

# Isle of Muck



## Seasearch survey

8<sup>th</sup> to 13<sup>th</sup> July 2012

The Isle of Muck is part of the Small Isles in the Inner Hebrides along with Eigg, Rum and Canna. The tiny island has a population of 38 people and is surrounded by underwater walls and pinnacles, very few of which had ever been surveyed by Seasearch divers. Though there is no diving centre on the island, with some planning it was an excellent base for an expedition. In July 2012 seven Seasearch Surveyors along with marine biologist and boat skipper Mark Woombs from Sea Knoydart carried out an intensive week of surveys to gather new data on 13 sites around the island. In total 236 species were recorded from the waters around Muck. This report presents the findings from this survey. Although there has been previous Seasearch diving around Muck including July 2006 and June 2012, this dedicated survey focusing on Muck is the first of its kind.



Report prepared for Seasearch by Angie Gall

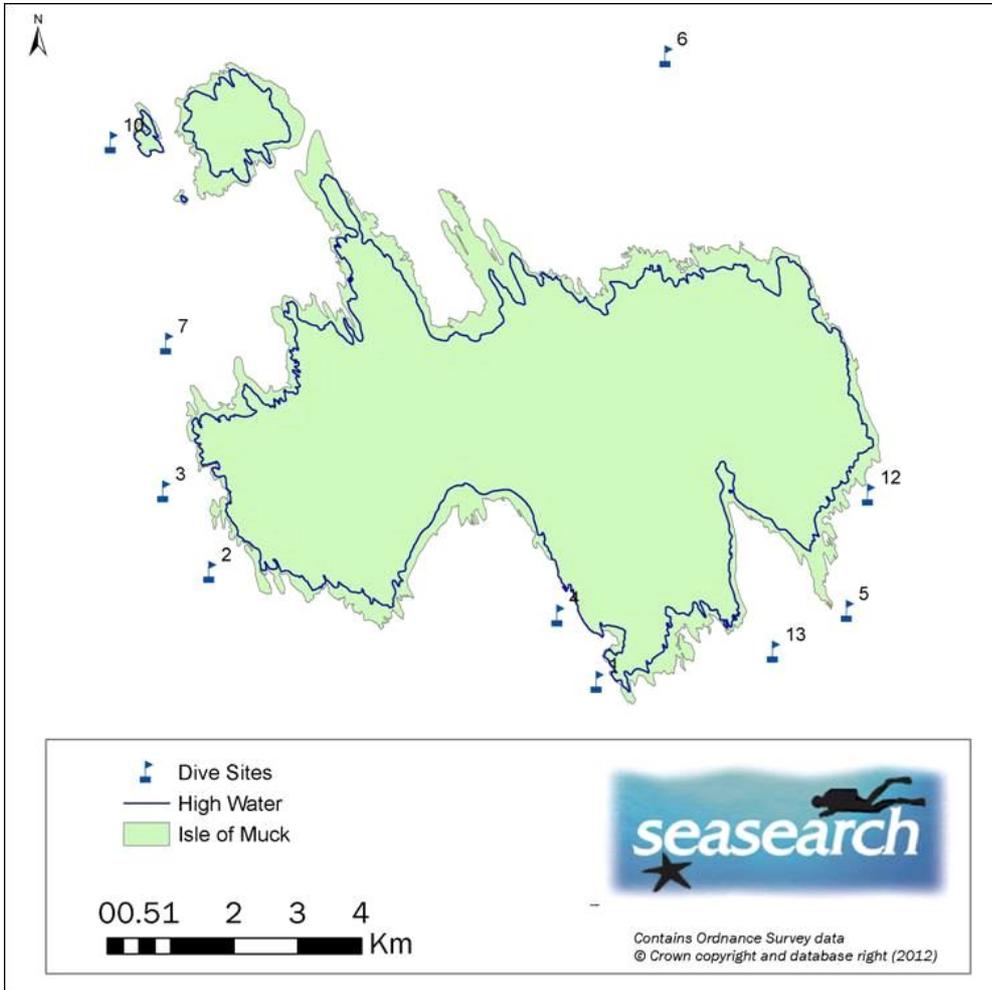
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Seasearch in Scotland is coordinated by the Marine Conservation Society with funding from Scottish Natural Heritage.



