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Not to be cited without prior reference to Marine Scotland, Marine Laboratory, Aberdeen.

FRV *Alba na Mara*

Cruise 0510A

PROGRAMME

22 April -10 May 2010

Loading: Ullapool, 20 April

Unloading: Ullapool, 10 May

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

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

Personnel:

P Boulcott (SIC)
J Hunter
D Bova
M Roberts (Herriot Watt University)
L Clark (Scottish Natural Heritage)

Project Code: MF02q (19 days)

Gear

Camera drop Frame
Falcon remote underwater vehicle (ROV)
Pyramid camera drop frame
400 m umbilical cable with 37 Male pin connectors
Day grab and table

Objectives

The trip aims to conduct camera survey at various areas in and around the East Mingulay reef complex (centre of the site: 7°25'0"W, 56°49'0"N). The first phase of the cruise will be dedicated to the drop camera survey of the cold-water coral (*Lophelia pertusa*). The location of survey transects will be informed by previous surveys carried out during 2003, 2005, 2006 and

2007. This phase of the survey will document the condition and extent of *Lophelia pertusa* reefs and will also examine non-biogenic reefs within the complex. ROV footage of the reef will also be collected. The areas to be surveyed by the ROV will be identified during the initial series of drop camera surveys. The second phase of the survey will use the pyramid drop frame to survey epibenthic communities situated within the areas of mud adjacent to the reefs. Day grab samples will also be collected from areas of muddy sediment for the purposes of particle size analysis.

Summary

1. To conduct a drop camera survey of the area of cold-water coral (*Lophelia pertusa*) within the East Mingulay reef complex;
2. To collect sediment samples for the purposes of particle size analysis from areas adjacent to the reefs;
3. To conduct a pyramid camera survey of epibenthic communities situated within muddy areas adjacent to the reef complex;
4. To collect ROV footage of areas of the reef previously identified from the drop camera survey.

General

Weather permitting, *Alba na Mara* will depart on the morning of the 22 April from Ullapool and will arrive at the East Mingulay reef complex the next day. The remainder of the scientific time on this cruise will be spent in and around the boundaries of the site. M Roberts will disembark from the *Alba na Mara* on the morning of 26 April at Barra. Due to strong water currents operating in the area, the deployment of the ROV will be timed to coincide with periods of slack water. In windier conditions, use of the *Alba na Mara*'s dynamic position system will be made. Where weather conditions make the deployment of a camera drop frame difficult, effort will be diverted to the collection of grab samples. Down time due to severe weather will be used to refine ROV techniques and to refine the survey design. A half landing is planned at Mallaig on 1 May. L Clark will leave the cruise at this time. *Alba na Mara* will arrive at Ullapool on the morning of the 10 May for turnaround and preparation of next cruise.

Normal contact will be maintained with the Laboratory.

Submitted
P Boulcott
25 March 2010

Approved
I Gibb
25 March 2010