotland although recorded all round British Isles; characteristic of Scottish marine environment. Threatened and declining in Scottish waters.	Habitat examples sampled in 2010 were unexceptional. Several large habitat units within site. Probably mostly undisturbed although some of eastern sections may be exposed to fishing activity.
Maerl beds	Found down entire west coasts of British Isles, but majority of beds are in Scotland (characteristic). Scotland has about 30% of maerl beds in OSPAR area. An OSPAR T&D habitat in Scottish waters.	Intrinsically diverse habitat. This maerl bed is mixed with gravel. It is small, forming a narrow band; epibiota diverse but not exceptional. Very diverse infauna. Full extent not certain.
Northern sea fan and sponge communities	Almost all UK records are in Scotland (characteristic).	Northern sea fan communities & associated circalittoral rock very diverse. Large coherent habitat units. Considered undisturbed and natural.
Seagrass beds	Scotland has about 20% of seagrass beds in OSPAR region (characteristic). An OSPAR T&D habitat in Scottish waters.	The two beds recorded were very small, patchy and of low biological diversity. Likely to be entirely natural.
Low or limited mobility species		
Northern feather star aggregations on mixed substrata	Inshore records appear confined to Scotland (characteristic). Threatened and declining in Scottish waters.	Diversity of habitat is unclear. One large habitat unit with a few smaller patches. Assumed to be highly natural.
Fan mussel aggregations	Largest known record in UK waters. Threatened and severely declined in Scottish waters. Linkage to geodiversity features within the sound.	Fan mussels form a patchy biogenic reef and the habitat was surprisingly diverse. One large unit with occasional fan mussels over wider area. Assumption that this is a very natural if rarely encountered feature, despite past spoil dumping. Linkage to geodiversity features of interest within the sound.
Highly mobile species		
European spiny lobster, *Palinurus elephas*	Approximately 30% of British records are from Scotland (characteristic) (NBN database). Threatened and severely declined in Scottish waters.	Component species of diverse habitat. Only one individual seen during survey but reported to be present at other locations within the sound.
Basking shark, *Cetorhinus maximus*	A cosmopolitan migratory species usually sighted in summer along the west coasts of the British Isles including western Scotland. Movements are thought to be migratory and in response to their zooplankton food source. Recent effort-corrected data shows populations in Scottish waters could be greater than in other parts of the UK (Speedie *et al*. 2009). An OSPAR T&D species in Scottish waters.	It is not possible to comment on the qualities of this species on the basis of the 2010 seabed habitat survey.

5 CONCLUSIONS

5.1 The nature conservation importance of the Sound of Canna

As part of the first national application of the MPA Selection Guidelines at the end of 2011, SNH and JNCC will develop their thinking regarding how best to balance the relative contributions of different potential areas to ensure that those selected collectively make the best contribution to the protected areas network of MPAs. Where two or more areas could make an equivalent contribution to the network, socio-economic factors may be taken into consideration. Of the six aspects to consider when assessing the potential contribution of an MPA search location to the protected area network (Marine Scotland, 2011b) only elements of feature 'representation', 'replication' and 'range and geographic variation' are touched upon here.

The marine protected area network in Scotland currently comprises: 35 Special Areas of Conservation (SAC); 30 Special Protection Areas (SPAs) classified under the EC Birds Directive to protect wild bird populations of European importance; 54 Special Sites of Scientific Interest (SSSI) with marine components (primarily intertidal); and, 6 areas with fisheries restrictions in place for nature conservation purposes.

A number of the MPA search features recorded in the Sound of Canna are represented to some degree within the existing marine SAC series. Aggregations of fan mussels are the one obvious exception; this species is not currently encompassed by any protected area in Scottish waters. The aggregation recorded within the Sound of Canna is believed to represent the largest known population in UK waters and the inclusion of this interest within a Nature Conservation MPA could consequently make a significant contribution to the network. Burrowed mud is only afforded formal nature conservation protection in two west coast SACs (Loch Laxford SAC and Loch nam Madadh SAC), as a component of the 'large shallow inlets and bays' feature (Carruthers *et al*., 2011), despite being one of the major seabed habitats in Scottish coastal waters (significant areas of this habitat are also present in offshore waters on the east coast). Northern sea fan and sponge communities are proportionally well protected in a number of SACs (e.g. Firth of Lorn, St Kilda, Loch nam Madadh and Loch Sunart) but those in the Sound of Canna are considered to represent high quality, biologically diverse examples covering a large well defined area. Northern feather star aggregations on mixed substrata are afforded protection within the Loch Laxford SAC, as a component of the 'large shallow inlets and bays' feature, and they are known to be present but not as qualifying features, within Loch Sunart and Lochs Duich, Long and Alsh.

Seagrass beds are already quite well represented within the protected areas network and the beds in the Sound of Canna are very small so they would not make a significant additional contribution to the network. Similarly, extensive maerl beds are already protected in the Sound of Arisaig and Loch nam Madadh SACs and the bed in the Sound of Canna is very small relative to these.

A Nature Conservation MPA based around the Sound of Canna could ensure the representation of the fan mussel aggregations MPA search feature. It would also provide the basis for replication of a number of other features and improve the current range and geographic variation in the protection of these.

Two areas around Canna and Hyskeir are considered 'hotspots' for basking sharks *Cetorhinus maximus* (Speedie *et al.*, 2009, Figure 28). To date, protected areas have not been established in Scottish waters to conserve basking sharks and so the inclusion of this search feature within a Nature Conservation MPA could make a significant contribution to the MPA network. However, the size of any area of protection, if it were to include this feature, would need careful consideration.

5.2 Future data review and biological survey work around the Sound of Canna

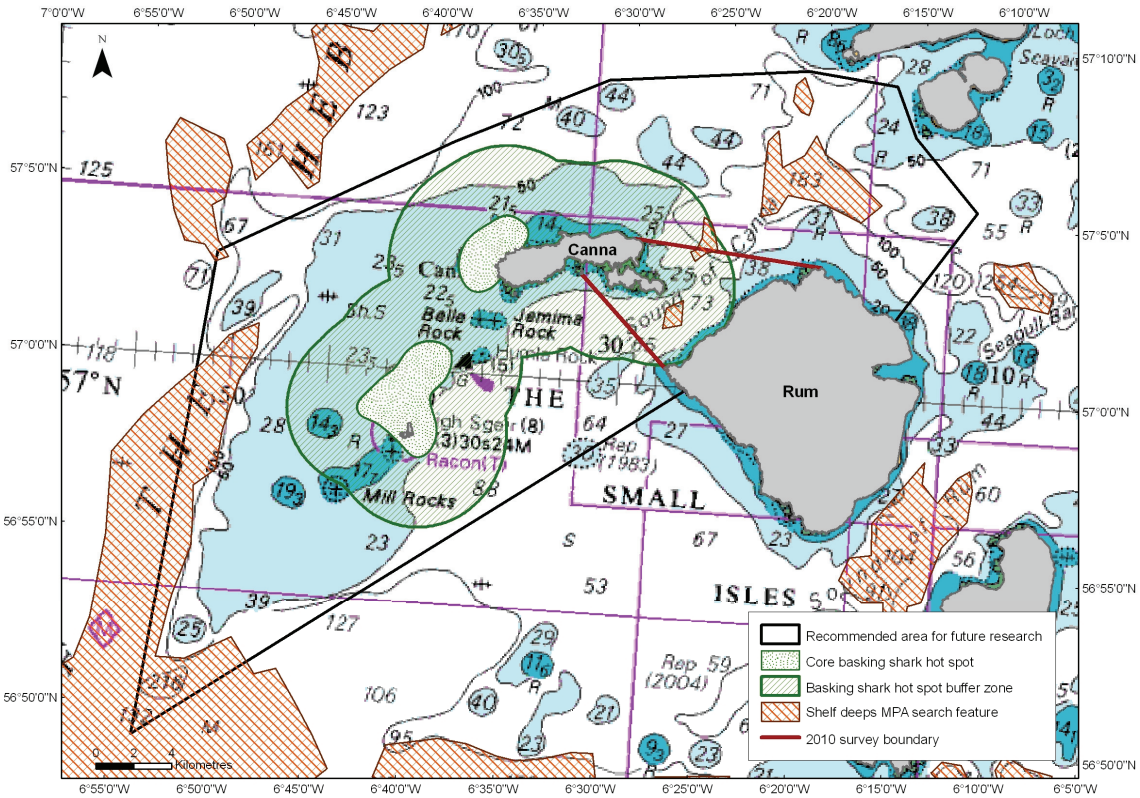
It is recommended that the new MCA multibeam dataset covering waters around Canna and Rum is processed and used to refine the mapping of the large-scale shelf deeps search feature and to inform the design of any further marine biological survey work.

The fan mussel *Atrina fragilis* aggregation was the primary driver for the 2010 targeted survey. Afforded protection by geological features such as the glacial moraine off Sanday and bedrock outcrops on the sides of the over-deepened channel, the fan mussels continued beyond the 2010 survey area with the northern extremity not determined. Further survey work is therefore recommended to ascertain the full extent of this feature and to provide detail on the fauna associated with this biotope.

A programme of additional survey work could also usefully determine whether a flame shell bed is present at Guirdil off the west coast of Rum, and the full extent of the maerl bed recorded at this location in 2010. Opportunistic diver or ROV sampling of the deep circalittoral cliffs to the south-east of Canna would help to clarify the extent of the northern sea fan biotope(s) and determine whether these do indeed give way to the sponge dominated **CR.HCR.DpSp** biotope (another component biotope of this MPA search feature).

Sampling outwith the sound could ascertain the nature of the seabed within the area of shelf deeps to the north, the basking shark hotspots to the west of Canna and around Hyskeir and possibly also within the wider 'management zone' for this species proposed within Speedie *et al*., (2009). This work could take the form of a low intensity remote video sampling programme. The possible extents of new survey work are illustrated on Figure 35.

Figure 35 Suggested area for data processing and additional marine biological survey work around Canna and Rum



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Appendix 1 Drop-down video and diver sampling station details with associated data - 2010 Sound of Canna survey

Table A1.1 *Positional and depth information for all 2010 Sound of Canna drop-down video and diver sampling stations, with biotope assignments and alignment to MPA search features / PMFs*

Table A1.2 *Summary notes (biological community present, substrates etc.) for individual drop-down video samples collected during the 2010 Sound of Canna survey*

Table A1.3 *Summary of sampling undertaken at each diving location surveyed during the 2010 Sound of Canna survey*

Table A1.4 *Brief habitat descriptions from the MNCR-style Phase 2 diving studies - 2010 Sound of Canna survey*

Table A1.5 *Species recorded (matrix format) during the shallow water video sampling - 2010 Sound of Canna survey*

Table A1.6 *Species recorded (matrix format) during the deep water video sampling - 2010 Sound of Canna survey*

Table A1.7 *Species recorded (matrix format) during the diver sampling - 2010 Sound of Canna survey*

Table A1.1 Positional and depth information for all 2010 Sound of Canna drop-down video and diver sampling stations, with biotope assignments and alignment to MPA search features / PMFs

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	DD1_1.1	11:21	57.0534	-6.51529	2.0	IR.LIR.K.LhypLsac	
26/09/10	DD1_1.1	11:24	57.0532	-6.51449	3.0	IR.LIR.K.LhypLsac	
26/09/10	DD1_2	10:40	57.0545	-6.53408	4.4	IR.MIR.KR.Lhyp.GzFt	
26/09/10	DD1_2	10:43	57.0542	-6.53138	6.3	SS.SSa.IMuSa.AreISa	
26/09/10	DD1_2		57.0543	-6.53224	6.3	IR.MIR.KR.Lhyp.GzFt	
26/09/10	DD1_2.2	11:08	57.0553	-6.53379	1.3	SS.SSa.IMuSa.AreISa	
26/09/10	DD1_3	10:58	57.0532	-6.5301	7.4	IR.MIR.KR.Lhyp	
26/09/10	DD1_3	11:01	57.0528	-6.52925	7.4	IR.MIR.KR.Lhyp	
26/09/10	DD1_4	11:51	57.0471	-6.52475	20.1	IR.HIR.KFaR.FoR	
26/09/10	DD1_4	11:56	57.0462	-6.52331	20.1	IR.HIR.KFaR.FoR	
26/09/10	DD1_5.1	11:29	57.0523	-6.51977	8.0	IR.MIR.KR.Lhyp.GzFt	
26/09/10	DD1_5.1	11:34	57.0517	-6.51952	9.2	IR.HIR.KSed.XKScrR	
26/09/10	DD1_5.2	11:36	57.0475	-6.51948	11	IR.MIR.KR.Lhyp	
26/09/10	DD1_5.2		57.0478	-6.52009	14.2	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
26/09/10	DD1_5.2	11:44	57.0486	-6.52208	16.2	IR.HIR.KFaR.FoR	
26/09/10	DD1_7.1	12:02	57.0434	-6.52323	25	CR.MCR.EcCr.FaAlCr	
26/09/10	DD1_7.1	12:04	57.0429	-6.52248	40	CR.MCR.EcCr.FaAlCr	
26/09/10	DD1_7.2	12:11	57.0428	-6.51134	22	CR.MCR.EcCr.FaAlCr.Adig	
26/09/10	DD1_7.2	12:19	57.0417	-6.5087	35	CR.MCR.EcCr.FaAlCr.Adig	
26/09/10	DD1_8	12:25	57.0451	-6.50682	3.9	IR.MIR.KR.Lhyp.GzFt	
26/09/10	DD1_8	12:30	57.0449	-6.50679	3.9	IR.MIR.KR.Lhyp.GzFt	
26/09/10	DD1_9	12:32	57.0434	-6.5053	25.0	IR.HIR.KFaR.FoR	
26/09/10	DD1_9	12:40	57.0425	-6.50303	37.7	SS.SCS.CCS.PomB	
26/09/10	DD1_10		57.042	-6.50155		CR.MCR.EcCr.FaAlCr.Sec	
26/09/10	DD1_12.1	12:52	57.0431	-6.48703	15.0	IR.HIR.KFaR.LhypR.Pk	
26/09/10	DD1_12.1	13:03	57.0411	-6.48288	25	CR.MCR.EcCr.FaAlCr.Adig	
26/09/10	DD1_12.2	13:07	57.0433	-6.48491	11.5	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_12.2	13:11	57.0425	-6.48344	13.5	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_13.1	13:16	57.0418	-6.47231	15.0	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_13.1	13:20	57.0413	-6.47111	23.4	CR.MCR.EcCr.FaAlCr.Sec	
26/09/10	DD1_15.1	13:07	57.0587	-6.48894	1.3	SS.SMp.SSgr.Zmar	Seagrass beds
26/09/10	DD1_15.1	13:11	57.0587	-6.48931	1.3	SS.SMp.SSgr.Zmar	Seagrass beds
26/09/10	DD1_15.2	13:14	57.0584	-6.48744	7.4	SS.SMx.CMx.CIloMx	
26/09/10	DD1_15.2	13:18	57.0586	-6.48688	8.4	SS.SMx.CMx.CIloMx	
26/09/10	DD1_15.3	13:21	57.0588	-6.48811	4.4	IR.LIR.K.Lsac	
26/09/10	DD1_15.3	13:26	57.0587	-6.48766	4.4	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
26/09/10	DD1_16.1	13:27	57.0554	-6.486	3.6	SS.SMu.ISaMu	
26/09/10	DD1_16.1	13:31	57.0554	-6.48626	13.4	SS.SMu.ISaMu	
26/09/10	DD1_16.2	14:20	57.0553	-6.4802	29.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	DD1_16.2	14:32	57.0556	-6.47817	41.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	DD1_17.1	14:41	57.0518	-6.48047	3.6	IR.LIR.K.LhypLsac.Ft	
26/09/10	DD1_17.1	14:43	57.0519	-6.48002	3.6	IR.LIR.K.LhypLsac.Ft	
26/09/10	DD1_17.2	14:46	57.0519	-6.48197	10.0	IR.LIR.K.Lsac	
26/09/10	DD1_17.2	14:51	57.0517	-6.48252	10.3	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
26/09/10	DD1_17.3	14:56	57.0513	-6.47728	12.4	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	DD1_17.3	15:02	57.052	-6.47517	13.0	IR.LIR.K.Lsac	
26/09/10	DD1_18.1	15:12	57.0509	-6.46934	5.4	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
26/09/10	DD1_18.1	15:15	57.0505	-6.47066	19.4	SS.SSA.IMuSa.AreISa	
26/09/10	DD1_18.2	15:18	57.0506	-6.47126	12.0	IR.MIR.KR.Lhyp.Ft	
26/09/10	DD1_18.2	15:26	57.0506	-6.46943	14.4	SS.SSA.IMuSa.AreISa	
26/09/10	DD1_18.3	15:31	57.0486	-6.46091	9.5	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
26/09/10	DD1_18.3		57.0492	-6.46393	12.0	IR.MIR.KR.Lhyp.Ft	
26/09/10	DD1_18.3	15:49	57.0486	-6.46091	41.5	SS.SMx.CMx.ClloMx.Nem	
26/09/10	DD1_20.1	12:45	57.0607	-6.48615	28.5	SS.SSa.CMuSa	
26/09/10	DD1_20.1	12:52	57.0606	-6.48559	30.5	SS.SSa.CMuSa	*Arachnanthus sarsi*
26/09/10	DD1_20.2	12:58	57.0604	-6.48646	11.5	SS.SMx.CMx.ClloMx	
26/09/10	DD1_20.2	13:02	57.0604	-6.48635	13.5	SS.SMx.CMx.ClloMx	
26/09/10	DD1_21.1	12:21	57.0654	-6.48344	15.0	SS.SCS.ICS	
26/09/10	DD1_21.1	12:24	57.0654	-6.48288		SS.SCS.CCS	
26/09/10	DD1_21.2	12:30	57.0643	-6.48447	15.0	SS.SCS.ICS	
26/09/10	DD1_21.2	12:35	57.0642	-6.48379	28.6	IR.HIR.KFaR.FoR	
26/09/10	DD1_22	12:05	57.068	-6.48486	10.7	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
26/09/10	DD1_22	12:08	57.0679	-6.48451	10.7	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
26/09/10	DD1_22.1	12:12	57.0675	-6.48554	4.6	IR.HIR.KFaR.LhypR	
26/09/10	DD1_22.1	12:15	57.0674	-6.485	4.6	IR.HIR.KFaR.LhypR	
26/09/10	DD1_23	14:53	57.0122	-6.46207	25.2	CR.HCR.XFa.SpNemAdia	
26/09/10	DD1_23	15:00	57.0134	-6.4619	33.2	CR.HCR.XFa.SpNemAdia	
26/09/10	DD1_24	14:45	57.0098	-6.46106	13.2	IR.MIR.KR.Lhyp.GzFt	
26/09/10	DD1_24	14:50	57.0105	-6.46087	18.2	IR.MIR.KR.Lhyp.GzFt	
26/09/10	DD1_25.1	11:21	57.0519	-6.37626	7.6	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_25.1	11:25	57.052	-6.3764	9.6	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_26.1	14:27	57.011	-6.44628	2.3	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_26.1	14:30	57.011	-6.44675	4.3	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_26.2	14:38	57.0111	-6.45555	6.3	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_26.2	14:39	57.0111	-6.45547	6.3	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_27	13:34	57.0159	-6.43928	2.7	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_27	13:36	57.0159	-6.43888	2.7	IR.HIR.KFaR.LhypR.Ft	
26/09/10	DD1_28	13:43	57.018	-6.44593	18.6	IR.HIR.KFaR.FoR	
26/09/10	DD1_28		57.0181	-6.44579	18.6	IR.HIR.KFaR.FoR	
26/09/10	DD1_28	13:49	57.0177	-6.44597	18.6	IR.HIR.KFaR.LhypR.Pk	
26/09/10	DD1_30	13:20	57.0269	-6.43203	14.8	IR.HIR.KFaR.FoR	
26/09/10	DD1_30	13:25	57.0276	-6.4315	17.8	IR.HIR.KFaR.FoR	
26/09/10	DD1_31	13:10	57.0261	-6.42706	6.8	IR.MIR.KR.Lhyp.GzFt	
26/09/10	DD1_31	13:14	57.0263	-6.42676	6.8	IR.MIR.KR.Lhyp.GzFt	
26/09/10	DD1_32	12:58	57.0309	-6.42175	22	SS.SCS.CCS	
26/09/10	DD1_32	13:03	57.032	-6.42225	26	SS.SCS.CCS	
26/09/10	DD1_33	12:54	57.0283	-6.41901	7	IR.MIR.KR.Lhyp	
26/09/10	DD1_33	12:58	57.0287	-6.41927	9	IR.MIR.KR.Lhyp	
26/09/10	DD1_35	12:10	57.0361	-6.41017	10.3	IR.HIR.KSed.XKScrR	
21/09/10	DD1_35	12:13	57.0362	-6.41191	10.3	IR.HIR.KSed.XKScrR	
21/09/10	DD1_36	12:40	57.0365	-6.41449	17.2	SS.SMx.CMx.ClloMx	
21/09/10	DD1_36	12:30	57.0364	-6.41297	17.2	IR.HIR.KFaR.FoR	
21/09/10	DD1_36	12:37	57.0365	-6.41538	24.2	SS.SCS.CCS	
21/09/10	DD1_37	12:42	57.0366	-6.41723	43.1	SS.SCS.CCS	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
21/09/10	DD1_38	11:43	57.0452	-6.39976	23.5	SS.SCS.CCS	
21/09/10	DD1_38	11:48	57.045	-6.40109	28.5	SS.SCS.CCS	
21/09/10	DD1_39	11:53	57.0448	-6.39811	17.4	IR.HIR.KFaR.FoR	
21/09/10	DD1_39	11:58	57.045	-6.39885	17.4	IR.HIR.KFaR.FoR	
21/09/10	DD1_40	11:34	57.0455	-6.39275	7.6	IR.HIR.KFaR.LhypR.Ft	
21/09/10	DD1_40	11:38	57.0454	-6.39379	12.6	IR.HIR.KFaR.LhypR.Pk	
21/09/10	DD1_44.1	10:47	57.0551	-6.36417	3.8	IR.MIR.KR.Lhyp.Ft	
21/09/10	DD1_44.1	10:53	57.0558	-6.36508	15.8	IR.MIR.KR.Lhyp.Ft	
21/09/10	DD1_44.1	10:55	57.0562	-6.36562	3.8	IR.HIR.KSed.LsacSac	
21/09/10	DD1_44.1	11:08	57.0588	-6.36852	22.8	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
21/09/10	DD1_45.1	10:04	57.0636	-6.34622	21	SS.SMx.CMx.ClloMx	
21/09/10	DD1_45.1	10:07	57.064	-6.3473	21	SS.SMx.CMx.ClloMx	
21/09/10	DD1_46	10:26	57.0531	-6.3551	2.4	SS.SMp.SSgr.Zmar	Seagrass beds
21/09/10	DD1_46		57.0533	-6.3554	2.4	SS.SMp.SSgr.Zmar	Seagrass beds
21/09/10	DD1_46	10:36	57.0529	-6.35365	7.9	SS.SSA.IMuSa.AreISa	
21/09/10	DD1_46	10:37	57.0542	-6.35658	7.9	IR.LIR.K.LhypLsac	
21/09/10	DD1_46	10:40	57.0546	-6.35742	7.9	IR.HIR.KSed.XKScrR	
21/09/10	DD1_46.2	17:05	57.0528	-6.35349	2.2	SS.SSa.IFiSa	
21/09/10	DD1_46.3	17:11	57.0541	-6.35462	2.4	SS.SMp.SSgr.Zmar	Seagrass beds
21/09/10	DD1_46.3		57.0541	-6.354	5.5	SS.SSa.IFiSa	
21/09/10	DD1_46.3	17:20	57.0538	-6.35563	6.3	SS.SSa.IFiSa	
21/09/10	DD1_46.4	17:24	57.0532	-6.35581	4.0	SS.SSa.IFiSa	
21/09/10	DD1_46.4	17:33	57.0533	-6.35497	4.3	SS.SMp.SSgr.Zmar	Seagrass beds
21/09/10	DD1_46.4	17:37	57.0532	-6.35518	4.3	SS.SMp.SSgr.Zmar	Seagrass beds
21/09/10	DD1_46.4		57.0539	-6.35335	4.7	SS.SSa.IFiSa	
21/09/10	DD1_47.1	10:13	57.0577	-6.35469	12.9	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
21/09/10	DD1_47.1	10:17	57.0582	-6.35536	14.9	SS.SMp.KSwSS.LsacR	Kelp and seaweed communities
21/09/10	M01	16:47:36	57.0291	-6.42647	18.2	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M01	16:48:06	57.02905	-6.42647	17.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M01	16:48:36	57.02902	-6.42648	16.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M01	16:49:06	57.02902	-6.42647	16.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M01	16:49:36	57.02897	-6.42653	15.8	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M01	16:50:06	57.02895	-6.42655	15.7	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M01	16:50:36	57.02897	-6.42655	15.1	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M01	16:51:06	57.02895	-6.42645	14.7	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M01	16:51:36	57.02895	-6.42633	14.0	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M01	16:52:06	57.02898	-6.4262	15.7	IR.LIR.K.LhypLsac	
21/09/10	M01	16:52:36	57.02907	-6.42605	16.9	IR.LIR.K.LhypLsac	
21/09/10	M01	16:53:06	57.02912	-6.42597	18.6	IR.LIR.K.LhypLsac	
21/09/10	M02	16:57:22	57.02845	-6.42952	20.8	IR.HIR.KFaR.FoR	
21/09/10	M02	16:57:52	57.02843	-6.42955	20.2	IR.HIR.KFaR.FoR	
21/09/10	M02	16:58:22	57.02842	-6.42955	19.8	IR.HIR.KFaR.FoR	
21/09/10	M02	16:58:52	57.02842	-6.42947	20.0	IR.HIR.KFaR.FoR	
21/09/10	M02	16:59:22	57.02845	-6.42932	20.3	IR.HIR.KFaR.FoR	
21/09/10	M02	16:59:52	57.02858	-6.42917	21.3	IR.HIR.KFaR.FoR	
21/09/10	M02	17:00:22	57.0287	-6.42903	22.0	IR.HIR.KFaR.FoR	
21/09/10	M02	17:00:52	57.0288	-6.42888	22.3	IR.HIR.KFaR.FoR	
21/09/10	M02	17:01:22	57.02888	-6.4288	22.2	IR.HIR.KFaR.FoR	
21/09/10	M02	17:01:52	57.02895	-6.42868	22.8	IR.HIR.KFaR.FoR	
21/09/10	M02	17:02:22	57.02902	-6.42863	24.4	IR.HIR.KFaR.FoR	
21/09/10	M02	17:02:52	57.02913	-6.42853	25.2	IR.HIR.KFaR.FoR	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
21/09/10	M02	17:03:22	57.02925	-6.42848	25.6	IR.HIR.KFaR.FoR	
21/09/10	M02	17:03:52	57.02933	-6.42848	26.0	IR.HIR.KFaR.FoR	
21/09/10	M02	17:04:22	57.02942	-6.42843	26.4	IR.HIR.KFaR.FoR	
21/09/10	M02	17:04:52	57.0295	-6.42842	26.8	IR.HIR.KFaR.FoR	
21/09/10	M02	17:05:22	57.02953	-6.42838	26.7	IR.HIR.KFaR.FoR	
21/09/10	M02	17:05:52	57.02957	-6.42832	26.6	IR.HIR.KFaR.FoR	
21/09/10	M02	17:06:22	57.02955	-6.42822	26.4	IR.HIR.KFaR.FoR	
21/09/10	M02	17:06:52	57.02957	-6.42818	26.4	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M02	17:07:22	57.0295	-6.42805	26.0	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M02	17:07:52	57.02947	-6.42802	25.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M02	17:08:22	57.02945	-6.42797	25.7	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:12:16	57.02982	-6.42615	24.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:12:46	57.02983	-6.42617	24.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:13:16	57.02987	-6.42608	24.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:13:46	57.02985	-6.42608	24.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:14:16	57.0299	-6.42603	25.0	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:14:46	57.0299	-6.42603	25.0	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:15:16	57.02987	-6.42605	25.1	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:15:46	57.02992	-6.426	25.0	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:16:16	57.02993	-6.42592	25.2	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:16:46	57.03002	-6.42577	25.4	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:17:16	57.03003	-6.42572	25.5	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:17:46	57.03005	-6.4257	25.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:18:16	57.03008	-6.42563	25.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M03	17:18:46	57.03012	-6.4256	25.5	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M04	17:21:20	57.03043	-6.4246	25.8	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M04	17:21:50	57.03047	-6.42453	25.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M04	17:22:20	57.0305	-6.42447	25.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M04	17:22:50	57.03053	-6.4244	25.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M04	17:23:20	57.03055	-6.42437	26.1	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M04	17:23:50	57.03058	-6.4243	26.1	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M04	17:24:20	57.03062	-6.42423	26.1	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:28:02	57.0315	-6.42227	26.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:28:32	57.03152	-6.42227	26.7	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:29:02	57.03155	-6.42223	26.5	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:29:32	57.03158	-6.4222	26.5	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:30:02	57.03163	-6.42217	26.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:30:32	57.03162	-6.42213	26.7	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:31:02	57.03165	-6.42212	26.8	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:31:32	57.03168	-6.42212	26.5	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:32:02	57.03162	-6.4221	26.5	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:32:32	57.03162	-6.4221	26.7	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:33:02	57.0316	-6.42215	26.8	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:33:32	57.03167	-6.42215	26.7	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M05	17:34:02	57.03173	-6.42208	27.1	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:40:02	57.035	-6.41498	20.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:40:32	57.035	-6.41492	20.8	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:41:02	57.035	-6.41487	20.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:41:32	57.03505	-6.41485	20.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:42:02	57.03512	-6.41482	20.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:42:32	57.0351	-6.41478	20.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:43:02	57.03517	-6.41477	20.5	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:43:32	57.03525	-6.4148	20.3	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:44:02	57.0353	-6.4148	20.2	SS.SMp.Mrl.Pcal	Maerl beds

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
21/09/10	M06	17:44:32	57.03538	-6.41488	19.9	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M06	17:45:02	57.03547	-6.41495	19.6	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M07	17:50:28	57.038	-6.41105	23.7	IR.HIR.KFaR.FoR	
21/09/10	M07	17:50:58	57.03807	-6.4109	23.8	IR.HIR.KFaR.FoR	
21/09/10	M07	17:51:28	57.03808	-6.41082	23.5	IR.HIR.KFaR.FoR	
21/09/10	M07	17:51:58	57.0381	-6.41075	23.4	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M07	17:52:28	57.0381	-6.41068	23.2	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M07	17:52:58	57.03812	-6.41063	23.2	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M07	17:53:28	57.03815	-6.41058	23.3	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M07	17:53:58	57.03828	-6.41053	23.5	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	M07	17:54:28	57.03838	-6.41055	24.1	SS.SMp.Mrl.Pcal	Maerl beds
21/09/10	A12	13:08:12	57.0531	-6.45745	179.2	CR.MCR.EcCr.FaAlCr	*Parazoanthus anguicomus*
21/09/10	A12	13:08:42	57.05317	-6.45723	182.0	CR.MCR.EcCr.FaAlCr	
21/09/10	A12	13:09:12	57.05318	-6.45697	188.9	CR.MCR.EcCr.FaAlCr	
21/09/10	A12	13:09:42	57.05322	-6.4567	192.0	CR.MCR.EcCr.FaAlCr	
21/09/10	A12	13:10:12	57.05325	-6.45647	196.5	CR.MCR.EcCr.FaAlCr	
21/09/10	A12	13:10:42	57.05332	-6.45637	199.7	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:11:12	57.05337	-6.45618	202.0	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:11:42	57.05342	-6.45603	203.5	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:12:12	57.05348	-6.4559	205.5	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:12:42	57.05353	-6.45573	206.9	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:13:12	57.05357	-6.45558	208.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:13:42	57.05365	-6.45545	209.7	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:14:12	57.0537	-6.45532	210.8	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:14:42	57.05377	-6.4552	212.4	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:15:12	57.05385	-6.45513	211.4	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:15:42	57.0539	-6.45505	212.2	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:16:12	57.054	-6.45502	211.6	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:16:42	57.05408	-6.45492	211.9	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:17:12	57.05418	-6.4549	210.6	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:17:42	57.05427	-6.45478	210.3	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:18:12	57.05437	-6.4547	210.6	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:18:44	57.05447	-6.45452	211.2	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:19:14	57.05452	-6.45438	211.1	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:19:44	57.05455	-6.45418	210.3	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:20:14	57.05457	-6.45405	209.1	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:20:44	57.05462	-6.45382	207.4	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:21:14	57.05467	-6.4537	206.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:21:44	57.05468	-6.45352	207.0	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:22:14	57.05468	-6.45328	205.4	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:22:44	57.05468	-6.45307	203.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:23:14	57.0547	-6.45285	200.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:23:44	57.0547	-6.45258	197.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:24:14	57.05472	-6.45242	195.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:24:44	57.05472	-6.45225	193.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:25:14	57.05477	-6.4521	192.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:25:44	57.05478	-6.45197	191.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:26:14	57.05482	-6.45183	190.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:26:44	57.05483	-6.45162	189.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:27:14	57.05487	-6.45153	188.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:27:44	57.05488	-6.45132	186.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:28:14	57.05488	-6.45108		SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:28:44	57.05488	-6.45082	184.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:29:14	57.05488	-6.4506	183.1	SS.SBR.SMus.Afrag	*Atrina fragilis*

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
21/09/10	A12	13:29:44	57.05492	-6.45038	181.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:30:14	57.05497	-6.45028	181.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:30:44	57.05498	-6.45012	180.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:31:14	57.05502	-6.44995	178.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:31:44	57.05503	-6.44978	178.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:32:14	57.05505	-6.44962	176.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:32:44	57.05508	-6.44948	176.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:33:14	57.05508	-6.44933	175.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:33:44	57.0551	-6.44912	174.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:34:14	57.05512	-6.4489	173.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:34:44	57.05512	-6.44873	173.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:35:14	57.05507	-6.4485	173.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:35:44	57.0551	-6.44838	173.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:36:14	57.05512	-6.44815	173.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:36:44	57.05513	-6.44798	173.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:37:14	57.05515	-6.4478	173.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:37:44	57.05518	-6.4476	173.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:38:14	57.05523	-6.44745	173.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:38:44	57.05523	-6.44717	174.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:39:14	57.05523	-6.44693	175.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:39:44	57.05525	-6.44678	178.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:40:14	57.05525	-6.44653	179.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:40:44	57.05527	-6.44633	183.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:41:14	57.0553	-6.44612	183.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:41:44	57.05537	-6.44592	183.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:42:14	57.0554	-6.4457	185.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:42:44	57.05545	-6.44555	185.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:43:14	57.05548	-6.4453	186.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:43:44	57.05552	-6.44503	190.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:44:14	57.05555	-6.44482	191.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:44:44	57.05563	-6.44468	194.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:45:14	57.05568	-6.4445	191.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:45:44	57.05577	-6.4444	192.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:46:14	57.05582	-6.44422	194.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:46:44	57.05585	-6.44395	195.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:47:14	57.05587	-6.44372	197.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:47:44	57.0559	-6.44347	199.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A12	13:48:14	57.05593	-6.44323	201.9	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:48:44	57.05603	-6.44298	202.3	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:49:14	57.05607	-6.44278	203.8	SS.SMx.CMx.CIloMx	
21/09/10	A12	13:49:44	57.0562	-6.44272	202.6	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:15:54	57.05088	-6.45772	200.4	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:16:24	57.05105	-6.45752	201.4	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:16:54	57.05113	-6.45723	204.4	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:17:24	57.05125	-6.45698	205.7	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:17:54	57.05132	-6.45667	207.5	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:18:24	57.0514	-6.45643	206.7	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:18:54	57.05155	-6.45623	210.8	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:19:24	57.0517	-6.45602	212.0	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:19:54	57.05183	-6.45578	212.6	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:20:24	57.05192	-6.45553	213.9	CR.MCR.EcCr.FaAlCr	
21/09/10	A52	14:20:54	57.05203	-6.45533	214.9	CR.MCR.EcCr.FaAlCr	
21/09/10	A52	14:21:24	57.05208	-6.4551	215.4	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:21:54	57.05218	-6.4549	216.2	SS.SMx.CMx.CIloMx	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
21/09/10	A52	14:22:24	57.05228	-6.45467	216.1	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:22:54	57.05242	-6.45442	215.8	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:23:24	57.05258	-6.45417	215.0	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:23:54	57.05278	-6.45397	213.7	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:24:24	57.05295	-6.45378	211.9	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:24:54	57.05317	-6.45372	210.8	SS.SMx.CMx.CIloMx	
21/09/10	A52	14:25:24	57.05338	-6.4537	210.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:25:54	57.05357	-6.4537	210.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:26:24	57.05375	-6.45373	210.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:26:54	57.05393	-6.45375	210.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:27:24	57.05407	-6.4538	210.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:27:54	57.05428	-6.45387	209.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:28:24	57.05445	-6.45398	208.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:28:54	57.05463	-6.45407	208.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:29:24	57.05482	-6.45415	207.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:29:54	57.055	-6.4542	206.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:30:24	57.05518	-6.45427	205.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:30:54	57.05537	-6.4543	203.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:31:24	57.05553	-6.45435	199.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:31:54	57.05572	-6.45443	195.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:32:24	57.0559	-6.4545	189.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:32:54	57.05608	-6.45457	185.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:33:24	57.05627	-6.45463	176.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:33:54	57.05645	-6.45468	171.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:34:24	57.05663	-6.45475	164.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:34:54	57.05682	-6.45482	158.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:35:24	57.057	-6.4549	151.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A52	14:35:54	57.05718	-6.45498	144.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:35:24	57.0495	-6.44402	231.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:35:54	57.0497	-6.444	274.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:36:24	57.04985	-6.44398	231.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:36:54	57.05002	-6.44405	231.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:37:24	57.05027	-6.44398	233.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:37:54	57.05043	-6.44397	232.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:38:24	57.05063	-6.444	232.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:38:54	57.05082	-6.44403	231.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:39:24	57.051	-6.44403	230.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:39:54	57.0512	-6.444	232.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:40:24	57.05142	-6.44398	229.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:40:54	57.0516	-6.44408	230.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:41:24	57.05182	-6.4441	230.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:41:54	57.05202	-6.44408	229.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:42:24	57.0522	-6.44417	229.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:42:54	57.05243	-6.44417	228.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A64	15:43:24	57.0526	-6.44427	227.4	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:43:54	57.0528	-6.44428	226.2	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:44:24	57.05303	-6.44422	224.9	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:44:54	57.05322	-6.44425	230.0	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:45:24	57.05327	-6.44443	0.4	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:45:54	57.05333	-6.4444	222.1	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:46:24	57.05333	-6.44438	222.7	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:46:54	57.05343	-6.44433	210.6	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:47:24	57.05362	-6.44428	218.5	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:47:54	57.05383	-6.4442	241.5	SS.SMx.CMx.CIloMx	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
21/09/10	A64	15:48:24	57.05388	-6.44422	249.9	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:48:54	57.054	-6.4442	218.3	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:49:24	57.05425	-6.4441	217.3	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:49:54	57.05452	-6.44398	216.0	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:50:24	57.05478	-6.4439	214.1	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:50:54	57.05497	-6.44325	214.2	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:51:24	57.05433	-6.44267	217.3	SS.SMx.CMx.CIloMx	
21/09/10	A64	15:51:54	57.05355	-6.44203	217.9	SS.SMx.CMx.CIloMx	
21/09/10	A66	09:29:58	57.04923	-6.44687	232.3	SS.SMu.CSaMu	
21/09/10	A66	09:30:28	57.04937	-6.44685	232.5	SS.SMu.CSaMu	
21/09/10	A66	09:30:58	57.0495	-6.44688	232.4	SS.SMu.CSaMu	
21/09/10	A66	09:31:28	57.04965	-6.44685	232.4	SS.SMu.CSaMu	
21/09/10	A66	09:31:58	57.0498	-6.44682	232.8	SS.SMu.CSaMu	
21/09/10	A66	09:32:28	57.04993	-6.44683	232.6	SS.SMu.CSaMu	
21/09/10	A66	09:32:58	57.05008	-6.44683	232.4	SS.SMu.CSaMu	
21/09/10	A66	09:33:28	57.05022	-6.44683	232.5	SS.SMu.CSaMu	
21/09/10	A66	09:33:58	57.05027	-6.4469	232.2	SS.SMu.CSaMu	
21/09/10	A66	09:34:28	57.05037	-6.44687	232.2	SS.SMu.CSaMu	
21/09/10	A66	09:34:58	57.0505	-6.4468	231.7	SS.SMu.CSaMu	
21/09/10	A66	09:35:28	57.05062	-6.4468	231.8	SS.SMu.CSaMu	
21/09/10	A79	14:55:44	57.04865	-6.45255	223.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	14:56:14	57.04883	-6.45255	221.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	14:56:44	57.04905	-6.45257	221.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	14:57:14	57.04925	-6.45253	219.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	14:57:44	57.04945	-6.45257	218.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	14:58:14	57.04963	-6.45262	217.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	14:58:44	57.04982	-6.45267	216.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	14:59:14	57.05003	-6.45265	215.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	14:59:44	57.05023	-6.45268	214.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	15:00:14	57.05047	-6.45268	213.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A79	15:00:44	57.05067	-6.45273	212.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:01:14	57.05087	-6.45277	210.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:01:44	57.05107	-6.45282	210.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:02:14	57.05125	-6.45287	209.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:02:44	57.05143	-6.4529	208.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:03:14	57.05165	-6.45292	208.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:03:44	57.05183	-6.45293	207.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:04:14	57.05203	-6.45298	207.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:04:44	57.05225	-6.45302	208.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:05:14	57.05242	-6.45307	207.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:05:44	57.05263	-6.45307	207.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:06:14	57.05282	-6.45313	207.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:06:44	57.05302	-6.4532	208.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:07:14	57.05322	-6.4532	207.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:07:44	57.05345	-6.45317	206.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:08:14	57.05365	-6.45322	207.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:08:44	57.05385	-6.45328	207.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:09:14	57.05407	-6.4533	207.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:09:44	57.05428	-6.45333	206.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:10:14	57.05448	-6.45343	206.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:10:44	57.0547	-6.45347	206.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:11:14	57.0549	-6.45352	206.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:11:44	57.05512	-6.45357	205.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:12:14	57.05533	-6.45362	204.7	SS.SBR.SMus.Afrag	*Atrina fragilis*

