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MRV *Scotia*

Survey 1117S

PROGRAMME

10-30 August 2017

Ports

Loading: Aberdeen, 7 August 2017

Unloading: Aberdeen, 30 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 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 Iain Gibb and the Survey Summary Report (old ROSCOP form) to Matt Geldart, within four weeks of a survey ending. In the case of the Survey Summary Report a nil return is required, if appropriate.

Personnel

R Gillespie-Mules	(SIC – Part 1, Deck – Part 2)
M Kinghorn	(SIC – Part 2, Deck – Part 1)
J Dooley	
G McAllister	
H Holah	
I Busturia-Cerezo	
N Ensor	
K Tulbure	(Visitor – Aberdeen Uni)
E Balestri	(Visitor – SFF)
J Smith	(Visitor – SFF, Part 1)

Estimated Days Per Project: 21 days – RV1711

Fishing Gear: GOV Trawl (BT 137) with Ground Gear A & B

Objectives

1. To complete an internationally coordinated demersal trawling survey in the North Sea in ICES area IV.
2. To obtain temperature and salinity data from the surface and seabed at each trawling station using a SEABIRD 19+CTD
3. To collect additional biological data in connection with the EU Data Collection Framework (DCF).

4. Opportunistic completion of zero hours hauls to assess unquantified time spent by the trawl on the seabed

Procedures

General

Loading of all trawl gear will take place on 7 August with rigging and testing being completed on the same day. Loading of the scientific gear will also take place on the same day. *Scotia* will sail on the morning of Thursday 10 August. Once safety drills have been completed, *Scotia* will proceed to the first station northeast of Peterhead at the Buchan Deep where a shakedown haul will be completed in advance of the first real haul in order to check the net configuration and the SCANMAR units. An operational daily survey plan will be formulated by the SIC subsequent to daily meetings with both the Fishing Master and Captain.

Trawling

There are 81 programmed rectangles to be surveyed and these are presented on the attached chart (Figure 1, Figure 2.) Trawling will be undertaken during the hours of daylight which will vary depending on the vessels latitude at any given time. Following the conclusion of the previous two years tow duration experiment, towing time at each station is restored to 30 minutes as standard. Due to the discussion at IBTSWG 2017 regarding the potential inter-vessel variability in unquantified trawl time, additional information on trawl deployment and retrieval will be recorded to better understand variability and provide an accurate estimation of the total time required for each vessel to successfully complete a 30 minute tow. Further to this and if time permits, *Scotia* will also undertake several zero-hour trawls, defined as starting the retrieval (hauling) process of the trawl at the exact moment that the net has settled and therefore the haul commences, hence it has zero duration. Zero-hour deployments will be completed in sets of three along a single extended and bathymetrically similar trawl track. The intention is, if time allows, to repeat this process on several different tracks covering a range of depths.

The GOV survey trawl will be used solely with the 47m (short) sweeps throughout the survey. Two ground gear types will be used during the survey, the lighter "A" rig being used on all stations south of 57°30' N and the heavier "B" rig being used north of 57°30' N.

The SCANMAR system will be used to monitor the headline height, wing spread and door spread for each haul. Bottom contact data from each haul will also be collected using the NOAA bottom contact sensor which will be mounted in the centre of the ground gear.

In addition to the routine sampling utilising the EDC system, biological data will be collected for target species in line with the EU data regulation. All fish will be processed in accordance with Standing Instructions.

Hydrography

CTD casts will be taken at every trawl station. These provide surface and bottom temperature and salinity information. Reverser bottles affixed to the CTD wire will also be used to collect water samples that will be analysed back at lab to provide information on salinities, nitrates, silicates and phosphates.

In addition, 35 (20 litre) carboys will be filled with sea water, according to the Water Collection SOP (0805 – Section 8.3.1) for the Chemistry department at the lab to use for nutrient analysis.

All staff and equipment will be unloaded on the morning 30 August 2017.

Normal contacts will be maintained with the Laboratory.

