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Not to be cited without prior reference to the FRS Marine Laboratory, Aberdeen

FRV *Clupea*

Cruise 1005C

## **PROGRAMME**

15-29 July 2005

### **Ports**

**Loading:** Fraserburgh

**Sailing:** Fraserburgh

**Unloading:** Fraserburgh

**Half Landing:** 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 FRS' Working Time Policy (which is published on the Intranet). 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 John Morrison 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.**

### **Personnel**

\*A Weetman (In Charge)

C Shand

B Ward

### **Gear**

50 mm prawn trawl BT 149B

Day grab and table

Towed TV sledge, umbilical towing cable and cameras (plus backup)

TV drop frame

### **Objectives**

- To obtain estimates of distribution and abundance of *Nephrops* in the Firth of Forth and Moray Firth using underwater cameras.
- To collect sediment samples at each station.
- To use trawl caught samples of *Nephrops* to examine biological features at different sites throughout the survey areas.
- The TV survey will also be used to collect data on other benthic fauna.

**Estimated Project Time:** 15 days RV0506

## **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 survey will be made available prior to the cruise.

1. **TV Observations:** At each station a TV mounted on a sledge will be towed across the seabed for approximately 10 minutes. Observations on *Nephrops*, *Nephrops* burrows and other benthic fauna will be recorded on digital video. Distance travelled and camera height will be monitored. Samples of the sediment will be taken at each station using the Day grab. Sediment samples will be frozen.
2. **Trawling:** At selected sites, trawl hauls of 30 minutes duration will be made. Various 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.

## **General**

TV work will normally take place during daylight hours. There may be a requirement for some trawling to take place in the evening. It is proposed that work will commence in the Firth of Forth. Normal contact will be maintained with the Laboratory.

J A Morrison  
20 June 2005