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
22/09/10	A79	15:12:44	57.05555	-6.45367	202.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:13:14	57.05575	-6.45375	198.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:13:44	57.05597	-6.45385	195.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:14:14	57.05618	-6.45382	189.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:14:44	57.05642	-6.45385	175.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:15:14	57.05662	-6.45388	165.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A79	15:15:44	57.05683	-6.45397	155.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:28:10	57.05868	-6.44922	188.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:28:40	57.05892	-6.44923	188.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:29:10	57.05913	-6.4493	186.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:29:40	57.0593	-6.44942	184.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:30:10	57.05955	-6.44942	182.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:30:40	57.05967	-6.44963	177.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:31:10	57.05987	-6.44965	166.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:31:40	57.06002	-6.44977	163.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:32:10	57.06022	-6.4498	155.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:32:40	57.06042	-6.44982	146.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:33:10	57.06058	-6.44992	134.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A120	17:33:40	57.06082	-6.44992	127.7	CR.MCR.EcCr.FaAlCr	
22/09/10	A120	17:34:10	57.06102	-6.45003		CR.MCR.EcCr.FaAlCr	
22/09/10	A120	17:34:40	57.0612	-6.45013	94.3	CR.MCR.EcCr.FaAlCr	
22/09/10	A120	17:35:10	57.0614	-6.45017	91.3	CR.MCR.EcCr.FaAlCr	
22/09/10	A123	17:07:42	57.05787	-6.4443	171.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A123	17:08:12	57.05805	-6.44422	168.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A123	17:08:42	57.05822	-6.44427	168.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A123	17:09:12	57.05837	-6.4443	194.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
22/09/10	A123	17:09:42	57.05858	-6.4443	169.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A123	17:10:12	57.05882	-6.44437	170.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A123	17:10:42	57.059	-6.4445	170.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A123	17:11:12	57.05913	-6.44455	172.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A123	17:11:42	57.05928	-6.44455	172.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A123	17:12:12	57.05945	-6.4446	173.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A123	17:12:42	57.05963	-6.44467	174.7	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A123	17:13:12	57.05983	-6.44468	175.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A123	17:13:42	57.06007	-6.44468	175.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A123	17:14:12	57.06032	-6.4447	176.0	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A123	17:14:42	57.06055	-6.44482	176.7	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A124	10:14:36	57.06742	-6.48162	81.9	SS.SMX.CMx.CIloMx.Nem	
24/09/10	A124	10:15:06	57.06742	-6.48148	85.6	SS.SMX.CMx.CIloMx.Nem	
24/09/10	A124	10:15:36	57.06737	-6.48122	90.3	SS.SMX.CMx.CIloMx.Nem	
24/09/10	A124	10:16:06	57.06733	-6.48102	92.9	SS.SMX.CMx.CIloMx.Nem	
24/09/10	A124	10:16:36	57.0673	-6.48082	96.1	SS.SMX.CMx.CIloMx.Nem	
24/09/10	A124	10:17:06	57.06727	-6.48052	100.1	SS.SMX.CMx.CIloMx.Nem	
24/09/10	A124	10:17:36	57.06727	-6.48032	102.5	SS.SMX.CMx.CIloMx.Nem	
24/09/10	A124	10:18:06	57.06722	-6.48012	104.2	SS.SMX.CMx.CIloMx.Nem	
24/09/10	A124	10:18:36	57.06722	-6.47995	105.2	SS.SMX.CMx.CIloMx.Nem	
24/09/10	A124	10:19:06	57.06718	-6.47983	105.8	SS.SMX.CMx.CIloMx.Nem	
21/09/10	A124	10:19:36	57.06718	-6.4798	106.0	SS.SMX.CMx.CIloMx.Nem	
21/09/10	A124	10:20:06	57.06717	-6.47985	105.7	SS.SMX.CMx.CIloMx.Nem	
21/09/10	A124	10:20:36	57.06713	-6.47992	105.3	SS.SMX.CMx.CIloMx.Nem	
21/09/10	A124	10:21:06	57.0672	-6.47967	106.6	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
21/09/10	A124	10:21:36	57.06717	-6.47937	107.5	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
21/09/10	A124	10:22:06	57.06717	-6.47918	108.6	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
21/09/10	A124	10:22:36	57.06713	-6.47905	109.7	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
21/09/10	A124	10:23:06	57.06712	-6.4788	111.2	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
21/09/10	A124	10:23:36	57.06707	-6.47853	111.6	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
21/09/10	A124	10:24:06	57.067	-6.47835	116.1	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
21/09/10	A124	10:24:36	57.06703	-6.4783	118.8	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
21/09/10	A124	10:25:06	57.06705	-6.47827	118.3	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
21/09/10	A124	10:25:36	57.06703	-6.4783	118.3	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
21/09/10	A125	10:48:58	57.06715	-6.47813	121.0	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
21/09/10	A125	10:49:28	57.06715	-6.47798	122.9	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
21/09/10	A125	10:49:58	57.06717	-6.47768	124.5	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
21/09/10	A125	10:50:28	57.06713	-6.47745	124.9	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
21/09/10	A125	10:50:58	57.06713	-6.47728	124.8	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
21/09/10	A125	10:51:28	57.06712	-6.47718	125.1	SS.SMX.CMx.ClloMx	
21/09/10	A125	10:51:58	57.06708	-6.47707	125.0	SS.SMX.CMx.ClloMx	
21/09/10	A125	10:52:28	57.06707	-6.47697	124.8	SS.SMX.CMx.ClloMx	
21/09/10	A125	10:52:58	57.06707	-6.47675	124.5	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:53:28	57.06707	-6.47665	124.4	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:53:58	57.06707	-6.47645	123.9	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:54:28	57.06707	-6.47632	123.6	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:54:58	57.06707	-6.47623	123.5	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:55:28	57.06705	-6.47602	122.8	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:55:58	57.06707	-6.4758	122.2	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:56:28	57.06705	-6.47567	121.4	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:56:58	57.06705	-6.47545	120.5	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:57:28	57.06705	-6.47528	119.5	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:57:58	57.06705	-6.47502	118.5	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:58:28	57.06707	-6.47487	118.0	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:58:58	57.06708	-6.47462	117.0	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:59:28	57.0671	-6.47452	116.5	SS.SMX.CMx.ClloMx	
22/09/10	A125	10:59:58	57.0671	-6.4743	115.9	SS.SMX.CMx.ClloMx	
22/09/10	A125	11:00:28	57.0671	-6.47415	115.5	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A125	11:00:58	57.06712	-6.47397	114.6	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A125	11:01:28	57.06712	-6.47387	114.1	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A125	11:01:58	57.06713	-6.47362	112.8	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A125	11:02:28	57.06715	-6.47343	111.6	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A125	11:02:58	57.06713	-6.47313	110.3	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A125	11:03:28	57.06713	-6.47293	109.4	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A126	11:14:18	57.06333	-6.4822	68.2	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A126	11:14:48	57.06338	-6.48213	68.9	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A126	11:15:18	57.06342	-6.482	69.8	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A126	11:15:48	57.06342	-6.48185	71.2	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A126	11:16:18	57.0634	-6.4817	72.4	SS.SMu.CFiMu.MegMax	Burrowed mud

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
22/09/10	A126	11:16:48	57.06332	-6.48148	74.1	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A126	11:17:18	57.06325	-6.48125	76.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:17:48	57.06318	-6.48097	78.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:18:18	57.0631	-6.48073	79.7	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:18:48	57.06303	-6.4805	80.9	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:19:18	57.06297	-6.48025	82.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:19:48	57.06292	-6.48007	83.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:20:18	57.0629	-6.47998	84.2	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:20:48	57.06285	-6.47985	85.2	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:21:18	57.06283	-6.47968	85.8	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:21:48	57.06282	-6.47965	85.9	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:22:18	57.06282	-6.47948	87.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:22:48	57.06285	-6.47902	89.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:23:18	57.06283	-6.47873	90.7	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:23:48	57.06277	-6.47853	91.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A126	11:24:18	57.06268	-6.47823	92.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:09:38	57.06458	-6.47282	103.0	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:10:08	57.06463	-6.47283	103.6	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:10:38	57.06472	-6.47287	103.8	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:11:08	57.0648	-6.47287	104.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:11:38	57.06483	-6.47292	104.6	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:12:08	57.06488	-6.47308	105.0	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:12:38	57.06495	-6.47322	105.7	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:13:08	57.065	-6.47328	106.7	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:13:38	57.06505	-6.47335	107.2	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:14:08	57.06508	-6.47343	107.7	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:14:38	57.0651	-6.47355	108.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:15:08	57.0651	-6.47368	109.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A127	16:15:38	57.06512	-6.47382	109.9	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A128	15:19:42	57.06472	-6.46602	91.5	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:20:12	57.06482	-6.46607	92.0	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:20:42	57.0649	-6.46613	92.6	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:21:12	57.06498	-6.46618	92.8	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:21:42	57.06503	-6.46612	92.9	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:22:12	57.06512	-6.46612	93.0	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:22:42	57.06522	-6.46613	93.5	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:23:12	57.0653	-6.46613	94.2	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:23:42	57.06537	-6.46613	94.4	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:24:12	57.06543	-6.46615	94.8	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:24:42	57.06552	-6.46613	95.2	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A128	15:25:12	57.0656	-6.46613	95.2	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A128	15:25:42	57.0657	-6.46613	95.6	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A128	15:26:12	57.0658	-6.46615	95.6	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A128	15:26:42	57.06588	-6.46613	95.2	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A128	15:27:12	57.06598	-6.46613	95.6	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:27:42	57.0661	-6.46612	95.6	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:28:12	57.06618	-6.46612	95.4	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:28:42	57.06628	-6.4661	95.1	SS.SMx.CMx.CIloMx	
26/09/10	A128	15:29:12	57.06637	-6.46608	94.9	SS.SMx.CMx.CIloMx	
26/09/10	A130	15:40:56	57.06412	-6.44798	102.7	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:41:26	57.0642	-6.44798	102.5	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:41:56	57.06428	-6.44797	102.2	CR.MCR.EcCr.FaAlCr	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	A130	15:42:26	57.06437	-6.44797	102.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A130	15:42:56	57.06443	-6.44795	101.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A130	15:43:26	57.0645	-6.44795	101.5	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:43:56	57.06455	-6.44797	101.3	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:44:26	57.06462	-6.44795	101.5	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:44:56	57.06468	-6.4479	101.4	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:45:26	57.06475	-6.44787	101.4	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:45:56	57.0648	-6.44783	101.4	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:46:26	57.06485	-6.44778	101.9	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:46:56	57.0649	-6.44762	102.6	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:47:26	57.06493	-6.44737	104.0	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:47:56	57.06505	-6.44708	107.3	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:48:26	57.06518	-6.44688	106.8	CR.MCR.EcCr.FaAlCr	
26/09/10	A130	15:48:56	57.0653	-6.4467	109.1	CR.MCR.EcCr.FaAlCr	
26/09/10	A131	09:01:36	57.0684	-6.44178	114.8	SS.SMu.CSaMu	
26/09/10	A131	09:02:06	57.06852	-6.44188	111.3	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A131	09:02:36	57.0686	-6.44197	107.2	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A131	09:03:06	57.0687	-6.44203	103.2	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A131	09:03:36	57.0688	-6.44212	100.9	SS.SMx.CMx	
26/09/10	A131	09:04:06	57.06888	-6.44218	99.4	SS.SMx.CMx	
26/09/10	A131	09:04:36	57.06898	-6.44227	98.8	SS.SMx.CMx	
26/09/10	A131	09:05:06	57.06907	-6.44235	99.1	SS.SMx.CMx	
26/09/10	A131	09:05:36	57.06917	-6.44245	97.6	SS.SMx.CMx	
26/09/10	A131	09:06:06	57.06923	-6.44255	97.4	SS.SMx.CMx	
26/09/10	A131	09:06:36	57.06932	-6.44265	98.1	SS.SMx.CMx	
26/09/10	A132	14:40:08	57.064	-6.4285	181.3	SS.SSa.CMuSa	
26/09/10	A132	14:40:38	57.0639	-6.42847	181.1	SS.SSa.CMuSa	
24/09/10	A132	14:41:08	57.06388	-6.42823	180.7	SS.SSa.CMuSa	
24/09/10	A132	14:41:38	57.0638	-6.42807	179.9	SS.SSa.CMuSa	
24/09/10	A132	14:42:08	57.06372	-6.42795	179.8	SS.SSa.CMuSa	
24/09/10	A132	14:42:38	57.06368	-6.42775	178.0	SS.SSa.CMuSa	
24/09/10	A132	14:43:08	57.0636	-6.42767	177.5	SS.SSa.CMuSa	
24/09/10	A132	14:43:38	57.06352	-6.42745	176.1	SS.SSa.CMuSa	
24/09/10	A132	14:44:08	57.06343	-6.42737	176.1	SS.SSa.CMuSa	
24/09/10	A135	09:52:40	57.05845	-6.46785	77.7	SS.SMu.CSaMu	
24/09/10	A135	09:53:10	57.05847	-6.4679	77.9	SS.SMu.CSaMu	
24/09/10	A135	09:53:40	57.05848	-6.4679	77.9	SS.SMu.CSaMu	
26/09/10	A135	09:54:10	57.05853	-6.4679	78.0	SS.SMu.CSaMu	
26/09/10	A135	09:54:40	57.05855	-6.4679	78.1	SS.SMu.CSaMu	
26/09/10	A135	09:55:10	57.05862	-6.46775	78.3	SS.SMu.CSaMu	
26/09/10	A135	09:55:40	57.05868	-6.46757	78.4	SS.SMu.CSaMu	
26/09/10	A135	09:56:10	57.05872	-6.46738	78.6	SS.SMu.CSaMu	
26/09/10	A135	09:56:40	57.05875	-6.46717	78.9	SS.SMu.CSaMu	
26/09/10	A135	09:57:10	57.05878	-6.46687	79.4	SS.SMu.CSaMu	
26/09/10	A135	09:57:40	57.05883	-6.46662	79.6	SS.SMu.CSaMu	
26/09/10	A135	09:58:10	57.05888	-6.46635	79.8	SS.SMu.CSaMu	
26/09/10	A135	09:58:40	57.05892	-6.46618	79.8	SS.SMu.CSaMu	
26/09/10	A135	09:59:10	57.05897	-6.46612	79.7	SS.SMu.CSaMu	
26/09/10	A135	09:59:40	57.05902	-6.46612	80.0	SS.SMu.CSaMu	
26/09/10	A135	10:00:10	57.05903	-6.46612	79.9	SS.SMu.CSaMu	
26/09/10	A135	10:00:40	57.05905	-6.46615	80.1	SS.SMu.CSaMu	
26/09/10	A135	10:01:10	57.0591	-6.46605	80.0	SS.SMu.CSaMu	
26/09/10	A135	10:01:40	57.05918	-6.46567	78.0	SS.SMu.CSaMu	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	A135	10:02:10	57.05925	-6.46527	75.5	SS.SMu.CSaMu	
26/09/10	A135	10:02:40	57.05927	-6.46502	73.8	SS.SMu.CSaMu	
26/09/10	A135	10:03:10	57.05928	-6.46487	73.0	SS.SMu.CSaMu	
26/09/10	A135	14:44:34	57.0587	-6.47003	80.4	SS.SMu.CFiMu.MegMax	Burrowed mud
24/09/10	A135	14:45:04	57.05875	-6.47005	80.5	SS.SMu.CFiMu.MegMax	Burrowed mud
24/09/10	A135	14:45:34	57.05883	-6.47005	80.8	SS.SMu.CFiMu.MegMax	Burrowed mud
24/09/10	A135	14:46:04	57.05888	-6.47007	81.2	SS.SMu.CFiMu.MegMax	Burrowed mud
24/09/10	A135	14:46:34	57.05895	-6.47005	81.3	SS.SMu.CFiMu.MegMax	Burrowed mud
24/09/10	A135	14:47:04	57.059	-6.47003	81.4	SS.SMu.CFiMu.MegMax	Burrowed mud
24/09/10	A135	14:47:34	57.05908	-6.47002	81.8	SS.SMu.CFiMu.MegMax	Burrowed mud
24/09/10	A135	14:48:04	57.05913	-6.47002	81.9	SS.SMu.CFiMu.MegMax	Burrowed mud
24/09/10	A135	14:48:34	57.0592	-6.47002	82.0	SS.SMu.CFiMu.MegMax	Burrowed mud
24/09/10	A135	14:49:04	57.05923	-6.47002	82.1	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:00:42	57.05967	-6.45975	86.1	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:01:12	57.05975	-6.45977	86.4	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:01:42	57.05982	-6.45975	86.8	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:02:12	57.05988	-6.45973	86.7	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:02:42	57.05997	-6.4597	86.7	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:03:12	57.06003	-6.45963	86.4	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:03:42	57.0601	-6.45963	86.3	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:04:12	57.06015	-6.45955	86.2	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:04:42	57.0602	-6.45952	86.1	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:05:12	57.06025	-6.45948	86.4	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:05:42	57.0603	-6.45947	86.6	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:06:12	57.06035	-6.45943	87.1	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:06:42	57.06042	-6.45943	87.2	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:07:12	57.06048	-6.45935	87.0	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:07:42	57.06055	-6.45932	87.4	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:08:12	57.06062	-6.45932	87.4	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:08:42	57.06067	-6.45923	87.5	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A136	15:09:12	57.06072	-6.45915	87.8	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A138	09:18:56	57.0594	-6.44298	166.6	SS.SMx.CMx.CIloMx	
21/09/10	A138	09:19:26	57.0595	-6.44295	167.1	SS.SMx.CMx.CIloMx	
21/09/10	A138	09:19:56	57.05957	-6.44297	167.5	SS.SMx.CMx.CIloMx	
21/09/10	A138	09:20:26	57.05967	-6.44292	167.9	SS.SMx.CMx.CIloMx	
21/09/10	A138	09:20:56	57.0597	-6.44298	168.0	SS.SMx.CMx.CIloMx	
21/09/10	A138	09:21:26	57.05977	-6.44298	168.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A138	09:21:56	57.0598	-6.44298	168.2	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A138	09:22:26	57.05983	-6.443	168.4	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A138	09:22:56	57.0599	-6.44297	168.6	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A138	09:23:26	57.06002	-6.4429	168.9	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A138	09:23:56	57.06015	-6.4429	169.1	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A139	09:36:30	57.06012	-6.43385	196.2	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A139	09:37:00	57.06022	-6.43383	195.8	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A139	09:37:30	57.06025	-6.43383	195.5	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A139	09:38:00	57.06033	-6.43377	195.2	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A139	09:38:30	57.06043	-6.43375	194.5	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A139	09:39:00	57.06052	-6.43368	194.3	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A139	09:39:30	57.06062	-6.43367	193.8	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A140	09:51:24	57.06102	-6.4268	173.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:51:54	57.0611	-6.42677	174.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:52:24	57.06118	-6.4267	175.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:52:54	57.0613	-6.42662	176.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:53:24	57.06145	-6.42653	176.7	SS.SBR.SMus.Afrag	*Atrina fragilis*

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
21/09/10	A140	09:53:54	57.06162	-6.42645	177.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:54:24	57.06178	-6.42633	177.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:54:54	57.0619	-6.42625	176.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:55:24	57.06198	-6.42622	176.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:55:54	57.06205	-6.4262	176.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:56:24	57.06208	-6.42615	176.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:56:54	57.0621	-6.42612	176.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:57:24	57.06215	-6.42605	175.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:57:54	57.06222	-6.42597	173.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:58:24	57.06232	-6.4259	172.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:58:54	57.06238	-6.42582	171.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:59:24	57.06245	-6.42575	170.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	09:59:54	57.06253	-6.42567	169.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	10:00:24	57.06262	-6.42557	168.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	10:00:54	57.06267	-6.4255	167.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	10:01:24	57.06277	-6.42542	166.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	10:01:54	57.06285	-6.42532	165.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	10:02:26	57.06295	-6.42522	165.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	10:02:56	57.06303	-6.42515	164.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	10:03:26	57.06308	-6.42508	164.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	10:03:56	57.06315	-6.42503	163.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A140	10:04:26	57.06318	-6.425	163.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:04:56	57.0632	-6.42495	163.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:05:26	57.0632	-6.42492	162.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:05:56	57.06323	-6.4249	162.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:06:26	57.06325	-6.42485	162.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:06:56	57.06332	-6.42482	161.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:07:26	57.06342	-6.42475	160.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:07:56	57.06353	-6.4247	160.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:08:26	57.06363	-6.42463	160.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:08:56	57.0637	-6.4246	160.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:09:26	57.06373	-6.4246	160.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:09:56	57.06382	-6.42455	160.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A140	10:10:26	57.0639	-6.42452	166.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A141	10:19:50	57.0622	-6.41873	102.2	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A141	10:20:20	57.06227	-6.41865	102.6	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A141	10:20:50	57.06237	-6.41857	103.5	SS.SMu.CSaMu	*Leptometra celtica* agg.
26/09/10	A141	10:21:20	57.06245	-6.41848	104.1	SS.SMx.CMx.CIloMx	
26/09/10	A141	10:21:50	57.06252	-6.41843	104.0	SS.SMx.CMx.CIloMx	
26/09/10	A141	10:22:20	57.06257	-6.41842	103.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A141	10:22:50	57.06262	-6.41842	103.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A141	10:23:20	57.06272	-6.41837	102.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A141	10:23:50	57.06282	-6.41828	102.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A141	10:24:20	57.0628	-6.41828	101.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A141	10:24:50	57.06288	-6.4182	102.3	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
26/09/10	A141	10:25:20	57.06297	-6.41815	102.8	SS.SMx.CMx.CIloMx	
26/09/10	A141	10:25:50	57.063	-6.41812	103.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A141	10:26:20	57.06307	-6.41808	103.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A141	10:26:50	57.0631	-6.41807	104.0	CR.LCR.BrAs	
26/09/10	A141	10:27:20	57.0632	-6.41798	105.9	CR.LCR.BrAs	
26/09/10	A141	10:27:50	57.06328	-6.41792	108.9	CR.LCR.BrAs	
26/09/10	A141	10:28:20	57.06337	-6.41782	112.3	CR.LCR.BrAs	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	A141	10:28:50	57.06345	-6.41768	116.5	CR.LCR.BrAs	
26/09/10	A141	10:29:20	57.06353	-6.41758	120.4	CR.LCR.BrAs	
26/09/10	A143	14:56:50	57.06165	-6.40325	90.1	SS.SMx.CMx	
26/09/10	A143	14:57:20	57.06153	-6.40313	87.7	SS.SMx.CMx	
26/09/10	A143	14:57:50	57.06145	-6.40297	85.2	SS.SMx.CMx	
26/09/10	A143	14:58:20	57.06135	-6.40282	82.4	SS.SMx.CMx	
26/09/10	A143	14:58:50	57.06127	-6.40265	79.9	SS.SMx.CMx	
26/09/10	A143	14:59:20	57.06118	-6.40248	77.8	SS.SMx.CMx	
26/09/10	A143	14:59:50	57.06108	-6.40233	75.2	SS.SMx.CMx	
26/09/10	A143	15:00:20	57.06098	-6.40218	73.6	SS.SMx.CMx	
26/09/10	A143	15:00:50	57.06085	-6.40208	71.0	SS.SMx.CMx	
26/09/10	A143	15:01:20	57.06073	-6.40182	68.9	SS.SMx.CMx	
26/09/10	A145	15:48:30	57.0621	-6.38475	64.2	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:49:00	57.06217	-6.38485	63.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:49:30	57.06227	-6.38493	61.8	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:50:00	57.06237	-6.38505	59.6	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:50:30	57.06243	-6.38513	58.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:51:00	57.0625	-6.38515	56.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:51:30	57.06258	-6.38523	54.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:52:00	57.06265	-6.38532	54.0	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:52:30	57.0627	-6.38532	53.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:53:00	57.06278	-6.3853	53.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:53:30	57.06285	-6.38538	51.9	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:54:00	57.06288	-6.38547	51.0	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:54:30	57.06293	-6.38553	49.8	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:55:00	57.06298	-6.38563	48.4	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:55:30	57.06302	-6.38587	45.9	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:56:02	57.06305	-6.38608	44.0	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:56:32	57.06327	-6.3867	45.2	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:57:02	57.06425	-6.38727	50.6	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:57:32	57.06533	-6.3877	65.9	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A145	15:58:02	57.06645	-6.3881	84.4	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A147	15:16:28	57.06303	-6.37348	47.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A147	15:16:58	57.0629	-6.37352	47.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A147	15:17:28	57.06278	-6.37362	47.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A147	15:20:52	57.06192	-6.37397	46.6	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A147	15:21:22	57.06182	-6.37412	47.2	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A147	15:21:52	57.06172	-6.37427	46.6	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A147	15:22:22	57.06163	-6.3744	46.6	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A147	15:22:52	57.06155	-6.37457	45.7	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A147	15:23:22	57.06142	-6.37467	44.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A149	11:35:58	57.05243	-6.46948	48.2	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:36:28	57.05247	-6.4695	48.9	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:36:58	57.05257	-6.46925	50.7	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:37:28	57.05265	-6.46905	52.5	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:37:58	57.05268	-6.46875	53.4	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:38:28	57.05263	-6.46835	54.2	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:38:58	57.0525	-6.46803	54.4	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:39:28	57.05248	-6.46792	55.1	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:39:58	57.0525	-6.46777	56.1	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:40:28	57.05238	-6.46748	55.7	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:40:58	57.0523	-6.46742	55.1	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:41:28	57.05218	-6.46723	55.4	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:41:58	57.05207	-6.46695	52.0	SS.SMx.CMx.CIloMx	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	A149	11:42:28	57.05198	-6.46678	42.5	SS.SMx.CMx.CIloMx	
26/09/10	A149	11:42:58	57.05198	-6.4667	41.3	SS.SMx.CMx.CIloMx	
24/09/10	A149	11:43:28	57.05182	-6.46657	38.9	SS.SMx.CMx.CIloMx	
24/09/10	A149	11:43:58	57.05183	-6.46645	37.5	SS.SMx.CMx.CIloMx	
24/09/10	A149	11:44:28	57.05187	-6.46622	36.5	CR.HCR.XFa.CvirCri	*Parazoanthus anguicomus*
24/09/10	A149	11:44:58	57.05193	-6.46602	36.2	CR.HCR.XFa.CvirCri	
24/09/10	A149	11:45:28	57.052	-6.46587	35.9	CR.HCR.XFa.CvirCri	
24/09/10	A149	11:45:58	57.05207	-6.46565	39.5	CR.HCR.XFa.CvirCri	
24/09/10	A149	11:46:28	57.05215	-6.46545	43.4	CR.HCR.XFa.CvirCri	
24/09/10	A149	11:46:58	57.0522	-6.46512	50.3	CR.HCR.XFa.CvirCri	
22/09/10	A149	11:47:28	57.05227	-6.46485	55.4	CR.HCR.XFa.CvirCri	
22/09/10	A149	11:47:58	57.0523	-6.46452	56.7	CR.HCR.XFa.CvirCri	
22/09/10	A149	11:48:28	57.05232	-6.46408	56.8	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:48:58	57.05232	-6.46378	56.3	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:49:28	57.05237	-6.46348	55.9	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:49:58	57.05243	-6.46323	56.7	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:50:28	57.05248	-6.46297	57.7	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:50:58	57.05255	-6.46278	59.1	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:51:28	57.05262	-6.46253	60.1	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:51:58	57.05268	-6.46237	60.2	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:52:28	57.05273	-6.46228	60.7	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:52:58	57.05278	-6.46223	61.0	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:53:28	57.05282	-6.46205	61.6	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:53:58	57.05287	-6.46177	61.7	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:54:28	57.0529	-6.46157	62.9	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:54:58	57.05292	-6.46132	64.6	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:55:28	57.05292	-6.46102	67.2	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:55:58	57.0529	-6.46068	70.7	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:56:28	57.05292	-6.4604	75.6	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:56:58	57.05293	-6.46018	81.1	SS.SMx.CMx.CIloMx	
22/09/10	A149	11:57:28	57.05295	-6.46	86.1	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A149	11:57:58	57.05297	-6.45982	93.5	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A149	11:58:28	57.053	-6.45973	94.8	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A149	11:58:58	57.0531	-6.45965	94.6	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A149	11:59:28	57.05315	-6.45955	99.6	CR.HCR.XFa.CvirCri	
22/09/10	A149	11:59:58	57.05315	-6.45935	106.0	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:00:28	57.05317	-6.45915	116.8	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:00:58	57.05312	-6.45892	126.3	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:01:28	57.05307	-6.45878	133.7	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:01:58	57.05302	-6.45867	143.0	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:02:30	57.05292	-6.45847	147.2	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:03:00	57.05283	-6.4583	154.9	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:03:30	57.05278	-6.45815	162.1	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:04:00	57.0527	-6.45793	168.0	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:04:30	57.05267	-6.45778	172.5	CR.HCR.XFa.CvirCri	
22/09/10	A149	12:05:00	57.05265	-6.45758	179.4	CR.HCR.XFa.CvirCri	
26/09/10	A149	12:05:30	57.05262	-6.45733	186.3	CR.HCR.XFa.CvirCri	
26/09/10	A149	12:06:00	57.0526	-6.4571	193.2	SS.SMx.CMx.CIloMx	
26/09/10	A149	12:06:30	57.05253	-6.45673	201.9	SS.SMx.CMx.CIloMx	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	A149	12:07:00	57.05253	-6.4565	206.2	SS.SMx.CMx.CIloMx	
26/09/10	A152	11:04:10	57.05688	-6.41972	92.6	SS.SMx.CMx.CIloMx	
26/09/10	A152	11:04:40	57.05693	-6.41965	92.0	SS.SMx.CMx.CIloMx	
26/09/10	A152	11:05:10	57.05702	-6.41953	91.8	SS.SMx.CMx.CIloMx	
26/09/10	A152	11:05:40	57.05712	-6.41942	91.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A152	11:06:10	57.0572	-6.41932	90.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A152	11:06:40	57.05727	-6.41918	89.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A152	11:07:10	57.05737	-6.41902	88.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A152	11:07:40	57.05745	-6.41883	87.6	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A152	11:08:10	57.05755	-6.41863	86.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A155	15:19:52	57.05772	-6.39505	67.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A155	15:20:22	57.05772	-6.395	67.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A155	15:20:52	57.05775	-6.39493	67.0	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A155	15:21:22	57.0578	-6.39488	66.9	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A155	15:21:52	57.05782	-6.39477	66.3	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A155	15:22:22	57.05783	-6.39453	65.5	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A155	15:22:52	57.05785	-6.39432	64.6	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A155	15:23:22	57.05787	-6.3941	62.8	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A155	15:23:52	57.05793	-6.39392	61.3	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A155	15:24:22	57.05795	-6.39378	59.8	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A155	15:24:52	57.05798	-6.39367	58.6	CR.LCR.BrAs	
21/09/10	A155	15:25:22	57.05802	-6.39357	57.1	CR.LCR.BrAs	
21/09/10	A155	15:25:52	57.05803	-6.39343	55.8	CR.LCR.BrAs	*Parazoanthus anguicomus*
21/09/10	A155	15:26:22	57.05807	-6.39332	55.1	CR.LCR.BrAs	
21/09/10	A155	15:26:52	57.0581	-6.39322	54.3	CR.LCR.BrAs	
21/09/10	A155	15:27:22	57.05813	-6.3931	53.6	CR.LCR.BrAs	
21/09/10	A155	15:27:52	57.05818	-6.39302	53.1	CR.LCR.BrAs	
21/09/10	A155	15:28:22	57.05823	-6.39295	52.5	CR.LCR.BrAs	
21/09/10	A155	15:28:52	57.0583	-6.39287	52.4	CR.LCR.BrAs	
21/09/10	A155	15:29:22	57.05833	-6.3928	53.1	SS.SSa.CMuSa	
21/09/10	A156	10:45:08	57.05315	-6.43288	183.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A156	10:45:38	57.05317	-6.43282	182.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A156	10:46:08	57.05325	-6.43278	181.9	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A156	10:46:38	57.05327	-6.43272	181.1	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A156	10:47:08	57.05325	-6.43267	180.9	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A156	10:47:38	57.05335	-6.43257	179.6	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A156	10:48:08	57.05343	-6.43245	178.6	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A156	10:48:38	57.05352	-6.43228	177.5	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A156	10:49:08	57.05363	-6.43208	176.3	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A156	10:49:38	57.0537	-6.43195	175.6	SS.SBR.SMus.Afrag	Burrowed mud
21/09/10	A156	10:50:08	57.05382	-6.43182	175.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A156	10:50:38	57.0539	-6.43168	175.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A156	10:51:08	57.054	-6.4316	174.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A156	10:51:38	57.05408	-6.43147	174.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
21/09/10	A156	10:52:08	57.05412	-6.43138	174.4	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A156	10:52:38	57.05418	-6.43125	173.9	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A157	11:19:44	57.05243	-6.4269	157.4	SS.SMx.CMx.CIloMx	
21/09/10	A157	11:20:14	57.05247	-6.42687	155.9	SS.SMx.CMx.CIloMx	
21/09/10	A157	11:20:44	57.05255	-6.42687	151.7	SS.SMx.CMx.CIloMx	
21/09/10	A157	11:21:14	57.05263	-6.4269	148.2	SS.SMx.CMx.CIloMx	
21/09/10	A157	11:21:44	57.05273	-6.42692	145.7	SS.SMx.CMx.CIloMx	
21/09/10	A157	11:22:14	57.05287	-6.42693	144.2	SS.SMx.CMx.CIloMx	
21/09/10	A157	11:22:44	57.05298	-6.42697	143.4	SS.SMx.CMx.CIloMx	
21/09/10	A157	11:23:14	57.05313	-6.42695	142.9	SS.SMx.CMx.CIloMx	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
21/09/10	A157	11:23:44	57.05328	-6.4269	142.6	SS.SMx.CMx.CIloMx	
21/09/10	A157	11:24:14	57.05343	-6.42687	142.2	SS.SMu.CSaMu	
21/09/10	A157	11:24:44	57.05355	-6.4268	142.1	SS.SMu.CSaMu	
21/09/10	A157	11:25:14	57.05363	-6.42673	141.3	CR.MCR.EcCr.CarSwi	*Leptometra;* Northern sea fan / sponge communities
21/09/10	A157	11:25:44	57.05372	-6.42663	141.2	CR.MCR.EcCr.CarSwi	*Leptometra;* Northern sea fan / sponge communities
21/09/10	A157	11:26:14	57.05373	-6.42658	140.6	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A157	11:26:44	57.0538	-6.42652	139.9	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A157	11:27:14	57.05383	-6.42647	139.9	SS.SMu.CFiMu.MegMax	Burrowed mud
21/09/10	A157	11:27:44	57.05393	-6.42642	140.4	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A157	11:28:14	57.054	-6.42637	140.0	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A157	11:28:44	57.05405	-6.42632	139.0	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
26/09/10	A157	11:29:14	57.05408	-6.42628	138.6	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
26/09/10	A157	11:29:44	57.05412	-6.42622	138.3	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
26/09/10	A157	11:30:14	57.05413	-6.42617	138.4	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
26/09/10	A157	11:30:44	57.05418	-6.4261	138.2	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangul*aris
26/09/10	A159	14:48:00	57.0535	-6.40948	45.7	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:48:30	57.0535	-6.40952	46.5	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:49:00	57.05353	-6.40962	47.3	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:49:30	57.05355	-6.4097	47.4	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:50:00	57.0536	-6.4098	48.4	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:50:30	57.05367	-6.41003	53.7	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:51:00	57.05372	-6.41025	61.5	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:51:30	57.05377	-6.41045	66.5	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:52:00	57.0538	-6.4106	69.3	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:52:30	57.05382	-6.41078	73.8	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:53:00	57.05385	-6.41095	76.8	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities, *Parazoanthus anguicomus*

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	A159	14:53:30	57.05385	-6.411	79.3	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities, *Parazoanthus anguicomus*
26/09/10	A159	14:54:00	57.05387	-6.41117	82.5	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities, *Parazoanthus anguicomus*
26/09/10	A159	14:54:30	57.05388	-6.41138	85.9	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:55:00	57.05392	-6.41155	88.0	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A159	14:55:30	57.0539	-6.41165	88.0	SS.SCS.CCS	
26/09/10	A159	14:56:00	57.05392	-6.41177	88.4	SS.SCS.CCS	
26/09/10	A159	14:56:30	57.05393	-6.4119	89.6	SS.SCS.CCS	
26/09/10	A161	15:33:18	57.0547	-6.39152	55.9	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A161	15:33:48	57.05458	-6.39163	55.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A161	15:34:18	57.05448	-6.3918	55.1	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A161	15:34:48	57.05442	-6.39198	54.6	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A161	15:35:18	57.05433	-6.39205	54.2	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A161	15:35:48	57.05428	-6.39223	55.5	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A161	15:36:18	57.05423	-6.39242	55.8	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A161	15:36:48	57.05412	-6.39255	56.2	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A162	12:02:12	57.04503	-6.45455	227.6	CR.HCR.XFa.CvirCri	
26/09/10	A162	12:02:42	57.04498	-6.45443	228.3	CR.HCR.XFa.CvirCri	
26/09/10	A162	12:03:12	57.04493	-6.45433	228.6	CR.HCR.XFa.CvirCri	
26/09/10	A162	12:03:42	57.0449	-6.45428	228.2	CR.HCR.XFa.CvirCri	
24/09/10	A162	12:04:12	57.04485	-6.4542	229.0	CR.HCR.XFa.CvirCri	
24/09/10	A162	12:04:42	57.04482	-6.4541	229.9	CR.HCR.XFa.CvirCri	
24/09/10	A162	12:05:12	57.04477	-6.454	230.1	CR.HCR.XFa.CvirCri	
24/09/10	A162	12:05:42	57.04472	-6.45387	231.3	CR.HCR.XFa.CvirCri	
24/09/10	A162	12:06:12	57.04467	-6.45365	231.5	SS.SMx.CMx.CIloMx	
24/09/10	A162	12:06:42	57.04458	-6.45343	233.2	SS.SMx.CMx.CIloMx	
24/09/10	A162	12:07:12	57.04453	-6.45328	234.7	SS.SMx.CMx.CIloMx	
24/09/10	A162	12:07:42	57.04447	-6.45317	235.1	SS.SMx.CMx.CIloMx	
24/09/10	A162	12:08:12	57.04443	-6.45293	236.8	SS.SMx.CMx.CIloMx	
24/09/10	A162	12:08:42	57.04432	-6.45268	236.7	SS.SMx.CMx.CIloMx	
24/09/10	A162	12:09:12	57.04427	-6.45247	237.5	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:09:42	57.0442	-6.45228	237.9	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:10:12	57.04412	-6.45208	238.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A162	12:10:42	57.04407	-6.45192	238.0	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:11:12	57.044	-6.4517	237.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A162	12:11:42	57.04395	-6.45148	236.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A162	12:12:12	57.04388	-6.45135	237.7	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:12:42	57.04385	-6.4513	236.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A162	12:13:12	57.04387	-6.45135	236.7	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:13:42	57.04385	-6.45138	236.6	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:14:12	57.0438	-6.45138	237.0	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:14:42	57.04378	-6.4513	237.0	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:15:12	57.04375	-6.45118	236.6	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:15:42	57.04372	-6.451	236.8	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:16:12	57.04365	-6.45078	236.6	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:16:42	57.0436	-6.45068	235.7	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:17:12	57.04353	-6.45052	236.2	SS.SBR.SMus.Afrag	*Atrina fragilis*

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
23/09/10	A162	12:17:42	57.04348	-6.4504	235.6	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:18:12	57.0434	-6.45028	234.8	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:18:42	57.04337	-6.45018	234.2	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:19:12	57.04333	-6.4504	234.4	SS.SMx.CMx.CIloMx	
23/09/10	A162	12:19:42	57.04325	-6.45057	234.6	SS.SMx.CMx.CIloMx	
23/09/10	A165	11:42:44	57.04837	-6.43437	205.0	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:43:14	57.04842	-6.43435	205.0	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:43:44	57.04847	-6.43428	205.1	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:44:14	57.04858	-6.43423	205.2	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:44:44	57.04868	-6.4342	205.6	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:45:14	57.04877	-6.43415	205.5	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:45:44	57.04883	-6.4341	205.5	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:46:14	57.04893	-6.43402	205.7	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:46:44	57.049	-6.43397	205.6	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:47:14	57.04907	-6.43392	205.6	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:47:44	57.04913	-6.43383	205.3	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:48:14	57.04922	-6.43377	205.6	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:48:44	57.04928	-6.4337	205.6	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:49:14	57.04937	-6.43365	205.7	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:49:44	57.04947	-6.4336	205.6	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:50:14	57.04953	-6.43357	205.8	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	11:50:44	57.04958	-6.4335	205.6	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:05:32	57.04715	-6.42925	173.3	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:06:02	57.04737	-6.42918	176.6	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:06:32	57.04757	-6.42908	176.4	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:07:02	57.04775	-6.42893	207.7	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:07:32	57.04795	-6.42878	176.3	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:08:02	57.04818	-6.42867	177.5	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:08:32	57.04842	-6.42853	178.7	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:09:02	57.04862	-6.42848	180.1	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:09:32	57.04883	-6.42843	181.0	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:10:02	57.04903	-6.4283	181.0	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:10:32	57.04923	-6.4282	181.7	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:11:02	57.04945	-6.42815	196.9	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:11:32	57.0496	-6.4281	183.2	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:12:02	57.0498	-6.42792	183.4	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165	16:12:32	57.05	-6.42787	183.4	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A165.1	16:31:48	57.0516	-6.43873	221.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:32:18	57.0518	-6.43865	222.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:32:48	57.05198	-6.43862	223.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:33:18	57.05218	-6.43855	224.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:33:48	57.05238	-6.4385	227.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:34:18	57.05258	-6.43847	218.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:34:48	57.05273	-6.43848	222.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:35:18	57.0529	-6.43838	214.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:35:48	57.05308	-6.43827	221.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:36:18	57.05327	-6.43828	214.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:36:48	57.05338	-6.43825	211.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:37:18	57.05357	-6.43817	221.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:37:48	57.05378	-6.43812	217.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A165.1	16:38:18	57.05397	-6.43812	244.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:38:48	57.05413	-6.43802	214.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:39:18	57.05432	-6.43798	213.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:39:48	57.05455	-6.43792	211.9	SS.SBR.SMus.Afrag	*Atrina fragilis*

