

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

MRV *Alba na Mara*

Survey 1816A

PROGRAMME

23 September – 13 October 2016

Loading: Greenock, 21 September 2016

Half-landing: Mallaig, 2/3 October 2016

Unloading: Greenock, 13 October 2016

In setting the survey 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 survey with staff on-board before work is commenced.

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

Personnel

Personnel

P Boulcott	SIC
J Hunter	
J Clarke (First Half)	23 September – 3 October
D Stirling (Second Half)	3-13 October

Project: 21 days, 20113

Gear

New drop/lander frame + calibration mesh

HD TV system + lights

Armoured cable + spare + axle stands

Stereo TV system

Background and Objectives

1816A will survey the waters around the Small Isles Marine Protected Area (MPA). The primary objective of this survey is to survey monitoring sites previously visited in 2012, 2013, 2014 and 2015 that support Scotland's Priority Marine Features (PMFs). Work from these surveys will be used to determine the effect of MPAs established in Scottish waters. A secondary objective is to collect stereo video imagery of *Funiculina quadrangularis* within established survey boxes.

Data will contribute to a potential impact (BACI) study once protective measures within the MPA are introduced. Specific objectives are as follows:

1. To conduct further assessments of *Funiculina quadrangularis* abundance within the Small Isles MPA and areas outside.
2. To survey known *Funiculina quadrangularis* habitat using the stereo camera system.
3. To further survey known populations of other priority marine feature (PMF) species within and outside the Small Isles MPA.

Embarkation

Scientists will join the vessel on 23 September. Weather permitting *Alba na Mara* will depart from Greenock on the same day, heading for the Small Isles.

Benthic survey

UW HDTV surveys of the seabed at various sites inside and outside the Small Isles MPA (see Figure 1) will be carried out during 1816A. The survey will utilise the newly built modular camera frame (combined drop and lander – 2460 × 1900 × 1940 mm, L × W × H) deployed from the aft of the vessel. Species type, species densities and substrate type (assessed visually) will be classified for each video transect post-survey. RoxAnn sediment data will also be collected at each site.

Stereo camera system

Underwater video of the seabed within established *Funiculina quadrangularis* survey boxes (see Figure 1) will be captured using two HD cameras attached to the drop frame. Post-survey analysis will provide 3D length measurements of specimens encountered along each drift transect.

Operations

Survey operations will take place between the hours of 07:00 and 19:00 (all times BST). Work will cease on the afternoon of 2 or 3 October and the vessel will head for Mallaig. All scientific work will cease on the afternoon of 11 October to allow passage back to Greenock. Scientific equipment will be offloaded at the earliest opportunity on Thursday 13 October, and the scientists will disembark the vessel.

Normal contact will be maintained with the Laboratory.

Submitted:
P Boulcott
15 September 2016

Approved:
I Gibb
16 September 2016

Figure 1: The Small Isles MPA with PMF survey boxes shown (FQ = *Funiculina*)

