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MRV *Scotia*

Survey 1017S

## **PROGRAMME**

31 July to 7 August 2017

**Loading:** Aberdeen, 20 July 2017

**Sailing:** Scrabster, 31 July 2017

**Unloading:** Aberdeen, 07 August 2017

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 cruise 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**

A Tait	(SIC)
P Stainer	
S Sanguiliano	
H Wright	(JNCC observer)
C Rodger	(Observer)
R Neave	(Observer)
TBC	(Aberdeen University)

**Estimated days by project:** 7 days against 20479

## **Gear**

2 x bird observer boxes (plus rubber matting)  
1 x passive acoustic device and moorings

## **Objectives**

1. To deploy a passive acoustic device on Rosemary Bank.
2. To collect data on bird and marine mammal observations along transects at three locations: Rosemary bank, the shelf edge and towards Rockall (see attached map).
3. To obtain sounder data whilst observing.
4. To obtain thermosalinograph data whilst observing.

The survey is part of EXPOMAR which aims to bring together multiple offshore research and monitoring requirements under one streamlined project. EXPOMAR aims to deliver a

combination of new exploration, development work, continued established monitoring and spatial planning of the deep sea and offshore environment.

The vast proportion of Scotland's waters lie beyond the 12 nautical mile territorial limit and are thus classed as 'offshore'. A number of offshore marine protected areas and special areas of conservation have been designated and these now need to be managed in relation to human activities such as fishing and oil and gas exploration and extraction. Monitoring is required to assess these management needs and determine their effectiveness as well as being a statutory requirement for reporting to Scottish Parliament, the European Commission and OSPAR.

It has been identified that there is limited information on ornithology and marine mammal observations and detections from these offshore waters. This survey aims to gain a better understanding of birds and marine mammals West of Scotland, with a focus on the Rosemary Bank Seamount MPA but also including the shelf edge and the area from the shelf edge towards Rockall (see Figure 1) through observations made by trained observers and the deployment of a passive acoustic device that can detect marine mammal vocalisations.

Additional information will be collected on identifiable fish aggregations through the use of the ships sonar and also on sea temperature and salinity through the use of the thermosalinograph.

## **Procedures**

### **Deployment of Passive Acoustic (PAM) Device**

The PAM is to be deployed on the pinnacle of the Rosemary Bank (approximately 300 m depth) at location 9° 13.98 ' N 10° 19.92' W.

The Device setup will consist of a 250 kg mooring weight connected to a 130 m seasteel riser via a five metre chain. The PAM device, along with an acoustic release and floatation buoys, will be secured to the other end of the riser. The acoustic release contains 400 m of 4 mm dynema (with a breaking point of 1.5 tonnes) which will be used to retrieve the device at a later date, as part of a future survey within the area.

Prior to deployment, it is expected that the ship will sail over the general area in order to ensure that water depth does not exceed 330 m depth. This may lead to a slight change in the exact location of deployment.

Once this has been completed, it is planned that the vessel will steam to the East side of the Rosemary Bank transects (although the starting point is optional, depending on weather conditions).

### **Bird and Marine Mammal Observations**

The areas over which observations will take place are shown in Figure 1 and cover three areas: Rosemary bank, the shelf edge and, from the shelf edge, West towards Rockall.

Weather permitting, it is planned that the transects in Figure 1 will be completed in the order of Rosemary Bank, shelf edge and finally work towards Rockall. It is expected that observations will continue towards Rockall until such time as the ship is required to return to Aberdeen.

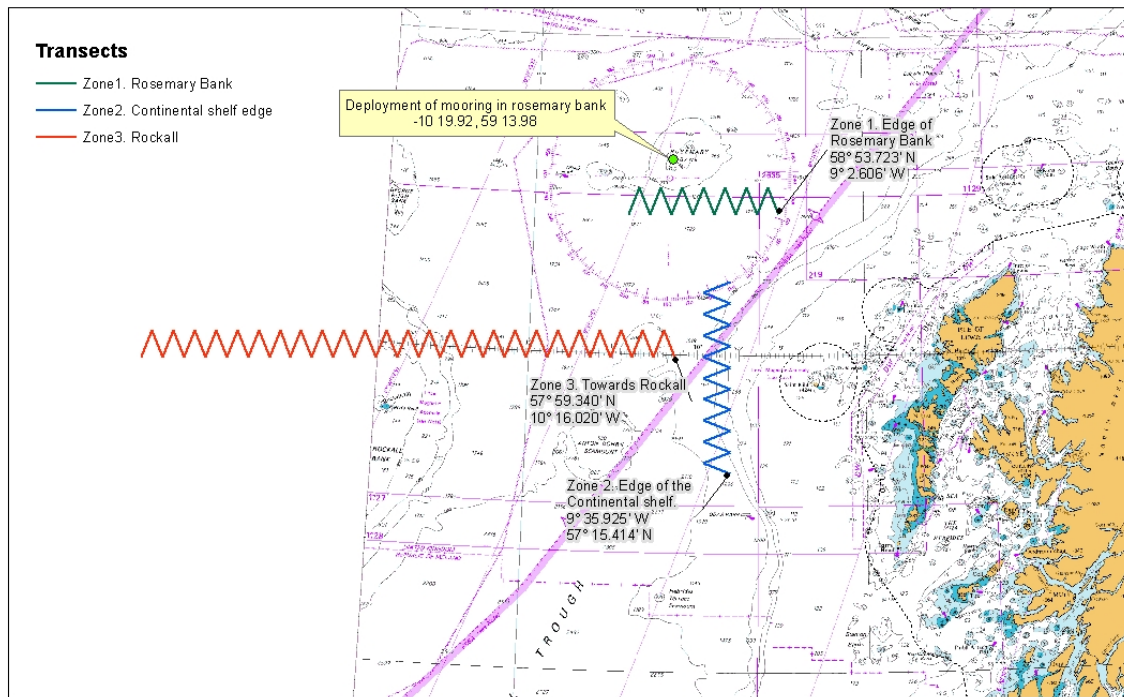
All observations will be made to ESAS and MMO guidelines and only by those observers with the required training and experience. Best use of daylight hours will be made although

observations may not be possible under certain weather conditions. In instances where weather is an issue for any length of time, the transects will be revisited to see whether a change in direction would be beneficial. Any change in transect direction will be done by MS staff, in conjunction with recommendations from the bridge.

During the survey, normal contacts will be maintained with the Laboratory.

Submitted:  
A Tait  
19 July 2017

Approved:  
I Gibb  
24 July 2017



**Figure 1:** Map showing approximate location for mooring deployment and transects for each zone.