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

Charter Vessel *Chris Andra* FR 228

Cruise 0608H

## **PROGRAMME**

27 June - 16 July 2005

### **Ports**

**Loading:** Fraserburgh, 26 June

**Departure:** Fraserburgh, 27 June

**Half-Landing:** Ullapool, 7 July (approx)

**Return:** Fraserburgh, 16 July

**Unloading:** Fraserburgh, 16 July

**\*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**

\*E Armstrong (SIC)

C Davis

M Stewart

Melanie Harding

M Campbell

**Project:** RV0807 – 20 days

### **Fishing Gear**

Midwater Trawl PT160 x 3

4.8 m doors

3 m doors

## Objectives

1. To conduct an acoustic survey to estimate the abundance and distribution of herring in the north western North Sea and West of Scotland (ICES area VIa(N) as part of the ICES International North Sea Herring Acoustic Survey.
2. To obtain samples of herring for biological analysis, including age, length, weight, sex, maturity and *Ichthyophonus* infection.

## Procedure

All gear will be transported to Fraserburgh by lorry and furniture van on 26 June and gear will be loaded onto the vessel. Installation and testing will take place on 26 June. Scientific staff will travel by mini-bus to Fraserburgh to join the vessel on 26 June and the vessel will depart in the morning of Friday 27 June.

The survey will be carried out within an area bounded by 55°–60°N and 03°–10°W. Echointegration will be carried out at 38, 120 and 200 kHz on a 24 hour-a-day basis. Data from the times between 2300 and 0300 will not be used for stock assessment. Fish shoals seen on the echosounder will be identified using a pelagic trawl. Trawling operations will be carried out between two and four times per day, and not between 2300 and 0300. Samples of all species caught will be measured for length and weight to establish a length weight relationship. Otoliths will be collected from a sub-sample of the herring to determine age. Maturity state will also be recorded. Presence of *Ichthyophonus* infection will be recorded.

The survey will involve following a pre-set survey pattern, at normal steaming speed (approximately 10 knots). The survey is timed to allow the southern part of the area to be interlaced with the Irish survey, which is due to end in the northern part of their area at the beginning of July. A port call will take place at an approximate half way stage in Ullapool; to provide a rest day in accordance with working time directive for a trip of this length. It is intended to complete the survey in the north-eastern part of the survey area to coincide with the acoustic survey by FRV *Scotia* in the adjacent area (ICES division IVa).

All gear will be unloaded in Fraserburgh on 16 July for return to the laboratory by lorry and furniture van. Staff will return on the same day by minibus. Normal contact will be retained with the Marine Laboratory and the appropriate Fisheries Officers.

## Working Time Directive Implications

### Rest Period Provision

Staff will be divided into an acoustic team (M Stewart, M Harding) and trawl team (C Davis, M Campbell). The trawl team will work from 0800 to 2100 each day as required, with at least three periods of 30 minutes rest within that working time. Any fish caught between the hours 2100 and 0800 will be put on ice for the team to process in the morning. The acoustic team will work a consistent rota of 2.5-hour-on/2.5-hour-off or to some other agreed rota. E Armstrong will work as and when necessary.

*J W Hepburn*  
19 June 2008