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
24/09/10	A165.1	16:40:18	57.05472	-6.43795	209.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:40:48	57.0549	-6.43785	208.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:41:20	57.05517	-6.43772	205.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:41:50	57.0554	-6.43775	201.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:42:20	57.0555	-6.43778	199.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:42:50	57.05573	-6.43762	196.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:43:20	57.05598	-6.43763	195.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:43:50	57.05612	-6.43763	192.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:44:20	57.0563	-6.4376	193.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
24/09/10	A165.1	16:44:50	57.05652	-6.43755	186.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A165.1	16:45:20	57.05677	-6.43747	194.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A165.1	16:45:50	57.05688	-6.4375		SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A165.1	16:46:20	57.05712	-6.43735	173.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A165.1	16:46:50	57.05742	-6.43717	180.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A165.1	16:47:20	57.05767	-6.43708	184.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A165.1	16:47:50	57.05792	-6.43697	185.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A165.1	16:48:20	57.05808	-6.43702	187.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A167	14:25:06	57.048	-6.41667	97.5	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
26/09/10	A167	14:25:36	57.04802	-6.41667	97.3	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A167	14:26:06	57.04805	-6.41663	97.4	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A167	14:26:36	57.04808	-6.41663	97.8	SS.SMu.CFiMu.MegMax	Burrowed mud
26/09/10	A167	14:27:06	57.04812	-6.41655	97.4	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
22/09/10	A167	14:27:36	57.04812	-6.41635	97.5	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
22/09/10	A167	14:28:06	57.04813	-6.41625	97.2	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
22/09/10	A167	14:28:36	57.04815	-6.41617	97.2	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A167	14:29:06	57.04817	-6.41608	97.0	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:37:28	57.04895	-6.4014	58.7	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:37:58	57.04898	-6.40133	58.7	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:38:28	57.049	-6.40128	58.5	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:38:58	57.04903	-6.40125	58.7	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:39:28	57.04907	-6.40122	58.8	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:39:58	57.04908	-6.40108	58.5	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:40:28	57.04908	-6.40092	57.9	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:40:58	57.0491	-6.40077	57.5	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:41:28	57.0491	-6.40065	57.4	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:41:58	57.0491	-6.40058	57.1	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A169	14:42:28	57.04907	-6.4001	55.8	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A174	12:38:14	57.04333	-6.4369	174.7	SS.SMx.CMx	
22/09/10	A174	12:38:44	57.04333	-6.43688	174.9	SS.SMx.CMx	
22/09/10	A174	12:39:14	57.04337	-6.43692	175.5	SS.SMx.CMx	
22/09/10	A174	12:39:44	57.04338	-6.43698	176.4	SS.SMx.CMx	
22/09/10	A174	12:40:14	57.04343	-6.43702	176.2	SS.SMx.CMx	
22/09/10	A174	12:40:44	57.04343	-6.43705	177.0	SS.SMx.CMx	
22/09/10	A174	12:41:14	57.04345	-6.43705	176.5	SS.SMx.CMx	
22/09/10	A174	12:41:44	57.04345	-6.43705	177.0	SS.SMx.CMx	
22/09/10	A174	12:42:14	57.04348	-6.43708	176.8	SS.SMx.CMx	
22/09/10	A174	12:42:44	57.04355	-6.437	177.3	SS.SMx.CMx	
22/09/10	A174	12:43:14	57.04365	-6.43697	178.6	SS.SMx.CMx	
22/09/10	A174	12:43:44	57.04373	-6.43703	182.5	SS.SMx.CMx	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
22/09/10	A174	12:44:14	57.04383	-6.43728	184.6	SS.SMx.CMx	
22/09/10	A174	12:44:44	57.04383	-6.43745	187.4	SS.SMx.CMx	
22/09/10	A174	12:45:14	57.04378	-6.4377	189.3	SS.SMx.CMx	
22/09/10	A174	12:45:44	57.04373	-6.43797	191.5	SS.SMx.CMx	
22/09/10	A177	15:48:54	57.04505	-6.41352	75.7	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A177	15:49:24	57.04493	-6.41363	74.6	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A177	15:49:54	57.04488	-6.41388	73.1	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
22/09/10	A177	15:50:24	57.0448	-6.41407	72.4	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A177	15:50:54	57.0447	-6.41422	71.4	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A177	15:51:24	57.04463	-6.4144	70.0	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A177	15:51:54	57.04453	-6.41457	68.8	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A177	15:52:24	57.04445	-6.41468	67.9	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A177	15:52:54	57.04433	-6.41475	67.6	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A177	15:53:24	57.04423	-6.41482	67.6	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A177	15:53:54	57.04413	-6.41493	67.8	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:35:48	57.03685	-6.46	219.8	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:36:18	57.03673	-6.46	220.0	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:36:48	57.03662	-6.46003	216.3	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:37:18	57.0365	-6.4601	211.0	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:37:48	57.03635	-6.46005	210.2	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:38:18	57.03623	-6.46008	207.8	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:38:48	57.03613	-6.4602	205.3	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:39:18	57.03603	-6.46037	197.8	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:39:48	57.03593	-6.46048	190.5	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:40:18	57.03578	-6.46062	188.7	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A178	11:40:48	57.0357	-6.46073	184.7	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:16:30	57.03712	-6.47403	108.5	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:17:00	57.03702	-6.47415	108.5	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:17:30	57.03692	-6.47427	108.0	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
22/09/10	A180	11:18:00	57.03682	-6.47442	107.0	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:18:30	57.03672	-6.47455	108.0	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:19:00	57.0366	-6.47468	105.3	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:19:30	57.0365	-6.47482	100.3	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:20:00	57.0364	-6.47498	99.7	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:20:30	57.03628	-6.47515	100.2	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:21:00	57.03615	-6.47525	102.7	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A180	11:21:30	57.03605	-6.47543	105.1	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities, *Parazoanthus anguicomus*
22/09/10	A180	11:22:00	57.03612	-6.47577	101.2	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
22/09/10	A182	09:40:46	57.03702	-6.4931	120.4	SS.SMu.CSaMu.LceIt	Burrowed mud, *Leptometra celtica* agg
22/09/10	A182	09:41:16	57.037	-6.493	120.3	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A182	09:41:46	57.03697	-6.49285	120.1	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A182	09:42:16	57.03693	-6.49275	120.2	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
22/09/10	A182	09:42:46	57.03692	-6.49253	120.3	SS.SMu.CSaMu.LceIt	Burrowed mud, *Leptometra celtica* agg.
22/09/10	A182	09:43:16	57.0369	-6.49235	120.6	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
22/09/10	A182	09:43:46	57.03687	-6.49227	121.1	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A182	09:44:16	57.03685	-6.49217	121.5	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A182	09:44:46	57.03683	-6.49202	121.9	SS.SMu.CSaMu.LceIt	Burrowed mud, *Leptometra celtica* agg., *Swiftia pallida*, *Parazoanthus anguicomus*
22/09/10	A182	09:45:16	57.03682	-6.49192	121.8	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
22/09/10	A182	09:45:46	57.03682	-6.49177	121.6	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A184	09:55:10	57.03267	-6.49497	117.9	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A184	09:55:40	57.03262	-6.49488	117.2	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A184	09:56:10	57.03258	-6.49482	116.7	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A184	09:56:40	57.03255	-6.49467	115.7	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A184	09:57:10	57.03248	-6.49455	115.4	SS.SMu.CFiMu.SpnMeg.Fun	Burrowed mud, *Funiculina quadrangularis*
22/09/10	A184	09:57:40	57.03243	-6.49445	115.1	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
22/09/10	A184	09:58:10	57.03238	-6.49437	114.7	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
22/09/10	A184	09:58:40	57.03235	-6.49425	115.1	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
22/09/10	A184	09:59:10	57.0323	-6.49417	116.1	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
22/09/10	A184	09:59:40	57.03227	-6.49408	116.9	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
22/09/10	A184	10:00:10	57.03223	-6.494	118.3	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
22/09/10	A184	10:00:40	57.03218	-6.49387	120.3	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
22/09/10	A184	10:01:10	57.0321	-6.49377	123.6	SS.SMu.CSaMu.LceIt	*Leptometra celtica* agg.
22/09/10	A184	10:01:40	57.03202	-6.49365	125.9	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A184	10:02:10	57.03197	-6.49353	128.0	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A184	10:02:40	57.03192	-6.49345	128.9	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A185	10:56:44	57.03313	-6.48125	110.1	CR.LCR.BrAs	
22/09/10	A185	10:57:14	57.03302	-6.48125	112.8	CR.LCR.BrAs	
22/09/10	A185	10:57:44	57.0329	-6.48123	115.2	CR.LCR.BrAs	
22/09/10	A185	10:58:14	57.03278	-6.48133	115.3	CR.LCR.BrAs	
22/09/10	A185	10:58:44	57.03265	-6.48138	115.0	CR.LCR.BrAs	
22/09/10	A185	10:59:14	57.03257	-6.48153	112.9	CR.LCR.BrAs	
22/09/10	A185	10:59:44	57.03252	-6.48173	111.6	CR.LCR.BrAs	
22/09/10	A185	11:00:14	57.0324	-6.48188	111.4	CR.LCR.BrAs	
22/09/10	A185	11:00:44	57.03233	-6.48205	111.1	CR.LCR.BrAs	
22/09/10	A185	11:01:14	57.03223	-6.48215	110.5	CR.LCR.BrAs	
22/09/10	A185	11:01:44	57.03212	-6.48225	111.2	CR.LCR.BrAs	
22/09/10	A185	11:02:14	57.03193	-6.48222	112.2	CR.LCR.BrAs	
22/09/10	A185	11:02:44	57.03187	-6.48237	112.7	CR.LCR.BrAs	
22/09/10	A185	11:03:14	57.03175	-6.4824	113.7	CR.LCR.BrAs	
22/09/10	A185	11:03:44	57.03165	-6.48247	114.0	CR.LCR.BrAs	
22/09/10	A185	11:04:14	57.0315	-6.4824	114.4	CR.LCR.BrAs	
22/09/10	A185	11:04:44	57.03138	-6.48245	114.7	SS.SMu.CFiMu.MegMax	Burrowed mud
22/09/10	A191	16:04:24	57.03912	-6.43272	88.4	SS.SMx.CMx.CIloMx	
22/09/10	A191	16:04:54	57.03903	-6.43278	86.1	SS.SMx.CMx.CIloMx	
22/09/10	A191	16:05:24	57.03888	-6.43283	83.9	SS.SMx.CMx.CIloMx	
22/09/10	A191	16:05:54	57.03875	-6.43285	82.6	SS.SMx.CMx.CIloMx	
22/09/10	A191	16:06:24	57.03865	-6.4329	82.5	SS.SMx.CMx.CIloMx	
22/09/10	A191	16:06:54	57.03858	-6.43298	81.6	SS.SMx.CMx.CIloMx	
22/09/10	A191	16:07:24	57.03848	-6.43303	81.4	SS.SMx.CMx.CIloMx	
26/09/10	A191	16:07:54	57.0384	-6.43298	81.2	SS.SMx.CMx.CIloMx	
26/09/10	A191	16:08:24	57.0383	-6.43292	80.9	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A191	16:08:54	57.03823	-6.43283	80.1	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A191	16:09:24	57.03813	-6.43285	79.8	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A191	16:09:54	57.038	-6.43295	79.2	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A191	16:10:24	57.03792	-6.43312	79.3	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
26/09/10	A193	14:10:36	57.03905	-6.41902	67.7	SS.SMx.CMx.CIloMx	
26/09/10	A193	14:11:06	57.03903	-6.41895	66.9	SS.SMx.CMx.CIloMx	
26/09/10	A193	14:11:36	57.039	-6.4187	65.1	SS.SMx.CMx.CIloMx	
26/09/10	A193	14:12:06	57.03897	-6.41847	63.4	SS.SMx.CMx.CIloMx	
23/09/10	A193	14:12:36	57.03892	-6.41828	62.2	SS.SMx.CMx.CIloMx	
23/09/10	A193	14:13:06	57.03887	-6.41807	61.1	SS.SMx.CMx.CIloMx	
23/09/10	A193	14:13:36	57.03883	-6.4179	60.9	SS.SMx.CMx.CIloMx	
23/09/10	A193	14:14:06	57.03878	-6.41772	61.8	SS.SMx.CMx.CIloMx	
23/09/10	A193	14:14:36	57.03875	-6.4175	63.3	SS.SMx.CMx.CIloMx	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
23/09/10	A193	14:15:06	57.03875	-6.41735	63.3	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A193	14:15:36	57.03875	-6.41717	63.7	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A193	14:16:06	57.03872	-6.41702	63.9	SS.SMu.CFiMu.MegMax	Burrowed mud
23/09/10	A195	11:26:48	57.04422	-6.4464	228.5	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	11:27:18	57.04425	-6.44633	227.4	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	11:27:48	57.04428	-6.44632	228.3	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	11:28:18	57.04432	-6.44617	227.2	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	11:28:48	57.04438	-6.4459	227.0	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	11:29:18	57.04447	-6.44558	227.1	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	11:29:48	57.04447	-6.44552	228.5	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:30:18	57.04452	-6.4454	228.0	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:30:48	57.04457	-6.44522	228.2	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:31:18	57.04462	-6.44502	228.1	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:31:48	57.04465	-6.44488	227.8	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:32:18	57.04467	-6.44478	228.5	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:32:48	57.0447	-6.44448	227.2	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:33:18	57.04473	-6.44428	226.3	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:33:48	57.04473	-6.44408	225.0	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:34:18	57.0447	-6.44427	-1.5	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:34:48	57.04462	-6.44433	225.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A195	11:35:18	57.04462	-6.44428	225.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A195	11:35:48	57.04467	-6.44415	224.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A195	11:36:18	57.04472	-6.44397	223.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A195	11:36:48	57.04477	-6.44375	222.9	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:37:18	57.04482	-6.44357	222.1	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:37:48	57.04487	-6.44342	222.1	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:38:18	57.045	-6.4432	221.3	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:38:48	57.04508	-6.44302	219.6	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:39:18	57.04508	-6.44295	219.8	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:39:48	57.0451	-6.44292	219.1	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:40:18	57.04512	-6.44288	218.5	SS.SMx.CMx.CIloMx	
23/09/10	A195	11:40:48	57.04518	-6.44282	217.9	SS.SMx.CMx.CIloMx	
26/09/10	A195	11:41:18	57.04523	-6.4427	219.4	SS.SMx.CMx.CIloMx	
26/09/10	A195	11:41:48	57.0453	-6.44263	219.1	SS.SMx.CMx.CIloMx	
26/09/10	A195	11:42:18	57.0454	-6.4425	219.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A195	11:42:48	57.04552	-6.44238	219.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A195	11:43:18	57.0456	-6.44228	217.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A195	11:43:48	57.0456	-6.44228	217.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A195	11:44:18	57.04565	-6.4422	217.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A195	13:47:12	57.03452	-6.44913	139.8	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:47:42	57.03465	-6.44908	139.1	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:48:12	57.03478	-6.44898	139.9	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:48:42	57.03487	-6.44898	141.5	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:49:12	57.03497	-6.44893	143.2	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:49:42	57.03505	-6.44887	142.9	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:50:12	57.03512	-6.44888	143.1	SS.SBR.SMus.Afrag	*?Atrina fragilis*
24/09/10	A195	13:50:42	57.0352	-6.44887	143.6	CR.MCR.EcCr.FaAlCr	
24/09/10	A195	13:51:12	57.03528	-6.44887	144.2	CR.MCR.EcCr.FaAlCr	
24/09/10	A195	13:51:42	57.03537	-6.44883	144.6	CR.MCR.EcCr.FaAlCr	
24/09/10	A195	13:52:12	57.03547	-6.44882	145.6	CR.MCR.EcCr.FaAlCr	
24/09/10	A195	13:52:42	57.03557	-6.44877	145.7	CR.MCR.EcCr.FaAlCr	
24/09/10	A195	13:53:12	57.03568	-6.4487	146.7	CR.MCR.EcCr.FaAlCr	
24/09/10	A195	13:53:42	57.03578	-6.44862	147.1	CR.MCR.EcCr.FaAlCr	
24/09/10	A195	13:54:12	57.03592	-6.44855	147.3	CR.MCR.EcCr.FaAlCr	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	A195	13:54:42	57.03602	-6.44848	148.2	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:55:12	57.03612	-6.44845	148.8	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:55:42	57.03625	-6.44842	149.5	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:56:12	57.03637	-6.44843	151.3	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:56:42	57.03647	-6.44842	152.0	CR.MCR.EcCr.FaAlCr	
26/09/10	A195	13:57:12	57.03658	-6.44842	152.9	SS.SMx.CMx.CIloMx	
26/09/10	A195	13:57:42	57.03668	-6.44838	153.7	SS.SMx.CMx.CIloMx	
26/09/10	A195	13:58:12	57.0368	-6.44833	154.6	SS.SMx.CMx.CIloMx	
26/09/10	A195	13:58:42	57.03692	-6.4483	155.8	SS.SMx.CMx.CIloMx	
26/09/10	A195	13:59:12	57.03703	-6.44822	156.1	SS.SMx.CMx.CIloMx	
26/09/10	A195	13:59:42	57.03715	-6.44815	157.0	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:00:12	57.03728	-6.44805	157.2	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:00:42	57.03738	-6.44793	157.4	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:01:12	57.03748	-6.44782	157.9	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:01:42	57.03758	-6.4477	158.6	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:02:12	57.03767	-6.44762	159.0	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:02:42	57.03778	-6.44753	159.3	SS.SMx.CMx.CIloMx	
24/09/10	A195	14:03:12	57.03787	-6.44745	159.4	SS.SMx.CMx.CIloMx	
24/09/10	A195	14:03:42	57.03797	-6.44737	159.1	SS.SMx.CMx.CIloMx	
24/09/10	A195	14:04:12	57.03807	-6.44728	158.5	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:04:42	57.03818	-6.4472	159.4	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:05:12	57.0383	-6.44712	159.3	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:05:42	57.03838	-6.44702	159.7	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:06:12	57.0385	-6.44698	159.5	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:06:42	57.0386	-6.4469	161.2	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:07:12	57.0387	-6.44678	163.1	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:07:42	57.03882	-6.44667	165.2	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:08:12	57.03892	-6.44653	164.7	SS.SMx.CMx.CIloMx	
26/09/10	A195	14:08:42	57.03903	-6.44642	165.0	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:09:12	57.03913	-6.44633	164.6	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	14:09:42	57.03923	-6.44622	166.0	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	14:10:12	57.03935	-6.44612	167.0	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	14:10:42	57.03945	-6.446	168.1	CR.MCR.EcCr.FaAlCr	
23/09/10	A195	14:11:12	57.03955	-6.4459	170.1	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:11:42	57.03967	-6.44577	171.0	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:12:12	57.0398	-6.44563	173.8	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:12:42	57.03992	-6.4455	174.6	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:13:12	57.04005	-6.44538	175.7	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:13:42	57.04018	-6.4453	176.8	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:14:12	57.0403	-6.44518	178.2	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:14:42	57.04043	-6.44508	179.7	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:15:12	57.04053	-6.44498	181.4	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:15:42	57.04065	-6.44485	182.4	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:16:12	57.04078	-6.44472	184.5	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:16:42	57.0409	-6.44455	186.1	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:17:12	57.04102	-6.44438	187.0	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:17:42	57.04115	-6.44423	189.3	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:18:14	57.04128	-6.4441	190.8	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:18:44	57.0414	-6.44392	191.5	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:19:14	57.04153	-6.44375	191.9	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:19:44	57.04168	-6.44355	192.1	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:20:14	57.0418	-6.44335	192.5	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:20:44	57.0419	-6.44317	191.9	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:21:14	57.04203	-6.44302	192.3	SS.SMx.CMx.CIloMx	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
23/09/10	A195	14:21:44	57.04218	-6.44285	191.9	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:22:14	57.04233	-6.4427	192.7	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:22:44	57.04247	-6.44253	193.2	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:23:14	57.04258	-6.44237	192.7	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:23:44	57.04272	-6.44223	192.8	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:24:14	57.04287	-6.44207	193.7	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:24:44	57.04302	-6.4419	195.9	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:25:14	57.04315	-6.44177	197.1	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:25:44	57.0433	-6.44162	197.3	SS.SMx.CMx.CIloMx	
23/09/10	A195	14:26:14	57.04345	-6.44145	197.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A195	14:26:44	57.0436	-6.44128	197.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
23/09/10	A196	12:58:30	57.03488	-6.43938	161.4	SS.SMx.CMx	
23/09/10	A196	12:59:02	57.03487	-6.43935	161.2	SS.SMx.CMx	
23/09/10	A196	12:59:32	57.03483	-6.43932	161.4	SS.SMx.CMx	
23/09/10	A196	13:00:02	57.03483	-6.43928	161.2	SS.SMx.CMx	
23/09/10	A196	13:00:32	57.03478	-6.43908	160.7	SS.SMx.CMx	
23/09/10	A196	13:01:02	57.0347	-6.43893	161.0	SS.SMx.CMx	
23/09/10	A196	13:01:32	57.03463	-6.43875	160.4	SS.SMx.CMx	
23/09/10	A196	13:02:02	57.03457	-6.43865	160.1	SS.SMx.CMx	
23/09/10	A196	13:02:32	57.03452	-6.43855	159.5	SS.SMx.CMx	
23/09/10	A196	13:03:02	57.03448	-6.43842	158.7	SS.SMx.CMx	
23/09/10	A200	10:12:12	57.02882	-6.48513	83.2	SS.SMu.CSaMu.LcelT	*Leptometra celtica* agg.
23/09/10	A200	10:12:42	57.0287	-6.48503	83.9	SS.SMu.CSaMu.LcelT	*Leptometra celtica* agg.
23/09/10	A200	10:13:12	57.0286	-6.48497	84.5	SS.SMu.CSaMu.LcelT	*Leptometra celtica* agg.
23/09/10	A200	10:13:42	57.0285	-6.48492	84.6	CR.LCR.BrAs	
23/09/10	A200	10:14:12	57.02837	-6.48483	84.7	CR.LCR.BrAs	
23/09/10	A200	10:14:42	57.02827	-6.48472	84.4	CR.LCR.BrAs	
23/09/10	A200	10:15:12	57.02818	-6.48472	85.2	SS.SMu.CSaMu.LcelT	*Leptometra celtica* agg.
23/09/10	A200	10:15:42	57.02807	-6.48468	85.6	SS.SMu.CSaMu.LcelT	*Leptometra celtica* agg.
23/09/10	A200	10:16:12	57.02797	-6.48462	86.2	CR.LCR.BrAs	
23/09/10	A200	10:16:42	57.02785	-6.48443	87.8	CR.LCR.BrAs	
26/09/10	A200	10:17:12	57.02775	-6.4843	89.2	CR.LCR.BrAs	
26/09/10	A200	10:17:42	57.02768	-6.48422	90.0	CR.LCR.BrAs	
26/09/10	A200	10:18:12	57.02757	-6.48407	91.4	CR.LCR.BrAs	
26/09/10	A200	10:18:42	57.02745	-6.48397	91.8	CR.LCR.BrAs	
26/09/10	A200	10:19:12	57.02735	-6.48383	91.4	CR.LCR.BrAs	
26/09/10	A200	10:19:42	57.02725	-6.48378	91.0	CR.LCR.BrAs	
26/09/10	A202	11:51:18	57.02922	-6.46902	105.7	CR.LCR.BrAs	
26/09/10	A202	11:51:48	57.02912	-6.4692	105.5	CR.LCR.BrAs	
26/09/10	A202	11:52:18	57.02903	-6.46937	104.1	CR.LCR.BrAs	
26/09/10	A202	11:52:48	57.02892	-6.46953	103.5	CR.LCR.BrAs	
26/09/10	A202	11:53:18	57.02882	-6.46965	103.8	CR.LCR.BrAs	
26/09/10	A202	11:53:48	57.02867	-6.46982	105.3	CR.LCR.BrAs	
26/09/10	A202	11:54:18	57.02855	-6.4699	107.0	CR.LCR.BrAs	
26/09/10	A202	11:54:48	57.02843	-6.46998	109.2	CR.LCR.BrAs	
26/09/10	A202	11:55:18	57.02833	-6.47012	112.0	CR.LCR.BrAs	
26/09/10	A202	11:55:48	57.02823	-6.4702	114.3	CR.LCR.BrAs	
26/09/10	A202	11:56:18	57.02813	-6.4703	116.1	CR.LCR.BrAs	
26/09/10	A202	11:56:48	57.02798	-6.47045	119.0	CR.LCR.BrAs	
26/09/10	A202	11:57:18	57.02788	-6.47048	121.1	CR.LCR.BrAs	
26/09/10	A202	11:57:48	57.02777	-6.47058	125.0	CR.LCR.BrAs	
26/09/10	A202	11:58:18	57.02763	-6.47067	125.7	CR.LCR.BrAs	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
26/09/10	A202	11:58:48	57.02752	-6.47087	127.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A202	11:59:18	57.02742	-6.471	128.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
26/09/10	A202	11:59:48	57.02727	-6.4711	128.5	CR.LCR.BrAs	
26/09/10	A202	12:00:18	57.02715	-6.47115	129.3	CR.LCR.BrAs	
26/09/10	A202	12:00:48	57.02702	-6.47125	129.2	CR.LCR.BrAs	
26/09/10	A202	12:01:18	57.02688	-6.47133	130.0	CR.LCR.BrAs	
26/09/10	A204	13:13:56	57.03028	-6.451	192.1	SS.SMx.CMx.CIloMx	
26/09/10	A204	13:14:26	57.03035	-6.45115	192.7	SS.SMx.CMx.CIloMx	
26/09/10	A204	13:14:56	57.0304	-6.45138	192.6	SS.SMx.CMx.CIloMx	
26/09/10	A204	13:15:26	57.03045	-6.4516	191.1	SS.SMx.CMx.CIloMx	
26/09/10	A204	13:15:56	57.03048	-6.45182	188.5	SS.SMx.CMx.CIloMx	
26/09/10	A204	13:16:26	57.03053	-6.452	183.7	SS.SMx.CMx.CIloMx	
26/09/10	A204	13:16:56	57.03057	-6.45222	180.6	SS.SMx.CMx.CIloMx	
26/09/10	A204	13:17:26	57.03063	-6.45253	177.1	SS.SMx.CMx.CIloMx	
26/09/10	A204	13:17:56	57.03067	-6.4528	175.3	SS.SMx.CMx.CIloMx	
26/09/10	A204	13:18:26	57.0307	-6.45303	174.6	SS.SMx.CMx.CIloMx	
07/08/10	A204	13:18:56	57.03073	-6.45313	175.2	SS.SMx.CMx.CIloMx	
07/08/10	A204	13:19:26	57.03075	-6.4533	175.7	SS.SMx.CMx.CIloMx	
07/08/10	A204	13:19:56	57.03078	-6.45342	176.9	SS.SMx.CMx.CIloMx	
07/08/10	A204	13:20:26	57.03078	-6.45355	177.6	SS.SMx.CMx.CIloMx	
07/08/10	A206	16:20:32	57.03057	-6.43573	71.8	SS.SMu.CFiMu.MegMax	Burrowed mud
07/08/10	A206	16:21:02	57.03047	-6.4358	69.8	SS.SMu.CFiMu.MegMax	Burrowed mud
07/08/10	A206	16:21:32	57.03037	-6.43585	65.7	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
07/08/10	A206	16:22:02	57.03028	-6.43593	63.6	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
07/08/10	A206	16:22:32	57.03017	-6.436	60.9	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
07/08/10	A206	16:23:02	57.03008	-6.43607	59.0	CR.MCR.EcCr.CarSwi	Northern sea fan / sponge communities
07/08/10	A206	16:23:32	57.03	-6.4362	58.4	SS.SMu.CFiMu.MegMax	Burrowed mud
07/08/10	A206	16:24:02	57.0299	-6.43632	58.6	SS.SMu.CFiMu.MegMax	Burrowed mud
07/08/10	A209	13:32:12	57.02428	-6.46362	207.0	CR.LCR.BrAs	
07/08/10	A209	13:32:42	57.02423	-6.46373	206.3	CR.LCR.BrAs	
07/08/10	A209	13:33:12	57.02417	-6.46382	204.8	CR.LCR.BrAs	
07/08/10	A209	13:33:42	57.0241	-6.4639	204.2	CR.LCR.BrAs	
07/08/10	A209	13:34:12	57.02408	-6.46397	203.5	SS.SSa.CFiSa	
07/08/10	A209	13:34:42	57.02403	-6.46402	202.5	SS.SSa.CFiSa	
07/08/10	A209	13:35:12	57.02402	-6.46408	202.0	SS.SSa.CFiSa	
07/08/10	A209	13:35:42	57.024	-6.46423	200.9	SS.SSa.CFiSa	
07/08/10	A209	13:36:12	57.02398	-6.46435	200.1	SS.SSa.CFiSa	
07/08/10	A209	13:36:42	57.02397	-6.46447	198.5	SS.SSa.CFiSa	
07/08/10	A209	13:37:12	57.02395	-6.46462	197.3	SS.SSa.CFiSa	
07/08/10	A209	13:37:42	57.02393	-6.46478	195.5	SS.SSa.CFiSa	
07/08/10	A209	13:38:12	57.0239	-6.4649	194.2	SS.SSa.CFiSa	
07/08/10	A209	13:38:42	57.02392	-6.465	191.6	SS.SSa.CFiSa	
07/08/10	A209	13:39:12	57.0239	-6.46515	191.4	SS.SSa.CFiSa	
07/08/10	A209	13:39:42	57.02388	-6.46528	191.5	SS.SSa.CFiSa	
07/08/10	A209	13:40:12	57.02387	-6.46543	190.9	SS.SSa.CFiSa	
07/08/10	A210	16:35:52	57.02463	-6.45375	187.4	SS.SMu.CFiMu.MegMax	Burrowed mud
05/08/10	A210	16:36:22	57.02453	-6.45378	185.8	SS.SMu.CFiMu.MegMax	Burrowed mud
05/08/10	A210	16:36:52	57.02442	-6.4539	184.3	SS.SMu.CFiMu.MegMax	Burrowed mud
05/08/10	A212	13:51:38	57.02497	-6.44065	51.6	SS.SCS.CCS	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
05/08/10	A212	13:52:08	57.025	-6.44055	50.1	SS.SCS.CCS	
05/08/10	A212	13:52:38	57.02498	-6.4405	49.2	SS.SCS.CCS	
05/08/10	A212	13:53:08	57.02493	-6.4405	48.5	SS.SCS.CCS	
05/08/10	A212	13:53:38	57.02487	-6.44043	45.5	SS.SCS.CCS	
05/08/10	A212	13:54:08	57.0248	-6.4404	44.3	SS.SCS.CCS	
05/08/10	A212	13:54:38	57.02475	-6.4404	43.1	SS.SCS.CCS	
05/08/10	A212	13:55:08	57.02468	-6.44038	42.6	SS.SCS.CCS	
05/08/10	A212	13:55:38	57.02465	-6.4404	42.5	SS.SCS.CCS	
05/08/10	A213	14:01:08	57.02	-6.47552	205.8	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:01:38	57.0199	-6.47548	204.1	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:02:08	57.01975	-6.47542	200.1	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:02:38	57.01965	-6.47542	197.9	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:03:08	57.01953	-6.47543	195.7	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:03:38	57.01942	-6.47538	193.4	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:04:08	57.0193	-6.47542	191.9	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:04:38	57.01917	-6.47538	190.6	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:05:08	57.01903	-6.4754	189.9	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:05:38	57.01893	-6.4754	189.1	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:06:08	57.01878	-6.47538	188.7	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:06:38	57.01868	-6.4754	188.9	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:07:08	57.01855	-6.47537	188.3	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:07:38	57.01842	-6.47537	188.0	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:08:08	57.01833	-6.47543	187.9	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:08:38	57.01818	-6.47542	187.3	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:09:08	57.0181	-6.47547	187.1	SS.SMx.CMx.CIloMx	
05/08/10	A213	14:09:38	57.018	-6.47553	186.7	SS.SMx.CMx.CIloMx	
05/08/10	A217	14:42:20	57.01978	-6.44647	54.4	SS.SMx.CMx	
05/08/10	A217	14:42:50	57.01972	-6.44665	54.4	SS.SMx.CMx	
05/08/10	A217	14:43:20	57.01963	-6.44682	54.5	SS.SMx.CMx	
05/08/10	A217	14:43:50	57.01953	-6.44697	54.3	SS.SMx.CMx	
05/08/10	A217	14:44:20	57.01948	-6.4472	55.0	SS.SMx.CMx	
05/08/10	A217	14:44:50	57.01942	-6.44743	56.8	SS.SMx.CMx	
06/08/10	A217	14:45:20	57.01932	-6.4476	55.7	SS.SMx.CMx	
06/08/10	A217	14:45:50	57.01925	-6.44778	57.5	SS.SMx.CMx	
06/08/10	A217	14:46:20	57.01915	-6.44795	56.5	SS.SMx.CMx	
06/08/10	A217	14:46:50	57.01905	-6.4481	56.1	SS.SMx.CMx	
06/08/10	A217	14:47:20	57.01892	-6.44825	55.1	SS.SMx.CMx	
06/08/10	A217	14:47:50	57.01882	-6.44837	55.8	SS.SMx.CMx	
06/08/10	A217	14:48:20	57.01868	-6.44848	53.9	SS.SMx.CMx	
06/08/10	A217	14:48:50	57.0186	-6.44867	56.8	SS.SMx.CMx	
06/08/10	A217	14:49:20	57.01855	-6.44908	64.1	SS.SMx.CMx	
06/08/10	A217	14:49:50	57.0186	-6.4496	75.5	SS.SMx.CMx	
06/08/10	A217	14:50:20	57.01887	-6.45032	85.4	SS.SMx.CMx	
06/08/10	A219	14:23:56	57.01505	-6.4665	53.6	SS.SCS.CCS	
06/08/10	A219	14:24:26	57.01502	-6.46672	54.2	SS.SCS.CCS	
06/08/10	A219	14:24:56	57.01497	-6.46697	54.9	SS.SCS.CCS	
06/08/10	A219	14:25:26	57.01495	-6.4672	57.3	SS.SCS.CCS	
06/08/10	A219	14:25:56	57.01495	-6.46747	59.9	SS.SCS.CCS	
06/08/10	A219	14:26:26	57.01493	-6.46772	62.5	SS.SCS.CCS	
06/08/10	A219	14:26:56	57.01488	-6.46798	64.2	SS.SCS.CCS	
06/08/10	A219	14:27:26	57.01477	-6.4682	65.4	SS.SCS.CCS	
06/08/10	A219	14:27:56	57.01463	-6.46835	66.2	SS.SCS.CCS	
06/08/10	A219	14:28:26	57.01453	-6.46845	65.5	SS.SCS.CCS	
06/08/10	A219	14:28:56	57.01443	-6.46857	62.6	SS.SCS.CCS	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
06/08/10	A223	09:25:44	57.03683	-6.50685	112.1	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A223	09:26:14	57.03677	-6.50688	112.6	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A223	09:26:44	57.03668	-6.5069	112.6	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A223	09:27:14	57.03667	-6.507	112.6	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A223	09:27:44	57.03662	-6.50702	112.4	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A223	09:28:14	57.03655	-6.50703	112.3	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A223	09:28:44	57.0365	-6.50707	111.9	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A223	09:29:14	57.03643	-6.50708	111.5	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A223	09:29:44	57.03637	-6.50712	110.9	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A223	09:30:14	57.0363	-6.50718	110.3	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A225	15:36:18	57.05842	-6.38117	54.2	SS.SMx.CMx.CIloMx	
06/08/10	A225	15:36:48	57.05847	-6.38107	53.7	SS.SMx.CMx.CIloMx	
06/08/10	A225	15:37:18	57.05852	-6.38088	53.2	SS.SMx.CMx.CIloMx	
06/08/10	A225	15:37:48	57.05858	-6.3807	52.5	SS.SMx.CMx.CIloMx	
06/08/10	A225	15:38:18	57.05862	-6.38053	52.0	SS.SMx.CMx.CIloMx	
06/08/10	A225	15:38:48	57.05865	-6.38038	51.8	SS.SMx.CMx.CIloMx	
06/08/10	A225	15:39:18	57.05867	-6.38022	51.6	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A225	15:39:48	57.05872	-6.38005	51.5	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A225	15:40:18	57.0588	-6.37992	51.3	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A225	15:40:48	57.05887	-6.3798	51.2	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A225	15:41:18	57.0589	-6.37965	51.2	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A225	15:41:48	57.05893	-6.37945	51.0	SS.SMu.CFiMu.MegMax	Burrowed mud
06/08/10	A228	16:09:22	57.06618	-6.4206	149.2	SS.SMx.CMx.CIloMx	
06/08/10	A228	16:09:52	57.06627	-6.42065	150.6	SS.SMx.CMx.CIloMx	
06/08/10	A228	16:10:22	57.06633	-6.42072	151.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
06/08/10	A228	16:10:52	57.0664	-6.42075	152.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
06/08/10	A228	16:11:22	57.06647	-6.42077	153.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
06/08/10	A228	16:11:52	57.06653	-6.42077	153.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
06/08/10	A228	16:12:22	57.0666	-6.42075	154.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
06/08/10	A228	16:12:52	57.06667	-6.42073	155.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
06/08/10	A228	16:13:22	57.06672	-6.42072	155.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
06/08/10	A228	16:13:52	57.06682	-6.42072	155.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
06/08/10	A228	16:14:22	57.06687	-6.4207	154.4	SS.SBR.SMus.Afrag	*Atrina fragilis*
06/08/10	A228	16:14:52	57.06695	-6.42062	154.5	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:15:22	57.067	-6.4206	153.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:15:52	57.06708	-6.42055	153.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:16:22	57.06717	-6.42052	153.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:16:52	57.06725	-6.42047	153.8	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:17:22	57.06733	-6.42047	154.2	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:17:52	57.0674	-6.4204	153.6	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:18:22	57.06747	-6.42035	153.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:18:52	57.06752	-6.42033	152.9	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:19:22	57.06758	-6.42025	152.3	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:19:52	57.06765	-6.42022	151.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:20:22	57.06772	-6.42013	150.7	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:20:52	57.0678	-6.42008	150.0	SS.SBR.SMus.Afrag	*Atrina fragilis*
07/08/10	A228	16:21:22	57.06785	-6.42003	149.1	SS.SBR.SMus.Afrag	*Atrina fragilis*
29/08/10	Dive1.1	15:05	57.059	-6.48984	0 - 3	SS.SMp.SSgr.Zmar	Seagrass beds
30/08/10	Dive2.1	10:29	57.0451	-6.464	6 - 19	IR.HIR.KFaR.LhypFa	
30/08/10	Dive2.2	10:29	57.0451	-6.464	19 - 24	CR.HCR.XFa.CvirCri	

Date	Station	Time	Latitude	Longitude	Depth bcd	Biotope	MPA SF / PMF
30/08/10	Dive2.3	10:29	57.0451	-6.464	24 - 34	CR.HCR.XFa.SwiLgAs	Northern sea fan / sponge communities, *Parazoanthus anguicomus, Palinurus elephas*
30/08/10	Dive3.1	15:00	57.0654	-6.4833	2.9 - 2.9	IR.HIR.KSed.Sac	
30/08/10	Dive3.2	15:00	57.0654	-6.4833	2.9 - 21.4	SS.SSa.IMuSa.SsubNhom	
30/08/10	Dive4.1	16:03	57.0596	-6.4859	4.5 - 10.7	IR.LIR.K.Lsac.Ft	
30/08/10	Dive4.2	16:03	57.0596	-6.4859	10.7 - 17.5	SS.SMx.CMx.CIloMx	
30/08/10	Dive4.3	16:03	57.0596	-6.4859	17.5 - 23.5	SS.SMu.CFiMu.MegMax	Burrowed mud
31/08/10	Dive5.1	11:15	57.0422	-6.46717	10 - 16	IR.HIR.KFaR.LhypFa	
31/08/10	Dive5.2	11:15	57.0422	-6.46717	16 - 21	CR.HCR.XFa.CvirCri	
31/08/10	Dive5.3	11:15	57.0422	-6.46717	21 - 34	CR.HCR.XFa.SpAnVt	*Parazoanthus anguicomus,* poss. northern sea fan comms
31/08/10	Dive6.1	16:10	57.0618	-6.34762	11 - 13	IR.HIR.KFaR.LhypR	
31/08/10	Dive6.2	17:08	57.0636	-6.3453	15 - 21	CR.HCR.XFa.SpNemAdia	
01/09/10	Dive7.1	10:28	57.0704	-6.48925	11 - 13	IR.HIR.KSed.XKScrR	
01/09/10	Dive7.2	10:28	57.0704	-6.48925	13 - 19	SS.SMp.KSwSS.LsacR.Gv	Kelp and seaweed communities
01/09/10	Dive7.3	10:28	57.0704	-6.48925	19 - 28	SS.SMx.CMx.CIloMx	
01/09/10	Dive8.1	11:42	57.0703	-6.48778	18 - 22	CR.MCR.EcCr.FaAlCr.Sec	*Parazoanthus anguicomus,* poss. northern sea fan comms
01/09/10	Dive8.2	11:42	57.0703	-6.48778	22 - 36	CR.FCR.Cv.SpCup	*Parazoanthus anguicomus,* poss. northern sea fan comms
01/09/10	Dive9.1	15:19	57.0431	-6.49703	10 - 20	IR.HIR.KFaR.LhypFa	
01/09/10	Dive10.1	16:26	57.0102	-6.46012	4.2 - 6.2	IR.HIR.KFaR.LhypR	
02/09/10	Dive11.1	10:57	57.0573	-6.48488	22.5 - 28.5	SS.SMu.CFiMu.MegMax	Burrowed mud
02/09/10	Dive12.1	11:58	57.0546	-6.48108	21 - 27	SS.SMu.CFiMu.MegMax	Burrowed mud
02/09/10	Dive13.1	15:25	57.0538	-6.47795	3 - 7	IR.HIR.KFaR.LhypR	
02/09/10	Dive13.2	15:25	57.0538	-6.47795	7 - 24	CR.FCR.Cv.SpCup	*Parazoanthus anguicomus*
02/09/10	Dive14.1	16:46	57.0266	-6.43372	20.5 - 22	SS.SMp.Mrl.Pcal	Maerl beds
03/09/10	Dive15.1	10:40	57.0532	-6.35493	4 - 6.5	SS.SMp.SSgr.Zmar	Seagrass beds

Table A1.2 Summary notes (biological community present, substrates etc.) for individual drop-down video samples collected during the 2010 Sound of Canna survey