Submitted:
R Gillespie-Mules/M Kinghorn
24 July 2017

Approved:
I Gibb
07 August 2017

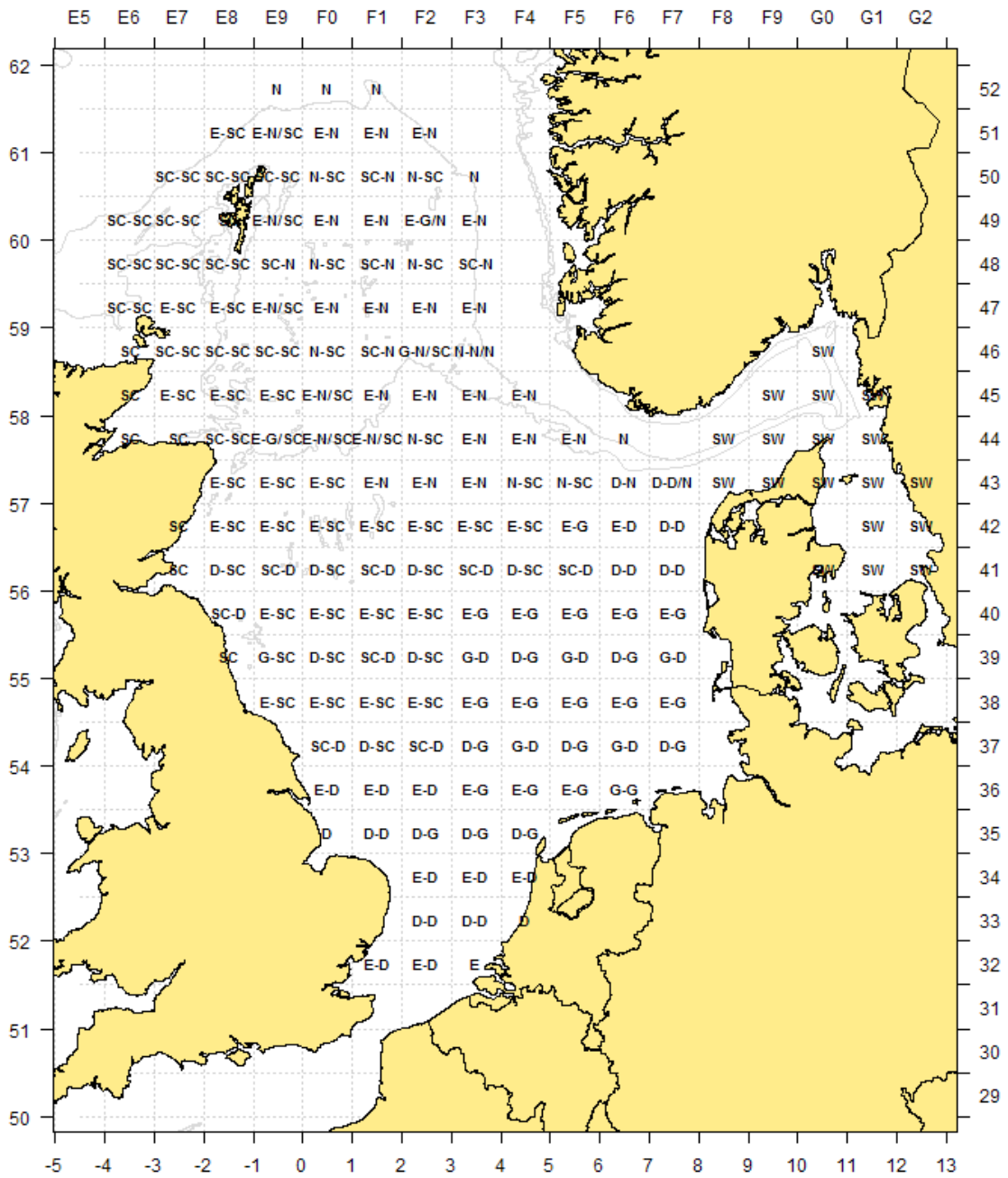


Figure 1: 2017 IBTS Quarter 3 Proposed Survey Grid all participants (D: Denmark, E: England, G: Germany, N: Norway, S: Scotland, SW: Sweden).