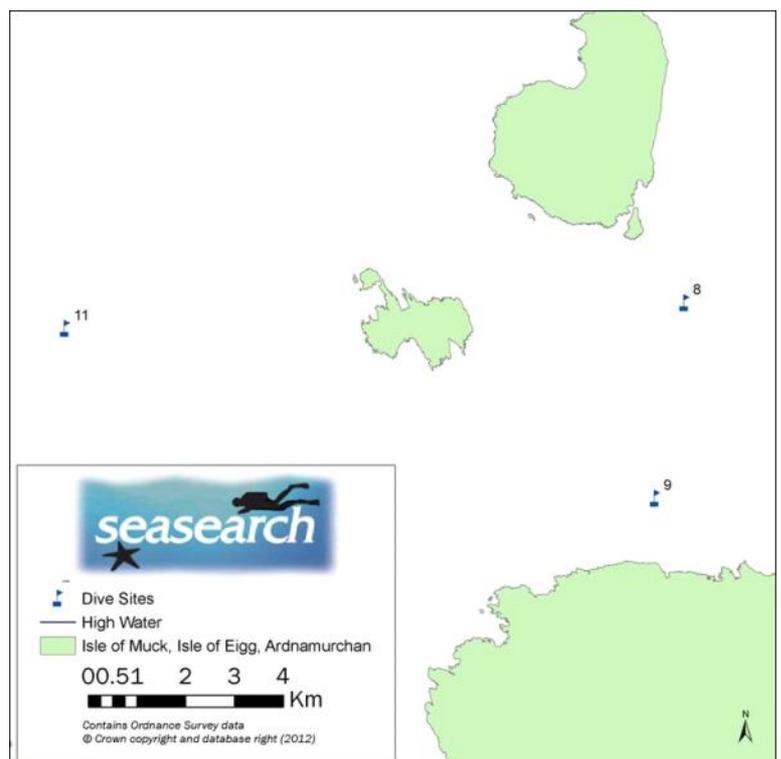
# Sites

Thirteen sites around Muck and in the wider area were surveyed. Good weather and sea conditions made it possible to dive all sides of the island as well as some sites further out, such as a rocky pinnacle that appeared on the Admiralty chart 6 miles to the west of Muck.



## Sites

- 1 Bogha Na Fionn Aird
- 2 Beinn Airan Cliffs
- 3 Rubh Lean na Lairach
- 4 Camas Mor
- 5 Rubh 'a' Chroisein
- 6 Godag
- 7 Bogha Eir
- 8 Maxwell Bank
- 9 S Side Elizabeth Rock
- 10 Eagamol
- 11 Dream Rock
- 12 Eilean Dubh
- 13. Port Mor ferry terminal



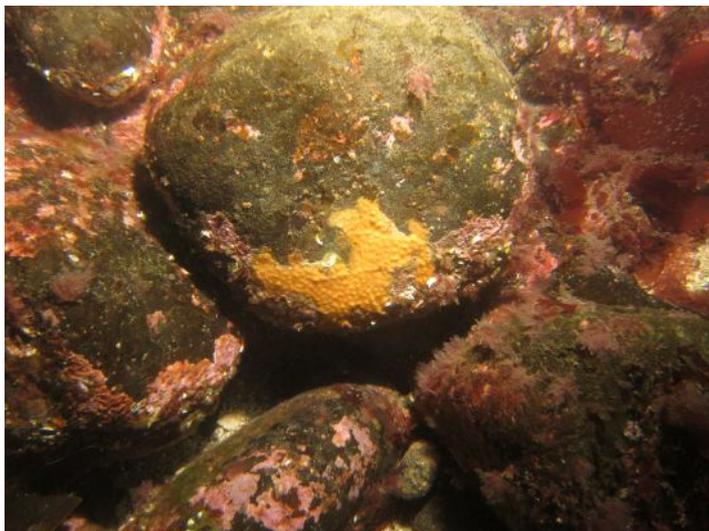
## Site 1 Bogha Na; Site 4 Camas Mor cliffs; Site 5 Rubh 'a' Chroisein and Site 12 Eilean Dubh