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
DD1_1.1		07/08/2010	D1_Canna_20100807_5	2.9 - 2	*Laminaria saccharina* and *Laminaria hyperborea* forest with some red algae. **Species:** *Laminaria hyperborea, Laminaria saccharina, Desmarestia aculeata, Ulva* sp., *Membranipora membranacea,* enc. *Corallinaceae, Delesseria sanguinea, Dilsea carnosa, Haliclona* sp.	IR.LIR.K.LhypLsac
DD1_2		07/08/2010	D1_Canna_20100807_5	4.4 - 6.3	Kelp on boulders and sand. Very grazed/scoured. Small plants in understorey. *Laminaria saccharina* @ 8 m and coralline crusts on cobbles. Patches of clean gravel. **Species:** *Laminaria hyperborea, Laminaria saccharina, Asterias rubens, Echinus esculentus,* enc. *Corallinaceae, Chondrus crispus, Delesseria sanguinea, Callophyllis laciniata*.	IR.MIR.KR.Lhyp.GzFt
DD1_3		07/08/2010	D1_Canna_20100807_5	7.4	*Laminaria hyperborea* forest on cobble and boulder with coralline crusts. **Species:** *Laminaria hyperborea,* enc. *Corallinaceae, Callophyllis laciniata, Kallymenia reniformis, Asterias rubens*.	IR.MIR.KR.Lhyp
DD1_2.2		07/08/2010	D1_Canna_20100807_5	1.3	Very short drop onto sand in inner bay. No *Zostera*. Clean rippled sand with *Arenicola marina*.	SS.SSa.IMuSa.AreISa
DD1_4		07/08/2010	D1_Canna_20100807_5	20.1 - 20.1	Cobbles and boulders with algae, hydroids, *Pomatoceros* and *Echinus*. Some patches of grazed boulders. **Species:** *Pomatoceros* sp., *Echinus esculentus, Bonnemaisonia asparagoides*.	IR.HIR.KFaR.FoR
DD1_5.1		07/08/2010	D1_Canna_20100807_5	6.2 - 9.2	*Laminaria hyperborea* forest on grazed or scoured bedrock. Some *Echinus* present. Crusts frequent. Then mobile cobbles with *Laminaria saccharina, Desmarestia aculeata, Alaria esculenta, Saccorhiza polyschides*. **Species:** *Laminaria hyperborea, Laminaria saccharina, Desmarestia aculeata, Alaria esculenta, Saccorhiza polyschides, Echinus esculentus,* enc. *Corallinaceae, Dilsea carnosa*.	IR.MIR.KR.Lhyp.GzFt; IR.HIR.KSed.XKScrR
DD1_5.2		07/08/2010	D1_Canna_20100807_5	16.2 - 9.2	Boulders and cobbles with abundant algae. Occasional *Laminaria saccharina* and *Laminaria hyperborea*. **Species:** *Laminaria hyperborea, Laminaria saccharina, Saccorhiza polyschides, Odonthalia dentata, Dilsea carnosa*.	IR.HIR.KFaR.FoR
	5.2	07/08/2010	D1_Canna_20100807_5	14.2	Rock/sand boundary. Mixed shelly sand. Mounds and occasional algae. *Laminaria saccharina* occasional. *Cerianthus.* **Species:** *Laminaria saccharina, Cerianthus lloydii*.	SS.SMp.KSwSS.LsacR
	5.2	07/08/2010	D1_Canna_20100807_5	13.2 - 9.2	Bedrock and boulder with *Laminaria hyperborea* forest. Camera up from 11 m.	IR.MIR.KR.Lhyp

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
DD1_7.1		07/08/2010	D1_Canna_20100807_5	25 - 40	Bedrock with sediment. Dropped off suddenly to over 40 m - no seabed visible. Not enough species visible on bedrock shelf to assign biotope. **Species:** *Nemertesia antennina*, red algae occasional, *Echinus esculentus*.	Shelf then cliff
DD1_7.2		07/08/2010	D1_Canna_20100807_5	22 - 35	Bedrock and occasional boulders with *Alcyonium digitatum*, *Parasmittina trispinosa*, *Holothuria forskali* and *Cliona celata*. At 30 m there was a hydroid and bryozoan turf amongst the *Alcyonium*. Steep drop from 30 to 37 m onto cobble and gravel at 37 m. **Species:** *Alcyonium digitatum, Parasmittina trispinosa, Holothuria forskali, Cliona celata, Nemertesia antennina, Labrus mixtus, Echinus esculentus, Delesseria sanguinea, Caryophyllia smithii*.	CR.MCR.EcCr.FaAlCr.Adig
DD1_8		07/08/2010	D1_Canna_20100807_5	3.9 - 3.9	Grazed *Laminaria hyperborea* forest on bedrock in depths varying from 6 to 10 m.	IR.MIR.KR.Lhyp.GzFt
DD1_9		07/08/2010	D1_Canna_20100807_5	19.7 - 45.7	Boulders and bedrock with red algae and hydroids. Bedrock platform then boulder areas. **Species:** *Kallymenia reniformis, Caryophyllia smithii, Labrus mixtus, Echinus esculentus, Nemertesia antennina, Nemertesia ramosa,* enc. *Corallinaceae, Holothuria forskali, Aslia lefevrei, Munida rugosa, Parasmittina trispinosa*.	IR.HIR.KFaR.FoR
	9	07/08/2010	D1_Canna_20100807_5	32.7	Smaller cobbles with *Pomatoceros, Pecten* and *Nemertesia antennina*.	SS.SCS.CCS.PomB
	9	07/08/2010	D1_Canna_20100807_5	37.7	Gravel then more boulders with *Securiflustra securifrons*.	CR.MCR.EcCr.FaAlCr.Sec
	9	07/08/2010	D1_Canna_20100807_5	45.7		
DD1_12.1		07/08/2010	D1_Canna_20100807_5	12.6 - 29.6	Boulders/bedrock with sparse kelp at 15 m, then grazed boulders with *Parasmittina* and enc. Corallines. Then boulders with sparse *Alcyonium digitatum*. Gravel patches. **Species:** *Parasmittina trispinosa,* enc. *Corallinaceae, Laminaria hyperborea* (small), *Echinus esculentus, Nemertesia antennina, Nemertesia ramosa, Caryophyllia smithii, Holothuria forskali, Marthasterias glacialis, Alcyonium digitatum, Calliostoma zizyphinum, Cliona celata, Dictyota dichotoma, Cryptopleura ramosa*.	IR.HIR.KFaR.LhypR.Pk
	12.1	07/08/2010	D1_Canna_20100807_5	24.6	Bedrock with *Cliona celata* and *Alcyonium digitatum*.	CR.MCR.EcCr.FaAlCr.Adig
	12.1	07/08/2010	D1_Canna_20100807_5	22.6	Scattered algae on bedrock.	
	12.1	07/08/2010	D1_Canna_20100807_5	29.6	Slope dropping seaward. Bedrock with *Alcyonium*, more hydroids and *Caryophyllia*. **Species**: *Alcyonium digitatum, Caryophyllia smithii, Pollachius pollachius*.	CR.MCR.EcCr.FaAlCr.Adig
DD1_12.2		07/08/2010	D1_Canna_20100807_5	11.5 - 13.5	Grazed bedrock with *Laminaria hyperborea. Alcyonium* on small vertical faces. **Species:** *Laminaria hyperborea, Echinus esculentus, Alcyonium digitatum*.	IR.HIR.KFaR.LhypR.Ft
DD1_13.1		07/08/2010	D1_Canna_20100807_5	10.4 - 23.4	Bedrock with *Laminaria hyperborea* forest. Seabed drops off @ circa 15 m to 26 m then 40 m.	IR.HIR.KFaR.LhypR.Ft; CR.MCR.EcCr.FaAlCr.Sec

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
DD1_15.1		05/08/2010	D1_Canna_20100805_1	1.3 - 1.3	Muddy sand with *Zostera marina*. **Species:** Foliose/filamentous algae, *Zostera marina, Ulva, Fucus serratus, Laminaria saccharina, Alaria esculenta, Laminaria hyperborea*, 2 spots gobies.	SS.SMp.SSgr.Zmar
DD1_15.2		05/08/2010	D1_Canna_20100805_1	7.4 - 8.4	Muddy sand, low mounds, well worked. **Species:** *Cerianthus lloydii* (A), *Laminaria saccharina, Carcinus maenas, Ulva, Pecten maximus, ?Gracilaria*.	SS.SMx.CMx.ClloMx
DD1_15.3		05/08/2010	D1_Canna_20100805_1	4.4 - 2.9	Well worked coarse sand @ 8 m. Boulders with kelp @ 6.5 m. **Species:** *Laminaria saccharina, Alaria esculenta, Ulva, Desmarestia aculeata*.	SS.SMp.KSwSS.LsacR; IR.LIR.K.Lsac
DD1_16.1		05/08/2010	D1_Canna_20100805_1	13.4	Well worked sandy mud with diatom film. *Sagartiogeton* common, occasional *Virgularia*. **Species:** *Sagartiogeton laceratus, Virgularia mirabilis, Pagurus bernhardus, Laminaria saccharina, Asterias rubens, Cerianthus lloydii, Suberites, Necora puber, Amphiura* sp.	SS.SMu.ISaMu
DD1_16.2		05/08/2010	D1_Canna_20100805_1	29.3 - 41.3	Burrowed mud with abundant *Sagartiogeton*. *Nephrops* frequent. **Species:** *Sagartiogeton laceratus* (A), *Nephrops norvegicus, Paguridae, Virgularia, ?Lumpenus lampretaeformis* (not a good picture but seems to have long body. poss. *Lesueurigobius* though).	SS.SMu.CFiMu.MegMax
DD1_17.1		05/08/2010	D1_Canna_20100805_1	3.6	Dense kelp forest. **Species:** cape *Laminaria saccharina*, cape *Laminaria hyperborea*.	IR.LIR.K.LhypLsac.Ft
DD1_17.2		05/08/2010	D1_Canna_20100805_1	10.3 - 9.3	Muddy sand with occ. *Laminaria saccharina.* Some burrows. Silty red algae. Kelp forest from 14:51. **Species:** *Laminaria saccharina, Cerianthus lloydii, ?Gracilaria gracilis, Arenicola marina, Astropecten irregularis, Pomatoschistus* sp.	SS.SMp.KSwSS.LsacR; IR.LIR.K.Lsac
DD1_17.3		05/08/2010	D1_Canna_20100805_1	12.4 - 14.4	Mixed muddy sediment with small scattered *Laminaria saccharina*. Occasional boulders and some foliose/filamentous algae. **Species:** *Laminaria saccharina, Cerianthus lloydii, Desmarestia aculeata*.	SS.SMp.KSwSS.LsacR; IR.LIR.K.Lsac
DD1_18.1		05/08/2010	D1_Canna_20100805_2	5.4 - 19.4	?Maerl or gravel at start then muddy sand, heavily worked with diatom film. **Species:** *Laminaria saccharina*, *Arenicola marina*. *Cerianthus lloydii, Cancer pagurus*, *Ulva*, *Desmarestia aculeata*, *Gracilaria gracilis*, *Lanice conchilega*.	SS.SSA.IMuSa.AreISa; SS.SMp.KSwSS.LsacR
DD1_18.2		05/08/2010	D1_Canna_20100805_2	3.4 - 14.4	*Laminaria hyperborea* forest to 16 m. Then muddy sand with diatoms and algae. Holes in sediment. **Species:** *Laminaria hyperborea, Lanice conchilega*, *Arenicola marina*, *Cancer pagurus*.	IR.MIR.KR.Lhyp.Ft; SS.SSA.IMuSa.AreISa
DD1_18.3		05/08/2010	D1_Canna_20100805_2	9.5 - 41.5	*Laminaria hyperborea* forest *then Laminaria saccharina* on sediment with scattered boulders and red algae. 20 m: sand with *Laminaria saccharina* and common *Cerianthus lloydii*. 37 m: hydroids on cobbles then steep bedrock dropping off steeply. **Species:** *Laminaria hyperborea, Laminaria saccharina, Desmarestia aculeata, Cerianthus lloydii, Saccorhiza polyschides, Nemertesia antennina, Cancer pagurus*.	IR.MIR.KR.Lhyp.Ft; SS.SMp.KSwSS.LsacR; SS.SMx.CMx.ClloMx.Nem

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
DD1_20.1		05/08/2010	D1_Canna_20100805_1	28.5 - 30.5	Mounded sediment, mostly muddy sand. Burrowing anemones abundant (*Sagartiogeton*). Occ. burrows. **Species:** *Arachnanthus sarsi* (x1), *Cerianthus lloydii* (C), *Cancer pagurus, Hyas araneus, Turritella communis, Nephrops norvegicus* (x1), *Sagartiogeton laceratus* (A), *Amphiura* sp.	SS.SSa.CMuSa
DD1_20.2		05/08/2010	D1_Canna_20100805_1	11.5 - 13.5	Muddy sand with *Cerianthus. Amphiura* sp. abundant. *Turritella* present. **Species:** *Cerianthus lloydii, Amphiura* sp., *Turritella communis.*	SS.SMx.CMx.ClloMx
DD1_21.1		05/08/2010	D1_Canna_20100805_1	12.7 - 26.7	Steep slope of clean sand with sediment waves.	ICS; CCS
DD1_21.2		05/08/2010	D1_Canna_20100805_1	6.6 - 28.6	Clean sand. Boulders with hydroids and algae at 16 m. Slope less steep after this. **Species:** *Pecten maximus*, *Arenicola* casts, cape form kelp, *Desmarestia aculeata*, *Delesseria sanguinea*, *Saccorhiza polyschides*, *Laminaria hyperborea*, *Nemertesia antennina*, *Liocarcinus depurator*, *Cerianthus lloydii*.	ICS; IR.HIR.KFaR.FoR
DD1_22		05/08/2010	D1_Canna_20100805_1	10.7	Shelly sand. *Laminaria saccharina* frequent. ?Maerl debris.	SS.SMp.KSwSS.LsacR
DD1_22.1		05/08/2010	D1_Canna_20100805_1	4.6	Bedrock with *Laminaria hyperborea* and stipe algae. Very clean. Species: *Laminaria hyperborea*, *Cryptpleura ramosa, Delesseria sanguinea*.	IR.HIR.KFaR.LhypR
DD1_23		06/08/2010	D1_Canna_20100806_4	25.2 - 33.2	Cobble and gravel plain with hydroids. More gravel and fewer cobble from 36 m. **Species:** *Nemertesia antennina, Luidia ciliaris, Securiflustra securifrons, Pomatoceros* sp., *Tubularia indivisa.*	CR.HCR.XFa.SpNemAdia
DD1_24		06/08/2010	D1_Canna_20100806_4	13.2 - 18.2	*Laminaria hyperborea* forest/park on silty boulders. Crusts and some foliose algae on the boulders. More cobbles @ 14:49, 22 m with smaller kelp plants and *more Laminaria saccharina*. **Species**: *Laminaria hyperborea, Laminaria saccharina,* enc. *Corallinaceae, Dictyota dichotoma, Kallymenia reniformis.*	IR.MIR.KR.Lhyp.GzFt
DD1_25.1		06/08/2010	D1_Canna_20100806_3	7.6 - 9.6	*Laminaria hyperborea* forest. *Alcyonium digitatum* on stipes. Red algae abundant. **Species:** *Laminaria hyperborea, Alcyonium digitatum.*	IR.HIR.KFaR.LhypR.Ft
DD1_26.1		06/08/2010	D1_Canna_20100806_4	4.3 - 2.3	*Laminaria hyperborea* forest on bedrock/boulders/cobbles. Algae on stipes and rock.	IR.HIR.KFaR.LhypR.Ft
DD1_26.2		06/08/2010	D1_Canna_20100806_4	6.3 - 6.3	*Laminaria hyperborea* forest on bedrock/boulders with sand patches. Red algae sparse. Stipes moderately grazed.	IR.HIR.KFaR.LhypR.Ft
DD1_27		06/08/2010	D1_Canna_20100806_4	2.7 - 2.7	*Dense Laminaria hyperbore*a on boulders and bedrock with small patches of sand.	IR.HIR.KFaR.LhypR.Ft
DD1_28		06/08/2010	D1_Canna_20100806_4	17.6 - 18.6	Boulders changed to gravel @ 21m. Occasional *Laminaria saccharina* here. Species: *Laminaria saccharina, Callophyllis laciniata, Desmarestia aculeata, Pomatoceros* sp., *Alcyonium digitatum, Nemertesia antennina*.	SS.SMp.KSwSS.LsacR

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
	28	06/08/2010	D1_Canna_20100806_4	14.6 - 18.6	Boulders with sparse kelp forming a mixed kelp park and foliose red algae. Moves onto cobble and gravel @13:46, 21 m. **Species:** *Laminaria hyperborea, Laminaria saccharina, Saccorhiza polyschides, Dictyota dichotoma, Kallymenia reniformis, Echinus esculentus, Nemertesia* spp., *Alcyonium digitatum*.	IR.HIR.KFaR.LhypR.Pk; IR.HIR.KFaR.FoR
DD1_30		06/08/2010	D1_Canna_20100806_4	14.8 - 17.8	Boulder slope at base of kelp forest. Foliose algae and occasional small *Laminaria saccharina* and *Saccorhiza* plants. **Species:** *Laminaria saccharina, Saccorhiza* plants, *Kallymenia reniformis, Echinus esculentus, Delesseria sanguinea, Nemertesia antennina, Plocamium cartilagineum, Nemertesia ramosa, Dictyota dichotoma*.	IR.HIR.KFaR.FoR
DD1_31		06/08/2010	D1_Canna_20100806_4	6.8 - 6.8	*Laminaria hyperborea* forest. Clean kelp with algae on bedrock quite sparse. **Species:** *Laminaria hyperborea, Echinus esculentus, Laminaria saccharina*.	IR.MIR.KR.Lhyp.GzFt
DD1_32		06/08/2010	D1_Canna_20100806_4	22 - 26	Cobble, pebble and gravel with abundant *Pomatoceros*. Uniform seabed. **Species:** *Pomatoceros* sp., enc. *Corallinaceae, Nemertesia ramosa, Bugula* sp., *Scrupocellaria* sp.	SS.SCS.CCS
DD1_33		06/08/2010	D1_Canna_20100806_4	7 - 9	*Laminaria hyperborea* forest mixed with other kelp species. **Species:** *Laminaria hyperborea, Laminaria saccharina, Saccorhiza polyschides*.	IR.MIR.KR.Lhyp; IR.MIR.KR.Lhyp
DD1_35		06/08/2010	D1_Canna_20100806_3	10.3 - 10.3	*Laminaria hyperborea* forest mixed with other kelp species. Moved to kelp park at 14 m. **Species:** *Laminaria hyperborea, Saccorhiza polyschides, Laminaria saccharina, Desmarestia aculeata, Gibbula cineraria.*	IR.HIR.KSed.XKScrR
DD1_36-37		06/08/2010	D1_Canna_20100806_4	17.2 – 43.1	Cobble, boulder and gravel plain with hydroids and red algae. **Species:** *Bonnemaisonia asparagoides, Heterosiphonia plumosa, Nemertesia antennina, Nemertesia ramosa, Echinus esculentus, Pomatoceros* sp., *Necora puber, Marthasterias, Kallymenia reniformis, Parasmittina trispinosa, Cerianthus lloydii, Alcyonium digitatum*.	IR.HIR.KFaR.FoR
	36	06/08/2010	D1_Canna_20100806_4	24.2	Uniform plain of gravel and pebbles. Looks dredged. **Species***: Lanice conchilega, Cerianthus lloydii, Nemertesia ramosa,* enc. *Corallinaceae*.	SS.SCS.CCS
	36	06/08/2010	D1_Canna_20100806_4	32.2	Gravel and pebbles with *Cerianthus* and occasional hydroids. **Species***: Cerianthus lloydii, Nemertesia ramosa, Liocarcinus depurator, Inachus* sp., *Pagurus bernhardus*.	SS.SMx.CMx.CIloMx
	36	06/08/2010	D1_Canna_20100806_4	22.2	More gravel from WP25 @ 25 m. Fewer algae. **Species:** *Pecten maximus, Lanice conchilega*.	SS.SMx.CMx
	37	06/08/2010	D1_Canna_20100806_4	43.1	Camera up from mixed gravel plain. 36 to 37 is one drop.	SS.SCS.CCS
DD1_38		06/08/2010	D1_Canna_20100806_3	23.5 - 28.5	Pebble, cobble and gravel plain with shell debris. **Species:** *Cerianthus lloydii, Pomatoceros* sp., *Liocarcinus depurator, Cancer pagurus, Carcinus maenas,* ?*Phymatolithon, Pomatoceros* sp.	SS.SCS.CCS

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DD1_39		06/08/2010	D1_Canna_20100806_3	17.4 - 17.4	Boulder, cobble, gravel and shell plain with dense hydroids and algae. Rich site, doesn't look disturbed. ***Species:*** *Nemertesia antennina, Nemertesia ramosa, Lanice conchilega, Sabella pavonina, Laminaria saccharina. Dictyota dichotoma, Echinus esculentus, Kallymenia reniformis, Delesseria sanguinea, Plocamium cartilagineum, Bonnemisonia asparagoides, Heterosiphonia plumosa.*	IR.HIR.KFaR.FoR
DD1_40		06/08/2010	D1_Canna_20100806_3	7.6 - 12.6	*Laminaria hyperborea* on boulders and cobbles. Algae on stipes. **Species:** *Laminaria hyperborea, Saccorhiza polyschides, Echinus esculentus*, red algae.	IR.HIR.KFaR.LhypR.Ft; IR.HIR.KFaR.LhypR.Pk
DD1_44.1		06/08/2010	D1_Canna_20100806_3	3.8 - 26.8	*Laminaria hyperborea* forest on bedrock/boulders. Algae on stipes and rock. Fairly silty. *Echinus* present. Large patch of drift algae at 12 m 10:50. Then *Laminaria saccharina* (long, large plants, not cape) at base of *L. hyperborea* forest, *Laminaria saccharina* and red algae on coarse sediment, mixed gravelly sand without algae deeper. *Saccorhiza* also present.	IR.MIR.KR.Lhyp.Ft
	44.1	06/08/2010	D1_Canna_20100806_3	15.8	Onto kelp forest again.	IR.MIR.KR.Lhyp.Ft
	44.1	06/08/2010	D1_Canna_20100806_3		*Laminaria saccharina* forest. Large plants on cobble and sand. Red algae frequent.	IR.HIR.KSed.LsacSac
	44.1	06/08/2010	D1_Canna_20100806_3	16.8	Rich cobble bed, fairly well consolidated. Possible maerl.	SS.SMp.KSwSS.LsacR
	44.1	06/08/2010	D1_Canna_20100806_3	22.8	Cobble, pebble and gravel with occasional algae. Occasional *Laminaria saccharina* at 26 m. *Cerianthus lloydii*. 11:05 ?brittlestar arms. **Species:** *Laminaria saccharina, Cerianthus lloydii*.	SS.SMp.KSwSS.LsacR
	44.1	06/08/2010	D1_Canna_20100806_3	26.7	Pebble/sand plain with occasional cobbles. Looks dredged. Very uniform. **Species:** *Cerianthus lloydii*.	SS.SMx.CMx
DD1_45.1		06/08/2010	D1_Canna_20100806_3	21	Mixed sediment and cobble. *Pomatoceros*, shell debris, Species: *Pomatoceros* sp., *Marthasterias glacialis, Cerianthus lloydii, Pecten maximus, Nemertesia ramosa*.	SS.SMx.CMx.ClloMx
DD1_46.1		06/08/2010	D1_Canna_20100806_3	2.4 - 7.9	Clean sand with diatom film, *Ulva, Ectocarpaceae* and occasional red algae. *Arenicola marina*. *Zostera* @WP6. Patchy 5.1 m. None @WP7 but rare patches at 6.4 m bcd. Silty *Laminaria hyperborea* forest with red algae on rock at end. **Species:** *Ulva* sp., *Ectocarpaceae*, foliose red algae, *Arenicola marina, Zostera marina, Laminaria hyperborea*.	SS.SSA.IMuSa.AreISa; SS.SMp.SSgr.Zmar; IR.MIR.KR.Lhyp.Ft
	46.1	06/08/2010	D1_Canna_20100806_4	7.5	Muddy sand with *Laminaria saccharina* and *Arenicola* mounds.	SS.SMp.KSwSS
	46.1	06/08/2010	D1_Canna_20100806_4	7.9	Dense *Laminaria saccharina*, *Ulva* and cape *Laminaria hyperborea*.	IR.LIR.K.LhypLsac
	46.1	06/08/2010	D1_Canna_20100806_4	7.9	*Laminaria hyperborea* forest with *Laminaria saccharina*, occasional *Halidrys*, *Desmarestia aculeata* and filamentous/foliose algae.	IR.HIR.KSed.XKScrR
DD1_46.2		06/08/2010	D1_Canna_20100806_4	2.2	Clean sand with patchy diatoms and fragments of algae.	SS.SSa.IFiSa
DD1_46.3		06/08/2010	D1_Canna_20100806_4	5.5 - 6.3	Only parts of run recorded. Shelly sand with occasional algae. *Ulva,* bivalves.	SS.SSa.IFiSa

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	46.3	06/08/2010	D1_Canna_20100806_4		*Zostera* plants - only ones seen on this track. Then scattered algae again Recording from 53:35:41, 10 m, 17:16.	SS.SMp.SSgr.Zmar
DD1_46.4		06/08/2010	D1_Canna_20100806_4		Edge of *Zostera* patch with more beyond.	SS.SMp.SSgr.Zmar
	46.4	06/08/2010	D1_Canna_20100806_4		Onto sand and out of shelter of reef - no *Zostera*.	SS.SSa.IFiSa
	46.4	06/08/2010	D1_Canna_20100806_4	4	Sand and scattered algae.	SS.SSa.IFiSa
	46.4	06/08/2010	D1_Canna_20100806_4	4.3	Small patches of *Zostera*. Edge of bed - very patchy *Zostera*.	SS.SMp.SSgr.Zmar
	46.4	06/08/2010	D1_Canna_20100806_4	4.7	Dense *Zostera*. End of tape.	SS.SMp.SSgr.Zmar
DD1_47.1		06/08/2010	D1_Canna_20100806_3	12.9 - 14.9	Shelly sand. *Laminaria saccharina* frequent. **Species**: *Laminaria saccharina, Gracilaria gracilis, Desmarestia aculeata*.	SS.SMp.KSwSS.LsacR
M01		26/09/2010		18.0	Rock and boulders with foliose algae and coarse sand. *Kallymenia reniformis, Delesseria sanguinea, Laminaria saccharina*, possible maerl. Drifted too shallow for maerl search.	SS.SMp.Mrl.Pcal IR.LIR.K.LhypLsac
M02		26/09/2010		20 - 26	Boulders and cobbles with foliose algae. *Delesseria sanguinea, Nemertesia antennina, Caryophyllia smithii, Echinus esculentus, Parasmittina trispinosa, Labrus mixtus, Munida rugosa, Necora puber*. Bits of maerl between boulders. Moved onto gravel/cobble with *Pomatoceros* sp. and then maerl and pebbles.	IR.HIR.KFaR.FoR SS.SMp.Mrl.Pcal
M03		26/09/2010		25 - 25.5	Cobbles and maerl. *Pomatoceros* sp., occasional algae, *Necora puber, Marthasterias glacialis*.	SS.SMp.Mrl.Pcal
M04		26/09/2010		26	Cobble and maerl. Small squat lobsters (same as those seen in grabs), *Munida rugosa, Pomatoceros* sp., ?*Cancer pagurus*.	SS.SMp.Mrl.Pcal
M05				26.0	Cobble, pebble and maerl. *Pomatoceros* sp., *Munida rugosa, Nemertesia ramosa, Cancer pagurus*.	SS.SMp.Mrl.Pcal
M06		26/09/2010		21 - 20	Maerl and pebbles in waves/ridges. Occasional small boulders. Sediment heavily excavated by crabs. *Nemertesia antennina, Nemertesia ramosa, Delesseria sanguinea, Scinaia* sp., 2 spot gobies.	SS.SMp.Mrl.Pcal
M07		26/09/2010		24.0	Cobbles with patches of maerl. Foliose red algae, *Labrus mixtus*, *Halecium halecinum, Nemertesia ramosa, Pomatoceros* sp., *Nemertesia antennina, Heterosiphonia plumosa*.	SS.SMp.Mrl.Pcal IR.HIR.KFaR.FoR
A12		21/09/2010		179 - 196.5	Muddy sand, cobbles and boulders and some bedrock. *Echinus escuentus, Urticina eques, Flustra foliacea, Metridium senile, Munida rugosa, Alcyonium digitatum, Nemertesia ramosa, Securiflustra securifrons, ?Parazoanthus anguicomus, Pomatoceros* sp., *Porania pulvillus, Pagurus prideaux, Sabella pavonina, Inachus* sp., *Luidia ciliaris, Henricia* sp., frequent small fish, *Macropodia* sp.	CR.MCR.EcCr.FaAlCr
	A12	21/09/2010		211 - 192	Muddy gravel plain with pebbles. *Henricia* sp., *Pomatoceros* sp., *Urticina eques, Munida rugosa, Cancer pagurus, Metridium senile, Echinus esculentus, Neptunea antiqua, Sabella pavonina, Aequipecten opercularis*, possible *Atrina* @ 13:22 and 13:24.	SS.SMx.CMx.ClloMx

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
	A12	21/09/2010		192 - 176	Muddy gravel with *Atrina fragilis* - large shells providing attachment for hydroids and sponges. *Atrina* seen at intervals of several metres. Dead shells also present. Dogfish, *?Iophon* sp., *Polymastia mamillaria, Salmacina dysteri, Ophiura* sp., *Inachus* sp., *Luidia ciliaris, Cerianthus lloydii, ?Ophiocomina nigra.*	SS.SBR.SMus.Afrag
	A12	21/09/2010		173.4	Much sandier sediment with fewer pebbles. *Ophiocomina nigra, Luidia ciliaris, Atrina fragilis, Pagurus prideaux*. Moved onto some cobbles with *Iophon* type sponges, *Tubularia indivisa, Alcyonidium diaphanum, Porania pulvillus, Sabella pavonina.*	SS.SBR.SMus.Afrag
	A12	21/09/2010		179.8	Rock beneath sediment, exposed in places.	SS.SBR.SMus.Afrag
	A12	21/09/2010		185.8	Dead *Atrina* shells.	SS.SBR.SMus.Afrag
	A12	21/09/2010		190.3	More live *Atrina.*	SS.SBR.SMus.Afrag
	A12	21/09/2010		192.5 - 202.6	A lot of mixed dead shell, *Asterias rubens, Salmacina dysteri* colonies.	SS.SBR.SMus.Afrag
A52		21/09/2010		200	Shelly pebbly muddy gravel with *Cerianthus lloydii, Urticina eques, Pomatoceros* sp., frequent *Sabella pavonina, Luidia ciliaris*.	SS.SMx.CMx.ClloMx
	A52	21/09/2010		215	Bedrock ridge then back to gravel.	CR.MCR.EcCr.FaAlCr
	A52	21/09/2010	208.7	209 - 144	Mixed shelly gravel. *Urticina eques, Inachus* sp., *Atrina fragilis, Echinus esculentus, Aequipecten opercularis, Neptunea antiqua, Ophiocomina nigra, Salmacina dysteri,* dogfish, *Inachus dorsettensis, Munida rugosa*.	SS.SBR.SMus.Afrag
A64		21/09/2010		231 - 218	Well sorted muddy sand. *Atrina* present at the start. *Ophiura ophiura, Pagurus prideaux, Adamsia palliata,* possible brittlestar arms in sediment, *Echinus esculentus. Atrina* frequent in small groups. Hydroids and sponges on shells. *Sabella pavonina* .	SS.SBR.SMus.Afrag
	A64	21/09/2010		227.0	Sediment more mixed, occasional small boulders.	SS.SMx.CMx.ClloMx
A66		21/09/2010		232.0	Firm sand, *Ophiocomina nigra*, bivalve siphons. Frame streaming in the tide; site abandoned.	Firm sand
A79		21/09/2010		223 - 156	Muddy sand and cobbles then moved onto rippled sand with less pebble/cobble and some holes & burrows. *Ophiocomina nigra* and *Atrina fragilis* common from the start. Densest *Atrina* so far. *?Caryophyllia smithii, Inachus* sp., *Munida rugosa, Neptunea antiqua, ?Anemonactis, Cancer pagurus.*	SS.SBR.SMus.Afrag
A120		21/09/2010		188 - 91	Mixed muddy gravel and then more cobbles and boulders. Tow stopped as umbilical lying up the steep slope (camera drifting ahead of umbilical). *Pagurus prideaux*, *Urticina eques, Atrina fragilis, Munida rugosa, Sagartiogeton* (orange). *Luidia ciliaris, Solaster endeca, Sabella pavonina, Echinus esculentus, Cerianthus lloydii, Inachus* sp., fish indet.	SS.SBR.SMus.Afrag CR.MCR.EcCr.FaAlCr

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
A123		21/09/2010		170 - 175	Mixed muddy gravel with pebblesand occasional boulders and then moved onto less mixed sediment. *Atrina fragilis* at the start. Sponges frequent, *Suberites ficus, Urticina eques, Sabella pavonina, Luidia ciliaris, Echinus esculentus, Pagurus prideaux, Ophiocomina nigra,* fish indet., *Alcyonium digitatum* on *Atrina*. Small ray @ 172 m.	SS.SBR.SMus.Afrag
	A123	21/09/2010		175 - 177	Towards end of tow moved onto *Nephrops* ground. *Nephrops norvegicus, Sabella pavonina,* rare *Atrina fragilis*.	SS.SMu.CFiMu.MegMax
A124		21/09/2010		82 - 105	Occasional boulders on sediment, pebbles and cobbles on muddy sand with possible underlying rock. *Echinus esculentus,* small fish, *Flustra foliacea, Liocarcinus depurator, Munida rugosa, Cerianthus loydii, ?Pecten maximus, Metridium senile, Cancer pagurus, Pagurus prideaux, Adamsia palliata, Aporrhais pespelecani.*	SS.SMX.CMx.CIloMx.Nem
	A124	21/09/2010		107 - 119	Basalt pebbles and boulders with *Pomatoceros* sp., *Swiftia pallida, Aequipecten opercularis, Parasmittina trispinosa,* axinellid sponges, *Axinella infundibulum.*	CR.MCR.EcCr.CarSwi
	A124	21/09/2010		118 - 125	More rock and boulders (10:25), *Leptometra celtica* aggregation. Lights out.	SS.SMu.CSaMu.Lcelt
A125		21/09/2010		125 - 116	Silty sand, with pebbles and cobbles. Holes in sediment. Note lines across seabed. *Leptometra celtica, Cancer pagurus, Munida rugosa, Pecten maximus, Echinus esculentus, Luidia sarsi, Luidia ciliaris, Axinella infundibuliformis. Neptunea antiqua, Pagurus prideaux* and *Adamsia palliata, Cerianthus lloydii, Sagartiogeton laceratus.*	SS.SMX.CMx.CIloMx
	A125	21/09/2010		115 - 109	Nephrops burrows@ 11:00 on a muddy plain.	SS.SMu.CFiMu.MegMax
A126		21/09/2010		68 - 92	Mud; Sediment well worked with small holes and occasional *Nephrops norvegicus* burrows. *Munida rugosa, Pagurus prideaux*, *Cerianthus lloydii*, *Liocarcinus depurator,* ?brittlestar arms, *Nephrops norvegicus, Nemertesia antennina.*	SS.SMu.CFiMu.MegMax
A127		22/09/2010		103 - 110	Very fine silty burrowed sand plain with sparse shell debris. *Nephrops norvegicus, ?Pennatula phosphorea*, fish, *Munida rugosa.*	SS.SMu.CFiMu.MegMax
A128		22/09/2010			Muddy fine sand with shells, pebbles and occasional cobbles. *Munida rugosa* (A), *Leptometra celtica, Neptunea antiqua, Cerianthus lloydii.* Small *Leptometra* aggregation @ 95 m 15:25.	SS.SMx.CMx.CIloMx
A130		22/09/2010		103 - 109	Silty boulders and cobbles with silt patches and shell debris. ?*Atrina*. *Buccinum undatum, Urticina felina, Munida rugosa, Salmacina dysteri, Caryophyllia smithii*, fish, *Echinus esculentus,* ?*Nemertesia* sp., *Alcyonium digitatum, Porania pulvillus, Neptunea antiqua,* ?*Neocrania anomala, Monodaeus couchii, Henricia* sp., *Cancer pagurus,* ?*Tubularia indivisa.*	CR.MCR.EcCr.FaAlCr

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
A131		26/09/2010		115 - 98	Muddy sand and cobbles with dead shell. Occasional small boulders. *Echinus esculentus, Paguridae, Turritella communis, Leptometra celtica*, fish, *Buccinum undatum*, *Munida rugosa, Nemertesia antennina, Asterias rubens.*	SS.SMu.CSaMu
A132		24/09/2010		181 - 176	Muddy fine sand with some shell. *Sabella pavonina*, *Pagurus prideaux, Adamsia palliata.* Very bad visibility.	SS.SSa.CMuSa
A135		21/09/2010		73 - 77	Muddy sand; *Turritella communis, Pagurus bernhardus*, holes in sand, *Pag prideaux,* small fish, *Nephrops norvegicus, Liocarcinus depurator*.	SS.SMu.CSaMu
	A135	22/09/2010		80 - 82	Very fine muddy sand with holes & burrows. *Nephrops norvegicus, Paguridae,* fish, *Adamsia palliata, Turritella communis*.	SS.SMu.CFiMu.MegMax
A136		22/09/2010		86 - 88	Very fine burrowed sand with *Nephrops norvegicus. Cerianthus lloydii, Munida rugosa, Goneplax rhomboides, ?Pennatula phosphorea* (15:02), *Asterias rubens, Liocarcinus depurator.*	SS.SMu.CFiMu.MegMax
A138		26/09/2010		167 - 168	Muddy sand and cobble with dead shell. *Atrina* x1 at start. Occasional boulders. *Ophiocomina nigra, Pagurus prideaux,* small pagurids, *Adamsia palliata, Turritella communis, Sabella pavonina,* rare *Atrina fragilis*.	SS.SMx.CMx.ClloMx SS.SBR.SMus.Afrag
	A138	26/09/2010		168 - 169	*Nephrops norvegicus* ground.	SS.SMu.CFiMu.MegMax
A139		26/09/2010		196 - 194	Muddy sand with burrows. *Amphiura* sp., *Turritella communis, Sagartiogeton laceratus, Sabella pavonina, Paguridae*. Picture lost - camera up.	SS.SMu.CFiMu.MegMax
A140		26/09/2010		173 - 167	Silty boulders and cobbles with silt patches and shell debris then muddy fine sand with some shell. Very bad visibility in places. Some holes in sand, dead shell (*Modiolus*). Very fine muddy sand with holes & burrows towqards end of tow. Picture lost at end - camera up. *Liocarcinus depurator, ?Nemertesia* sp., *?Neocrania anomala, ?Pennatula phosphorea, ?Tubularia indivisa, Adamsia palliata, Alcyonium digitatum, Amphiura* sp., *Asterias rubens, Atrina fragilis, Buccinum undatum, Cancer pagurus, Caryophyllia smithii, Echinus esculentus,* fish, *Goneplax rhomboides, Henricia* sp., *Liocarcinus depurator, Monodaeus couchii, Munida rugosa, Nephrops norvegicus, Neptunea antiqua, Ophiocomina nigra, Paguridae, Pagurus bernhardus, Pagurus prideaux, Porania pulvillus, Sabella pavonina, Sagartiogeton laceratus, Salmacina dysteri,* small fish, small pagurids, *Turritella communis, Urticina feline*.	SS.SBR.SMus.Afrag
A141		26/09/2010		102	Muddy sand with occasional boulders. *Leptometra celtica* aggregation for c. 1 min. *Metridium senile*, *Munida rugosa*.	SS.SMu.CSaMu
	A141	26/09/2010		104	More shell debris. *Atrina* @10:21, *Sabella pavonina*.	SS.SMx.CMx.ClloMx

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
	A141	26/09/2010		104 - 102	*Pennatula phosphorea, Cerianthus lloydii,* Occasional *Leptometra celtica* on boulders, fish, *Nemertesia ramosa*.	SS.SBR.SMus.Afrag
	A141	26/09/2010		102	*Funiculina quadrangularis, Neptunea antiqua, Leptometra celtica, Echinus esculentus* with more boulders and cobbles from here and on to bedrock.	SS.SMu.CFiMu.SpnMeg.Fun
	A141	26/09/2010		104 - 1120	Bedrock with *Caryophyllia smithii, Salmacina dysteri, Porella compressa, Urticina felina*.	CR.LCR.BrAs
A143		24/09/2010		88 - 69	Mud with shell debris and occasional cobbles. *Munida rugosa, Turritella communis, Urticina felina* on boulder, pagurids in *Turritella communis*.	SS.SMx.CMx
A145		26/09/2010		64 - 84	Burrowed mud with *Nephrops norvegicus* became increasingly shelly. *Liocarcinus depurator, Pennatula phosphorea, Turritella communis, Aequipecten opercularis, Munida rugosa, Paguridae.*	SS.SMu.CFiMu.MegMax
A147		26/09/2010		47 - 44	Muddy sand with occasional cobbles and boulders. *Nephrops norvegicus,* pagurids, *Turritella communis*. Camera malfunction so surfaced and redeployed.	SS.SMu.CFiMu.MegMax
A149		21/09/2010		49 - 39	Muddy sand and gravel. *Munida rugosa*. Boulders with sponges and bryozoans. *Liocarcinus depurator,* Frequent *Pecten maximus* and small fish. *Goneplax rhomboides, Cancer pagurus, Cerianthus lloydii* and *Myxicola.*	SS.SMX.CMx.ClloMx.Nem
	A149	21/09/2010		36 - 67	Cliff then mixed gravel slope with boulders and rock outcrops. Seabed alternated between bedrock and boulders with muddy gravel. *Tubiularia indivisa*, *Corynactis viridis*, *Parazoanthus anguicomus, Cliona celata, Henricia* sp., *Securiflustra securifrons, Echinus esculentus, Asterias rubens, Nemertesia* sp., *Ascidia mentula, Luidia ciliaris. Alcyonidium diaphanum, Axinella infundibulilum, Pachymatisma johnstonia, Crossaster papposus, Munida rugosa, Alcyonidium diaphanum, Cancer pagurus, Pecten maximus*, hydroids.	CR.HCR.XFa.CvirCri
	A149	21/09/2010		57 - 86	Mixed muddy gravel plain. *Luidia ciliaris, Crossaster papposus, Munida rugosa, Alcyonidium diaphanum, Cancer pagurus, Pecten maximus, Henricia* sp., ?*Lanice conchilega*.	SS.SMX.CMx.ClloMx
	A149	21/09/2010		86 - 99	Boulders and cobbles with *Swiftia pallida*, hydroids, *Alcyonidium diaphanum, Echinus esculentus, Porania pulvillus, Leptometra celtica, Iophonopsis* type, *Tubularia indivisa*.	CR.MCR.EcCr.CarSwi
	A149	21/09/2010		100 - 147	Very rugged big boulders and bedrock with *Tubularia indivisa, Sabella pavonina, Parazoanthus anguicomus, Echinus esculentus, Leptometra celtica, Caryophyllia smithii, Corynactis viridis, ?Urticina felina, Metridium senile*.	CR.HCR.XFa.CvirCri

