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

Cruise 0809A

FRV *Alba na Mara*

PROGRAMME

12-31 May 2009

Ports

Loading: 11 May, Ullapool

Unloading: 31 May, Fraserburgh

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 Iain Gibb and the Cruise Summary Report (old ROSCOP form) to Dougal Lichtman, within four weeks of a cruise ending. In the case of the Cruise Summary Report a nil return is required, if appropriate.

Scientific Personnel

P Boulcott	(SIC, <i>Alba na Mara</i>)	12 – 31 May
M Burns	(<i>Alba na Mara</i>)	11 – 31 May
M Harding	(<i>Alba na Mara</i>)	12 – 31 May
SNH scientist	(<i>Alba na Mara</i>)	TBC
T Howell	(SIC, MFV <i>Rambling Rose</i>)	12 – 31 May

Gear

Pyramid frame and underwater video camera kit.

Costs to Project: 20 days MF02Q

Objectives

The trip aims to carry out an impact/BACI study of scallop dredging in the Firth of Lorn. The survey will collect baseline survey data (species information and population abundances) for 3 sites in and around the Firth of Lorn SAC. Each of the 3 survey sites will be split into three sub-sites: an impact sub-site immediately outside the SAC; a control sub-site outside the SAC and adjacent to the impacted site; and a nearby control sub-site within the boundaries of the SAC. All 9 sub-sites will be surveyed by the *Alba na Mara* using the UW camera frame developed during 0409a. Grab and sediment samples from one site of the west-coast of Jura, which is potentially sandier than the 2 other sites, may be collected by MFV

Rambling Rose working in conjunction with the Alba na Mara. MFV Rambling Rose will also be used to experimentally dredge the 3 designated "impact" sub-sites. *Alba na Mara* will return within 4 days of dredging to the impacted sub-sites in order to re-survey the benthic community. The survey component in this trip will be repeated during July on the 1209A cruise in order to examine medium term effects.

Summary

1. to finalise the location of the 3 replicate sites after ground truthing using the UW camera system;
2. to estimate species number and abundance in 9 predetermined areas in and around the Firth of Lorn SAC using UW camera and, where necessary, grab sampling techniques;
3. to scallop dredge at least 3 sub-sites immediately outside the SAC using a commercial charter vessel;
4. to re-survey the 3 impact sub-sites on the same basis as objective 1 within a 4 day survey period;
5. to collect sediment from predetermined areas for the purposes of particle size analysis

General

After collection of LED lights from FRV Scotia (Aberdeen), weather permitting *Alba na Mara* will depart during the morning of 12 May from Ullapool to arrive in the Firth of Lorn 2 days later. The remainder of the scientific time on this cruise will be spent in and around the boundaries of the Forth of Lorn SAC. The two vessels will work together, with *Alba na Mara* surveying and re-surveying the sites dredged by the commercial vessel. Both vessels will remain in constant communication using the ship's systems and by personal mobile phones. If the substrate is suitable, MFV Rambling Rose will also commit to a schedule of grabbing in one of the designated sites. Chemicals and containers for this operation will be housed onshore in a ½ container to be sited at a convenient location. It is hoped that 50 randomly allocated survey points, representing some 250 quadrats in a two level design, will be surveyed each day by the *Alba na Mara*. Preliminary trials during 0409a suggest that such a target is possible. In windier conditions, use of the *Alba na Mara*'s dynamic position system will be made. *Alba na Mara* will arrive at Fraserburgh for the morning of 31 May for turnaround and preparation of next cruise.

Normal contact will be maintained with the Laboratory.

Submitted
P Boulcott
27 April 2009.

Approved:
I Gibb
29 April 2009.

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PROGRAMME AMENDMENT

The programmed SNH scientist will not be joining the above cruise.

I Gibb

7 May 2009.