These sites are on the south side of Muck below sea cliffs. The cliffs continue underwater, typically fringed by kelp forest in the shallows dropping down to a steep boulder slope at the base of the cliffs. There were overhangs on the walls with cup corals and the unusual pink sea fingers *Alcyonium hibernicum* were recorded at Site 1. In the kelp forest there was a rare, large stalked jellyfish *Craterolophus convolvulus* on the red seaweed growing on the kelp stipes.

At Eilean Dubh the white cluster anemone *Parazoanthus anguicomus* was found under an overhang on the wall. There were also northern sea fans *Swiftia palida*. This site is close to the location of a proposed salmon farm.



Dead men's fingers *Alcyonium digitatum* and urchin *Echinus esculentus*. Photo: Angie Gall



Typical boulder and cobble habitat with red seaweeds and encrusting bryozoans. Photo: Andy Grant

## Site 2 Beinn Airan Cliffs; Site 3 Rubh Leam na Lairach and Site 7 Bogha Eir

These sites lie on the exposed west side of the island and the seabed is more gently sloping than the sites in the south. At each site there is a band of kelp forest in the shallower depths, thinning to kelp park as the seabed gets deeper. The boulders and cobbles beneath the kelp have encrusting bryozoans, sponges, barnacles and keel worms on their surfaces.

## Site 6 Godag

Godag is a small rocky islet off the northern coast of Muck. The islet is fringed with kelp forest which drops gently down to a cobble slope before sloping away to a vertical wall starting at 16 metres. This site was the only one surveyed on this side of the island and it seemed to be more silty than other sites with lower biodiversity on the wall than expected. It is possible that this may be due to scallop dredging in the channel just to the east between Muck and Eigg.



Seasquirt *Ascidea virginea* on the wall at Godag. Photo: Dawn Watson



Maerl bed and large boulders at Maxwell Bank.  
Photo: Andy Grant

### Site 8 Maxwell Bank

This area to the south of the Isle of Eigg has a fairly level seabed scattered with large boulders. In between the boulders is a well-developed bed of live maerl, the only one seen during this survey week. The maerl habitat supported scallops *Pecten maximus* and squat lobsters *Munida rugosa* as well as occasional edible crabs *Cancer pagurus*. It is possible that the large boulders have protected the maerl bed which would be easily damaged by dredging.