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
	A149	21/09/2010		180 - 206	Steep slope with cobbles and gravel, moving onto a mixed muddy gravel plain. *Urticina felina, Pomatoceros* sp., *Luidia ciliaris, Crossaster papposus, Munida rugosa, Alcyonidium diaphanum, Cancer pagurus, Pecten maximus, Henricia sp. ?Lanice conchilega.*	SS.SMx.CMx.ClloMx
A152		26/09/2010		0.93	Muddy sand with shell debris. *Sabella pavonina, Leptometra celtica, Munida rugosa, Callinassid* burrows*, Paguridae.*	SS.SMx.CMx.ClloMx
	A152	26/09/2010		90 - 86	Less shell, muddy sand with burrows. *Turritella communis*, *Cerianthus lloydii.*	SS.SMu.CFiMu.MegMax
A155		26/09/2010		67 - 60	Muddy sand and shell debris. *Turritella communis* (C), *Munida rugosa* (occ), *Nephrops norvegicus, Paguridae, Goneplax rhomboides, Callionymus* sp., *Luidia ciliaris*, fish.	SS.SMu.CFiMu.MegMax
	A155	26/09/2010		57	More mixed ground, bedrock, cobble, boulders, shell and pebbles. *Nemertesia antennina, Parasmittina trispinosa, Pecten maximus, Caryophyllia smithii, Echinus esculentus, Alcyonium digitatum, Parazoanthus anguicomus.*	CR.LCR.BrAs
	A155	26/09/2010		53.0	Back on to muddy sand.	SS.SSa.CMuSa
A156		26/09/2010		183 - 182	Mud. *Nephrops norvegicus, Sabella pavonina, Atrina fragilis, Amphiura* sp., *Neptunea antiqua*.	SS.SMu.CFiMu.MegMax
	A156	26/09/2010		176 - 175	Muddy sand and shell with boulders*. Urticina eques, Atrina fragilis, Ophiocomina nigra, Alconium digitatum*.	SS.SBR.SMus.Afrag
A157		26/09/2010		156 - 141	Muddy shell with occasional burrows. *Neptunea antiqua*, *Alcyonidium*, *Salmacina dysteri*, *Munida rugosa*, *Pagurus prideaux*, *Adamsia palliata*, *Cerianthus lloydii*.	SS.SMx.CMx.ClloMx
	A157	26/09/2010		141	Occasional boulders and rock, with yellow sponge, *Echinus esculentus*, *Caryophyllia smithii*, *Axinella infundibulum*, *Luidia ciliaris*, *Leptometra celtica* aggregations, *Metridium senile*, *Neptunea antiqua, Echinus esculentus*, *Swiftia pallida*.	CR.MCR.EcCr.CarSwi
	A157	26/09/2010		140	Mud. *Sabella pavonina, Nephrops norvegicus,* ?*Callinassid* burrows abundant.	SS.SMu.CFiMu.MegMax
	A157	26/09/2010		140 - 138	Mud. *Funiculina quadrangularis, Pagurus prideaux, Adamsia palliata, Cerianthus lloydii, Urticina eques. Nephrops norvegicus* burrows rare and other burrows common.	SS.SMu.CFiMu.SpnMeg.Fun
A159		26/09/2010		46 - 83	Bedrock, cobbles and gravel. *Echinus esculentus*, *Labrus mixtus*, *Caryophyllia smithii*, bryozoan crusts, *Pomatoceros* sp., hydroids, *Cliona celata*, *Salmacina dysteri*, *Asterias rubens*, *Nemertesia* sp., *Porania pulvillus*, *?Porella communis, Swiftia pallida, Parazoanthus anguicomus, Securiflustra securifrons*.	CR.MCR.EcCr.CarSwi
	A159	26/09/2010		88.0	Gravel and pebbles.	SS.SCS.CCS

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
A161		24/09/2010		56	Burrowed muddy sand with abundant holes. *Nephrops norvegicus, Turritella communis, ?Virgularia mirabilis, Paguridae*.	SS.SMu.CFiMu.MegMax
A162		22/09/2010		228	Silty fine sand, some broken shell and boulders. *Asterias rubens, Macropodia* sp., *Urticina felina, Echinus esculentus, Caryophyllia smithii, Metridium senile*, possible *Corynactis viridis viridis, Iophonopsis* sp., *Sabella pavonina, Paguridae, ?Neptunea antiqua, Munida rugosa.*	CR.HCR.XFa.CvirCri
	A162	22/09/2010		237.0	Silt and broken shell, mainly dead *Modiolus* shells. *Cancer pagurus, Pagurus prideaux*.	SS.SMx.CMx.ClloMx
	A162	22/09/2010		235	*Atrina fragilis*.	SS.SBR.SMus.Afrag
A165		21/09/2010		173 - 183	Mud with *Nephrops norvegicus*, well burrowed. *Goneplax rhomboides, ?Pennatula phosphorea,* tubes ?*Sabellid/Chaetopterus.*	SS.SMu.CFiMu.MegMax
	A165	26/09/2010		205.0	Mud with burrows, *Sabella pavonina, Macropodia sp., Urticina eques, Nephrops norvegicus, Callinassid* burrows, Fish, Dead *Atrina*	SS.SMu.CFiMu.MegMax
A165.1		21/09/2010		221 - 187	Muddy sand and gravel becoming more mixed during the tow. *Atrina fragilis* (C). *Sabella pavonina, Pagurus prideaux* and *Adamsia palliata, Luidia ciliaris, Echinus esculentus, Alcyonium digitatum, Opiura ophiura, Salmacina dysteri,* sponges and hydroids on *Atrina. Asterias rubens, Solaster endeca, Porania pulvillus, Ophiocomina nigra. Atrina* becomes dense with lots of sponges and hydroids, *Macropodia* sp., *Munida rugosa.* More cobble with lots of *Salmacina dysteri* and *Porania pulvillus*. *Atrina* rarer but present to the end of the tow.	SS.SBR.SMus.Afrag
A167		26/09/2010		97	Mud with burrows. *Pennatula phosphorea, Sabella pavonina, Turritella communis, Nephrops norvegicus, Furniculina quadrangularis, Cerianthus lloydii.*	SS.SMu.CFiMu.SpnMeg.Fun
A169		26/09/2010		59 - 56	Fine sand with burrows and *Cerianthus lloydii.* Boulder with *Balanus* sp., *Turritella communis, Goneplax rhomboides, Munida rugosa, Callionymus* sp.	SS.SMu.CFiMu.MegMax
A174		26/09/2010		175 - 191	Mud with abundant dead *Modiolus* shells. ?Starfish and a swarm of mysids*, Sabella pavonina*, *Salmacina dysteri, Urticina eques*.	SS.SMx.CMx
A177		24/09/2010		67.8	Burrowed muddy sand with abundant holes. *Nephrops norvegicus, Turritella communis, Pennatula phosphorea, Paguridae, Munida rugosa.* Moved onto more cobbles and then boulders with *Porania pulvillus, Alcyonium digitatum, Swiftia pallida.*	SS.SMu.CFiMu.MegMax SS.SMu.CFiMu.SpnMeg.Fun CR.MCR.EcCr.CarSwi
A178		23/09/2010		220 - 185	Silty bedrock, boulders, cobbles, gravel and sand. ?*Thecocarpus myriophyllum, Urticina felina, Sabella pavonina, Echinus esculentus, Swiftia pallida, Axinella infundibuliformis/Phakellia, Alcyonium digitatum, Metridium senile, Salmacina dysteri, Porania pulvillus.*	CR.MCR.EcCr.CarSwi

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
A180		23/09/2010		108 - 101	Rubble slope of silty boulders, cobbles, pebbles and gravel. *Axinella infundibuliformis, Sabella pavonina, Asterias rubens, Caryophyllia smithii, Corynactis viridis, Echinus esculentus, Phakelia ventilabrum, Henricia* sp., *Salmacina dysteri, Parazoanthus anguicomus, Urticina felina, Nemertesia ramosa, Swiftia pallida, Luidia ciliaris*.	CR.MCR.EcCr.CarSwi
A182		23/09/2010		120 - 122	Burrowed mud with scattered large and small boulders and occasional patches of bedrock. *Nephrops norvegicus, Leptometra celtica, gadoid*, turf on boulders, *Metridium senile, Swiftia pallida, Pennatula phosphorea, Cerianthus lloydii, Munida rugosa, Leptometra celtica, ?Parazoanthus anguicomus, Axinella infundibuliformis, Funiculina quadrangularis*. Up from mud.	SS.SMu.CSaMu.Lcelt
A184		23/09/2010		118	Burrowed muddy fine sand. *Leptometra celtic*a aggregations, *Munida rugosa, Metridium senile*. Occasional boulders with *Caryophyllia smithii/Balanus crenatus, Phakellia ventilabrum, Paguridae*	SS.SMu.CSaMu.Lcelt
	A184	23/09/2010		124.0	Burrows.	SS.SMu.CFiMu.MegMax
	A184	23/09/2010		128.0	Burrowed muddy fine sand. *Nephrops norvegicus, Leptometra celtica, Funiculina quadrangularis, Pennatula phosphorea*.	SS.SMu.CFiMu.SpnMeg.Fun
A185		23/09/2010		113 - 114	Cobbles and boulders, very silty. *Echinus esculentus,* gadoids, *Porania pulvillus, Caryophyllia smithii, Leptometra celtica, Axinella infundibuliformis, Cancer pagurus, Salmacina dysteri, Paguridae, Monodaeus couchi, Urticina eques* (10:59), *Nemertesia antennina, Henricia* sp., *Phakelia ventilabrum, Solaster endeca, ?Iophonopsis, ? Securiflustra securifrons, Munida rugosa, Neptunea antiqua*.	CR.LCR.BrAs
	A185	23/09/2010		115.0	Burrowed mud.	SS.SMu.CFiMu.MegMax
A191		24/09/2010		88	Fine sand with silty gravel and pebbles. *Munida rugosa, Turritella communis, Urticina felina, Macropodia* sp., *Cerianthus lloydii, Sabella pavonina, Nemertesia antennina*.	SS.SMx.CMx.ClloMx
	A191	24/09/2010		79.0	More cobbles and boulders. *Caryophyllia smithii, Salmacina dysteri, Swiftia pallida,* hydroid turf, *Asterias rubens,* sponge crusts, *Porania pulvillus, ?Aequipecten opercularis, Liocarcinus depurator, ?Iophonopsis, Nemertesia ramosa*.	CR.MCR.EcCr.CarSwi
A193		26/09/2010		68 - 63	Muddy sand with abundant cobbles and pebbles. *Munida rugosa*, small pagurids, *Turritella communis, Sabella pavonina,* silty hydroids.	SS.SMx.CMx.ClloMx
	A193	26/09/2010		64.0	Nephrops norvegicus ground with no pebbles - Up.	SS.SMu.CFiMu.MegMax
A195		22/09/2010		229	Very silty rock and silty deposits. Some shell debris. *Alcyonium digitatum*, *Luidia ciliaris*, *Ophiocomina nigra*, possible *Atrina* near start (11:27), *Iophonopsis*, *Sabella pavonina*, *Pagurus prideaux*, *Adamsia palliata*, *Solaster endeca*, Fish indet., *Echinus esculentus, Neptunea antiqua*.	CR.MCR.EcCr.FaAlCr SS.SMx.CMx.ClloMx

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
	A195	22/09/2010		225 - 218	*Atrina fragilis, Salmacina dysteri, Munida rugosa, Tubularia indivisa*?	SS.SBR.SMus.Afrag
	A195	22/09/2010		140	Silty fine sand and cobbles with small boulders and patches of bedrock. *Echinus esculentus*, fish, *Ophiocomina nigra, Porania pulvillus, Neptunea antiqua, Pomatoceros* sp., *Sabella pavonina, Luidia ciliaris, Astropecten opercularis, Pagurus prideaux, Cerianthus lloydii, Salmacina dysteri, Asterias rubens, Adamsia palliata.*	CR.MCR.EcCr.FaAlCr
	A195	22/09/2010		153 - 187	Fewer boulders. Silty shell debris and fine sand with more boulders @ 14:09 162 m. *Sabella pavonina, Salmacina dysteri, Iophonopsis, Cerianthus lloydiii, Porania pulvillus, Macropodia* sp., *Sagartiogeton laceratus, Echinus esculentus, Luidia ciliaris, Urticina felina,* cod, ?*Hyas araneus, ?Myxicola infundibulum, Ophiocomina nigra, Henricia* sp., *Pagurus* sp., *Munida rugosa*.	SS.SMx.CMx.CIloMx
	A195	22/09/2010		198.0	*Atrina fragilis* at end of drop. *Urticina felina*.	SS.SBR.SMus.Afrag
A196		26/09/2010		161 - 159	Muddy shell gravel. *Urticina eques, Salmacina dysteri, Neptunea antiqua, Pagurus prideaux, Adamsia palliata, Sabella pavonina.*	SS.SMx.CMx
A200		23/09/2010		83 - 91	Boulders and bedrock with silt in between. *Leptometra celtica, Porella compressa, Caryophyllia smithii, Echinus esculentus, Munida rugosa, Cerianthus lloydii, Nemertesia antennina, ?Metridium senile* or ?sponge, *Neptunea antiqua*, gadoids.	SS.SMu.CSaMu.Lcelt CR.LCR.BrAs
A202		23/09/2010		106 - 126	Cobbles on muddy sand. *Munida rugosa, Urticina eques, Echinus esculentus, Porania pulvillus, Salmacina dysteri,* gadoid, *Leptometra celtica, Axinella infundiculiformis, Sabella pavonina, Nemertesia antennina, Metridium senile, Caryophyllia smithii, Cancer pagurus,* single *Atrina fragilis*.	CR.LCR.BrAs
A204		26/09/2010		192 - 178	Muddy sand, boulders and cobbles. *Echinus esculentus,* mysids, *Salmacina dysteri, Urticina eques, Munida rugosa, Paguridae, Sagartiogeton laceratus/Cerianthus lloydii, Sabella pavonina, ?Henricia* sp., *?Raspailia, Pagurus prideaux, Adamsia palliata*.	SS.SMx.CMx.CIloMx
A206		24/09/2010		72	Burrowed muddy sand with shell debris, cobbles and pebbles. *Nephrops norvegicus, Munida rugosa.*	SS.SMu.CFiMu.MegMax
	A206	24/09/2010		59.0	Boulder pile and bedrock; *Caryophyllia smithii, Swiftia pallida, Asterias rubens, Metridium senile. Atrina* sighted.	CR.MCR.EcCr.CarSwi
A209		26/09/2010		207 - 190	Muddy sand with boulders cobbles and bedrock outcrops. *Echinus esculentus, Urticina felina*.	CR.LCR.BrAs
	A209	26/09/2010		202.0	Fairly barren sand ripples. ?Anemones, *Metridium senile, Ophiocomina nigra*.	SS.SSa.CFiSa
A210		24/09/2010		187 - 184	Burrowed mud with holes and *Nephrops norvegicus.*	SS.SMu.CFiMu.MegMax

Tow Id no	Tow Data point	Date	Tape No/DVD No	Depth In - Out (m bcd)	Notes	Biotopes
A212		26/09/2010		52 - 42	Coarse sand with pebbles and cobbles. Fairly barren, ?dredged. *Munida rugosa, Ophiocomina nigra*, fish indet.	SS.SCS.CCS
A213		23/09/2010		206 - 187	Muddy gravel plain with shell and cobbles. *Munida rugosa*, *Luidia ciliaris, Inachus* sp., *Neptunea antiqua*, *Pagurus prideaux*, *Adamsia palliata*, *Aequipecten opercularis, Echinus esculentus*, *Porania pulvillus*, *Ophiocomina nigra*, *Buccinum undatum*, *Sabella pavonina*, *Sagartiogeton laceratus*, *Urticina felina,* yellow sponge, *Cancer pagurus, Salmacina dysteri*.	SS.SMx.CMx.ClloMx
A217		23/09/2010		54.0	Muddy gravel with frequent cobble and shell. Generally barren, looked dredged. *Munida rugosa* common, *Cancer pagurus, Aequipecten opercularis, Balanus crenatus, Luidia ciliaris.*	SS.SMx.CMx
A219		23/09/2010		54 - 63	Sandy gravel with occasional cobbles and shells. *Liocarcinus depurator* x1, otherwise barren and almost certainly dredged.	SS.SCS.CCS
A223		23/09/2010		112 - 110	Muddy sand with burrows and holes. *Nephrops norvegicus* (C), *Cerianthus lloydii* (R), whiting.	SS.SMu.CFiMu.MegMax
A225		26/09/2010		54	Muddy sand and shell gravel with dead shell and occasional cobbles. Occasional burrows at start of tow. *Munida rugosa*, *Turritella communis*, *Goneplax rhomboides* (several seen), dead *Atrina* shells, *Pecten maximus, Nephrops norvegicus*.	SS.SMx.CMx.ClloMx
	A225		51.0		Up from burrowed mud with *Nephrops norvegicus*	SS.SMu.CFiMu.MegMax
A228		26/09/2010		149 - 153	Muddy sand with shell and boulders. *Sabella pavonina, Pagurus prideaux, Adamsia palliata, Atrina fragilis, Turritella communis, Munida rugosa, Swiftia pallida on boulder*, fish, *Buccinum undatum, Neptunea antiqua, Alcyonium digitatum* on small boulder.	SS.SMx.CMx.ClloMx
	A228	26/09/2010	154.4	154 - 149	Muddy sand with boulders and pebbles. *Atrina fragilis*, dead *Atrina* shells, *Cerianthus lloydii, Lanice conchilega, Salmacina dysteri, Echinus esculentus, Monodaeus couchi*, silty hydroids, *Inachus* sp., *Hyas* sp.	SS.SBR.SMus.Afrag

Table A1.3 Summary of sampling undertaken at each diving location surveyed during the 2010 Sound of Canna survey

Site no	Date	Site name	Dive no.	Position (Decimal ^{0})	Work completed	Photos (No. taken)/Video	Site type	Surveyors
1	29/08/2010	Canna Zostera Bed	20100829_01_CMH/LS 20100829_02_FB/TSM	57.059^0 N 6.48984^0 W	Phase 2; Mapping; Core samples; Photography; Video	LS Nikon D200 Macro (9) FB Olympus WA (22) Video CMH	*Zostera*	CMH; TSM; FB; LS
2	30/08/2010	Great Wall of Canna	20100830_01_CMH/LS 20100830_02_FB/TSM	57.0451^0 N 6.464^0 W	Phase 2; Photography; Video	LS Nikon D200 Macro (5) FB Olympus WA (34) Video TSM	*Swiftia;*	CMH; TSM; FB; LS
3	30/08/2010	Compass Hill, NE Canna	20100830_03_TSM/LS	57.0654^0 N 6.4833^0 W	Phase 2; Photography; Video	LS Nikon D200 Macro (7) Video TSM	Steep gravel/sand	TSM; LS
4	30/08/2010	An Coroghan, Canna	20100830_04_CMH/FB	57.0596^0 N 6.4859^0 W	Phase 2	None	Burrowed mud; Kelp forest	CMH; FB
5	31/08/2010	SE tip of Sanday	20100831_01_TSM/FB 20100831_02_CMH/LS	57.0422^0 N 6.46717^0 W	Phase 2; Photography; Video	LS Nikon D200 Macro (13) Video TSM	Circalittoral cliff	CMH; TSM; FB; LS
6	31/08/2010	Reef NE Kilmory Bay, Rum	20100831_03_TSM/FB	57.0618^0 N 6.34762^0 W	Phase 2: Video	FB Olympus WA (20)	Kelp forest	TSM; FB
6	31/08/2010	Reef NE Kilmory Bay, Rum	20100831_04_CMH/LS	57.0636^0 N 6.3453^0 W	Phase 2; Photography	LS Nikon D200 Macro (20)	Gravel/Kelp	CMH; LS
7	01/09/2010	W An-t-Each, N E Canna	20100901_01_CMH/LS	57.0704^0 N 6.48925^0 W	Phase 2; Photography	LS Nikon D200 Macro (19)	Steep gravel slope	CMH; LS
8	01/09/2010	E An-t-Each, N E Canna	20100901_02_TSM/FB	57.0703^0 N 6.48778^0 W	Phase 2: Video	Video TSM	Circalittoral Rock outcrops	TSM; FB
9	01/09/2010	W of Suileabhaig, S. Sanday	20100901_03_CMH/LS	57.0431^0 N 6.49703^0 W	Phase 2	None	Kelp forest	CMH; LS
10	01/09/2010	A'Bhrideanach, SW Rum	20100901_04_TSM/FB	57.0102^0 N 6.46012^0 W	Phase 2: Video	FB Olympus WA (8)	Kelp forest	TSM; FB
11	02/09/2010	E of Rubha Carr-innis, Canna	20100902_01_CMH/LS	57.0573^0 N 6.48488^0 W	Phase 2; Photography	LS Nikon D200 Macro (15)	Burrowed mud	CMH; LS
12	02/09/2010	NW Sgeir a Phuirt, Outside Canna Harbour	20100902_02_TSM/FB	57.0546^0 N 6.48108^0 W	Phase 2: Video	FB Olympus WA (4) Video TSM	Burrowed mud	TSM; FB
13	02/09/2010	Sgeir a'Phuirt, Outside Canna Harbour	20100902_03_CMH/LS	57.0538^0 N 6.47795^0 W	Phase 2	Video CMH	Faunal dominated cliff	CMH; LS
14	02/09/2010	W of Guirdil, Rum	20100902_04_TSM/FB	57.0266^0 N 6.43372^0 W	Phase 2	FB Olympus WA (10)	Gravel	TSM; FB
15	03/09/2010	Kilmory Bay Zostera, Rum	20100903_01_CMH/TSM/FB	57.0532^0 N 6.35493^0 W	Phase 2; Mapping; Core samples; Photography		*Zostera*	CMH; TSM; FB; LS

Table A1.4 Brief habitat descriptions from the MNCR-style Phase 2 diving studies - 2010 Sound of Canna survey

Site No.	Date	Habitat Id (Site No:Hab No)	Depth (m bcd)	Surveyors	Biotope	Habitat title	Description
Dive 1.1	29/08/10	1:01	0 -4	CMH: LS; TSM; FB	SS.SMp.SSgr.Zmar	*Zostera marina* bed on muddy sand @ 0 - 3 m bcd	Small bay with *Zostera marina* (Rare-Frequent) from shore to approximately 3 m bcd depth on fine sand. Plants generally had a short blade length. Sand had occasional *Cerianthus lloydii* and *Pagurus bernhardus*. There were scattered clumps of filamentous brown algae and *Ceramium* sp. *Ulva* and *Enteromorpha* were frequent. The *Zostera* plants had many epiphytic amphipods and *Lacuna vincta*. There were several patches of dense *Zostera* at the northern edge of the bay.
Dive 2.1	30/08/10	2:01	6 - 19	CMH: LS; TSM; FB	IR.HIR.KFaR.LhypFa	Dense kelp forest of mixed species from 6 - 19 m bcd	Lower limit of individual kelp plants was c. 23 m *(L. saccharina)* with main forest finishing at c. 20 m. There was mixed *L. hyperborea, L. saccharina* and *S. polyschides*, with *L. saccharina* mostly deeper. It was all very silty and the fronds were very large. There was very little grazing so there was a dense red algal understorey dominated by *Delesseria sanguinea, Phycodrys rubens, Dictyota dichotoma* and *Heterosiphonia plumosa*. *Corynactis viridis* was common and there were algal and bryozoan crusts. Occasional gravel patches. *Sagartia elegans* was present on the rock and there was rare *Alcyonium digitatum* on the kelp stipes.
Dive 2.2	30/08/10	2:02	19 - 24	CMH: LS; TSM; FB	CR.HCR.XFa.CvirCri	Upper circalittoral bedrock and boulders with scattered red algae from 19 - 24 m bcd	Steep slope of bedrock and boulders with *Corynactis viridis, Caryophyllia smithii,* algal and bryozoan crusts and occasional red algae. *Kallymenia reniformis, Rhodophyllis werneri* and *Dictyota dichotoma* were all present. There were some patches of bryozoan turf and occasional *Sagartia elegans*. Everything was very silty.
Dive 2.3	30/08/10	2:03	24 - 34	CMH: LS; TSM; FB	CR.HCR.XFa.SwiLgAs	Circalittoral cliff with *Corynactis viridis* and *Swiftia pallida* from 24 - 34 m bcd	Bedrock wall with small ledges and numerous small overhangs, fissures and crevices. Much of the rock surface was covered with *Corynactis viridis* and bryozoan turf, with *Securiflustra securifrons* common. There were frequent large *Cliona celata* and colonies of *Nemertesia antennina*. *Swiftia pallida* was present below about 34 m bcd. Overhangs had scyphistomae, small hydroids, *Epizoanthus couchii* and *Parazoanthus anguicomus*. *Sagartia elegans* was frequent on the open rock. *Palinurus elephas, Homarus gammarus* and *Cancer pagurus* were all present. There were several axinellid sponges below about 30 m.

Site No.	Date	Habitat Id (Site No:Hab No)	Depth (m bcd)	Surveyors	Biotope	Habitat title	Description
Dive 3.1	30/08/10	3:01	3	TSM; LS	IR.HIR.KSed.Sac	Bedrock and boulders with *Laminaria* species and *Saccorhiza polyschides* at 3 m bcd	Kelp zone on bedrock and boulders was dominated by *Saccorhiza*. There were few epiphytic red algae.
Dive 3.2	30/08/10	3:02	3 - 21.5	TSM; LS	SS.SSa.IMuSa.SsubNhom	Sand slope with *Cerianthus lloydii* from 3 - 21.5 m bcd	Steep sand slope extending from the kelp zone at 4.5 m to 23 m and beyond. *Cerianthus lloydii* was dominant with *Lanice conchilega* present. Occasional boulders supported colonies of *Metridium senile*. The sand became more rippled where it levelled off at the top of the slope. *Arenicola marina* was present above about 9 m. *Cancer pagurus* were common on the slope buried in the sediment. There was a diatom film over the shallower sediment.
Dive 4.1	30/08/10	4:01	4.5 - 10.5	CMH; FB	IR.LIR.K.Lsac.Ft	*Laminaria saccharina* forest on cobble, pebble and fine sandy sediment from 4.5 - 10.5 m bcd	Small boulders, bedrock and cobble with dense capeform kelp forest. *Laminaria saccharina* dominated with *L. hyperborea* and *S. polyschides* both present. Foliose and encrusting algae were common. Site was very silty. *L. hyperborea* dominated above 5 m.
Dive 4.2	30/08/10	4:02	10.5 - 17.5	CMH; FB	SS.SMx.CMx.ClloMx	Mixed shelly sand with diatom film, *Cerianthus lloydii a*nd juvenile dragonets from 10.5 - 17.5 m bcd	Very steep sediment slope of muddy sand with a significant cover of diatoms (c. 70%). *Cerianthus lloydii* was common and there were numerous juvenile dragonets.
Dive 4.3	30/08/10	4:03	17.5 - 23.5	CMH; FB	SS.SMu.CFiMu.MegMax	Mixed shelly sand with crustacean burrows and burrowing anemones from 17.5 - 23.5 m bcd	Very steep slope of muddy sand with occasional burrows. *Cerianthus lloydii* and *Sagartiogeton laceratus* were common. There were numerous *Turritella* shells with *Pagurus prideaux* and *Adamsia carciniopados*. Occasional burrows had *Goneplax rhomboides*.
Dive 5.1	31/08/10	5:01	10 - 16	CMH: LS; TSM; FB	IR.HIR.KFaR.LhypFa	Exposed, tide-swept kelp forest in 10 - 16 m bcd	Dense, tide-swept *Laminaria hyperborea* forest with 5 plants per sq. metre. *Heterosiphonia plumosa*, *Dictyotoa dichotoma, Callophyllis laciniata, Acrosorium venulosum* and *Pterosiphonia parasitica* were dominant in the understorey. The dominant animal species included *Corynactis viridis* and *Sagartia elegans*. The kelp fronds were covered with *Obelia geniculata* and *Membranipora membranacea.*

Site No.	Date	Habitat Id (Site No:Hab No)	Depth (m bcd)	Surveyors	Biotope	Habitat title	Description
Dive 5.2	31/08/10	5:02	16 - 21	CMH: LS; TSM; FB	CR.HCR.XFa.CvirCri	Expose upper circalittoral bedrock with *Corynactis viridis* from 16 - 21 m bcd	Upper circalittoral bedrock slope with patches of shell gravel, with about 25% cover of foliose red algae. There was a diverse biota with *Corynactis viridis* dominating on vertical faces. Dominant algae were *Kallymenia reniformis*, *Rhodophyllis werneri* and encrusting *Corallinaceae*.
Dive 5.3	31/08/10	5:03	21 - 34	CMH: LS; TSM; FB	CR.HCR.XFa.SpAnVt	Steep and vertical circalittoral bedrock with *Corynactis viridis* and *Tubularia indivisa* from 21 - 34 m bcd	A steep slope led to a vertical wall dominated by *Corynactis viridis* with frequent scattered clumps of *Tubularia indivisa, Nemertesia antennina* and *Securiflustra securifrons.* The *Tubularia* clumps supported other hydroids and bryozoans. The rock surface was very pitted and had numerous encrusting sponges and clumps of bryozoan turf. *Parazoanthus anguicomus* was present. Juvenile *Antedon bifida* were frequent although very few adults were seen. There were several cuckoo wrasse on the cliff and ballan wrasse at the top.
Dive 6.1	31/08/10	6:01	11 - 13	TSM; FB	IR.HIR.KFaR.LhypR	Gradually sloping bedrock with *Laminaria hyperborea* forest from 11 - 13 m bcd	Kelp forest of a gently sloping reef with igneous rock strata angled with regular vertical faces of 50 cm in height. Shell gravel pockets and scattered boulders. Dense *Laminaria hyperborea* and foliose algal cover of c. 30%.
Dive 6.2	31/08/10	6:02	15 - 21	CMH; LS	CR.HCR.XFa.SpNemAdia	Cobble and gravel plain dominated by hydroids and occasional red algae at 15 - 21 m bcd	Plain of gravel at base of bedrock reef with scattered and numerous cobbles, small boulders and dead shells. Hydroids were frequent and conspicuous, particularly *Nemertesia antennina* and *N. ramosa* and *Halecium beanii*. Crisiids and *Scrupocellaria scruposa* formed a turf in places and were also tangled round hydroids. Pycnogonids and Caprellids were common on the hydroids. There were scattered red algae particularly *Rhodophyllis werneri* and *R. divaricata* and *Acrosorium venulosum.*
Dive 7.1	01/09/10	7:01	11 - 13	CMH; LS	IR.HIR.KSed.XKScrR	Silty rock dominated by *Laminaria saccharina*, other kelps and red algae at 11 - 13 m bcd	Low-lying, very silty rock covered with large plants of *Laminaria saccharina* and dense red algae. There were occasional *Saccorhiza polyschides* and *Laminaria hyperborea* was more common away from the rock-sediment boundary. Dominant reds were *Phycodrys rubens*, *Delesseria sanguinea*, *Callophyllis laciniata* and *Phyllophora crispa*. There were patches of shelly gravel between the low rock ridges.

Site No.	Date	Habitat Id (Site No:Hab No)	Depth (m bcd)	Surveyors	Biotope	Habitat title	Description
Dive 7.2	01/09/10	7:02	13 - 19	CMH; LS	SS.SMp.KSwSS.LsacR.Gv	Gradually sloping tide swept gravel plain with scattered *Laminaria saccharina* and foliose algae at 13 - 19 m bcd	Plain of mixed gravel, shell debris and cobbles with scattered large plants of *Laminaria saccharina* and frequent red algae. *Desmarestia aculeata* was occasional.
Dive 7.3	01/09/10	7:03	19 - 28	CMH; LS	SS.SMx.CMx.CIloMx	Steep slope of circalittoral shell gravel with *Cerianthus lloydii* and *Lanice conchilega* at 19 - 28 m bcd	Very steep sediment slope (c. 40^0) of mixed gravel - coarse basalt, shell and sand - and occasional cobbles and hydroids. Fauna was very sparse with occasional hydroids and bryozoans on the cobbles. Juvenile dragonets were frequent. *Cerianthus lloydii* and *Lanice conchilega* were common / frequent. The sediment had an appearance of having been dredged.
Dive 8.1	01/09/10	8:01	18 - 22	TSM; FB	CR.MCR.EcCr.FaAlCr.Sec	Steep bedrock with *Caryophyllia smithii* and *Parasmittina trispinosa* at 18 - 22m bcd	Very steep slope of bedrock, mostly covered with a layer of shell gravel but with some vertical and overhanging areas. The dominant species included *Caryophyllia smithii, Parasmittina trispinosa* and *Securiflustra securifrons*. Deepest algae included *Rhodophyllis werneri, Rhodymenia ardissonei, Kallymenia reniformis* and *Plocamium cartilagineum.*
Dive 8.2	01/09/10	8:02	22 - 36	TSM; FB	CR.FCR.Cv.SpCup	Steep and vertical circalittoral bedrock with *Caryophyllia smithii*, bryozoans and *Parazoanthus anguicomus* from 22 - 36 m bcd	Very steep rocky slope with vertical in the lower circalittoral, mostly covered with a sprinkling of shell gravel. Conspicuous species included *Caryophyllia smithii* and *Cellaria* sp. which were the dominant turf formers. Vertical and overhanging faces were generally dominated by *Parazoanthus anguicomus*. Scattered large sponge growths present included *Myxilla incrustans* and *Cliona celata*. Other conspicuous species included *Parasmittina trispinosa* and ?*Halopteris catharina*.
Dive 9.1	01/09/10	9:01	10 - 20	CMH; LS	IR.HIR.KFaR.LhypFa	*Laminaria hyperborea* forest on bedrock from 10 - 20 m bcd	Gradually sloping and level bedrock with dense *L. hyperborea*. There were very tall plants down to about 15 m, with shorter and less dense plants below this. There was little evidence of grazing with a dense algal understory. The site was exposed to wave action with *Corynactis viridis*, occasional sponges and *Alcyonium digitatum* on the rock. The dominant foliose algae were *Delesseria sanguinea, Phycodrys rubens* and *Callophyllis laciniata*.

Site No.	Date	Habitat Id (Site No:Hab No)	Depth (m bcd)	Surveyors	Biotope	Habitat title	Description
Dive 10.1	01/09/10	10:01	4.2 - 6.2	TSM; FB	IR.HIR.KFaR.LhypR	*Laminaria hyperborea* forest on bedrock from 4-6 m bcd	Dense *Laminaria hyperborea* forest with thalli of all ages making up the population, and the main canopy formed of rough stout-shafted plants. The seabed rock was coated in encrusting coralline algae with approximately 30% cover of foliose algae. Crisiid bryozoa were common. The stipes were covered with *Halichondria panicea*, *Membranoptera alata* and *Ptilota gunneri*. Common rock species included *Cryptopleura ramosa, Kallymenia reniformis, Plocamium cartilagineum* and *Odonthalia dentata.* Vertical surfaces supported *Alcyonium digitatum. Obelia geniculata* and *Membranipora membranacea* on the fronds.
Dive 11.1	02/09/10	11:01	22.5 - 28.5	CMH; LS	SS.SMu.CFiMu.MegMax	Burrowed mud with *Nephrops norvegicus* from 22.5 - 28.5 m bcd	Gradual slope of heavily worked and burrowed mud. Major species were *Nephrops norvegicus* and *Sagartiogeton* spp. (both species present) but there were numerous other burrows. One *Virgularia mirabilis* seen. *Cancer pagurus* and *Liocarcinus depurator* both present.
Dive 12.1	02/09/10	12:01	21 - 27	TSM; FB	SS.SMu.CFiMu.MegMax	Burrowed mud with *Nephrops norvegicus* from 21 - 27 m bcd	Gradual slope of heavily burrowed mud characterised by burrows of *Nephrops norvegicus* and *Goneplax rhomboides. Sagartiogeton laceratus* was frequent but other species were scarce. *Cancer pagurus* and *Pecten maximus* both recorded. A diatom film was common on the sediment surface between 25 and 26 m.
Dive 13.1	02/09/10	13:01	3 - 7	CMH; LS	IR.HIR.KFaR.LhypR	Rock on skerry top dominated by *Laminaria hyperborea* and *Saccorhiza polyschides* from 3 - 7 m bcd	Dense kelp forest on top of the skerry with *Laminaria hyperborea* dominant. *Saccorhiza* was frequent and *Desmarestia aculeata* was common along the bottom edge of the forest. *Corynactis viridis* was common on the rock underneath the kelp with coralline and red algal crusts and brown algal crusts including *Aglaozonia*. There was a reasonable diversity of foliose algae present - not heavily grazed. This zone was not surveyed in detail.
Dive 13.2	02/09/10	13:02	7 - 24	CMH; LS	CR.FCR.Cv.SpCup	Cliff face dominated by *Metridium senile* from 7 - 24 m bcd	A cliff face dominated by *Metridium senile* with buttresses and small overhangs. *Parazoanthus anguicomus* was abundant on the lower 3 - 4 m of the cliff while *Corynactis viridis* was common on the shallower parts. Edges that projected from the wall supported *Alcyonium digitatum. Parasmittina trispinosa* and algal crusts were generally abundant and there were scattered red algae down to approximately 20 m.

Site No.	Date	Habitat Id (Site No:Hab No)	Depth (m bcd)	Surveyors	Biotope	Habitat title	Description
Dive 14.1	02/09/10	14:01	20.5 -22	TSM; FB	SS.SMp.Mrl.Pcal	Tide-swept gravel and pebble plain in the upper circalittoral from 20.5 - 22 m bcd	Tide-swept gravel and pebble plain in the upper circalittoral with scattered cobbles and boulders. Algae were a feature with scattered foliose reds including *Acrosorium uncinatum*, *Kallymenia reniformis, Rhodophyllis werneri, Scinaia interrupta,* a few maerl twigs and encrusting calcareous and dark red algae. Conspicuous animals included scattered hydroids including *Nemertesia* spp., *Halopteris catharina and Antenella secundaria, Epizoanthus couchii, Pomatoceros, Galathea* sp., prawns with red markings, *Lanice, Sabella, Pecten* and *Balanus crenatus*.
Dive 15.1	03/09/10	15:01	4 - 6.5	CMH; LS; TSM; FB	SS.SMp.SSgr.Zmar	*Zostera marina* bed on fine sand @ 4 - 6.5m bcd	Medium to fine sandy seabed with patches of *Zostera marina*. The plants were fairly rich in epibiota, including coralline crusts (specimen), *Ceramium secundatum* and *Nitophyllum* (small specimen). Stalked jellyfish were occasional. *Anemonia viridis* was present. Both *Pagurus prideaux* and *Pagurus bernhardus* were frequent on the sediment. There were conspicuous *Arenicola burrows* and *Sabella pavonina* were noted.

