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**MRV** Scotia

Survey 0215S

#### PROGRAMME

23 January – 13 February 2015

#### Ports

Loading: Aberdeen, 20 January 2015 Sailing: Aberdeen 23 January 2015 Half landing: Lerwick or Aberdeen, (flexible) Unloading: Aberdeen, 13 February 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

F. Burns R. Kynoch M. Kinghorn E. Lines L. Ritchie E. Barreto N. Ensor J. Dooley	(Part 1) SIC (Part 2) SIC (Part 1) Deck (Part 2) Deck MIK
R. Catarino	(Part 1)
J. Rasmussen	(Part 1)
J. Mills	(Part 2)
R Coombes	(Part 1) JNCC
C Pollack	(Part 1) JNCC
C Cronin	(Part 2) JNCC
T Sykes	(Part 2) JNCC

Out-turn days: 22 days, RV1401

## **Fishing Gear**

GOV Trawl (BT 137) with ground gear A & B MIK Net (Round Frame with IK depressor) MIKeyM net (attached onto the MIK net on selected stations)

# Objective

- 1. To complete an internationally coordinated demersal trawling survey in the North Sea in ICES area IV.
- 2. To undertake MIK sampling for pre-metamorphosed herring larvae during the hours of darkness within the trawl survey area. For selected stations additional MIKeyM samples will also be collected from the MIK deployments.
- 3. To obtain temperature and salinity data from the surface and seabed at each trawling station using a SEABIRD 19+ CTD.
- 4. Collect additional biological data in connection with the EU Data Collection Framework (DCF).

## Trawling

Hauls of 30 minutes duration will be made using the GOV trawl. Wherever possible, fishing will be carried out during daylight hours as defined below:

	Daylight period – GMT	
	South of 57 30'N	North of 57 30'N
23-31 January	0747 - 1635	0815 - 1545
1-10 February	0729 - 1658	0749 - 1636
11-20 February	0708 - 1720	0723 -1705

For each degree of longitude west, four minutes will be added to the time; for each degree of longitude east, four minutes will be subtracted.

The survey area is outlined in the attached chart but the exact fishing position will be decided in collaboration with the fishing master. The Scanmar system will be used throughout the survey to monitor headline height, wing spread, door spread and distance covered during each haul. A bottom contact sensor (BCS) will be attached to the ground-gear and the data collected will be downloaded after each haul.

Catches will be processed according to standing sampling protocols with additional biological data collected for species as determined.

## MIK Sampling

Pre-metamorphosis herring larvae will be sampled during the hours of darkness with the MIK mid-water trawl (Round frame). Two double oblique tows will be made in every square within the assigned survey area. The vertical profile of the tow will be monitored using the Scanmar system. During this survey the small round frame net (MIKeyM net) will also be deployed on selected MIK stations for the purpose of collecting pelagic fish eggs from the survey area. See figure 2 for locations where the MIKeyM net will be deployed and for proposed locations for Scotia.

## Hydrography

Surface and bottom temperatures, salinities, nitrates, silicates and phosphates will be taken at all trawl stations. The ships thermosalinograph will be run continuously throughout the survey.

## General

Bird and cetacean observations will be undertaken by JNCC staff whilst the vessel is steaming between trawl stations (weather permitting). Information gathered by the participating vessels will be exchanged during the survey.

Normal contacts will be maintained with the Laboratory.

Submitted: *F. Burns* 17 December 2014

Approved: *I. Gibb* 23 December 2014



Figure 2.Request for MIKey M samples: 1st Q IBTS 2015. Scottish sample rectangles denoted by 'S'.



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## PROGRAMME AMENDMENT

E. Barreto will now be replaced by K. Summerbell for Part 2 of the survey.

J. Monhart (Aberdeen University) will now participate on part one of the survey.

l Gibb 21/01/2015