

P17/6

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

FRV *Alba na Mara*

Cruise 1309A

PROGRAMME

7 – 21 August 2009

Ports

Loading: Fraserburgh, 3 August 2009
Sailing: Fraserburgh, 7 August 2009
Unloading: Fraserburgh, 21 August 2009

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 D Lichtman, within four weeks of a cruise ending. In the case of the Cruise Summary Report a nil return is required, if appropriate

Personnel

A Weetman SIC
C Shand
A Tait

Project: 15 Days RV0908/10669

Gear

50 mm prawn trawl BT 149B.
Day grab, table and sieves
Towed TV sledge, 600m umbilical towing cable and cameras (plus backup)
TV drop frame
1.7m Light Beam trawl

Objectives

- To obtain estimates of the distribution and abundance of *Nephrops* in the Firth of Forth, Moray Firth and off Arbroath using underwater cameras.
- To use the TV footage to record occurrence of other benthic fauna and evidence of commercial trawling activity.

- To collect trawl caught samples of *Nephrops* for comparison of reproductive condition and morphometrics in each of the different survey areas.
- To collect sediment samples at each station.
- To carry out a series of beam trawls within *Nephrops* grounds in area.

Procedure

Where possible, a random stratified approach will be adopted to investigate *Nephrops* density in different regions of the study areas.

A list of proposed stations for the survey will be made available to the ship's complement prior to the cruise.

1. **TV Observations:** At each station a video camera mounted on a sledge will be towed across the seabed for approximately 10 minutes. *Nephrops* burrows abundance, other benthic fauna and signs of anthropogenic activity will be recorded on to DVD. Distance traveled by the sledge, the sledge depth at and camera height from the seabed will be monitored and recorded. Samples of the sediment will be taken at each station using the sledge mounted mini Van Veen sediment grab. If this system fails at any time, the traditional winch operated Day Grab will be deployed. All sediment samples will be frozen.
2. **Trawling:** Fishing trawls of approximately 30 minutes duration will be made on each sediment type within each survey area. A range of biological data will be collected on *Nephrops* and other shellfish.
3. **Drop Frame:** The drop frame will be used where conditions are not suitable for using the TV sledge, recording similar data as to the TV sledge.
4. **Beam Trawl:** When time and conditions allow, five minute beam trawls will be carried in each sediment type in each area on suitable *Nephrops* grounds. The trawl contents will be sieved and species will be identified and recorded. Where identification is not possible, the sample will be frozen for examination at the Marine Laboratory.

General

TV work will normally take place during daylight hours. There will be a requirement for some trawling to take place in the evening. On days where trawling will take place, work patterns will be arranged so not to exceed WTD recommendations. It is proposed that work will commence in the Firth of Forth.

Submitted:
A Weetman
3 July 2009

Approved:
I Gibb
7 July 2009.