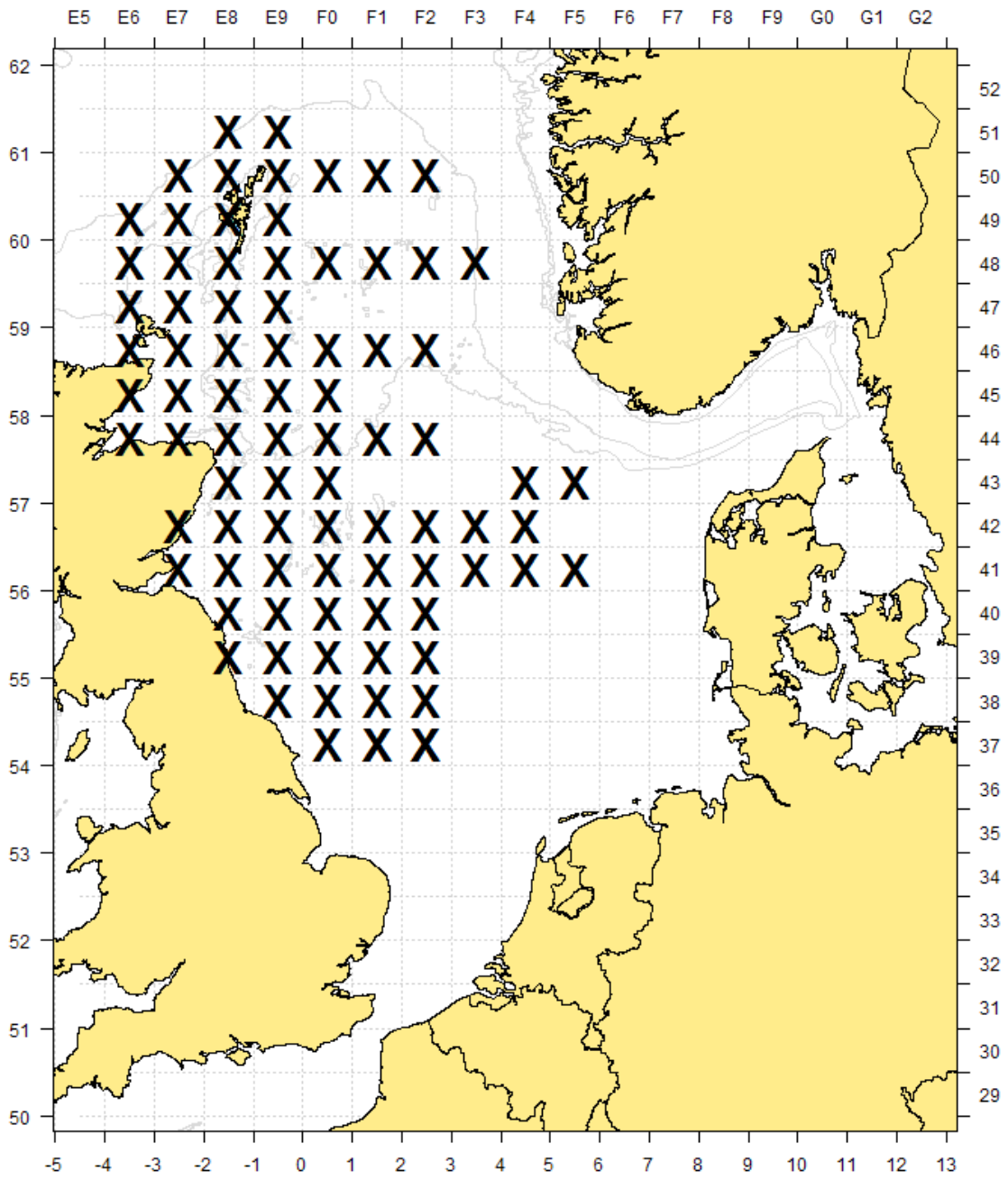


Figure 2: 2017 IBTS Quarter 3 Proposed Survey Grid – Scotland.