

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

Charter Vessel *Krossfjord* BF 70

Survey 0412H

## **PROGRAMME**

2 July - 23 July 2012

### **Ports**

**Loading:** Fraserburgh, 29 June

**Departure:** Fraserburgh, 2 July

**Half-Landing:** Lerwick, 12 July (approx)

**Unloading:** Fraserburgh 23 July (approx)

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**

E Armstrong (SIC)

C Davis

M Stewart (Pt 1)

B Langlands (Pt 2)

**Project:** RV1207 – 22 Days

### **Objectives**

1. To conduct an acoustic survey to enhance the precision of the survey carried out by MRV Scotia to ultimately provide an estimate of the abundance and distribution of herring in the northern North Sea (ICES area VI and 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 29 June and gear will be loaded onto the vessel. Installation and testing will take place on 29 June. Scientific staff will

travel by mini-bus to Fraserburgh to join the vessel on 1 July and the vessel will depart in the morning of Monday 2 July.

MRV Scotia, which until last year has previously only covered area IV, will be including the area Via(N) north of the Butt of Lewis. The survey will be carried out within an area bounded by 58° 30'N to 62°N and 08°W to 2°E. Echointegration will be carried out at 38, 120 and 200 kHz. Data from the times between 2300 and 0300 will not be used for stock assessment. Trawling operations will be carried out when the skipper has identified commercially viable marks. 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. The maturity state and presence of Ichthyophonus infection will also be recorded.

A map of the proposed survey track is given below (Figure 1). The intention is to survey mid way between MRV Scotia transects (dotted line). This will allow an increase in the number of transects sampled in areas of high fish density, as close to being simultaneous with Scotia as possible.

The survey will involve following a pre-set survey pattern, at a steaming speed of approximately 7 to 10 knots depending on the position of Scotia relative to the charter vessel. A port call will take place at an approximate half way stage in Lerwick; to provide a rest day in accordance with the working time directive.

All gear will be unloaded in Fraserburgh on or about 23 July for return to the laboratory by lorry and van. Staff will return on the same day by minibus.

Normal contact will be maintained with the Marine Laboratory.

Submitted:  
E Armstrong  
18 June 2012

Approved:  
I Gibb  
26 June 2012

