

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

Charter Vessel *Sunbeam* FR 487

Survey 1314H

PROGRAMME

29 June - 18 July 2014

Ports

Loading: Fraserburgh, 27 June

Departure: Fraserburgh, 29 June

Half-Landing: Lerwick, 9 July (approx)

Return: Fraserburgh 18 July.

Unloading: Fraserburgh 18 July.

In setting the 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 survey with staff on-board before work is commenced.

In the interest of efficient data management it is now mandatory to return the Survey Report, to I Gibb and the Survey Summary Report (old ROSCOP form) to M Geldart, within four weeks of a cruise ending. In the case of the Survey Summary Report a nil return is required, if appropriate.

Personnel

E Armstrong (SIC)

C Davis

M O'Malley 29 June – 9 July

M Stewart 9 July – 18 July

Project: RV1407 – 20 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 ichthyophonous infection.
3. To obtain frozen samples of sandeel for return to the Lab for analysis.

Procedure

All gear will be transported to Fraserburgh by lorry and furniture van on 27 June and gear will be loaded onto the vessel. Installation and testing will take place on 27 June. Scientific staff will travel by mini-bus to Fraserburgh to join the vessel on the evening of 28 June and the vessel will depart on the early morning of 29 June.

MRV *Scotia*, which 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 midway 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 seven to ten 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 working time directive for a trip of this length.

A small dredge will be deployed, in areas of known sandeel habitat, to acquire and freeze samples for return to the laboratory for analysis.

All gear will be unloaded in Fraserburgh on or about 18 July for return to the laboratory by lorry and furniture van. Staff will return on the same day by minibus.

Normal contact will be maintained with the Marine Laboratory and the appropriate Fisheries Officers.

Submitted:
E Armstrong
19 June 2014

Approved:
I Gibb
19 June 2014

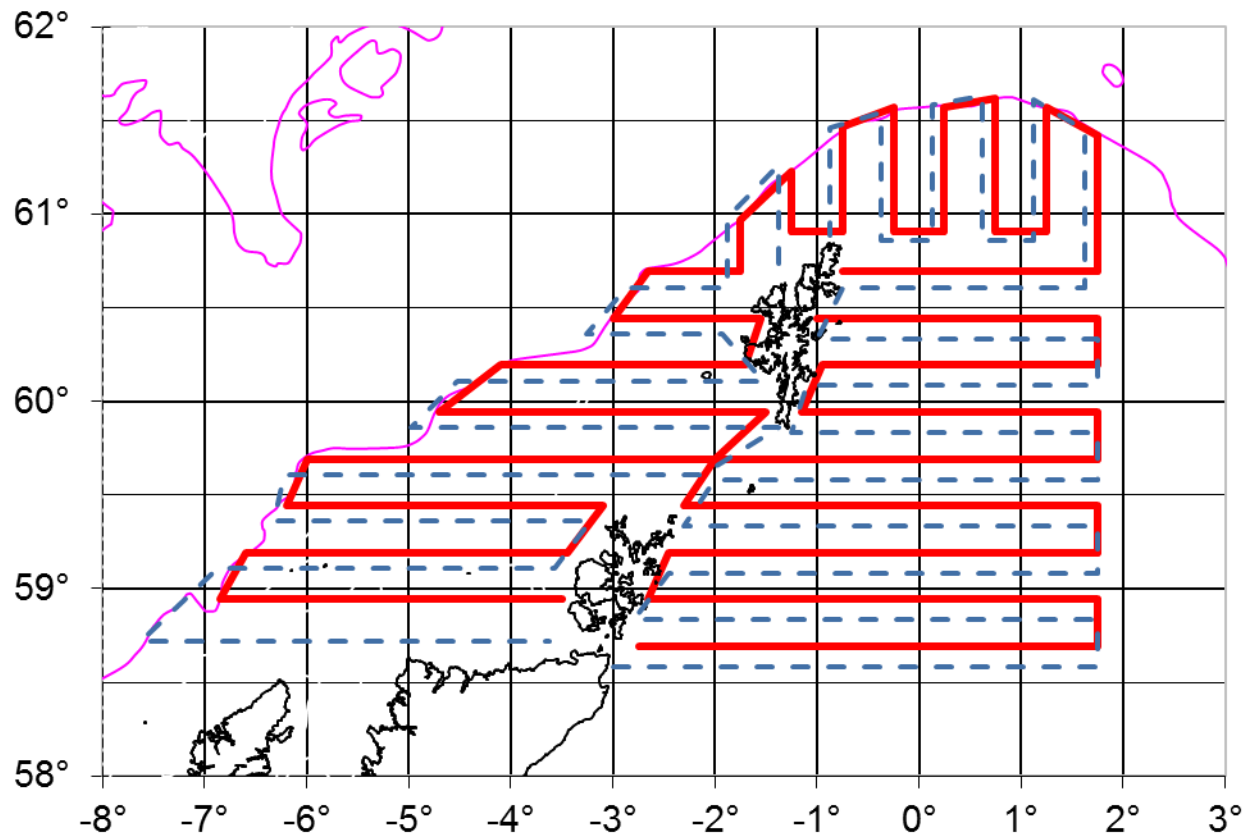


Figure 1: Proposed track of MRV *Scotia* (solid line) and MFV *Sunbeam* (dotted line) on the North Sea Herring Acoustic Survey 2014.