### Site 9 South Side of Elizabeth Rock

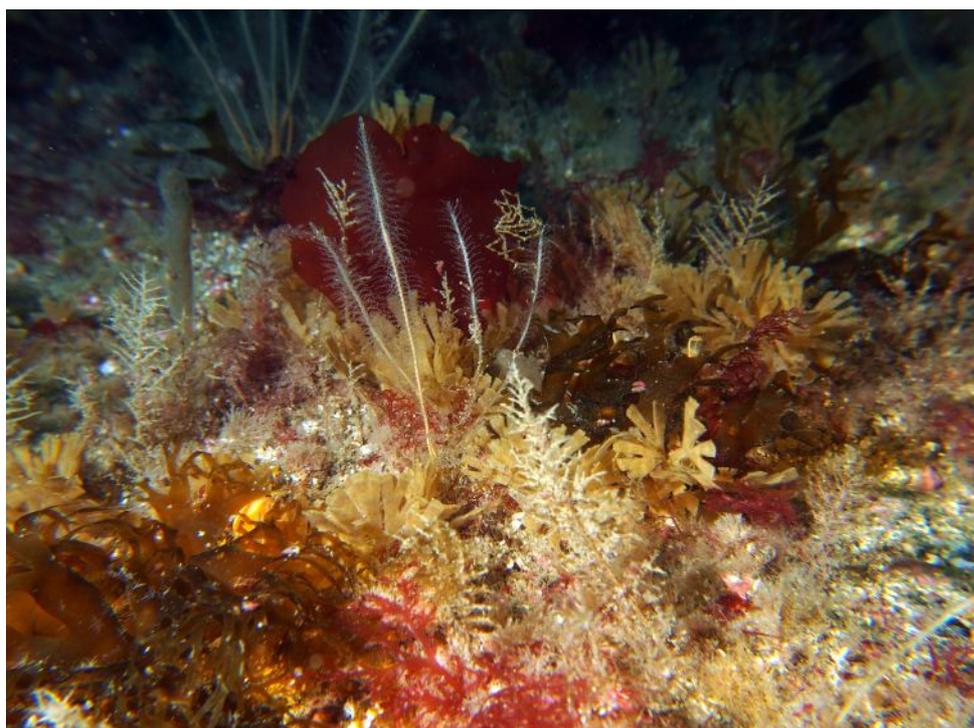
This dramatic pinnacle off the Ardnamurchan Peninsula is a well-known dive site but the area surveyed is not the side of the pinnacle that is typically dived. The kelp forest on top of the rock was full of fish like ballan wrasse *Labrus bergylta* and there were many dead men's fingers *Alcyonium digitatum* growing on the kelp stipes which were not observed elsewhere. The sheer vertical wall was carpeted in featherstars *Antedon bifida*.



Featherstars *Antedon bifida* and jewel anemones *Corynactis viridis* on wall. Photo: Dawn Watson

### Site 10 Eagamol

Eagamol is a tiny island off the north west of Muck. This dive revealed an unusual habitat dominated by the bryozoan *Securiflustra securifrons* which carpeted the gently sloping rocky seabed from about 20 metres to 30 metres depth with finger bryozoan *Alcyonidium diaphanum* and antenna hydroids *Nemertesia antennina*. Surge gullies with sponge communities were found in the shallows.



Bedrock reef dominated by *Securiflustra securifrons* with hydroids and seaweeds. Photo: Dawn Watson

**Site 11 Unnamed pinnacle** – (Nicknamed DREAM rock after those who surveyed it: Dawn, Rob, Emily, Andy, Angie, Mark!).



*Porania pulvillus, a cushion star on the reef wall.*  
Photo: Dawn Watson

This submerged pinnacle lies 6 miles to the west of the Isle of Muck and is unlikely to have been dived before. The shallowest part is about 3m below the sea surface with gullies running towards the south east. The steep walled gullies were heavily scoured and it was clear that this site is exposed to heavy seas. An unusual red blenny *Parablennius ruber* was spotted in a crevice on a gulley wall and many *Porania pulvillus* cushion stars, Devonshire cup corals *Caryophyllia smithi* and crevice sea cucumbers *Pawsonia saxicola* were on the walls.

### Site 13 Port Mor Ferry Terminal and Bay

This site was surveyed as a shore dive, taking in the area under the jetty and the shallow sandy bay. Diverse seaweeds were found in the shallows attached to the jetty and boulders. On the sand were scallops, burrowing anemones *Cerianthus lloydi* and small flatfish inhabited the gravel and sand in the bay.

*Brown, green and red seaweeds in the shallows.*  
Photo: Dawn Watson



#### Seaweeds

The rocky habitats surrounding the Isle of Muck and in its neighbouring seas support tall, dense stands of kelp forest, dominated by *Laminaria hyperborea*. In the clear waters, this habitat is found between about 1 and 14 metres below sea level and in turn supports a diverse range of red seaweeds and invertebrates such as encrusting sponges, bryozoans and shoals of pollack. Pressing selected samples of seaweeds helped to make sure that they were correctly identified and preserves them as a record for future studies.

*Pressed seaweed specimens from the survey.* Photo: Angie Gall

#### Surveyors:

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#### Skipper:

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Thank you to the Isle of Muck community for their enthusiastic encouragement and friendly welcome.