Table A1.5 Species recorded (matrix format) during the shallow water video sampling - 2010 Sound of Canna survey

Species	MCS Code	DD1_2	DD1_3	DD1_2.2	DD1_1.1	DD1_5.1	DD1_5.2	DD1_5.2	DD1_5.2	DD1_4	DD1_7.1	DD1_7.2	DD1_8	DD1_9	DD1_9	DD1_9	DD1_9	DD1_12.1	DD1_12.1	DD1_12.1	DD1_12.1	DD1_12.2	DD1_13.1	DD1_15.1	DD1_15.2	DD1_15.3	DD1_16.1	DD1_16.2	DD1_17.1	DD1_17.2	DD1_17.3	DD1_18.1	DD1_18.2	DD1_18.3	DD1_20.1	DD1_20.2	DD1_21.1	DD1_21.2	DD1_22	DD1_22.1	DD1_23	DD1_24	DD1_25.1
Suberites ficus	C2210																									P																
Cliona celata	C3020											P						P	P																							
Haliclona sp.	C8540				P																																				
Alcyonium digitatum	D10240											P						P	P		P	P																				P
Virgularia mirabilis	D10560																									P	P															
Cerianthus lloydii	D10750							P																	A		P			P	P	P		P	C	P		P				
Arachnanthus sarsi	D10920																																		R							
Sagartiogeton laceratus	D12470																									P	A								A							
Caryophyllia smithii	D13700											P		P				P			P																					
Tubularia indivisa	D1440																																							P		
Halecium halecinum	D5260																																									
Nemertesia antennina	D5970										P	P		P	P			P																P				P			P		
Nemertesia ramosa	D5990													P				P																								
Arenicola marina	P15760			P																									P		P	P				P					
Lanice conchilega	P20310																														P	P									
Sabella pavonina	P22610																																									
Pomatoceros sp.	P23020									P					P																									P		
Nephrops norvegicus	S23650																										P							R							
Paguridae indet.	S24440																										P														
Pagurus bernhardus	S24650																									P															
Munida rugosa	S24950													P																											
Hyas araneus	S25590																																	P							
Inachus sp.	S25750																																								
Cancer pagurus	S26460																														P	P	P	P							
Liocarcinus depurator	S26690																																				P				
Necora puber	S26720																									P															
Carcinus maenas	S26900																							P																	
Pecten maximus	W18090														P									P													P				
Gibbula cineraria	W1930																																								

Species	MCS Code	DD1_2	DD1_3	DD1_2.2	DD1_1.1	DD1_5.1	DD1_5.2	DD1_5.2	DD1_5.2	DD1_4	DD1_7.1	DD1_7.2	DD1_8	DD1_9	DD1_9	DD1_9	DD1_9	DD1_12.1	DD1_12.1	DD1_12.1	DD1_12.1	DD1_12.2	DD1_13.1	DD1_15.1	DD1_15.2	DD1_15.3	DD1_16.1	DD1_16.2	DD1_17.1	DD1_17.2	DD1_17.3	DD1_18.1	DD1_18.2	DD1_18.3	DD1_20.1	DD1_20.2	DD1_21.1	DD1_21.2	DD1_22	DD1_22.1	DD1_23	DD1_24	DD1_25.1
Calliostoma zizyphinum	W2000																	P																									
Turritella communis	W4420																																		P	P							
Parasmittina trispinosa	Y3770											P		P				P																									
Membranipora membranacea	Y6640				P																																						
Securiflustra securifrons	Y7100															P																									P		
Scrupocellaria	Y8360																																										
Bugula flabellata	Y8720																																										
Asterias rubens	ZB1900	P	P																							P																	
Marthasterias glacialis	ZB2000																	P																									
Amphiura sp.	ZB2830																									P									P	P							
Ophiura ophiura	ZB3150																							P																			
Echinus esculentus	ZB3620	P				P				P	P	P		P				P				P																					
Astropecten irregularis	ZB410																												P													
Holothuria forskali	ZB4520											P		P				P																									
Aslia lefevrei	ZB4790													P																													
Luidia ciliaris	ZB670																																								P		
Pollachius pollachius	ZG2080																				P																					
Labrus mixtus	ZG6100											P		P																													
Lumpenus lumpretaeformis	ZG6610																										R																
Gobiusculus flavescens	ZG7280																							P																			
Pomatoschistus sp.	ZG7400																												P													
Heterosiphonia plumosa	ZM10390																																									
Odonthalia dentata	ZM10970						P																																			
Scinaia sp.	ZM1820																																									
Bonnemaisonia asparagoides	ZM2080									P																																
Dilsea carnosa	ZM2560				P	P	P																																			
Callophyllis laciniata	ZM3230	P	P																																							
Kallymenia reniformis	ZM3280		P											P																											P	
Corallinaceae	ZM3840	P	P		P	P								P				P																							P	
Phymatolithon calcareum	ZM4910																																									
Phymatolithon calcareum	ZM4910																																									
Gracilaria gracilis	ZM5480																								P				P		P											

Species	MCS Code	DD1_2	DD1_3	DD1_2.2	DD1_1.1	DD1_5.1	DD1_5.2	DD1_5.2	DD1_5.2	DD1_4	DD1_7.1	DD1_7.2	DD1_8	DD1_9	DD1_9	DD1_9	DD1_9	DD1_12.1	DD1_12.1	DD1_12.1	DD1_12.1	DD1_12.2	DD1_13.1	DD1_15.1	DD1_15.2	DD1_15.3	DD1_16.1	DD1_16.2	DD1_17.1	DD1_17.2	DD1_17.3	DD1_18.1	DD1_18.2	DD1_18.3	DD1_20.1	DD1_20.2	DD1_21.1	DD1_21.2	DD1_22	DD1_22.1	DD1_23	DD1_24	DD1_25.1
Chondrus crispus	ZM6110	P																																									
Plocamium cartilagineum	ZM6310																																											
Cryptopleura ramosa	ZM9500																	P																					P				
Delesseria sanguinea	ZM9550	P			P							P																										P					
Ectocarpaceae indet.	ZR30																																										
Dictyota dichotoma	ZR4570																	P																								P	
Desmarestia aculeata	ZR4970				P	P																				P					P	P		P				P				
Laminaria hyperborea	ZR6330	P	P		P	P	P		P				P					P				P	P	P					P					P				P		P		P	P
Laminaria saccharina	ZR6360	P			P	P	P	P																P	P	P	P		P	P	P	P	P	P					P			P	
Saccorhiza polyschides	ZR6460					P	P																											P				P					
Alaria esculenta	ZR6520					P																		P		P																	
Fucus serratus	ZR6740																							P																			
Halidrys siliquosa	ZR7160																																										
Ulva sp.	ZS2400				P																			P	P	P						P											

Species	MCS Code	DD1_26.1	DD1_26.2	DD1_27	DD1_28	DD1_28	DD1_30	DD1_31	DD1_32	DD1_33	DD1_35	DD1_36	DD1_36	DD1_36	DD1_36	DD1_37	DD1_38	DD1_39	DD1_40	DD1_44.1	DD1_44.1	DD1_44.1	DD1_44.1	DD1_44.1	DD1_44.1	DD1_45.1	DD1_46.1	DD1_46.1	DD1_46.1	DD1_46.1	DD1_47.1	DD1_46.2	DD1_46.3	DD1_46.3	DD1_46.4	DD1_46.4	DD1_46.4	DD1_46.4	DD1_46.4	DD1_47.1
Suberites ficus	C2210																																							
Cliona celata	C3020																																							
Haliclona sp.	C8540																																							
Alcyonium digitatum	D10240				P	P						P																												
Virgularia mirabilis	D10560																																							
Cerianthus lloydii	D10750											P		P	P		P							P	P	P														
Arachnanthus sarsi	D10920																																							
Sagartiogeton laceratus	D12470																																							
Caryophyllia smithii	D13700																																							
Tubularia indivisa	D1440																																							
Halecium halecinum	D5260																																							
Nemertesia antennina	D5970				P	P	P					P						P																						
Nemertesia ramosa	D5990				P		P		P			P		P	P			P								P														
Arenicola marina	P15760																										P	P												
Lanice conchilega	P20310												P	P				P																						
Sabella pavonina	P22610																	P																						
Pomatoceros sp.	P23020					P			P			P					P									P														
Nephrops norvegicus	S23650																																							
Paguridae indet.	S24440																																							
Pagurus bernhardus	S24650														P																									
Munida rugosa	S24950																																							
Hyas araneus	S25590																																							
Inachus sp.	S25750														P																									
Cancer pagurus	S26460																P																							
Liocarcinus depurator	S26690														P		P																							
Necora puber	S26720											P																												
Carcinus maenas	S26900																																							
Pecten maximus	W18090												P													P														
Gibbula cineraria	W1930										P																													
Calliostoma zizyphinum	W2000																																							
Turritella communis	W4420																																							

Species	MCS Code	DD1_26.1	DD1_26.2	DD1_27	DD1_28	DD1_28	DD1_30	DD1_31	DD1_32	DD1_33	DD1_35	DD1_36	DD1_36	DD1_36	DD1_36	DD1_37	DD1_38	DD1_39	DD1_40	DD1_44.1	DD1_44.1	DD1_44.1	DD1_44.1	DD1_44.1	DD1_44.1	DD1_45.1	DD1_46.1	DD1_46.1	DD1_46.1	DD1_46.1	DD1_47.1	DD1_46.2	DD1_46.3	DD1_46.3	DD1_46.4	DD1_46.4	DD1_46.4	DD1_46.4	DD1_46.4	DD1_47.1
Parasmittina trispinosa	Y3770											P																												
Membranipora membranacea	Y6640																																							
Securiflustra securifrons	Y7100																																							
Scrupocellaria	Y8360								P																															
Bugula flabellata	Y8720								P																															
Asterias rubens	ZB1900																																							
Marthasterias glacialis	ZB2000											P													P															
Amphiura sp.	ZB2830																																							
Ophiura ophiura	ZB3150																									P							P		P			C	
Echinus esculentus	ZB3620				P			P				P						P	P	P																			
Astropecten irregularis	ZB410																																							
Holothuria forskali	ZB4520																																							
Aslia lefevrei	ZB4790																																							
Luidia ciliaris	ZB670																																							
Pollachius pollachius	ZG2080																																							
Labrus mixtus	ZG6100																																							
Lumpenus lumpretaeformis	ZG6610																																							
Gobiusculus flavescens	ZG7280																																							
Pomatoschistus sp.	ZG7400																																							
Heterosiphonia plumosa	ZM10390											P						P																						
Odonthalia dentata	ZM10970																																							
Scinaia sp.	ZM1820																																							
Bonnemaisonia asparagoides	ZM2080											P						P																						
Dilsea carnosa	ZM2560																																							
Callophyllis laciniata	ZM3230					P																																	
Kallymenia reniformis	ZM3280				P		P					P						P																						
Corallinaceae	ZM3840								P					P																										
Phymatolithon calcareum	ZM4910																?																							
Phymatolithon calcareum	ZM4910																?																							
Gracilaria gracilis	ZM5480																														P								P
Chondrus crispus	ZM6110																																							
Plocamium cartilagineum	ZM6310						P											P																						

Species	MCS Code	DD1_26.1	DD1_26.2	DD1_27	DD1_28	DD1_28	DD1_30	DD1_31	DD1_32	DD1_33	DD1_35	DD1_36	DD1_36	DD1_36	DD1_37	DD1_38	DD1_39	DD1_40	DD1_44.1	DD1_44.1	DD1_44.1	DD1_44.1	DD1_44.1	DD1_44.1	DD1_45.1	DD1_46.1	DD1_46.1	DD1_46.1	DD1_46.1	DD1_47.1	DD1_46.2	DD1_46.3	DD1_46.3	DD1_46.4	DD1_46.4	DD1_46.4	DD1_46.4	DD1_47.1
Cryptopleura ramosa	ZM9500																																					
Delesseria sanguinea	ZM9550						P										P																					
Ectocarpaceae indet.	ZR30																								P													
Dictyota dichotoma	ZR4570				P		P										P																					
Desmarestia aculeata	ZR4970					P					P																	P	P									P
Laminaria hyperborea	ZR6330	P	P	P	P			P		P	P							P	P	P					P		P	P										
Laminaria saccharina	ZR6360				P	P	P	P		P	P						P				P		P				P	P	P	P								P
Saccorhiza polyschides	ZR6460				P		P			P	P							P																				
Alaria esculenta	ZR6520																																					
Fucus serratus	ZR6740																																					
Halidrys siliquosa	ZR7160																											P										
Ulva sp.	ZS2400																								P		P				P							

Species	MCS Code	M01_1	M02_1	M02_2	M02_3	M03_1	M04_1	M05_1	M06_1	M07_1
Suberites ficus	C2210									
Cliona celata	C3020									
Haliclona sp.	C8540									
Alcyonium digitatum	D10240									
Virgularia mirabilis	D10560									
Cerianthus lloydii	D10750									
Arachnanthus sarsi	D10920									
Sagartiogeton laceratus	D12470									
Caryophyllia smithii	D13700									
Tubularia indivisa	D1440									
Halecium halecinum	D5260									P
Nemertesia antennina	D5970								P	P
Nemertesia ramosa	D5990							P	P	P
Arenicola marina	P15760									
Lanice conchilega	P20310									
Sabella pavonina	P22610									
Pomatoceros sp.	P23020		P			P	P	P		P
Nephrops norvegicus	S23650									
Paguridae indet.	S24440									
Pagurus bernhardus	S24650									
Munida rugosa	S24950						P	P		
Hyas araneus	S25590									
Inachus sp.	S25750									
Cancer pagurus	S26460						P	P		
Liocarcinus depurator	S26690									
Necora puber	S26720					P				
Carcinus maenas	S26900									
Pecten maximus	W18090									
Gibbula cineraria	W1930									
Calliostoma zizyphinum	W2000									
Turritella communis	W4420									
Parasmittina trispinosa	Y3770									
Membranipora membranacea	Y6640									
Securiflustra securifrons	Y7100									

Species	MCS Code	M01_1	M02_1	M02_2	M02_3	M03_1	M04_1	M05_1	M06_1	M07_1
Scrupocellaria	Y8360									
Bugula flabellata	Y8720									
Asterias rubens	ZB1900									
Marthasterias glacialis	ZB2000					P				
Amphiura sp.	ZB2830									
Ophiura ophiura	ZB3150									
Echinus esculentus	ZB3620									
Astropecten irregularis	ZB410									
Holothuria forskali	ZB4520									
Aslia lefevrei	ZB4790									
Luidia ciliaris	ZB670									
Pollachius pollachius	ZG2080									
Labrus mixtus	ZG6100									P
Lumpenus lumpretaeformis	ZG6610									
Gobiusculus flavescens	ZG7280								P	
Pomatoschistus sp.	ZG7400									
Heterosiphonia plumosa	ZM10390									P
Odonthalia dentata	ZM10970									
Scinaia sp.	ZM1820								P	
Bonnemaisonia asparagoides	ZM2080									
Dilsea carnosa	ZM2560									
Callophyllis laciniata	ZM3230									
Kallymenia reniformis	ZM3280	P								
Corallinaceae	ZM3840									
Phymatolithon calcareum	ZM4910									
Phymatolithon calcareum	ZM4910				P	P	P	P	P	P
Gracilaria gracilis	ZM5480									
Chondrus crispus	ZM6110									
Plocamium cartilagineum	ZM6310									
Cryptopleura ramosa	ZM9500									
Delesseria sanguinea	ZM9550	P							P	
Ectocarpaceae indet.	ZR30									
Dictyota dichotoma	ZR4570									
Desmarestia aculeata	ZR4970									

Species	MCS Code	M01_1	M02_1	M02_2	M02_3	M03_1	M04_1	M05_1	M06_1	M07_1
Laminaria hyperborea	ZR6330									
Laminaria saccharina	ZR6360	P								
Saccorhiza polyschides	ZR6460									
Alaria esculenta	ZR6520									
Fucus serratus	ZR6740									
Halidrys siliquosa	ZR7160									
Ulva sp.	ZS2400									

Table A1.6 Species recorded (matrix format) during the deep water video sampling - 2010 Sound of Canna survey

Species	MCS Code	A12_1	A12_10	A12_14	A12_15	A12_2	A12_3	A12_4	A12_5	A12_6	A12_7	A12_8	A12_9	A52_1	A52_4	A52_5	A52_6	A64_1	A66_1	A79_1	A79_2	A79_3	A79_4	A120_1	A123_1	A123_3	A124_1	A124_2	A124_3	A125_1	A125_2	A126_1	A127_1	A128_1	A128_2	A128_3	A130_1	A130_2	A131_1	A132_1	A135_1	A135_1
Pachymatisma johnstonia	C1670																																									
Suberites ficus	C2210																								P																		
Polymastia boletiformis	C2580												P																														
Cliona celata	C3020																																										
Axinella infundibuliformis	C3540																										P		P														
Phakellia ventilabrum	C3720																																										
Iophonopsis nigricans	C6780									P																																	
Alcyonium digitatum	D10240	P																							P												P						
Swiftia pallida	D10370																										P																
Funiculina quadrangularis	D10500																																										
Virgularia mirabilis	D10560																																										
Pennatula phosphorea	D10670																																P										
Cerianthus lloydii	D10750												P	P										P		P	P			P		P			P							
Parazoanthus anguicomus	D11160	P																																									
Urticina felina	D11680	P																																			P						
Urticina eques	D11690	P					P							P	P									P	P																		
Metridium senile	D12250	P				P	P																				P																
Sagartiogeton laceratus	D12470																							P						P												
Adamsia carciniopados	D12920																	P									P			P										P	P	P
Corynactis viridis	D13570																																										
Caryophyllia smithii	D13700																			P																	P						
Tubularia indivisa	D1440		P																																			P					
Nemertesia antennina	D5970																													P						P		P				

Species	MCS Code	A12_1	A12_10	A12_14	A12_15	A12_2	A12_3	A12_4	A12_5	A12_6	A12_7	A12_8	A12_9	A52_1	A52_4	A52_5	A52_6	A64_1	A66_1	A79_1	A79_2	A79_3	A79_4	A120_1	A123_1	A123_3	A124_1	A124_2	A124_3	A125_1	A125_2	A126_1	A127_1	A128_1	A128_2	A128_3	A130_1	A130_2	A131_1	A132_1	A135_1	A135_1
Nemertesia ramosa	D5990	P																																								
Chaetopterus variopedatus	P13750																																									
Lanice conchilega	P20310																																									
Myxicola infundibulum	P22270																																									
Sabella pavonina	P22610		P			P	P							P				P						P	P	P													P			
Pomatoceros sp.	P23020	P					P							P														P														
Salmacina dysteri	P23510				P								P			P																				P						
Balanus crenatus	R1100																																									
Nephrops norvegicus	S23650																									P					P	P	P							P	P
Calocaris or *Callianassa* burrows	S23780																									P							P							P	P
Paguridae indet.	S24440																																					P			P
Pagurus bernhardus	S24650																																							P	
Pagurus prideaux	S24700		P			P												P						P	P		P			P		P							P	P	P
Munida rugosa	S24950	P					P										P				P			P			P			P		P	P	P	P	P	P		P			
Hyas araneus	S25590																																									
Inachus sp.	S25750					P							P		P						P			P																		
Inachus dorsettensis	S25760																P																									
Macropodia sp.	S25820					P																P																				
Cancer pagurus	S26460						P															P					P			P							P					
Liocarcinus depurator	S26690																										P					P								P	
Goneplax rhomboides	S27140																																									
Monodaeus couchi	S27200																																				P					
Atrina fragilis	W17250		P	P			P	P		P	P	P	P		P	P		P		P	P	P	P	P	P	P										P					
Aequipecten opercularis	W18050						P									P												P														
Pecten maximus	W18090																										P			P												

Species	MCS Code	A12_1	A12_10	A12_14	A12_15	A12_2	A12_3	A12_4	A12_5	A12_6	A12_7	A12_8	A12_9	A52_1	A52_4	A52_5	A52_6	A64_1	A66_1	A79_1	A79_2	A79_3	A79_4	A120_1	A123_1	A123_3	A124_1	A124_2	A124_3	A125_1	A125_2	A126_1	A127_1	A128_1	A128_2	A128_3	A130_1	A130_2	A131_1	A132_1	A135_1	A135_1
Turritella communis	W4420																																					P		P	P
Aporrhais pespelecani	W7000																										P															
Buccinum undatum	W8440																																				P		P			
Neptunea antiqua	W8600						P									P					P													P			P					
Alcyonidium diaphanum	Y1370		P																																							
Parasmittina trispinosa	Y3770																											P														
Porella compressa	Y3830																																									
Flustra foliacea	Y6940	P																									P															
Securiflustra securifrons	Y7100	P																																								
Porania pulvillus	ZB1010		P			P																															P					
Solaster endeca	ZB1430																							P																		
Crossaster papposus	ZB1490																																									
Henricia sp.	ZB1640					P	P																														P					
Asterias rubens	ZB1900				P																																	P				
Leptometra celtica	ZB220																											P	P				P	P	P			P				
Ophiocomina nigra	ZB2420		P										P			P			P	P					P																	
Amphiura sp.	ZB2830																																									
Ophiura ophiura	ZB3150												P					P																								
Echinus esculentus	ZB3620	P				P	P									P		P						P	P		P			P							P		P			
Astropecten irregularis	ZB410																																									
Luidia ciliaris	ZB670		P			P							P	P										P	P					P											
Luidia sarsi	ZB680																													P												
Ascidia mentula	ZD1500																																									
Scyliorhinus canicula	ZF400								P								P																									
Merlangius merlangus	ZG1860																																									

Species	MCS Code	A12_1	A12_10	A12_14	A12_15	A12_2	A12_3	A12_4	A12_5	A12_6	A12_7	A12_8	A12_9	A52_1	A52_4	A52_5	A52_6	A64_1	A66_1	A79_1	A79_2	A79_3	A79_4	A120_1	A123_1	A123_3	A124_1	A124_2	A124_3	A125_1	A125_2	A126_1	A127_1	A128_1	A128_2	A128_3	A130_1	A130_2	A131_1	A132_1	A135_1	A135_1
Labrus mixtus	ZG6100																																									
Callionymus sp.	ZG6990																																									
Lesueurigobius friesii	ZG7370																																									
Ulva sp.	ZS2400																																									

Table A1.7 Species recorded (matrix format) during the diver sampling - 2010 Sound of Canna survey

Species	MCS Code	Dive 1.1	Dive 2.1	Dive 2.2	Dive 2.3	Dive 3.1	Dive 3.2	Dive 4.1	Dive 4.2	Dive 4.3	Dive 5.1	Dive 5.2	Dive 5.3	Dive 6.1	Dive 6.2	Dive 7.1	Dive 7.2	Dive 7.3	Dive 8.1	Dive 8.2	Dive 9.1	Dive 10.1	Dive 11.1	Dive 12.1	Dive 13.1	Dive 13.2	Dive 14.1	Dive 15.1
Porifera indet.	C1												F							R								
Pachymatisma johnstonia	C1670										R	R									O					O		
Suberites ficus	C2210																											
Polymastia boletiformis	C2580																								R			
Polymastia mamillaris	C2610												R															
Cliona celata	C3020		O	O	F						R	F	O	R					O	O	O					O		
Axinellidae	C3470																											
Axinella infundibuliformis	C3540				R															O								
Phakellia ventilabrum	C3720																											
Stelligera rigida	C4070		R	R	R						R	R	R															
Stelligera stuposa	C4080												R						O	F								
Stelligera/Raspailia	C4080				O																							
Raspailia ramosa	C4290																			R								
Halichondria panicea	C4840							R			O										R	O						
Mycale rotalis	C5530																									R		
Myxilla incrustans	C6450											O			R					O	R	R						
Iophonopsis nigricans	C6780																			O								
Hymedesmia paupertas	C7250				R								O							O						R		
Haliclona sp.	C8540																											
Haliclona oculata	C8600																					R?						
Haliclona viscosa	C8650																				O							
Dysidea fragilis	C8900																				R							
Aplysilla sulfurea	C9040				R																					R		
Oscarella lobularis	C950																				O							
Sarcodictyon roseum	D10170				O																							
Alcyonium digitatum	D10240		R	R	R						O	R	R	R					R	O	O	F			F	C	R	
Swiftia pallida	D10370				R																							
Funiculina quadrangularis	D10500																											
Virgularia mirabilis	D10560																						R					
Pennatula phosphorea	D10670																											
Cerianthus lloydii	D10750	O					F		C	C					O		F	C										
Arachnanthus sarsi	D10920																											
Epizoanthus couchii	D11070			O	R									R													O	
Parazoanthus anguicomus	D11160				R								R						F	F						C		
Anemonia viridis	D11580																											R
Urticina felina	D11680																			R	R							
Urticina eques	D11690																											
Metridium senile	D12250			O			R					R												O	A			
Sagartia elegans	D12310		O	F	F						R	O	C	R					R		R	R			O	R		

Species	MCS Code	Dive 1.1	Dive 2.1	Dive 2.2	Dive 2.3	Dive 3.1	Dive 3.2	Dive 4.1	Dive 4.2	Dive 4.3	Dive 5.1	Dive 5.2	Dive 5.3	Dive 6.1	Dive 6.2	Dive 7.1	Dive 7.2	Dive 7.3	Dive 8.1	Dive 8.2	Dive 9.1	Dive 10.1	Dive 11.1	Dive 12.1	Dive 13.1	Dive 13.2	Dive 14.1	Dive 15.1
Actinothoe sphyrodeta	D12420														R													
Sagartiogeton laceratus	D12470									C													C	C				
Sagartiogeton undatus	D12480									R													R	R				
Adamsia carciniopados	D12920								F	F																		F
Edwardsia claparedii	D13410						R		R																			
Corynactis viridis	D13570		F	C	C						A	A	A								F	R			C	C		
Caryophyllia smithii	D13700			C	F			O			R	F	F	O	O	O		R	C	A	F	O			A	A	R	
Tubularia indivisa	D1440												F															
Tubularia larynx	D1450							R																				
Eudendrium indet	D2290												O															
Lucernariopsis campanulata	D280													O														O
Bougainvillia ramosa	D3060																									O		
Hydractinia echinata	D3350																							R				
Lafoea dumosa	D5160												O															
Halecium beanii	D5250										O				F												R	
Halecium halecinum	D5260			R	O							O	O		O				R									
Aglaophenia tubulifera	D5560														O						R							
Antennella secundaria	D5720														R												R	
Halopteris catharina	D5780														O				O	F							R	
Kirchenpaueria pinnata	D5850														F											R		
Nemertesia antennina	D5970		O	F	F							O	F	R	O			O	O	O						F	R	
Nemertesia ramosa	D5990		R	R	O								O		O			O	O	R						F	R	
Plumularia setacea	D6050				O										O											R		
Abietinaria abietina	D6260										O		R		R			R	O	O		R						
Diphasia sp.	D6360													O														
Sertularella gayi	D6670										R	R			O			R			R						R	
Sertularella polyzonias	D6690												O		O													
Sertularia argentea	D6760																						R					
Obelia sp.	D7280		F		F	F									F											F		O
Obelia dichotoma	D7300												O				O										R	
Obelia geniculata	D7310		F					F			O			F		F					F	O						
Obelia longissima	D7320																								F			
Rhizocaulus verticillatus	D7430			O											R			R										
Aurelia scyphistomae	D830			O																						R		
Filamentous brown alga indet.	IA05	O																										
Filamentous brown alga indet.	IA05	F																										
Athecate hydroid on razor shell	M20	R																										
Chaetopterus variopedatus	P13750	R																R								R		

Species	MCS Code	Dive 1.1	Dive 2.1	Dive 2.2	Dive 2.3	Dive 3.1	Dive 3.2	Dive 4.1	Dive 4.2	Dive 4.3	Dive 5.1	Dive 5.2	Dive 5.3	Dive 6.1	Dive 6.2	Dive 7.1	Dive 7.2	Dive 7.3	Dive 8.1	Dive 8.2	Dive 9.1	Dive 10.1	Dive 11.1	Dive 12.1	Dive 13.1	Dive 13.2	Dive 14.1	Dive 15.1
Arenicola marina	P15760	O					F																					C
Terebellidae	P20000	R						O		R									R									
Lanice conchilega	P20310						F		R						F		O	F					R	R			R	R
Myxicola infundibulum	P22270																											
Myxicola infundibulum	P22270						R		R						R													
Sabella pavonina	P22610												R														R	R
Hydroides sp.	P22840																										R	
Pomatoceros sp.	P23020					O	O					R	O	O	F	F		O	O	R	F						O	
Pomatoceros lamarcki	P23030										R																	
Salmacina dysteri	P23510																					R						
Balanus balanus	R1090										R	R		O	O	O			R	R		R				R		
Balanus crenatus	R1100					F	O				O	O		O	C	O		O	R	R	O	R					O	
Caprellidae indet.	S10700												F		F				O							F		
Amphipoda indet.	S1660	C																										
Caridea indet.	S21690													F	O												F	
Homarus gammarus	S23600				R							R							R			R						
Nephrops norvegicus	S23650																					C		C				
Calocaris or *Callianassa* burrows	S23780																					F						
Palinurus elephas	S24140				R																							
Paguridae indet.	S24440																					F					O	
Pagurus bernhardus	S24650	F				F	O		O	R	O	O		R	R							O		R			O	F
Pagurus cuanensis	S24680																											R
Pagurus prideaux	S24700								F	C																		F
Galathea sp.	S24840																										F	
Munida rugosa	S24950														F		R		R	R						O		
Hyas araneus	S25590																											
Inachus sp.	S25750																											
Inachus dorsettensis	S25760																											
Inachus phalangium	S25780										R	R		R													R	
Macropodia sp.	S25820																											
Macropodia rostrata	S25850					R	R								R													R
Atelecyclus rotundatus	S26260	R																										
Cancer pagurus	S26460		O	O	O		F	O	R	O	O	F	F	O	R	O	O	O	R	R	F	O		R	O	O	O	
Liocarcinus depurator	S26690								R	O							R	R				O		R				R
Necora puber	S26720	R	O	O	O		R	R			O	F	R	F	F	O			R	R	O	O			O	R	O	
Carcinus maenas	S26900	R							R													R						
Goneplax rhomboides	S27140									F														R				
Monodaeus couchi	S27200																											
Mysidae indet.	S460	C																										F
Nudibranchia sp.	W12370																					R						

Species	MCS Code	Dive 1.1	Dive 2.1	Dive 2.2	Dive 2.3	Dive 3.1	Dive 3.2	Dive 4.1	Dive 4.2	Dive 4.3	Dive 5.1	Dive 5.2	Dive 5.3	Dive 6.1	Dive 6.2	Dive 7.1	Dive 7.2	Dive 7.3	Dive 8.1	Dive 8.2	Dive 9.1	Dive 10.1	Dive 11.1	Dive 12.1	Dive 13.1	Dive 13.2	Dive 14.1	Dive 15.1
Doto sp.	W12720														P													
Polycera faeroensis	W13620		R		R								O															
Helcion pellucidum	W1390													O														
Flabellina pedata	W14600				R																							
Atrina fragilis	W17250																											
Aequipecten opercularis	W18050																											
Pecten maximus	W18090						R								R		O							R			R	
Pododesmus patelliformis	W18200													C	R				O							O		
Gibbula cineraria	W1930	R	O			C		F						O		F			R		F	R						
Calliostoma zizyphinum	W2000		O	O	O							R	R						R			R					R	
Lacuna vincta	W2440	F									F			O					R									F
Littorina littorea	W2500	R																										
Turritella communis	W4420									O												F		O				
Polyplacophora indet.	W500																					R						
Aporrhais pespelecani	W7000																											
Buccinum undatum	W8440																											
Neptunea antiqua	W8600																											
Bryozoa (enc)	Y1							O				O			F				O			O				O		
Crisidia cornuta	Y100												P		R													
Alcyonidium diaphanum	Y1370			R							R	O								O		R						
Crisia eburnea	Y280												P															
Crisiidae indet.	Y30		O		O	C					F	O	F	C		O			O	C	F	F			F		R	
Parasmittina trispinosa	Y3770		O	F							R	F			F	O		R	F	F	F				F	C	O	
Porella compressa	Y3830																											
Cellepora pumicosa	Y6060														O													
Eucratea loricata	Y6580																					O						
Membranipora membranacea	Y6640		F			F		C						F			O				F	F						
Electra pilosa	Y6780		F			O		C						C			O				F	F						
Flustra foliacea	Y6940																											
Securiflustra securifrons	Y7100			F	F						O	F	C					R	F	R						O	O	
Cellaria sp.	Y8110																		0	C							R	
Cellaria fistulosa	Y8120				O								F		O													
Caberea ellisii	Y8270																									R		
Scrupocellaria	Y8360							F			O	O		F											F		O	
Scrupocellaria reptans	Y8380				C	C						O		O	F						F							
Scrupocellaria scruposa	Y8410		F	F									F			O		R										
Bugula flabellata	Y8720			O	O							O			O			R								O	O	
Porania pulvillus	ZB1010			R	O							R	O							R						O		
Antedon bifida	ZB110										R	F	O						O	R								
Solaster endeca	ZB1430																											

Species	MCS Code	Dive 1.1	Dive 2.1	Dive 2.2	Dive 2.3	Dive 3.1	Dive 3.2	Dive 4.1	Dive 4.2	Dive 4.3	Dive 5.1	Dive 5.2	Dive 5.3	Dive 6.1	Dive 6.2	Dive 7.1	Dive 7.2	Dive 7.3	Dive 8.1	Dive 8.2	Dive 9.1	Dive 10.1	Dive 11.1	Dive 12.1	Dive 13.1	Dive 13.2	Dive 14.1	Dive 15.1
Crossaster papposus	ZB1490																											
Henricia sp.	ZB1640				R						R	R			R	R			R	O	O	R					R	
Stichastrella rosea	ZB1840																											
Asterias rubens	ZB1900		O		R							F	O		R	O			O	R	O			R	R	O	O	
Marthasterias glacialis	ZB2000		R	R	O			R				R	R	R	R		R				O	R			R	O	R	
Ophiuroidea indet.	ZB2040													R														
Leptometra celtica	ZB220																											
Ophiocomina nigra	ZB2420																											
Ophiactis balli	ZB2680																				R							
Amphiura sp.	ZB2830	O								O												O						
Amphipholis squamata	ZB3000		P											O														
Ophiura albida	ZB3130	O							R	O							R				O							
Ophiura ophiura	ZB3150	F																										
Echinus esculentus	ZB3620		O	R	R			R				F	R	F	R	R					F				F	O	O	
Astropecten irregularis	ZB410																											
Holothuria forskali	ZB4520		F	O	O								O								O							
Pawsonia saxicola	ZB4740										O	O	R	F					R		F							
Aslia lefevrei	ZB4790		R	R	R								R	F														
Luidia ciliaris	ZB670		R	R							R	R	R	R	R	R	R	R	R		O						O	
Luidia sarsi	ZB680																											
Lissoclinum perforatum	ZD1090																					R						
Ascidiella aspersa	ZD1410														R													
Ascidia conchilega	ZD1490																			R								
Ascidia mentula	ZD1500		R	O	O							R	O	O	O	R			R	O		R				O	R	
Ascidia virginea	ZD1530				R								R			R										R		
Dendrodoa grossularia	ZD1940					O																						
Botryllus schlosseri	ZD2090																				R							
Clavelina lepadiformis	ZD60													R														
Didemnidae indet.	ZD680																				R							
Scyliorhinus canicula	ZF400														R													
Merlangius merlangus	ZG1860																					R						
Pollachius pollachius	ZG2080											F		C					A	O	O	A						
Taurulus bubalis	ZG4380											R		R								R					O	
Centrolabrus exoletus	ZG5920																			O								
Crenilabrus melops	ZG6010																				O							
Labrus bergylta	ZG6090		R			R						O	R						R	R	O	R						
Labrus mixtus	ZG6100		R	R								O	O						O	F		R						
Lumpenus lumpretaeformis	ZG6610																											
Pholis gunnellus	ZG6800																		R	O								
Callionymus sp.	ZG6990	R							C	O							F	F										O
Gobiidae indet.	ZG7050																					O						C

Species	MCS Code	Dive 1.1	Dive 2.1	Dive 2.2	Dive 2.3	Dive 3.1	Dive 3.2	Dive 4.1	Dive 4.2	Dive 4.3	Dive 5.1	Dive 5.2	Dive 5.3	Dive 6.1	Dive 6.2	Dive 7.1	Dive 7.2	Dive 7.3	Dive 8.1	Dive 8.2	Dive 9.1	Dive 10.1	Dive 11.1	Dive 12.1	Dive 13.1	Dive 13.2	Dive 14.1	Dive 15.1
Gobiusculus flavescens	ZG7280	F				A	C					R		F											O			
Lesueurigobius friesii	ZG7370																											
Pomatoschistus sp.	ZG7400																											
Pomatoschistus minutus	ZG7420	C					C																			F		
Thorogobius ephippiatus	ZG7480		R	R								R																
Limanda limanda	ZG8910	O								R																		C
Heterosiphonia japonica	ZM													P			R											R
Rhodophycota (enc)	ZM10			F				C			F	O		F		O						O			C	F	O	
Nitophyllum punctatum	ZM10020																R				R							R
Phycodrys rubens	ZM10120		C					C			F			O	F	C	O				C				F			
Heterosiphonia plumosa	ZM10390		C	R				O			F	R		F	O	O	O				F					R		
Brongniartella byssoides	ZM10500													R	O	O	O				F					R		
Odonthalia dentata	ZM10970					R		R						R		O					O	O						
Polysiphonia elongata	ZM11050							O																				
Pterosiphonia parasitica	ZM11370		F					O			C	R			O	F												
Rhodomela confervoides	ZM11450							O								O												
Rhodothamniella floridula	ZM1160											O		F														
Scinaia sp.	ZM1820							R						R		R	O											
Scinaia interrupta	ZM1840																									R		
Bonnemaisonia asparagoides	ZM2080											R		R	R	O	O				F				O	R		
Palmaria palmata	ZM2420	R																										
Dilsea carnosa	ZM2560													R														
Dumontia contorta	ZM2660	R																										
Callophyllis laciniata	ZM3230		F								F	R		R	O	C	O				F	O			F	R	R	
Kallymenia reniformis	ZM3280		O	R				R			F	O		R	O	O	O		R		O	O			O	R	R	
Meredithia microphylla	ZM3330											R																
Corallinaceae	ZM3840		C	C		A		F			F	F		C	O	F			A	O	F	A			A	C	O	O
Phymatolithon calcareum	ZM4910																										R	
Phymatolithon calcareum	ZM4910																										F	
Gracilaria gracilis	ZM5480																											F
Gracilariopsis longissima	ZM5495	R sp							R																			
Phyllophora crispa	ZM5840										O				R	F	R											
Schottera nicaeensis	ZM5940													R								R			R	R		
Chondrus crispus	ZM6110																											
Plocamium cartilagineum	ZM6310	R	F					R				R		R	O		R		R		F	O			F	R	R	
Rhodophyllis divaricata	ZM6930							R				R			F	F	O		R		F					O	R	
Rhodophyllis divaricata var. *werneri*	ZM6940			O								O		R	F	O			R		F					O	R	
Cruoria cruoriaeformis	ZM7010																										R	

Species	MCS Code	Dive 1.1	Dive 2.1	Dive 2.2	Dive 2.3	Dive 3.1	Dive 3.2	Dive 4.1	Dive 4.2	Dive 4.3	Dive 5.1	Dive 5.2	Dive 5.3	Dive 6.1	Dive 6.2	Dive 7.1	Dive 7.2	Dive 7.3	Dive 8.1	Dive 8.2	Dive 9.1	Dive 10.1	Dive 11.1	Dive 12.1	Dive 13.1	Dive 13.2	Dive 14.1	Dive 15.1
Rhodymenia pseudopalmata	ZM7280													R		O												
Lomentaria clavellosa	ZM7520		O					O																				
Lomentaria orcadensis	ZM7530											R																
Aglaothamnion tripinnatum	ZM8030							R																				
Aglaozonia	ZM8030													C								O			F		R	
Ceramium sp.	ZM8070	O	F																									
Ceramium secundatum	ZM8239																											O
Compsothamnion thuyoides	ZM8340													R	R													
Halurus flosculosus	ZM8460										R																	
Pterothamnion plumula	ZM8880		O					R							R		R											R
Ptilota gunneri	ZM8930										F											O			O			
Sphondylothamnion multifidum	ZM9230		R																									
Acrosorium venulosum	ZM9350													O	O	F	F				F				O		O	
Apoglossum ruscifolium	ZM9400														R													
Cryptopleura ramosa	ZM9500		F					F				R				F	F				F	O			O	O		
Delesseria sanguinea	ZM9550		A	R		O		O			O			O	O	C	F				C	O			F	O	R	
Hypoglossum hypoglossoides	ZM9850																				R							
Membranoptera alata	ZM9900										F			O								F						
Chromophycota (enc)	ZR01																								C			
Elachista fucicola	ZR2490	O																										
Ectocarpaceae indet.	ZR30	F																										
Dictyota dichotoma	ZR4570		C	R				O				O		R	O	F	F				C	O			F	O	R	
Desmarestia aculeata	ZR4970		O			R		F						R		F	F								C			
Chorda filum	ZR6250	R																										
Laminaria sp. (sporelings)	ZR6310																					R						
Laminaria hyperborea	ZR6330		A			O		A			S	O		A		C					S	S			S		O	
Laminaria saccharina	ZR6360	R	A			O		S						R		A	C								C			
Saccorhiza polyschides	ZR6460	R	C			A		R						R		C									C			
Alaria esculenta	ZR6520	R																										
Fucus serratus	ZR6740	F																										
Halidrys siliquosa	ZR7160																											
Ulva ?compressa	ZS2400	O																										
Ulva sp.	ZS2400	O						F																				R
Ulva ?lactuca	ZS2450	O																										
Bryopsis plumosa	ZS3920							R																				
Diatom film									S															F				

Appendix 2 Macrofaunal and sediment analysis of the 2010 Sound of Canna grab samples

The analysis of the infaunal data from the 23 grabs from the Sound of Canna (position data for the sampling stations provided in Table A2.1) revealed extremely diverse communities; the grabs contained over 390 taxa, with up to 95 taxa from a single sample. **Note that there is no Station G16 which was replaced during the fieldwork by G24**. An analysis of the particle size data (Table A2.2, Figures A2.1, A2.2) shows that the substrata sampled were mixed sandy sediments with varying amounts of mud and grouped into four broad sediment types ranging from shelly mixed sediments through coarse muddy sands and muddy fine sands to mud. However, Site G22, which grouped with the coarse muddy sands in the analysis, contained maerl *Phymatolithon calcareum* and only had a very small mud component. The raw species lists are presented in Table A2.3. The taxonomic and abundance data were run through the PRIMER 5 statistical package and a number of univariate and multivariate statistics were calculated (Table A2.4).

The results show a strong correlation between the Bray-Curtis sediment groupings (Figure A2.1) and the Bray-Curtis infaunal groupings (Figure A2.3), as would be expected. However when the data were run through the Multi-Dimensional Scaling Plot (MDS) analysis within PRIMER, the resulting plot really only separated the coarse sand/maerl samples of G21, G22 and G23 and the depauperate sample of G01 (Figure A2.4). SIMPER analysis was also carried out on the data, but is not presented here as the tables produced which highlight the species that cause the dissimilarity between the groups, only serve to show how diverse the grabs are, with the fauna of each sample consisting of small numbers of very many invertebrate species.

With no real dominant species, assigning infaunal biotopes to the data proved challenging. Four biotopes (listed against corresponding grab sampling stations within Table A2.1) were identified:

- *Amphiura filiformis, Mysella bidentata* and *Abra nitida* in circalittoral sandy mud (**SS.SMu.CSaMu.AfilMysAnit**);
- *Owenia fusiformis* and *Amphiura filiformis* in offshore circalittoral sand or muddy sand (**SS.SSa.OSa.OfusAfil**);
- *Mediomastus fragilis, Lumbrineris* spp. and venerid bivalves in circalittoral coarse sand or gravel (**SS.SCS.CCS.MedLumVen**); and
- *Phymatolithon calcareum* maerl beds in infralittoral clean gravel or coarse sand (**SS.SMpMrl.Pcal**).

The first two biotopes listed above dominated the samples across the sound whilst the third (**MedLumVen**) was found at three stations along the Rum coast. Small numbers of flame shells *Limaria hians* were recorded at two of these stations (G23 and G24). A maerl bed was found at one station on the Rum coast; this had previously been found by the diving survey. *Phymatolithon calcareum* maerl beds are an MPA search feature.

