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MRV *Alba na Mara*

Survey 1615A

## **PROGRAMME**

24 October - 7 November 2015

### **Ports**

**Loading:** Mallaig 22 October 2015

**Departure:** Mallaig 24 October 2015

**Return:** Fraserburgh 7 November 2015

**Unloading:** Fraserburgh 7 November 2015

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**

E Armstrong (SIC)

L Ritchie

S O'Connell

J Lawrence Aberdeen University

**Project:** SU02NP – 15 days

### **Objectives**

1. To conduct an acoustic survey designed to survey both the open and enclosed areas of the Clyde to ultimately provide an estimate of the abundance and distribution of herring and sprat
2. To obtain samples of herring and sprat for biological analysis, including age, length, weight, sex, maturity and ichthyophonous infection.
3. All other species caught will be measured for length and weight to establish a length weight relationship.
4. Data will be gathered on cetaceans using a towed passive acoustic array.

## Procedure

Fishing gear will be transported to Mallaig on 22 October and loaded onto the vessel. Scientific staff will travel by car to Mallaig, and join the vessel on 23 October. The vessel will make passage on 24 October to the Clyde to commence the survey on 25 October at the earliest opportunity.

The survey will be carried out within an area bounded by approx. 55°N to 56°N and 04° 40' W to 05° 40' W. Echo-integration will be carried out at 38, 120 and 200 kHz. Data gathered in the hours of darkness will not be used for stock assessment. Trawling operations will be carried out as and when marks are identified. Otoliths will be collected from a sub-sample of the herring and sprat to determine age. The maturity state and presence of *Ichthyophonus* infection will also be recorded.

The track will be similar to that carried out on previous surveys (Figure 1).

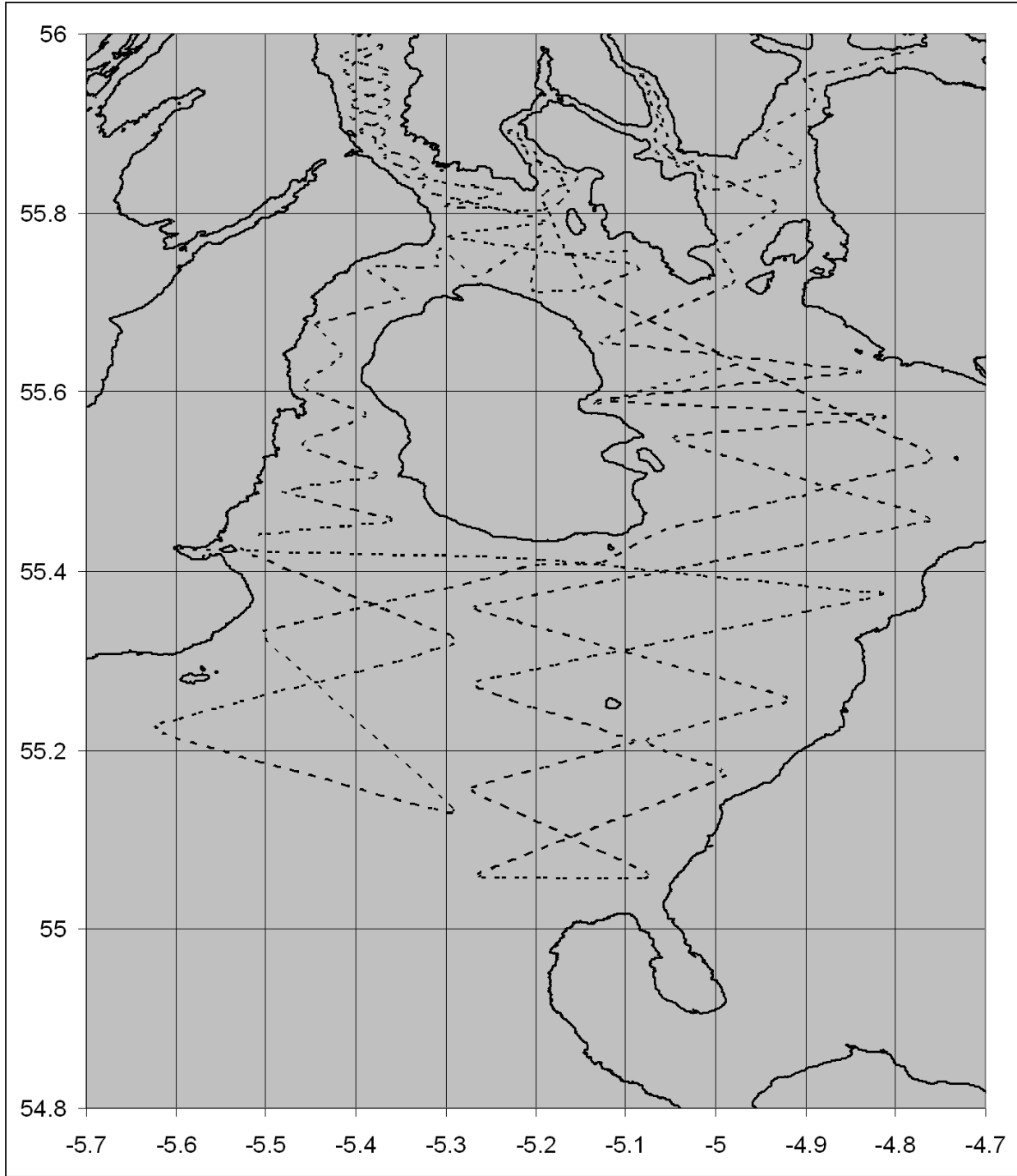
A passive acoustic array will be towed during the survey, to detect the presence of cetaceans throughout the survey area. Thermosalinograph data will be gathered throughout the survey.

The survey will involve following a pre-set survey pattern, at a steaming speed of eight knots. At the end of the survey the vessel will aim to be in Fraserburgh for unloading on the morning of 7 November.

Normal contact will be maintained with the Marine Laboratory.

Submitted:  
E Armstrong  
1 October 2015

Approved:  
I Gibb  
10 October 2015



**Figure 1:** MRV *Alba na Mara*, Clyde Herring Acoustic Survey Track.