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### **MFV** Altaire

Survey 0116H

## PROGRAMME

23 February – 7 March 2016

### Ports

Loading: Ullapool, 22 February 2016 Unloading: Ullapool, 7 March 2016

In setting the survey 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 survey ending. In the case of the Survey Summary Report a nil return is required, if appropriate.

# Personnel

F Burns SIC L Ritchie H Holah M Inglis G McAllister D Gallagher (Visitor – MI)

Out-turn days per project: 14, RV1604.

Fishing/Sampling Gear: Gulf VII plankton sampler

# Objectives

- 1. To carry out mackerel egg survey (ICES Triennial Survey), on the western shelf and slope in the area from 52° N to 59° N (see Figure 1).
- 2. To collect fish samples, by trawling, for atresia and fecundity analysis back at the laboratory.

#### Procedures

The vessel will be loaded on the afternoon of 22 February in Ullapool and will proceed to the first plankton station west of the Butt of Lewis ready to start sampling on 23 February. Plankton stations will be taken west along the line 58<sup>°</sup> 45N until zero eggs are found and from there the vessel will head due south and then continue sampling back eastwards along the transect at 57<sup>°</sup> 45'N. Subsequent transects south of this will be at 1<sup>°</sup> intervals with stations at 30' E/W intervals. Plankton stations will be taken using the Gulf VII sampler with mounted CTD which will record salinity and temperature during the tow. The plankton tows

will require the vessel to deploy the sampler at 1-2 knots, and then steam at 5 knots. The sampler will then be lowered at a steady rate (10m/min) from the plankton crane to within 5 m of the seabed or 200 m – whichever is shallower. The sampler will then be recovered at the same speed. Once aboard, plankton samples will be washed from the sampler net, fixed in formalin and scored for egg abundance. Trawl samples will be taken at the discretion of the scientist in charge. There should be a maximum of 12 trawls for the whole survey, and will usually be taken at the shelf edge. The precise length of each transect cannot be defined in advance as this survey uses an adaptive design, where sampling on a transect will continue until zero or very small numbers of eggs are found.

Once the transect at 52<sup>°</sup> 45'N has been completed and depending on the time available the survey will proceed back north surveying the transects missed out during the first half. The vessel will return to Ullapool for unloading on 7 March 2016. The majority of the sampling gear as well as the sampling container and wire for deploying the sampler will be retained on board the vessel for use during the next MSS mackerel egg survey (0216H) which will take place in April.

Normal contact will be retained with the laboratory throughout, and with other vessels taking part in the survey.

Submitted: F Burns 10 February 2016

Approved: I Gibb 18 February 2016



**Figure 1:** Map showing international survey coverage. 0116H denoted as SCO1 on the map.