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MRV *Alba na Mara*

Survey 1517A

PROGRAMME

31 August - 19 September 2017

Loading: Fraserburgh, 28 August 2017

Half-landing: Mallaig, 9/10 September 2017

Unloading: Mallaig, 19 September 2017

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

P Boulcott	SIC
J Hunter	
J Clarke	
C Greathead	31 August – 10 September
T Regnier	10 – 19 September

Project: 20 days, 20113

Gear

New drop/lander frame + calibration mesh

HD TV system + lights

Armoured cable + spare + axle stands

Stereo TV system

Background and Objectives

1517A will survey the waters around Lochinver and North Minch/Skye to collect stereo video imagery of *Funiculina quadrangularis* within survey boxes with different VMS characteristics. In addition, 1517A will also aim to survey around the Small Isles Marine Protected Area (MPA). The primary objective of this survey is to survey monitoring sites previously visited in 2012-2016 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 that the data will contribute to a potential impact (BACI) study once protective measures within the MPA are introduced. Specific objectives are as follows:

1. To survey known *Funiculina quadrangularis* habitat using the stereo camera system within survey boxes with different VMS characteristics.
2. To conduct further assessments of *Funiculina quadrangularis* abundance within the Small Isles MPA and areas outside.
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 31 August in Fraserburgh. Weather permitting *Alba na Mara* will depart from Fraserburgh on the same day, heading for Lochinver.

Stereo Camera System

Underwater stereo video of *Funiculina quadrangularis* within survey boxes with different VMS characteristics (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.

Benthic Survey

UW HDTV surveys of the seabed at various sites inside and outside the Small Isles MPA (see Figure 2) will be carried out. The survey will utilise the newly built modular camera frame (combined drop and lander frame – 2460 x 1900 x 1940 mm, L x W x 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.

Operations

Survey operations will take place between the hours of 07:00 and 19:00 (all times BST). There will be a change of scientific staff at the half landing in Mallaig 9/10 September. Work will cease on the afternoon or evening of 18 September and the vessel will head for Mallaig. Scientific equipment will remain on vessel ready for 1617A. On Tuesday 19 September scientists will disembark the vessel.

Normal contact will be maintained with the Laboratory.

Submitted:
P Boulcott
14 August 2017

Approved:
I Gibb
29 August 2017

Figure 1: 2017 Stereo Camera Survey: Survey boxes with different VMS characteristics around: (A) Lochinver and (B) North Minch/Skye.

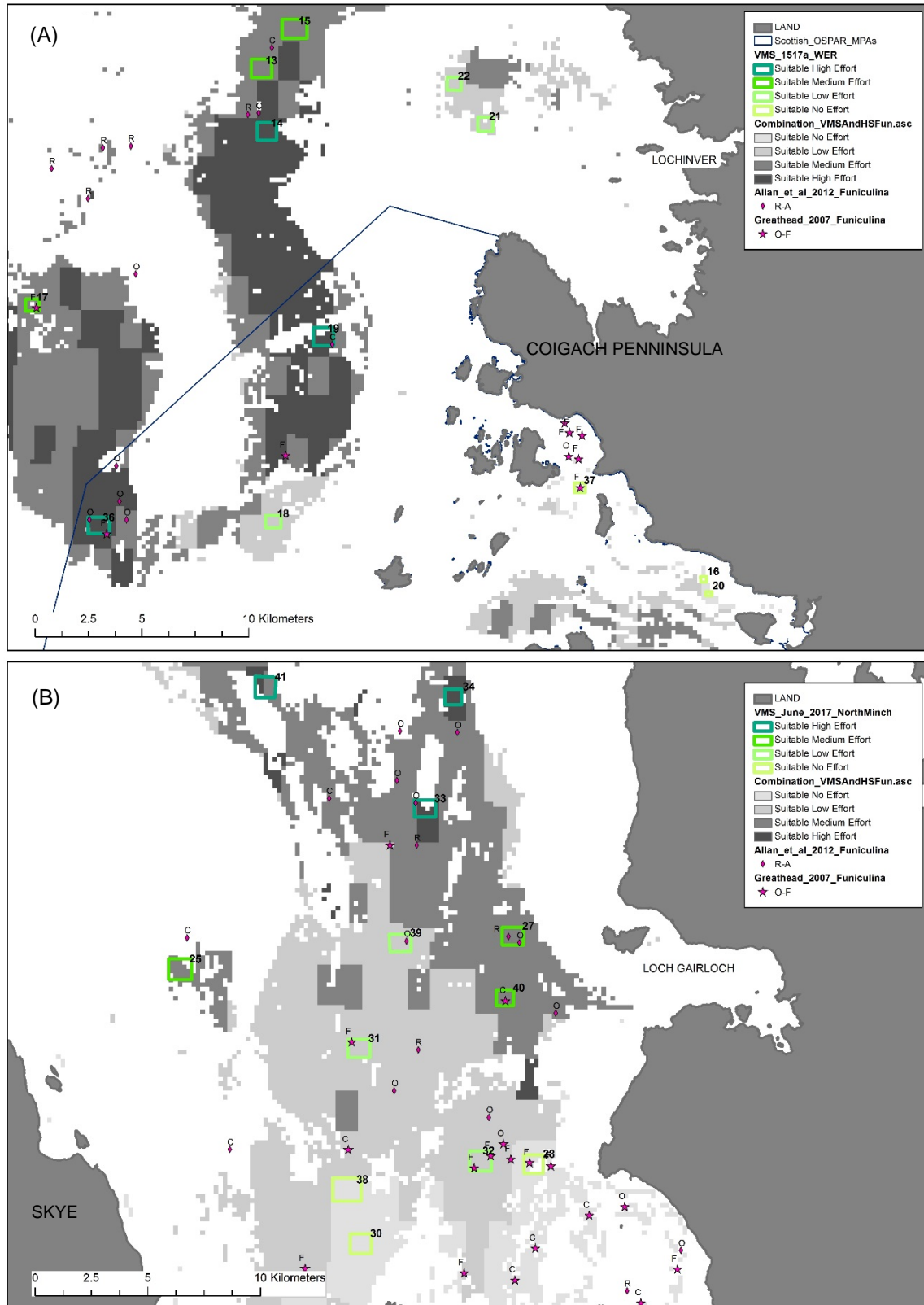


Figure 2: 2017 Survey boxes in and around the Small Isles MPA.