Table A2.1 Positional and depth information for the 2010 Sound of Canna grab sampling stations with biotope assignments

Station No	Date	Time	Latitude	Longitude	Depth m bcd	Sediment type	Biotope - fullcode	Biotope - short code
G01	25/09/2010	13:00:19	57.03365	-6.49832	132.8	Sandy mud	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G02	25/09/2010	13:25:55	57.0264	-6.48108	96.9	Mixed	SS.SSA.OSa.OfusAfil	OfusAfil
G03	25/09/2010	13:44:17	57.03202	-6.46542	131	Mixed	SS.SSA.OSa.OfusAfil	OfusAfil
G04	25/09/2010	11:52:14	57.03985	-6.44608	178.9	Mixed	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G05	25/09/2010	11:37:47	57.04738	-6.43837	213.7	Muddy fine sand	SS.SSA.OSa.OfusAfil	OfusAfil
G06	25/09/2010	11:02:54	57.05133	-6.42785	177.1	Muddy fine sand	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G07	25/09/2010	09:56:40	57.06242	-6.41717	133.2	Sandy mud (with gravel)	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G08	25/09/2010	13:13:22	57.03613	-6.48353	126.9	Muddy fine sand	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G09	25/09/2010	11:20:41	57.0548	-6.44428	207.4	Muddy fine sand	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G10	25/09/2010	10:43:50	57.0477	-6.4136	72.8	Mixed	SS.SSA.OSa.OfusAfil	OfusAfil
G11	25/09/2010	10:21:18	57.06087	-6.38673	41.5	Mixed	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G12	25/09/2010	14:25:30	57.02867	-6.44128	116	Mixed	SS.SSA.OSa.OfusAfil	OfusAfil
G13	25/09/2010	08:26:27	57.06098	-6.4662	86.4	Muddy fine sand	SS.SSA.OSa.OfusAfil	OfusAfil
G14	25/09/2010	09:40:12	57.06188	-6.44547	175	Sandy mud (with gravel)	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G15	25/09/2010	15:42:38	57.05952	-6.48452	43.3	Muddy fine sand	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G17	25/09/2010	15:51:47	57.055	-6.48537	14.2	Sandy mud	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G18	25/09/2010	08:14:40	57.06238	-6.48017	85.4	Muddy fine sand	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G19	25/09/2010	15:30:56	57.05453	-6.47218	56.4	Muddy fine sand	SS.SMU.CSaMu.AfilMysAnit	AfilMysAnit
G20	25/09/2010	08:44:45	57.05413	-6.46202	72.5	Muddy coarse sand and gravel	SS.SSA.OSa.OfusAfil	OfusAfil
G21	25/09/2010	13:59:46	57.01618	-6.46243	58	Muddy coarse sand and gravel	SS.SCS.CCS.MedLumVen	MedLumVen
G22	25/09/2010	14:54:07	57.02983	-6.42453	21.8	Muddy coarse sand and gravel (with maerl)	SS.SMpMrl.Pcal	Pcal
G23	25/09/2010	14:37:39	57.031	-6.42512	29.9	Muddy coarse sand and gravel	SS.SCS.CCS.MedLumVen	MedLumVen
G24	25/09/2010	10:36:00	57.04502	-6.40538	58.7	Mixed	SS.SCS.CCS.MedLumVen	MedLumVen

Table A2.2 Results of particle size analyses of grab samples collected during the 2010 Sound of Canna survey

Sediment type	Size	Phi	G01	G02	G03	G04	G05	G06	G07	G08	G09	G10	G11	G12	G13	G14	G15	G17	G18	G19	G20	G21	G22	G23	G24
Medium pebble (gravel)	> 8 mm	< -3	0	0	0	0	0	0	3.91	0	0	4.21	0	6.98	0	17.8	0	0	0	4.57	0	0	0	4.18	0
Small pebble (gravel)	4-8 mm	-2 to -3	0	3.82	3.37	0.26	0	0	8.18	0	2.74	1.27	0.22	3.73	0	0.47	0	0.99	0	0	0	0.1	9.84	12.24	3.17
Granule	2-4 mm	-1 to -2	0	8.3	2.39	3.63	0.71	0	4.21	0	1.24	3.94	3.05	8.16	0.21	1.73	0.05	0.37	0.03	0	0.91	5.17	9.22	14.86	8.72
Sand - very coarse	1-2000 µm	0 to -1	0.05	11.23	4.95	7	2.09	0.09	4.8	0.37	1.94	7.3	9.6	5.74	0.54	3.12	0.22	0.97	0.13	0.32	3.32	16.79	16.85	20.64	18.92
Sand - coarse	500-1000 µm	1 to 0	0.21	14.87	10.63	13.16	8.14	1.92	6.31	3.93	3.72	9.49	17.71	6.97	6.7	4.2	1.06	1.5	1.07	0.99	20.12	40.43	43.5	26.75	11.57
Sand - medium	250-500 µm	2 to 1	1.72	20.77	25.73	21.73	23.58	12.1	6.44	26.54	16.96	11.22	15.47	14.76	25.8	8.54	9.08	2.83	9.32	6.39	54.5	25.8	12.4	4.71	5.69
Sand - fine	125-250 µm	3 to 2	22.19	21.28	21.46	17.56	37.42	39.94	5.03	27.47	39.96	28.86	16.93	16.21	42.82	14.39	48.5	13.49	40.57	43.1	9.74	4.58	5.75	2.2	21.35
Sand - very fine	63-125 µm	4 to 3	22.86	4.17	7.08	5.49	7.68	16.08	4.23	7.02	9.45	12.22	7.97	6.09	7.93	6.19	18.13	37.58	14.99	20.72	1.61	0.84	0.68	1.91	12.38
Silt & Clay	< 63 µm	>4	52.96	15.56	24.39	31.18	20.39	29.87	56.88	34.67	24.01	21.49	29.05	31.36	16	43.56	22.95	42.27	33.88	23.92	9.8	6.29	1.76	12.5	18.2
% Organic Matter (by LOI)			6.48	3.63	3.94	5.15	4.09	4.99	5.52	6.05	4.44	2.98	5.39	5.35	3.95	5.71	5.1	4.92	6.62	4.41	3.26	3.56	3.3	1.89	3.72

Table A2.3 List of taxa identified from the grab samples collected during the 2010 Sound of Canna survey

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Astrorhiza limicola	A		1									3								1				
Pelosina arborescens	A		2									2												
Cerianthus lloydii	D632											1		1						1				
Epizoanthidae indet.	D647											14											28	
Actiniaria indet.	D662				1					1		1			7	7	27				1	1	1	
Edwardsia claparedii	D766		1	3		1					6	7	3	3		8	1	4	5	8	4		1	10
Caryophyllia smithii	D782										1													1
Platyhelminthes indet.	F				1																		2	
Nemertea indet.	G01		6	3	7	1	2	1	2	6	3	2	7	4	4	6	3	8	5	8	3	5	9	4
Tubulanus polymorphus	G034			1					1	1			1				1		2			1		
Tubulanus superbus	G035	1	1																					
Cerebratulus sp. 1	G039					1											2		2				1	2
Oerstedia dorsalis	G109																						2	
Nematoda	HD		1	6	1	2	1			3	4		5	1	6		1				1	1	1	
Priapulus caudatus	J7											1				2		1		1				
Sipuncula juv. indet.	N01							1							1						1			
Golfingia elongata	N14									2						1	1	4	4					
Golfingia margaritacea?	N16															1								
Golfingia vulgaris	N17			1				1								1			1					1
Thysanocardia procera	N28		1				1									1	5	1						1
Aspidosiphon muelleri	N47			2																				
Aphrodita aculeata	P0019		1	2				1				1	1			1			1					
Acanthicolepis asperrima	P0027				1																			
Adyte pellucida	P0032														1									
Enipo kinbergi	P0044											1												
Gattyana cirrosa	P0049			1	2		1	3		6					1									
Harmothoe sp. 1	P0050				1			2							2									
Polynoidae indet.	P0025			3	5			7		2	1	3	3		10						1	11	13	1
Malmgrenia andreapolis	P0051													1										

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Harmothoe antilopes	P0052							1																
Malmgrenia marphysae	P0068				1	1									1						2			
Malmgrenia mcintoshi	P0070				1							1											1	
Pholoe inornata (baltica)	P0092	1	1	3	10	2		8	2	1	2	4	10	13	2			1	3	1			1	3
Sthenelais boa	P0107				1					1														
Sthenelais limicola	P0109					1																		
Phyllodocidae indet.	P0114		1																				1	
Eteone longa	P0118																						1	
Pseudomystides limbata	P0136																				1			
Phyllodoce groenlandica	P0141			1																				
Phyllodoce rosea	P0146					1								1				1						1
Eulalia mustela	P0155											1									1	3	1	
Eumida indet.	P0163											1			1					1			1	
Paranaitis kosteriensis	P0176											1	1											
Glycera indet.	P0255		1	1															1					
Glycera alba	P0256	1	4		2	1				3	1	1	2		1		2	3		1	4			1
Glycera lapidum	P0260			2								3	2							2	3	2	2	3
Glycera rouxii	P0263	1	1	4	2		2		1	2			4	1	3				2					
Glycinde nordmanni	P0268		1	2			2			1	1				2	1					1		1	1
Goniada maculata	P0271		2		2		2		1	1	3	2	4				1		1					1
Sphaerodorum gracilis	P0291	1						1					4	2	1			1					2	
Hesionidae indet.	P0293				1																			
Gyptis rosea	P0301								1															
Kefersteinia cirrata	P0305																			1	3	2	1	
Nereimyra punctifera	P0311																						1	
Ophiodromus flexuosus	P0313								1				1	2										
Podarkeopsis capensis	P0319					1			1															
Syllidia armata	P0321			1	1																		2	
Ancistrosyllis groenlandica	P0338								1	1			1		1	2			1					
Glyphohesione klatti	P0340							1																
Litocorsa stremma	P0342									1														
Syllis cornuta	P0349		1	2	1			2			3	1	5		3				1					

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Eurysyllis tuberculata	P0355																					1		
Syllis indet.	P0358																					1		
Syllis sp. D	P0358																							
Syllis sp. E	P0358																				1			
Syllis sp. H	P0358																				4	2		
Trypanosyllis coeliaca	P0362																					4	1	
Syllis armillaris	P0365																						1	
Eusyllis blomstrandi	P0380							1														3		
Odontosyllis fulgurans	P0387							1													1			
Odontosyllis gibba	P0388																					1		
Syllides japonica	P0406																			1				
Exogone hebes	P0421										1		5			1								
Exogone naidina	P0422		2	1			1														1	3	1	1
Sphaerosyllis bulbosa	P0425				1																4	15	4	1
Sphaerosyllis tetralix	P0431																					1	1	
Autolytus indet.	P0434				2										3									
Nereis elitoralis	P0474																		1					
Websterinereis glauca	P0487																						1	
Aglaophamus rubella	P0493																				5			
Nephtys hombergii	P0499													2		3			4	1				
Nephtys incisa	P0501	2						5	1	2			2				1	4	1					
Nephtys kersivalensis	P0502		4	2	3							1		1	2		1		2					1
Aponuphis bilineata	P0539											4									4			1
Nothria britannica	P0544																				1			1
Marphysa bellii	P0564							1		2					1									
Nematonereis unicornis	P0568										1	8			1						1			
Lumbrineris fragilis	P0577							1														1		
Lumbrineris gracilis	P0579			19	3	25	10	1	3	14	21		15	27	24	10	31	17	7	15	2		7	7
Lumbrineris hibernica	P0580	1	1			2	1	1	1	1			1		1		2		1					
Drilonereis sp.	P0589		1			1	1								1									
Drilonereis filum	P0591					1		1																
Parougia sp.	P0632		1																					

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Protodorvillea kefersteini	P0638																				1	2	1	1
Dorvillea indet.	P0606																							1
Scoloplos armiger	P0672													1		1	4			1				
Aricidea indet.	P0675						2																	
Cirrophorus branchiatus	P0690		1	3	2	1		1		1	2		2	2				1		1			1	1
Levinsenia gracilis	P0693			1													2							
Paradoneis lyra	P0699				1														1					
Apistobranchus tullbergi	P0712			1																				
Poecilochaetus serpens	P0718																	1			1			
Spionidae sp. 1	P0720		2																					
Aonides paucibranchiata	P0723			1	1							1								1	3	7	9	
Laonice bahusiensis	P0733		3	4		1			2		1	1	6		2		1	1			2	3	11	3
Minuspio multibranchiata	P0746																		3					
Minuspio cirrifera	P0747	2	4	2	2		4	1			1		5	5	1	6	3	2	1				1	
Polydora indet.	P0748																						1	
Polydora flava	P0754			1					1									1	1					
Prionospio fallax	P0765																	1						
Prionospio banyulensis	P0766																					1		
Pseudopolydora paucibranchiata	P0773		1								1	1	1	1		1	1	1	2	3				
Pseudopolydora pulchra	P0774																							1
Scolelepis sp. A	P0779		1																		1			
Spio indet.	P0787																	1		1	1			
Spiophanes bombyx	P0794																				1			
Spiophanes kroyeri	P0796	4	7	13	8	3	2	6	8	9	4	6	24	7	5	2	1	6		2				5
Magelona alleni	P0804											2					2	1	1					
Magelona minuta	P0806						1		1							1	19		8					
Chaetopterus sp. A	P0814														1				1		1			
Spiochaetopterus indet.	P0818																		1					
Cirratulidae indet.	P0822		1																					
Aphelochaeta sp. A	P0823	5	2	3	1		5	1	39	5	1		28		36				1	3				
Caulleriella alata	P0829				1																	2	1	
Caulleriella zetlandica	P0831		2	12	1			1	6		3		3		4			2	2	11	2			4

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Chaetozone "D"	P0832		22	29	5	3			1	2	2		3	1	2	3	2	2	2	11				3
Chaetozone setosa	P0834	3		3			5	3	8	3	4	1	16		5			33	15	5				1
Cirratulus sp.	P0835														3									1
Monticellina dorsobranchialis	P0844			3	1		1	4						2	3			1		2				
Tharyx killariensis	P0846		7	18	1	2	2	2	1	5			32		4	3		11	1	7				
Diplocirrus glaucus	P0878	2	1	2	2	1	5	1		1		2	3	2	2	2		12	7					1
Flabelligera affinis	P0881																						9	
Pherusa plumosa	P0885														1									
Macrochaeta clavicornis	P0891																				1	2	1	
Mediomastus fragilis	P0919	6				1			1	1	2		2				3	1	1	2	4	3	17	2
Notomastus sp. B	P0920	6	1	1	2		2	1	1	3	6	7	2	1							1			1
Notomastus latericeus	P0921	2	1	4	8	8	7	1	9	9	7	6	5	5	11	10	23	19	17	1	2	2	2	6
Peresiella clymenoides	P0925		1	2		1					2								2	1				
Pseudonotomastus southerni	P0927						1					2	1	1					2					1
Euclymeninae sp. A	P0951			10	7					4			2		8									
Clymenura tricirrata	P0955		2																					
Euclymene sp. A	P0960		12	7	1	4				7		1	9		3					3				
Heteroclymene robusta	P0967			1								1												
Praxillella affinis	P0971		3	3				3	2		3	4	2	1	2	1	1	3	1					
Praxillella gracilis	P0972							1							2									
Rhodine gracilior	P0990		2							2														
Rhodine loveni	P0991			1			1	2							1									
Ophelina cylindricaudata	P1015			1																				
Polyphysia crassa	P1024							3		2					1									
Scalibregma celticum	P1026																					1		
Scalibregma inflatum	P1027													1			76				1			
Polygordius sp.	P1062																				4			
Galthowenia oculata	P1093	1	6	1	6	3	10		1	5		5	4	12	4	8		2	10	18	6			2
Myriochele danielsseni	P1095																			3				
Owenia fusiformis	P1098		4	8		15	2			2	4	1	4	5	1				4	11	1			
Amphictene auricoma	P1102			1			1		1		1		3		2					3				1
Lagis koreni	P1107			1			1		1															

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Petta pusilla	P1111											2												
Sabellaria spinulosa	P1117				1										3									
Melinna elisabethae	P1122									1														
Ampharetinae indet.	P1125		2		1								1		2									
Ampharete falcata	P1135					3	1	2		2				6	3				3	2				4
Ampharete lindstroemi	P1139	1	5	1	5					1	2	1			3					1			1	2
Amphicteis gunneri	P1142												1		1			1						1
Anobothrus gracilis	P1147										1		1											
Sabellides octocirrata	P1160		3										1											
Sosane sulcata	P1167	1	2	3							1		1							1				
Terebellides stroemi	P1175		2	2	2			1			2	3	1	3	2								1	4
Trichobranchus roseus	P1178							1				2										1	2	
Terebellidae indet.	P1179				2							1									3	1		
Amphitrite cirrata	P1182			2	5		1	9		5					5									
Axionice maculata	P1187																					1		
Eupolymnia nesidensis	P1190		1																			2		
Lanice conchilega	P1195									1								1						
Neoamphitrite affinis	P1204				2	1																		
Pista cristata	P1217										1													
Pista lornensis	P1218																			1		2	2	
Amaeana trilobata	P1229															1								
Lysilla loveni	P1233											1												
Lysilla nivea	P1234																						1	
Polycirrus indet.	P1235											1						2				1		
Polycirrus medusa	P1242																			1		5		
Polycirrus norvegicus	P1243		3	2	4	20	1	1	1		8		1	12	4	5	9	4	1	9			3	
Parathelepus collaris	P1249																					1		
Streblosoma intestinalis	P1252											2												
Chone duneri	P1267																				2	1	1	
Chone filicaudata	P1269																				1		1	
Demonax indet.	P1271														1									
Euchone rubrocincta	P1280													1	2									1

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Jasmineira caudata	P1289		2											1							21		5	1
Myxicola sarsi	P1301				1																			
Sabella pavonina	P1320				1					1								3						
Hydroides norvegica	P1334				1																3	4	8	1
Pomatoceros triqueter	P1341																				1	2	14	
Serpula vermicularis	P1343														1									
Filograna implexa	P1350				16										37									
Tubificidae indet.	P1425		1																					
Tubificoides amplivasatus	P1489							1																
Enchytraeidae indet.	P1501																					2		
Endeidae sp.	Q27				1																			
Callipallene brevirostris	Q33		2		1																		1	
Anoplodactylus petiolatus	Q44		2	1	1								3	1	2				1	1	1			
Semibalanus balanoides	R0070																					2	3	
Ostracoda	R2412													1								2		
Gammaridea indet.	S0098														1						3	7	3	
Apherusa bispinosa	S0102												1											
Oedicerotidae indet.	S0118																					1		
Monoculodes carinatus	S0125																				1			
Westwoodilla caecula	S0140									1				2	1	2		1		1				
Amphilochus manudens	S0158																					2		
Peltocoxa brevirostris	S0173																					1		
Stenothoe marina	S0213				2																			
Stenothoe monoculoides	S0214				1																			
Urothoe elegans	S0248																				1			
Urothoe marina	S0249																				1	1		
Harpinia pectinata	S0257				1								2											
Paraphoxus oculatus	S0267				2																			
Lysianassidae indet.	S0271																					2	2	
Acidostomum nodiferum	S0274													2										
Lysianassa plumosa	S0305																					2	3	
Iphimedia nexa	S0381																					14		

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Liljeborgia kinahani	S0396																					1		
Atylus vedlomensis	S0413			1								2	1		1					1	3	3		3
Ampelisca indet.	S0423		1	1	1	1	1			1														
Ampelisca aequicornis?	S0424												1											
Ampelisca diadema	S0429											1								1		1	2	
Ampelisca spinipes	S0438				3								4							2	1			1
Ampelisca tenuicornis	S0440		6	1					2		3	5	5	6	2	5		6	1	4				6
Ampelisca typica	S0442													2						2	9			1
Haploops tubicola	S0448			2	3								2		1									
Ceradocus semiserratus	S0502																					9	18	
Cheirocratus indet.	S0503		1		1																	1		
Eriopisa elongata	S0510						1		1						1									
Maera othonis	S0519			1	3			3		1	1		5		1							8	2	
Melita hergensis	S0524													2					1					
Gammaropsis cornuta	S0539		1																		2			
Ericthonius rubricornis	S0565				3		1			4														
Aoridae indet.	S0577																				2	3		
Aora gracilis	S0579																				1		3	
Leptocheirus hirsutimanus	S0588										1													
Pariambus typicus	S0651															1								
Parvipalpus capillaceus	S0653				1			1																
Phtisica marina	S0657		4	1	8			3					1		3							5		
Gnathia oxyuraea	S0796										1										1	1		1
Cirolana borealis	S0844																				1			
Janira maculosa	S0892																					2		
Munna indet.	S0901				1																			
Arcturella dilatata	S0951													1							1			1
Tanaidacea indet.	S1099																							1
Leptognathiopsis attenuata	S1125		1																					
Tanaopsis graciloides	S1142											1		3						2	1			
Vaunthompsonia cristata	S1191																						1	
Iphinoe serrata	S1201												1	1				2						

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Diastylis tumida	S1255				7										1									
Caridea indet.	S1293							1														1		
Eualus pusiolus	S1345																					4		
Hippolyte varians	S1350																					1		
Processa indet.	S1362									1		1												
Crangon allmanni	S1384			1																				
Philoceras bispinosus	S1386													1										
Calocaris macandreae	S1409						1		3						1			1						
Callianassa subterranea	S1415												1											
Upogebia stellata	S1421										1										1			
Anapagurus hyndmanni	S1448											1											2	
Anapagurus laevis	S1449										5								1	2	1			
Galathea dispersa	S1471				2			2							3									
Galathea intermedia	S1472																					87	99	
Munida rugosa	S1478							1																
Pisidia longicornis	S1482							1														2		
Ebalia cranchii	S1505																				2			
Ebalia tuberosa	S1508																						2	
Hyas indet.	S1517				3																			
Inachus juv. indet.	S1525														1									
Eurynome juv. indet.	S1535											1										1	1	
Atelecyclus rotundatus	S1555		1								1													
Liocarcinus juv. indet.	S1577		2		1							1								1		2		2
Liocarcinus holsatus	S15781																				1			
Liocarcinus marmoreus	S1582																1							
Liocarcinus pusillus	S1584																						2	1
Monodaeus couchi	S1609							3			1				1							1		
Scutopus ventrolineatus	W0006	1																						
Chaetoderma nitidulum	W0009			1					1							3		2						
Falcidens crossotus	W0011			3	1			2	1	5	2	1	10		2			1	3					
Neomenia carinata	W0030					1																		
Neomenia dalyelli	W0031														1									

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Leptochiton asellus	W0053		2		2			3		1	2	2			1							22	16	
Leptochiton cancellatus	W0054																					1	1	
Callochiton septemvalvis	W0075																					1		
Acanthochitona crinita	W0086																						1	
Emarginula fissura	W0106																						1	
Gibbula tumida	W0161																						9	
Jujubinus montagui	W0174																						1	
Calliostoma granulatum	W0185										1													
Tectura virginea	W0224																					2		
Turritella communis	W0270													13		7	71	6	23					14
Lacuna vincta	W0292																					2		
Alvania abyssicola	W0337	2																						
Hyala vitrea	W0410			1			6	1																
Capulus ungaricus	W0443														1									
Odostomia indet.	W0908																	2						
Eulimella laevis	W0992																	1						
Roxania utriculus	W1023		1																		1			1
Cylichna cylindracea	W1028								2							3	1	4	2	1				
Philine indet.	W1036				1																1			
Philine scabra	W1045													2					1	1				
Retusa indet.	W1074																	1						
Nudibranchia indet.	W1243		1		4										2						1	1	4	1
Antalis entalis	W1519		1				1							4	1					1				
Pelecypoda juv. indet.	W1560																				2			
Nucula nitidosa	W1569	1																			2		1	
Nucula sulcata	W1571								1						1				1					
Jupiteria minuta	W1595							1																
Glycymeris glycymeris	W1688																				1			
Modiolus modiolus	W1702				1																	1	2	
Modiolarca tumida	W1718																					1		
Limaria hians	W1741																						6	1
Palliolum tigerinum	W1786																						1	

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Anomiidae	W1805				2			1													2		1	
Myrtea spinifera	W1827													2				1	1					1
Lucinoma borealis	W1829											1												
Thyasira flexuosa	W1837			2	1	1			1		2		1	2		8	4	6	2					
Axinulus croulinensis	W1845								1															
Devonia perrieri	W1898															1								
Mysella bidentata	W1906				1	2	3	1	2			15						13	1	5	2	1	5	
Astarte sulcata	W1925		3					1																
Acanthocardia echinata	W1943															2								
Parvicardium minimum	W1950							1						1						1				
Parvicardium ovale	W1951												1											
Spisula elliptica	W1975																			1				
Phaxas pellucidus	W2006			1					2		1			7	1	6		3	1					2
Angulus tenuis	W2012		1																					
Arcopagia crassa	W2015																						1	
Moerella pygmaea	W2023																				1	1	1	
Gari costulata	W2048																				1			
Gari tellinella	W2049																				5	2		
Azorinus chamasolen	W2056						1							1		1		1	2					
Abra alba	W2059			1	7											1	3	1						
Abra nitida	W2061	1		15	8	1	20	8	7	33		1	3	4	19	16	8	15	11		1			1
Abra prismatica	W2062																				2			
Arctica islandica	W2072						1									1								
Circomphalus casina	W2091																				1	1	2	
Gouldia minima	W2095																					1	8	1
Chamelea gallina	W2098													1										3
Clausinella fasciata	W2100										1										2	1	10	
Timoclea ovata	W2104		3			1			1		1	1		1						1	4		1	4
Dosinia lupinus	W2128											1								1	1			6
Mysia undata	W2139						1											2	1					
Mya truncata	W2147																1							
Corbula gibba	W2157													7										2

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Hiatella arctica	W2166																						2	
Thracia convexa	W2229		2				2		1		2	1		1	2	6	1	4	2					
Lyonsia norwegica	W2247																						1	1
Phoronis indet.	ZA		3	3		1		1	2			1	3	1				1	2	1	1	1		
Leptometra celtica	ZB015												1											
Ophiurida juv. indet.	ZB121				2																			
Ophiothrix fragilis	ZB124			1	1					1					4							2	1	
Ophiactis balli	ZB143				2			1																
Amphiura chiajei	ZB152			2	1	1	5	29	14	5	1	1	18	24	3			7						
Amphiura filiformis	ZB154	2	5	18	4	23	12	17	20	6	4	9	38	97	17	13	5	18	17	41	2			12
Amphipholis squamata	ZB161							3				6	1								3	14	9	
Ophiura affinis	ZB167							1					1	3						8	1			
Ophiura albida	ZB168										2	1									1			
Echinoidea juv. indet.	ZB181																					1		
Psammechinus miliaris	ZB193												1											
Echinocyamus pusillus	ZB212		8		3	1						4		2				1	1	4	5	1	3	1
Brissopsis lyrifera	ZB216													1										
Echinocardium juv. indet.	ZB222												1											
Echinocardium cordatum	ZB223															7		1						
Echinocardium flavescens	ZB224													5							2			
Pseudothyone raphanus	ZB257			1							1		1											
Thyone fusus	ZB262		3		1			1		1	2	3	2		1						1			1
Paracucumaria hyndmani	ZB272														1									
Leptopentacta elongata	ZB280											1												
Leptosynapta indet.	ZB291			2								1		1	1	1	1	1	1				1	2
Leptosynapta bergensis	ZB292															1								
Labidoplax buskii	ZB299			1	1			4	1	1			17	12	2				2					
Labidoplax digitata	ZB300													3										
Labidoplax media	ZB301												1											
Saccoglossus indet.	ZC18		1		2	1		3		2			6		2				1				1	
Glossobalanus marginatus	ZC28						1																	
Dendrodoa grossularia	ZD120				45			3		4					5									

Taxa	MCS Code	G 01	G 02	G 03	G 04	G 05	G 06	G 07	G 08	G 09	G 10	G 11	G 12	G 13	G 14	G 15	G 17	G 18	G 19	G 20	G 21	G 22	G 23	G 24
Ascidiella sp.	ZD83				1			2			1													
Porifera	C												P		P									
Cliona sp.	C475																						P	
Hydrozoa indet.	D		P																					
Pedicellina cernua	K46									P														
Bryozoa indet.	Y				P																			
Crisidia cornuta	Y008																					P		
Crisia eburnea	Y017																				P	P	P	
Disporella hispida	Y066																					P		
Alcyonidium diaphanum	Y076			P						P			P										P	
Electra pilosa	Y178																					P		
Bicellariella ciliata	Y256				P																			
Scrupocellaria indet.	Y274																						P	
Compound ascidian	ZD				P			P							P									
No. of individuals (excluding qualitative taxa)		48	197	268	278	142	136	186	163	190	144	181	374	346	335	174	322	260	212	230	194	328	416	162
No. of taxa (excluding qualitative taxa)		23	75	75	92	40	46	69	47	56	57	71	77	67	92	46	38	62	66	61	90	86	91	69
No. of taxa (including qualitative taxa)		23	76	76	95	40	46	70	47	58	57	71	79	67	94	46	38	62	66	61	91	90	95	69

Table A2.4 Results of univariate analyses of the macroinfauna from grab samples collected during the 2010 Sound of Canna survey

Site	No. of taxa S	No. of individuals N	Margalef's Richness d	Pielou's Evenness J'	Shannon-Wiener Diversity H'(log e)	Simpson's Dominance 1-Lambda'	Sediment type	Loss on ignition %
G01	23	48	5.68	0.92	2.90	0.95	Sandy mud	6.48
G02	75	197	14.01	0.91	3.92	0.97	Mixed	3.63
G03	75	268	13.24	0.86	3.71	0.96	Mixed	3.94
G04	92	278	16.17	0.87	3.92	0.96	Sandy mud	5.15
G05	40	142	7.87	0.78	2.88	0.91	Muddy fine sand	4.09
G06	46	136	9.16	0.87	3.33	0.95	Muddy fine sand	4.99
G07	69	186	13.01	0.87	3.67	0.96	Mud	5.52
G08	47	163	9.03	0.79	3.03	0.91	Sandy mud	6.05
G09	56	190	10.48	0.87	3.50	0.95	Muddy fine sand	4.44
G10	57	144	11.27	0.90	3.66	0.97	Mixed	2.98
G11	71	181	13.47	0.90	3.85	0.97	Sandy mud	5.39
G12	77	374	12.83	0.85	3.68	0.96	Mixed	5.35
G13	67	346	11.29	0.76	3.21	0.90	Muddy fine sand	3.95
G14	92	335	15.65	0.85	3.83	0.96	Mixed	5.71
G15	46	174	8.72	0.90	3.44	0.96	Muddy fine sand	5.10
G17	38	322	6.41	0.70	2.54	0.87	Sandy mud	4.92
G18	62	260	10.97	0.85	3.51	0.96	Muddy fine sand	6.62
G19	66	212	12.13	0.86	3.62	0.96	Muddy fine sand	4.41
G20	61	230	11.03	0.83	3.42	0.95	Medium sand	3.26
G21	90	194	16.89	0.92	4.15	0.98	Coarse sand	3.56
C22	86	328	14.67	0.78	3.49	0.92	Coarse sand (and Maerl)	3.30
C23	91	416	14.92	0.78	3.53	0.93	Muddy coarse sand and gravel	1.89
C24	69	162	13.37	0.91	3.84	0.97	Mixed muddy sands	3.72
Mean value	**65**	**230**	**11.84**	**0.85**	**3.51**	**0.95**		**4.54**

Figure A2.1 *Bray-Curtis similarity analysis dendrogram of the sediment characteristics of the 23 sediment samples*
A = Muddy fine sands; B = Mixed sediments; C = Mud; D = Coarse muddy sands

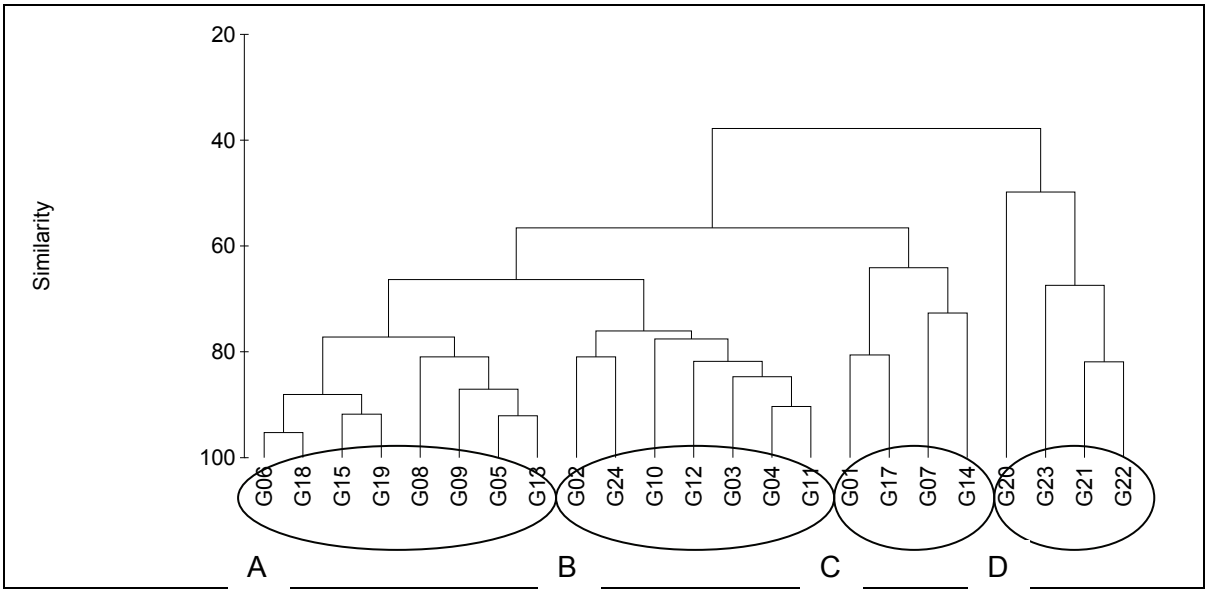


Figure A2.2 *Distribution of sediment types recorded from the of grab samples collected during the 2010 Sound of Canna survey*

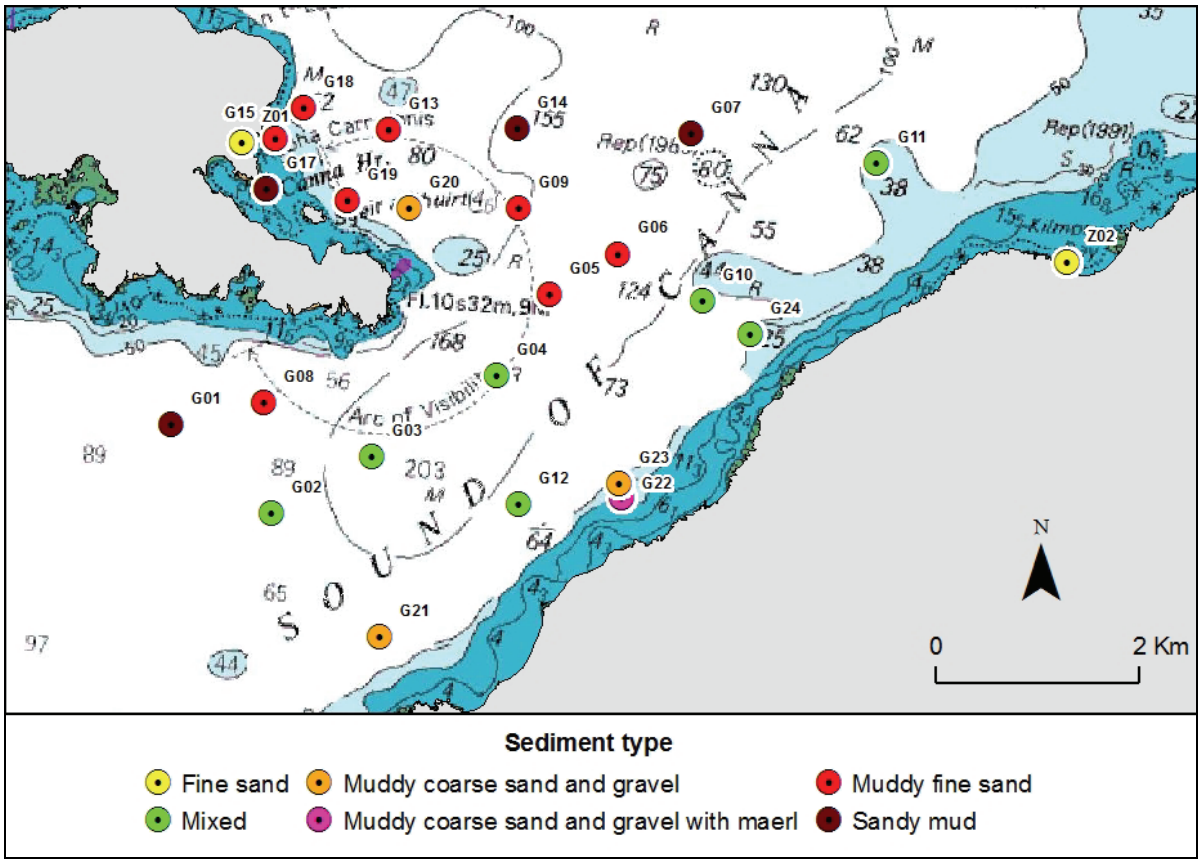


Figure A2.3 Bray-Curtis similarity analysis dendrogram for the infauna from the grab samples collected during the 2010 Sound of Canna survey
Note - grab stations have been incorrectly prefixed with the letter C (instead of G) in this figure

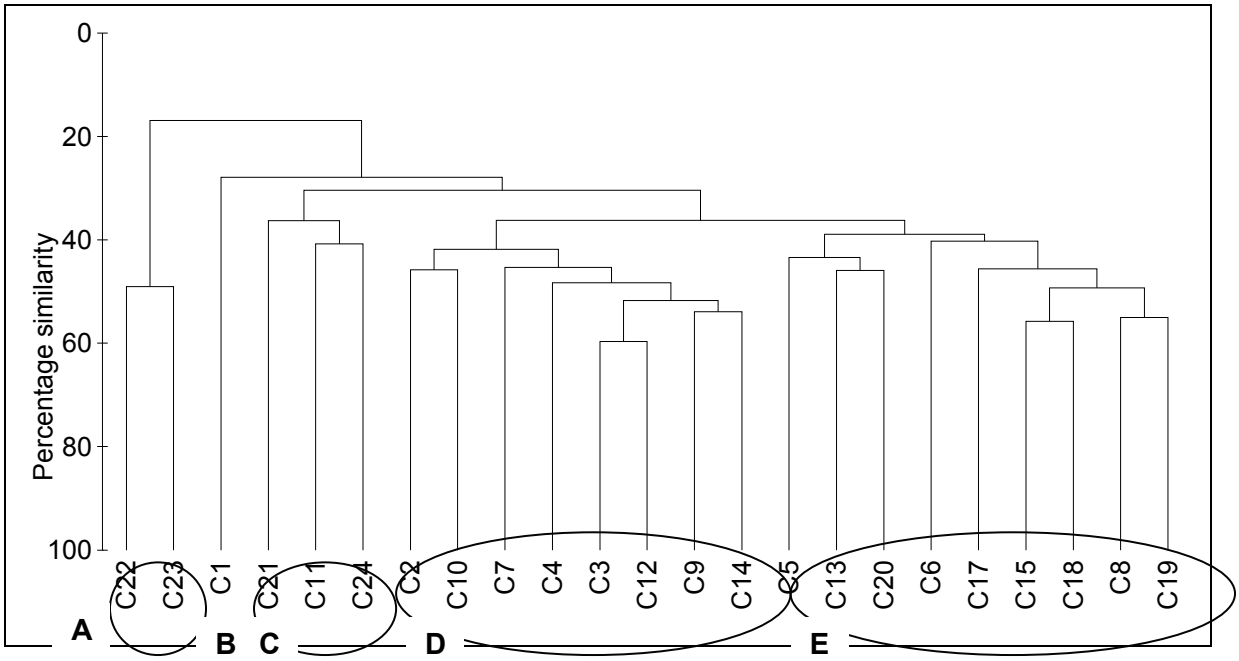
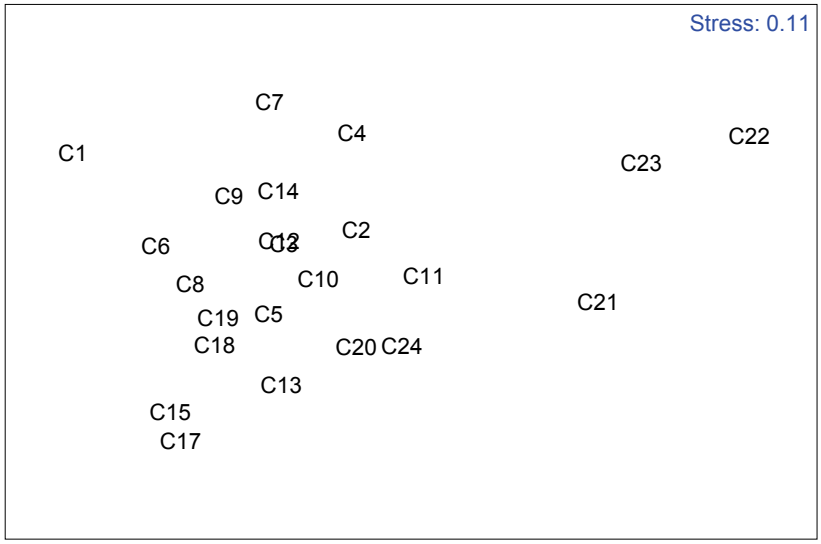


Figure A2.4 Multi-dimensional scaling plot of the infauna from the grab samples collected during the 2010 Sound of Canna survey
Note - grab stations have been incorrectly prefixed with the letter C (instead of G) in this figure



Appendix 3 Macrofaunal and sediment analysis of cores collected from two *Zostera marina* beds during the 2010 Sound of Canna survey

The analysis of the infaunal data from the *Zostera marina* cores shows that, despite a strong similarity in sediment characteristics, the fauna of the two sites is very different and the Canna samples have twice as much organic matter as the Rum samples. The raw data are presented in Tables A3.1 and A3.2. The Canna location is much more sheltered than the relatively exposed Rum location and it is quite probable that the exposure and the difference in organic matter together account for the considerable difference between the infaunal communities.

The univariate analysis of the core data is presented in Table A3.3. This shows that the diversity at both sites was quite low and that there were approximately three times more taxa, five times more individuals and a greater richness and diversity in the Canna samples than in the Rum ones. A Bray-Curtis similarity analysis (Figure A3.1) identified two main groups within the samples (Group A All Canna cores; Group C Rum cores Z02.2 to Z02.5) with one sample from Rum (Z02.1) separating from the others. The difference between the three groups of samples is emphasised further by a Multi-Dimensional Scaling Plot (MDS) (Figure A3.2). Subsequent analysis by the SIMPER test in PRIMER 5 highlighted the species and their abundances which contributed most to the dissimilarity between the infaunal samples in groups A and C (Table A3.4).

The infaunal communities from Canna and Rum had characteristics of the biotopes **SS.SSa.IMuSa.FfabMag** and **SS.SSa.IFiSa.NcirBat** respectively. They could also be considered to be part of the **SS.SSa.IMuSa.EcorEns** biotope; this can be regarded as a biotope complex encompassing both **FfabMag** and **NcirBat**. This is consistent with infaunal communities generally associated with the epibiotic overlay that is a typical *Zostera marina* biotope. Therefore although there were significant differences between the two sites, the communities can be considered to be related and represent different elements of a biotope complex.

Table A3.1 Analysis of sediment characteristics for 2010 Sound of Canna seagrass bed samples

Site	Size	Phi	Canna Z01	Rum Z02
Medium pebble (gravel)	> 8 mm	< -3	0	0
Small pebble (gravel)	4-8 mm	-2 to -3	0	0
Granule	2-4 mm	-1 to -2	0.07	0.05
Sand - very coarse	1-2000 µm	0 to -1	0.15	0.35
Sand - coarse	500-1000 µm	1 to 0	0.22	1.96
Sand - medium	250-500 µm	2 to 1	2.54	10.83
Sand - fine	125-250 µm	3 to 2	66.72	54.05
Sand - very fine	63-125 µm	4 to 3	29.41	31.34
Silt & Clay	< 63 µm	>4	0.89	1.42
			Fine sand	Fine sand
% Organic Matter (by LOI)			3.18	1.53

Table A3.2 Species recorded from cores taken in the seagrass beds on Canna (Z01) and Kilmory Bay, Rum (Z02)

Species	MCS Code	Canna Z01					Kilmory Bay Z02				
		1	2	3	4	5	1	2	3	4	5
Edwardsia claparedii	D13410	1									
Nemertea sp. A	G00001			2	1		1				
Sigalion mathildae (part)	P01810										1
Magelona filiformis	P13630	11	4	30	33	16	1	1			
Magelona mirabilis	P13650	1			1						
Magelona alleni	P13620	1	3	1	1	2					
Exogone hebes	P07440		1								
Anaitides mucosa	P02570			1		1		1	2	1	
Nephtys juv.	P08670	1		1							
Nephtys cirrosa	P08700				1			1	2		2
Spio decorata	P13350							2			
Microspio mecznikowianus	P13380				1						
Chaetozone setosa (part)	P14030								1		
Euclymene oerstedii	P16330			1							
Scalibregma inflatum	P17430								1		
Owenia fusiformis	P18360			1							
Capitella capitata	P15310			1							
Polycirrus aurantiacus	P21190					1					
Galathowenia oculata	P18280					1					
Tubificoides benedii	P24870	2	1	1	3						
Perioculodes longimanus	S02280		2		4	2	1	1			
Amphilochus neapolitanus	S02800					1					
Ampelisca brevicornis	S07100	3	1	4	1				1	3	
Harpinia antennaria	S04380			1							
Bathyporeia pilosa	S07460	2	2								
Bathyporeia pelagica	S07450		3	1	5	1					
Corophium crassicorne	S10230	3	10	7	4	5					
Phtisica marina	S10960			3		1					
Pariambus typicus	S10840			1							
Caprella acanthifera	S10720			1							
Iphinoe trispinosa	S20150		1		3	1		1			
Liocarcinus sp.	S26660				1						
Angulus tenuis	W20460				1						
Cochlodesma praetenue	W23610		1			1					
Lucinoma borealis	W18420					1					
Dosinia exoleta	W21660					1					
Mysella bidentata	W19050					3					
Fabulina fabula	W20570	6	1	3	1	1		2		2	2
Tellimya ferruginosa	W19110				3	1					
Echinocardium cordatum	ZB04070				1	1		1	1		
Phoronis sp.	ZA00030	1									
Total no of taxa		11	12	17	17	18	3	8	6	3	3
Total no of individuals/weight (g)		31	30	60	65	41	3	10	8	6	5

Table A3.3 Results of univariate analyses of the macroinfauna from cores taken in the seagrass beds (Canna Z01, Rum Z02)

Sample	No. of taxa S	No. of individuals N	Margalef's Richness d	Pielou's Evenness J'	Shannon-Wiener Diversity H' (loge)	Simpson's Dominance 1-Lambda'	Sediment type	Loss on ignition %
Z01.1	11	32	2.89	0.84	2.01	0.84	Fine sand	3.18
Z01.2	12	30	3.23	0.86	2.14	0.86	Fine sand	3.18
Z01.3	17	60	3.91	0.69	1.94	0.74	Fine sand	3.18
Z01.4	17	65	3.83	0.69	1.95	0.73	Fine sand	3.18
Z01.5	18	41	4.58	0.79	2.29	0.84	Fine sand	3.18
Z02.1	3	3	1.82	1.00	1.10	1.00	Fine sand	1.53
Z02.2	8	10	3.04	0.97	2.03	0.96	Fine sand	1.53
Z02.3	6	8	2.40	0.97	1.73	0.93	Fine sand	1.53
Z02.4	3	6	1.12	0.92	1.01	0.73	Fine sand	1.53
Z02.5	3	5	1.24	0.96	1.05	0.80	Fine sand	1.53

Figure A3.1 Bray-Curtis similarity analysis dendrogram for the infauna from the seagrass bed core samples collected during the 2010 Sound of Canna survey
Note - the cores have been prefixed with the letters R (for Rum) and C (for Canna) in this figure rather than the Z prefix; to this end C2 is Z01.2 etc.

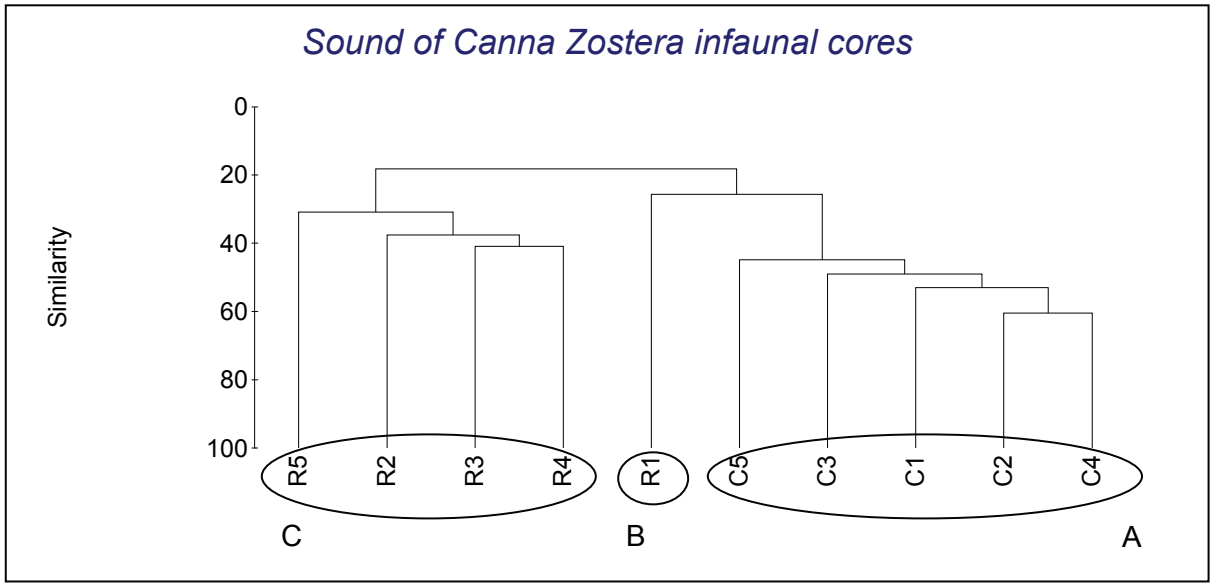
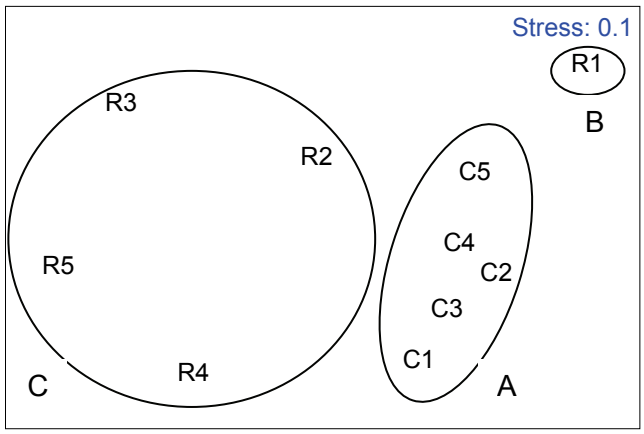


Table A3.4 SIMPER analysis of the clusters A and C produced by the Bray-Curtis analysis in Figure A3.1

Species	Av. Abund	Av. Abund	Av. Diss	Diss/SD	Contrib. %	Cum. %
Magelona filiformis	18.80	0.25	32.00	2.40		
Corophium crassicorne	5.8	0	12.18	1.56	13.69	49.66
Fabulina fabula	2.4	1.5	3.97	0.98	4.46	54.12
Bathyporeia pelagica	2	0	3.71	1.13	4.17	58.29
Magelona alleni	1.6	0	3.53	1.38	3.97	62.26
Ampelisca brevicornis	1.8	1	3.15	1.17	3.54	65.79
Perioculodes longimanus	1.6	0.25	2.92	1.25	3.28	69.07
Tubificoides benedii	1.4	0	2.69	1.43	3.02	72.09
Nephtys cirrosa	0.2	1.25	2.42	1.21	2.71	74.81
Bathyporeia pilosa	0.8	0	2.1	0.79	2.36	77.16
Iphinoe trispinosa	1	0.25	1.69	1.07	1.89	79.06
Anaitides mucosa	0.4	1	1.66	1.04	1.87	80.93

Figure A3.2 Multi-dimensional scaling plot of the seagrass bed infaunal core samples collected during the 2010 Sound of Canna survey
Note - the cores have been prefixed with the letters R (for Rum) and C (for Canna) in this figure rather than the Z prefix; to this end C2 is Z01.2 etc.



Appendix 4 Photo and video logs - 2010 Sound of Canna survey

Table A4.1 Log of photographs taken during the 2010 Sound of Canna survey

File Name	Subject	Site Name	Island	Site Number	Date	Photographer
20100829_01_FDB_8293360	Tom Mercer coring *Zostera* bed	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293361	Tom Mercer coring *Zostera* bed	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293366	Tom Mercer coring *Zostera* bed	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293369	Sparse *Zostera*, *Fucus serratus* and filamentous browns	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293370	Sparse *Zostera* and filamentous browns	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293371	Tubular *Ulva* species	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293372	Sparse *Zostera* habitat	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293373	Sparse *Zostera* habitat	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293374	Sparse *Zostera* habitat	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293375	Sparse *Zostera* habitat	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293376	Sparse *Zostera* habitat	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293378	Sparse *Zostera*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293379	Branched filamentous brown algae	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293380	Fine filamentous brown algae	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293381	Fine filamentous brown algae on *Zostera*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293382	*Ulva ?compressa*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293383	*Fucus serratus*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293388	Sparse *Zostera* with *Alaria* and juvenile flat fish	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293390	*Cerianthus lloydii*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293391	Fine filamentous brown algae	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293393	Fine filamentous brown algae	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100829_01_FDB_8293394	Terebellid worm spreads tentacles over the sand	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Francis Bunker
20100830_02_FDB_8303395	Upper circalittoral on cliff showing habitat	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303396	Lower circalittoral habitat with *Securiflustra securifrons* on cliff	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303397	Lower circalittoral habitat with *Securiflustra securifrons* and *Nemertesia antennina*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303398	Lower circalittoral habitat with *Cliona* and *Corynactis*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303399	Lower circalittoral habitat with *Cliona* and *Corynactis*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker

File Name	Subject	Site Name	Island	Site Number	Date	Photographer
20100830_02_FDB_8303400	Lower circalittoral habitat *with Stelligera stuposa*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303404	Lower circalittoral habitat with *Caryophyllia* and *Parasmittina trispinosa*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303405	Lower circalittoral habitat with encrusting Corallinaceae, *Nemertesia antennina* and *Corynactis*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303406	Tom Mercer videoing	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303407	Lower circalittoral habitat with *Corynactis viridis*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303408	Upper circalittoral on cliff habitat with sparse foliose algae, *Securiflustra securifrons* and *Corynactis viridis*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303409	Tom Mercer videoing	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303410	Upper circalittoral with *Rhodophyllis irvineorum*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303411	Upper circalittoral with *Rhodophyllis irvineorum*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303412	Upper circalittoral with *Rhodophyllis irvineorum*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303413	Upper circalittoral with *Porania pulvillus*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303414	Lower infralittoral with *Kallymenia reniformis* and *Heterosiphonia plumosa*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303416	Lower infralittoral with *Kallymenia reniformis*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303417	Lower infralittoral *Acrosorium venulosum*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303418	Lower infralittoral *Heterosiphonia plumosa*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303419	Lower infralittoral habtiat	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303420	Lower infralittoral with *Acrosorium venulosum* growing on kelp stipe	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303421	Lower infralittoral sediment shelf with *Phyllophora crispa*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303422	Lower infralittoral habtiat	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303423	Lower infralittoral habitat	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303424	Lower infralittoral with *Heterosiphonia plumosa*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303425	Infralittoral kelp stipes	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303427	Upper infralittoral mixed red algae	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303428	Upper infralittoral *Callophyllis laciniata*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303429	Upper infralittoral mixed algae	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303430	Upper infralittoral mixed algae	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker

File Name	Subject	Site Name	Island	Site Number	Date	Photographer
20100830_02_FDB_8303431	Upper infralittoral mixed algae	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303432	Upper infralittoral habitat	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100830_02_FDB_8303433	Upper infralittoral *Acrosorium venulosum*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Francis Bunker
20100831_06_FDB_8313434	Clapper board	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313435	Tom's jumping into water	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313437	Kelp forest habitat	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313438	Kelp forest habitat	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313439	Kelp forest habitat	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313441	Kelp forest habitat	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313442	Kelp forest habitat	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313443	*Aglaozonia* on kelp forest floor	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313446	Boulders with algae in gullies in kelp forest	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313448	?*Diphasia* on kelp stipes (see specimen)	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313449	Cobbles in gullies in Kelp forest	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313450	*Saccharina latissima*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313451	*Echinus esculentus* grazing kelp stipe	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313453	*Kallymenia reniformis* and *Dictyota dichotoma*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313455	*Obelia geniculata*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313456	Kelp stipe with epibiota	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313458	*Saccorhiza polyschides*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313461	*Saccorhiza polyschides*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313464	Gravel lined gully in kelp forest	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100831_06_FDB_8313466	Pickup boat approaches with Canna in background	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Francis Bunker
20100901_10_FDB_9013469	*Laminaria hyperborea* holdfasts, lower stipes and surrounding rock	A'Bhrideanach	Rum	Dive_10	01/09/2010	Francis Bunker
20100901_10_FDB_9013470	*Laminaria hyperborea* holdfasts, lower stipes and surrounding rock	A'Bhrideanach	Rum	Dive_10	01/09/2010	Francis Bunker
20100901_10_FDB_9013477	*Laminaria hyperborea* forest habitat showing thalli of all ages	A'Bhrideanach	Rum	Dive_10	01/09/2010	Francis Bunker
20100901_10_FDB_9013478	*Laminaria hyperborea* stipes festooned with epipbiota (mainly *Membranoptera alata* and *Ptilota gunneri*)	A'Bhrideanach	Rum	Dive_10	01/09/2010	Francis Bunker
20100901_10_FDB_9013479	*Laminaria hyperborea* forest showing stout rough shafted thalli	A'Bhrideanach	Rum	Dive_10	01/09/2010	Francis Bunker

File Name	Subject	Site Name	Island	Site Number	Date	Photographer
20100901_10_FDB_9013480	Gully with *Alcyonium digitatum*	A'Bhrideanach	Rum	Dive_10	01/09/2010	Francis Bunker
20100901_10_FDB_9013491	*Laminaria hyperborea* fronds	A'Bhrideanach	Rum	Dive_10	01/09/2010	Francis Bunker
20100901_10_FDB_9013495	Tom Mercer on the blob	A'Bhrideanach	Rum	Dive_10	01/09/2010	Francis Bunker
20100902_12_FDB_9023500	Tom taking video imagery on sediment seabed	NW Sgeir a Phuirt	Canna	Dive_12	02/09/2010	Francis Bunker
20100902_12_FDB_9023501	Turritella shells on muddy seabed	NW Sgeir a Phuirt	Canna	Dive_12	02/09/2010	Francis Bunker
20100902_12_FDB_9023504	*Nephrops norvegicus*	NW Sgeir a Phuirt	Canna	Dive_12	02/09/2010	Francis Bunker
20100902_12_FDB_9023513	*Pecten maximus*	NW Sgeir a Phuirt	Canna	Dive_12	02/09/2010	Francis Bunker
20100902_14_FDB_9023520	Cobble and pebble plain	W of Guirdil	Rum	Dive_14	02/09/2010	Francis Bunker
20100902_14_FDB_9023522	Cobble and pebble plain with occasional algae	W of Guirdil	Rum	Dive_14	02/09/2010	Francis Bunker
20100902_14_FDB_9023523	Cobble and pebble plain with occasional algae	W of Guirdil	Rum	Dive_14	02/09/2010	Francis Bunker
20100902_14_FDB_9023525	Tom Mercer recording on pebble seabed	W of Guirdil	Rum	Dive_14	02/09/2010	Francis Bunker
20100902_14_FDB_9023527	Lower infralittoral pebbles	W of Guirdil	Rum	Dive_14	02/09/2010	Francis Bunker
20100902_14_FDB_9023530	*Luidia ciliaris*	W of Guirdil	Rum	Dive_14	02/09/2010	Francis Bunker
20100902_14_FDB_9023531	*Taurulus bubalis*	W of Guirdil	Rum	Dive_14	02/09/2010	Francis Bunker
20100902_14_FDB_9023533	Algae on pebbles	W of Guirdil	Rum	Dive_14	02/09/2010	Francis Bunker
20100902_14_FDB_9023534	Algae on pebbles	W of Guirdil	Rum	Dive_14	02/09/2010	Francis Bunker
20100902_FDB_2542	*Sargassum* photographed from above water at Rum jetty	Rum ferry pier	Rum		02/09/2010	Francis Bunker
20100903_15_FDB_9033539	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033540	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033541	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033542	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033543	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033544	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033545	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033546	*Saccharina latissima*, *Arenicola* and *Sabella* on sand in *Zostera* bed	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033547	*Liocarcinus depurator* in *Zostera*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033548	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033549	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033550	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033551	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033552	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100903_15_FDB_9033553	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker

File Name	Subject	Site Name	Island	Site Number	Date	Photographer
20100903_15_FDB_9033554	Sparse *Zostera marina*	Kilmory Bay *Zostera*	Rum	Dive_15	03/09/2010	Francis Bunker
20100905_FDB_2553	Piece of maerl photographed on deck	W of Guirdil	Rum	Dive_14	05/09/2010	Francis Bunker
20100829_01_LS_3709	Sparse *Zostera* with filamentous brown algae	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Louise Scally
20100829_01_LS_3710	Sparse *Zostera*, typical of bed.	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Louise Scally
20100829_01_LS_3711	Pagurus bernhardus on *Zostera*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Louise Scally
20100829_01_LS_3713	*Cerianthus lloydii*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Louise Scally
20100829_01_LS_3714	*Lacuna vincta* abundant on *Zostera*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Louise Scally
20100829_01_LS_3716	*Pagurus bernhardus* on *Zostera*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Louise Scally
20100829_01_LS_3719	*Cerianthus lloydii*	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Louise Scally
20100829_01_LS_3725	Sparse *Zostera,* typical of bed	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Louise Scally
20100829_01_LS_3727	*Amphiura* sp. arms	Canna *Zostera* bed	Canna	Dive_1	29/08/2010	Louise Scally
20100830_02_LS_3762	*Gibbula cineraria*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Louise Scally
20100830_02_LS_3765	*Dictyota dichotoma*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Louise Scally
20100830_02_LS_3766	*Corallinaceae* indet.	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Louise Scally
20100830_02_LS_3771	*Holothuria forskali*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Louise Scally
20100830_02_LS_3772	*Holothuria forskali*	Great Wall of Canna	Sanday	Dive_2	30/08/2010	Louise Scally
20100830_03_LS_3799	*Cancer pagurus*	Compass Hill	Canna	Dive_3	30/08/2010	Louise Scally
20100830_03_LS_3800	*Edwardsia claparedii*	Compass Hill	Canna	Dive_3	30/08/2010	Louise Scally
20100830_03_LS_3801	*Edwardsia claparedii*	Compass Hill	Canna	Dive_3	30/08/2010	Louise Scally
20100830_03_LS_3802	*Edwardsia claparedii*	Compass Hill	Canna	Dive_3	30/08/2010	Louise Scally
20100830_03_LS_3811	*Cancer pagurus*	Compass Hill	Canna	Dive_3	30/08/2010	Louise Scally
20100830_03_LS_3812	*Obelia geniculata*	Compass Hill	Canna	Dive_3	30/08/2010	Louise Scally
20100830_03_LS_3816	Stalked jellyfish, this individual collected	Compass Hill	Canna	Dive_3	30/08/2010	Louise Scally
20100831_05_LS_3822	*Securiflustra securifrons*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3824	*Corynactis viridis*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3827	*Halecium halecinum*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3828	*Epizoanthus couchii*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3833	*Parasmittina trispinosa*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3838	*Corynactis viridis* habitat	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3839	*Corynactis viridis* habitat	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3841	Sponges and *Corynactis*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3843	Sponges and *Corynactis*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3850	*Polycera faeroensis*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3865	*Alcyonium digitatum* on kelp stipe	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally

File Name	Subject	Site Name	Island	Site Number	Date	Photographer
20100831_05_LS_3871	*Aslia lefevrei*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_05_LS_3872	*Pawsonia saxicola*	SE tip of Sanday	Sanday	Dive_5	31/08/2010	Louise Scally
20100831_06_LS_3877	*Aglaophenia tubulifera*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3878	*Palaemon* sp.	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3879	*Lanice conchilega*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3880	*Palaemon* sp.	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3881	Caprellid on hydroid	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3882	Caprellid on hydroid	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3883	Caprellid on hydroid	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3887	Dog fish	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3888	Dog fish	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3889	*Myxicola infundibulum*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3890	*Munida rugosa*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3898	*Pecten maximus*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3899	*Pecten maximus*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3900	*Encrusting sponge*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3904	*Sargartia elegans*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3905	*Sargartia elegans*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3906	*Ascidia mentula*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3907	*Parasmittina trispinosa* and *Caryophyllia smithii*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3909	*Callophyllis laciniata*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100831_06_LS_3910	*Callophyllis laciniata*	Reef NE Kilmory Bay	Rum	Dive_6	31/08/2010	Louise Scally
20100901_07_LS_3915	*Lanice conchilega*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3916	*Cerianthus lloydii*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3917	*Cerianthus lloydii*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3919	*Cancer pagurus*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3924	*Scinaia* sp.	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3925	*Scinaia* sp.	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3926	*Luidia ciliaris*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3927	*Luidia ciliaris*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3929	*Plocamium cartilagineum*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3930	*Scinaia* sp.	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3932	*Chaetopterus variopedatus*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally

File Name	Subject	Site Name	Island	Site Number	Date	Photographer
20100901_07_LS_3933	*Chaetopterus variopedatus*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3934	*Pagurus prideaux*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3935	*Pagurus prideaux*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3936	*Scinaia* sp.	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3937	*Obelia geniculata*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3939	Red alga	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3940	*Odonthalia dentata*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100901_07_LS_3941	*Callophyllis laciniata*	W An-t-Each	Canna	Dive_7	01/09/2010	Louise Scally
20100902_11_LS_3989	*Nephrops norvegicus*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_3990	*Nephrops norvegicus*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_3991	*Sargartiogeton laceratus*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_3993	*Sargartiogeton laceratus*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_3994	*Liocarcinus depurator*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_3995	*Liocarcinus depurator*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_3996	*Liocarcinus depurator*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_3998	*Liocarcinus depurator*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_4001	*Liocarcinus depurator*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_4002	*Liocarcinus depurator*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_4004	*Nephrops norvegicus*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_4005	*Nephrops norvegicus*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_4006	*Nephrops norvegicus*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_4008	*Sargartiogeton laceratus*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100902_11_LS_4009	*Sargartiogeton laceratus*	E of Rubha Carr-innis	Canna	Dive_11	02/09/2010	Louise Scally
20100830_CMH_5821.JPG	Dry suit repairs	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5822.JPG	Dry suit repairs	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5823.JPG	Yacht coming into harbour	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5824.JPG	Church	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5825.JPG	Dry suit repairs	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5826.JPG	Compressing	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5827.JPG	Lab facilities	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5828.JPG	Filling in forms	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5829.JPG	Camera maintenance	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5830.JPG	Filling in forms	Canna Harbour			30/08/2010	Christine Howson
20100830_CMH_5831.JPG	Compressing	Canna Harbour			30/08/2010	Christine Howson

File Name	Subject	Site Name	Island	Site Number	Date	Photographer
20100830_CMH_5832.JPG	Views of Canna	Sound of Canna			30/08/2010	Christine Howson
20100830_CMH_5833.JPG	Views of Canna	Sound of Canna			30/08/2010	Christine Howson
20100901_CMH_5834.JPG	Views of Canna	Sound of Canna			01/09/2010	Christine Howson
20100901_CMH_5835.JPG	Views of Canna	Sound of Canna			01/09/2010	Christine Howson
20100901_CMH_5836.JPG	Views of Canna	Sound of Canna			01/09/2010	Christine Howson
20100901_CMH_5837.JPG	Views of Canna	Sound of Canna			01/09/2010	Christine Howson
20100901_CMH_5838.JPG	Views of Canna	Sound of Canna			01/09/2010	Christine Howson
20100901_CMH_5839.JPG	View of Skye	Sound of Canna			01/09/2010	Christine Howson
20100901_CMH_5840.JPG	Loch Scresort, Rum	Loch Scresort, Rum			02/09/2010	Christine Howson
20100902_CMH_5841.JPG	Loch Scresort, Rum	Loch Scresort, Rum			02/09/2010	Christine Howson
20100902_CMH_5842.JPG	Loch Scresort, Rum	Loch Scresort, Rum			02/09/2010	Christine Howson
20100902_CMH_5843.JPG	Mark Woombs, boat skipper	Loch Scresort, Rum			02/09/2010	Christine Howson
20100902_CMH_5844.JPG	Lophelia, dive charter boat	Loch Scresort, Rum			02/09/2010	Christine Howson
20100902_CMH_5845.JPG	SMBs on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5846.JPG	View of Skye	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5847.JPG	SMBs on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5848.JPG	View of Canna	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5849.JPG	Divers on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5850.JPG	Divers on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5851.JPG	Divers on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5852.JPG	Divers on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5853.JPG	Divers on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5854.JPG	Yacht motoring past, Skye behind	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5855.JPG	Compass Hill, Canna	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5856.JPG	Tom Mercer	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5857.JPG	Tom Mercer, Francis Bunker	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5858.JPG	Canna with Skye behind	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5859.JPG	Church, Canna Harbour	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5860.JPG	Canna Harbour	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5861.JPG	Canna Harbour	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5862.JPG	Jellyfish	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5863.JPG	Jellyfish	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5864.JPG	Jellyfish	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5865.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson

File Name	Subject	Site Name	Island	Site Number	Date	Photographer
20100902_CMH_5866.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5867.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5868.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5869.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5870.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5871.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5872.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5873.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5874.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5875.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5876.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5877.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5878.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5879.JPG	Basking shark	Canna Harbour			02/09/2010	Christine Howson
20100902_CMH_5880.JPG	Rum	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5881.JPG	Rum	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5882.JPG	Rum	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5883.JPG	SMBs on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5884.JPG	SMBs on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5885.JPG	SMBs on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5886.JPG	SMBs on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5887.JPG	Rum	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5888.JPG	View of Canna	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5889.JPG	SMBs on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5890.JPG	Divers on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5891.JPG	Divers on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5892.JPG	Divers on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5893.JPG	Divers on surface	Sound of Canna			02/09/2010	Christine Howson
20100902_CMH_5894.JPG	*Sargassum* photographed from above water at Rum jetty	Loch Scresort, Rum			02/09/2010	Christine Howson

Table A4.2 Drop-down video log, 2010 Sound of Canna survey

File Name	File size	Folder	Site No	Date	Depth In - Out (m bcd)	Camera system
SdCannaA12.mpg	1,635,311,616	CannaVideo_MPEG2\Aora_Deep\	A12	21/09/2010	168 - 202 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA120.mpg	231,606,272	CannaVideo_MPEG2\Aora_Deep\	A120	21/09/2010	188 - 89 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA123.mpg	214,792,192	CannaVideo_MPEG2\Aora_Deep\	A123	21/09/2010	172 - 177 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA124.mpg	366,667,776	CannaVideo_MPEG2\Aora_Deep\	A124	21/09/2010	89 - 117 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA125.mpg	426,729,472	CannaVideo_MPEG2\Aora_Deep\	A125	21/09/2010	124 - 110 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA126.mpg	255,178,752	CannaVideo_MPEG2\Aora_Deep\	A126	21/09/2010	67 - 91 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA127.mpg	116,498,432	CannaVideo_MPEG2\Aora_Deep\	A127	22/09/2010	102 - 109 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA128.mpg	237,264,896	CannaVideo_MPEG2\Aora_Deep\	A128	22/09/2010	91 - 95 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA130.mpg	209,377,280	CannaVideo_MPEG2\Aora_Deep\	A130	22/09/2010	103 - 109 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA131.mpg	197,122,048	CannaVideo_MPEG2\Aora_Deep\	A131	26/09/2010	116 - 98 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA132.mpg	87,152,640	CannaVideo_MPEG2\Aora_Deep\	A132	24/09/2010	180 - 176 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA135.mpg	115,644,416	CannaVideo_MPEG2\Aora_Deep\	A135	22/09/2010	81 - 83 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA135to136.mpg	303,843,328	CannaVideo_MPEG2\Aora_Deep\	A135to136	21/09/2010	77 - 80 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA136.mpg	205,987,840	CannaVideo_MPEG2\Aora_Deep\	A136	22/09/2010	86 - 87 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA138.mpg	136,521,728	CannaVideo_MPEG2\Aora_Deep\	A138	26/09/2010	166 - 169 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA139.mpg	79,708,160	CannaVideo_MPEG2\Aora_Deep\	A139	26/09/2010	197 - 194 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA140.mpg	512,073,728	CannaVideo_MPEG2\Aora_Deep\	A140	26/09/2010	171 - 156 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA141.mpg	262,414,336	CannaVideo_MPEG2\Aora_Deep\	A141	26/09/2010	98 - 117 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA145.mpg	143,759,360	CannaVideo_MPEG2\Aora_Deep\	A145	26/09/2010	64 - 58 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA147.mpg	129,095,680	CannaVideo_MPEG2\Aora_Deep\	A147	24/09/2010	47 - 43 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA149.mpg	43,759,616	CannaVideo_MPEG2\Aora_Deep\	A149	21/09/2010	48 - 205 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA152.mpg	110,389,248	CannaVideo_MPEG2\Aora_Deep\	A152	26/09/2010	89 - 81 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA155.mpg	268,539,904	CannaVideo_MPEG2\Aora_Deep\	A155	26/09/2010	67 - 54 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA156.mpg	173,348,864	CannaVideo_MPEG2\Aora_Deep\	A156	26/09/2010	179 - 170 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA157.mpg	300,302,336	CannaVideo_MPEG2\Aora_Deep\	A157	26/09/2010	153 - 134 m	UMBSM Kongsberg-Simrad UW video (OE 1362)

File Name	File size	Folder	Site No	Date	Depth In - Out (m bcd)	Camera system
SdCannaA159.mpg	198,160,384	CannaVideo_MPEG2\Aora_Deep\	A159	26/09/2010	46 - 89 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA161.mpg	100,859,904	CannaVideo_MPEG2\Aora_Deep\	A161	24/09/2010	55 - 57 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA162.mpg	414,164,992	CannaVideo_MPEG2\Aora_Deep\	A162	22/09/2010	227 - 236 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA165.mpg	191,739,904	CannaVideo_MPEG2\Aora_Deep\	A165	21/09/2010	174 - 183 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA165_1.mpg	151,363,584	CannaVideo_MPEG2\Aora_Deep\	A165_1	21/09/2010	218 - 190 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA167.mpg	85,606,400	CannaVideo_MPEG2\Aora_Deep\	A167	26/09/2010	97 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA169.mpg	66,320,384	CannaVideo_MPEG2\Aora_Deep\	A169	26/09/2010	59 - 58 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA174.mpg	191,500,288	CannaVideo_MPEG2\Aora_Deep\	A174	26/09/2010	170 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA177.mpg	132,816,896	CannaVideo_MPEG2\Aora_Deep\	A177	24/09/2010	74 - 67 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA178.mpg	138,606,592	CannaVideo_MPEG2\Aora_Deep\	A178	23/09/2010	218 - 180 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA180.mpg	140,785,664	CannaVideo_MPEG2\Aora_Deep\	A180	23/09/2010	108 - 100 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA182.mpg	136,429,568	CannaVideo_MPEG2\Aora_Deep\	A182	23/09/2010	120 - 122 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA184.mpg	191,406,080	CannaVideo_MPEG2\Aora_Deep\	A184	23/09/2010	116 - 124 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA185.mpg	231,686,144	CannaVideo_MPEG2\Aora_Deep\	A185	23/09/2010	114 - 112 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA191.mpg	190,842,880	CannaVideo_MPEG2\Aora_Deep\	A191	24/09/2010	83 - 77 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA193.mpg	180,344,832	CannaVideo_MPEG2\Aora_Deep\	A193	26/09/2010	68 - 64 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA195_1.mpg	416,061,440	CannaVideo_MPEG2\Aora_Deep\	A195_1	22/09/2010	228 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA195_2.mpg	987,797,504	CannaVideo_MPEG2\Aora_Deep\	A195_2	22/09/2010	221 - 229 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA196.mpg	103,540,736	CannaVideo_MPEG2\Aora_Deep\	A196	26/09/2010	154 - 155 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA200.mpg	185,139,200	CannaVideo_MPEG2\Aora_Deep\	A200	23/09/2010	84 - 87 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA202.mpg	276,963,328	CannaVideo_MPEG2\Aora_Deep\	A202	23/09/2010	105 - 130 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA204.mpg	173,352,960	CannaVideo_MPEG2\Aora_Deep\	A204	26/09/2010	193 - 176 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA206.mpg	130,949,120	CannaVideo_MPEG2\Aora_Deep\	A206	24/09/2010	68 - 55 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA209.mpg	186,470,400	CannaVideo_MPEG2\Aora_Deep\	A209	26/09/2010	207 - 192 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA210.mpg	44,603,392	CannaVideo_MPEG2\Aora_Deep\	A210	24/09/2010	183 - 175 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA212.mpg	122,392,576	CannaVideo_MPEG2\Aora_Deep\	A212	26/09/2010	53 - 49 m	UMBSM Kongsberg-Simrad UW video (OE 1362)

File Name	File size	Folder	Site No	Date	Depth In - Out (m bcd)	Camera system
SdCannaA217.mpg	172,290,048	CannaVideo_MPEG2\Aora_Deep\	A217	23/09/2010	55 - 56 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA219.mpg	171,958,272	CannaVideo_MPEG2\Aora_Deep\	A219	23/09/2010	54 - 58 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA223.mpg	135,790,592	CannaVideo_MPEG2\Aora_Deep\	A223	23/09/2010	111 - 109 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA225.mpg	154,316,800	CannaVideo_MPEG2\Aora_Deep\	A225	26/09/2010	55 - 51 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA228.mpg	253,915,136	CannaVideo_MPEG2\Aora_Deep\	A228	26/09/2010	151 - 148 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA52.mpg	676,833,280	CannaVideo_MPEG2\Aora_Deep\	A52	21/09/2010	200 - 141 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA64.mpg	246,847,488	CannaVideo_MPEG2\Aora_Deep\	A64	21/09/2010	230 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA66.mpg	374,054,912	CannaVideo_MPEG2\Aora_Deep\	A66	21/09/2010	232 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaA79.mpg	628,404,224	CannaVideo_MPEG2\Aora_Deep\	A79	21/09/2010	223 - 151 m	UMBSM Kongsberg-Simrad UW video (OE 1362)
SdCannaDD1.mpg	194,781,184	CannaVideo_MPEG2\Inshore\	DD1	07/08/2010	3 - 2 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD12_1.mpg	555,505,664	CannaVideo_MPEG2\Inshore\	DD12_1	07/08/2010	13 - 30 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD12_2.mpg	224,477,184	CannaVideo_MPEG2\Inshore\	DD12_2	07/08/2010	11 - 13 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD13_1.mpg	164,198,400	CannaVideo_MPEG2\Inshore\	DD13_1	07/08/2010	10 - 23 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD15_1.mpg	216,565,760	CannaVideo_MPEG2\Inshore\	DD15_1	05/08/2010	1.3 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD15_2.mpg	289,570,816	CannaVideo_MPEG2\Inshore\	DD15_2	05/08/2010	7 - 8 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD15_3.mpg	253,528,064	CannaVideo_MPEG2\Inshore\	DD15_3	05/08/2010	4 - 3 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD16_1.mpg	354,035,712	CannaVideo_MPEG2\Inshore\	DD16_1	05/08/2010	13 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD16_2.mpg	639,922,176	CannaVideo_MPEG2\Inshore\	DD16_2	05/08/2010	29 - 41 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD17_1.mpg	134,322,176	CannaVideo_MPEG2\Inshore\	DD17_1	05/08/2010	3.6 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD17_2.mpg	262,993,920	CannaVideo_MPEG2\Inshore\	DD17_2	05/08/2010	10 - 9 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD17_3.mpg	425,029,632	CannaVideo_MPEG2\Inshore\	DD17_3	05/08/2010	12 - 14 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD18_1.mpg	254,003,200	CannaVideo_MPEG2\Inshore\	DD18_1	05/08/2010	5 - 19 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD18_2.mpg	445,931,520	CannaVideo_MPEG2\Inshore\	DD18_2	05/08/2010	3 - 14 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD18_3.mpg	422,346,752	CannaVideo_MPEG2\Inshore\	DD18_3	05/08/2010	9 - 41 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD2.mpg	428,779,520	CannaVideo_MPEG2\Inshore\	DD2	07/08/2010	4.4 - 6.3 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD2_2.mpg	27,650,048	CannaVideo_MPEG2\Inshore\	DD2_2	07/08/2010	1.3 m	ASML Sony 3CCD DV camera (DRV 950)

File Name	File size	Folder	Site No	Date	Depth In - Out (m bcd)	Camera system
SdCannaDD20_1.mpg	408,557,568	CannaVideo_MPEG2\Inshore\	DD20_1	05/08/2010	28 - 30 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD20_2.mpg	224,688,128	CannaVideo_MPEG2\Inshore\	DD20_2	05/08/2010	11 - 13 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD21_1.mpg	217,612,288	CannaVideo_MPEG2\Inshore\	DD21_1	05/08/2010	13 - 27 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD22.mpg	167,264,256	CannaVideo_MPEG2\Inshore\	DD22	05/08/2010	11 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD22_1.mpg	147,456,000	CannaVideo_MPEG2\Inshore\	DD22_1	05/08/2010	5 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD23.mpg	364,894,208	CannaVideo_MPEG2\Inshore\	DD23	06/08/2010	25 - 33 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD24.mpg	249,038,848	CannaVideo_MPEG2\Inshore\	DD24	06/08/2010	13 - 18 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD25_1.mpg	207,200,256	CannaVideo_MPEG2\Inshore\	DD25_1	06/08/2010	8 - 10 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD26_1.mpg	135,442,432	CannaVideo_MPEG2\Inshore\	DD26_1	06/08/2010	4.3 - 2.3 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD26_2.mpg	178,044,928	CannaVideo_MPEG2\Inshore\	DD26_2	06/08/2010	6 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD27_1.mpg	109,391,872	CannaVideo_MPEG2\Inshore\	DD27_1	06/08/2010	2.7 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD28_1.mpg	362,702,848	CannaVideo_MPEG2\Inshore\	DD28_1	06/08/2010	15 - 19 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD3_1.mpg	299,352,064	CannaVideo_MPEG2\Inshore\	DD3_1	07/08/2010	7.4 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD30_1.mpg	340,723,712	CannaVideo_MPEG2\Inshore\	DD30_1	06/08/2010	15 - 18 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD31_1.mpg	241,864,704	CannaVideo_MPEG2\Inshore\	DD31_1	06/08/2010	7 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD32_1.mpg	250,652,672	CannaVideo_MPEG2\Inshore\	DD32_1	06/08/2010	22 - 26 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD33_1.mpg	151,308,288	CannaVideo_MPEG2\Inshore\	DD33_1	06/08/2010	7 - 9 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD35_1.mpg	239,675,392	CannaVideo_MPEG2\Inshore\	DD35_1	06/08/2010	10 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD36_1.mpg	674,238,464	CannaVideo_MPEG2\Inshore\	DD36_1	06/08/2010	17 - 32 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD38_1.mpg	254,056,448	CannaVideo_MPEG2\Inshore\	DD38_1	06/08/2010	23 - 28 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD39_1.mpg	265,402,368	CannaVideo_MPEG2\Inshore\	DD39_1	06/08/2010	17 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD4_1.mpg	324,231,168	CannaVideo_MPEG2\Inshore\	DD4_1	07/08/2010	20 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD40_1.mpg	284,207,104	CannaVideo_MPEG2\Inshore\	DD40_1	06/08/2010	8 - 13 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD44_1.mpg	1,271,715,840	CannaVideo_MPEG2\Inshore\	DD44_1	06/08/2010	4 - 27 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD45_1.mpg	204,302,336	CannaVideo_MPEG2\Inshore\	DD45_1	06/08/2010	21 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD46_1.mpg	818,186,240	CannaVideo_MPEG2\Inshore\	DD46_1	06/08/2010	2.4 - 8 m	ASML Sony 3CCD DV camera (DRV 950)

File Name	File size	Folder	Site No	Date	Depth In - Out (m bcd)	Camera system
SdCannaDD46_2.mpg	200,890,368	CannaVideo_MPEG2\Inshore\	DD46_2	06/08/2010	2.2 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD46_3.mpg	305,778,688	CannaVideo_MPEG2\Inshore\	DD46_3	06/08/2010	5 - 6 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD46_4.mpg	379,504,640	CannaVideo_MPEG2\Inshore\	DD46_4	06/08/2010	4 - 5 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD47_1.mpg	236,982,272	CannaVideo_MPEG2\Inshore\	DD47_1	06/08/2010	13 - 15 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD5_1.mpg	272,037,888	CannaVideo_MPEG2\Inshore\	DD5_1	07/08/2010	6 - 9 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD5_2.mpg	380,932,096	CannaVideo_MPEG2\Inshore\	DD5_2	07/08/2010	16 - 9 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD7_1.mpg	120,991,744	CannaVideo_MPEG2\Inshore\	DD7_1	07/08/2010	25 - 40 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD7_2.mpg	399,640,576	CannaVideo_MPEG2\Inshore\	DD7_2	07/08/2010	22 - 35 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD8_1.mpg	162,621,440	CannaVideo_MPEG2\Inshore\	DD8_1	07/08/2010	4 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDD9_1.mpg	615,624,704	CannaVideo_MPEG2\Inshore\	DD9_1	07/08/2010	20 - 46 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaM01.mpg	2,087,739,392	CannaVideo_MPEG2\MaerlatGuirdil\	M01	26/09/2010	19 - 14 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaM02.mpg	335,665,152	CannaVideo_MPEG2\MaerlatGuirdil\	M02	26/09/2010	20 - 16 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaM03.mpg	249,149,440	CannaVideo_MPEG2\MaerlatGuirdil\	M03	26/09/2010	25 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaM04.mpg	107,290,624	CannaVideo_MPEG2\MaerlatGuirdil\	M04	26/09/2010	26 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaM05.mpg	159,717,376	CannaVideo_MPEG2\MaerlatGuirdil\	M05	26/09/2010	26 - 27 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaM06.mpg	162,232,320	CannaVideo_MPEG2\MaerlatGuirdil\	M06	26/09/2010	21 - 23 m	ASML Sony 3CCD DV camera (DRV 950)
SdCannaM07.mpg	95,873,024	CannaVideo_MPEG2\MaerlatGuirdil\	M07	26/09/2010	24 - 25 m	ASML Sony 3CCD DV camera (DRV 950)

Table A4.3 Diver video log, 2010 Sound of Canna survey

File Name	File size	Folder	Site Number	Date	Site Name	Camera system
SdCannaDiveSite08.mpg	1,008,783,360	CannaVideo_MPEG2\Dive videos\	DiveSite08	01/09/2010	E An-t-Each	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDiveSite01.mpg	319,287,296	CannaVideo_MPEG2\Dive videos\	DiveSite01	29/08/2010	Canna *Zostera* Bed	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDiveSite02.mpg	994,699,264	CannaVideo_MPEG2\Dive videos\	DiveSite02	30/08/2010	Great Wall of Canna	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDiveSite03.mpg	946,995,200	CannaVideo_MPEG2\Dive videos\	DiveSite03	30/08/2010	Compass Hill	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDiveSite05.mpg	757,751,808	CannaVideo_MPEG2\Dive videos\	DiveSite05	31/08/2010	SE tip of Sanday	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDiveSite12.mpg	595,615,744	CannaVideo_MPEG2\Dive videos\	DiveSite12	02/09/2010	NW Sgeir a Phuirt	ASML Sony 3CCD DV camera (DRV 950)
SdCannaDiveSite13.mpg	364,603,392	CannaVideo_MPEG2\Dive videos\	DiveSite13	02/09/2010	Sgeir a'Phuirt	ASML Sony 3CCD DV camera (DRV 950)

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