Not to be cited without prior reference to Marine Scotland, Marine Laboratory, Aberdeen

MRV Scotia

Survey 1116S

PROGRAMME

5-25 August 2016

Ports

Loading: Aberdeen, 3 August 2016
Half landing: Aberdeen, 16 August 2016 (Provisional)
Unloading: Aberdeen, 25 August 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

R Gillespie-Mules	(SIC - Part 1, Deck - Part 2)
M Kinghorn	(Deck - Part 1, SIC - Part 2)
J Dooley	
H Holah	
I Busturia-Cerezo	
H Cole	(Part 1)
Y MaiHo	(Part 1)
J Mills	(Part 2)
J Rasmussen	(Part 2)
K McQueen	(Visitor – Aberdeen Uni - Part 1)
B Vison	(Visitor – Aberdeen Uni - Part 1)

Estimated days by project: 21 days – RV1614

Fishing Gear

GOV Trawl (BT 137) with ground gear A & B

Objective

1. To complete an internationally coordinated demersal trawling survey in the North Sea in ICES area IV and continue an IBTS tow duration experiment.

2. To obtain temperature and salinity data from the surface and seabed at each trawling station using a SEABIRD 19+ CTD.

3. Collect additional biological data in connection with the EU Data Collection Framework (DCF).

Procedures

General

Loading of all trawl gear take place on 3 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 then sail on the morning of Friday 5 August. Once safety drills have been completed, *Scotia* will proceed to the first station northeast of Peterhead at the Buchan Deeps 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 meetings with both the Fishing master and Captain.

Trawling

There are 82 programmed rectangles to be surveyed and these are presented on the attached chart (Figure 1). Following on from the tow duration experiment during the 2015 Q3 North Sea survey, it has been decided to continue the experiment for 2016. Within the entire international survey area where two trawls are currently undertaken, one will be of 30 minutes duration whilst the other would be of 15 minutes duration. This will allow a dual set of abundance indices to be calculated for the assessed species and allow further analysis to determine if the reduction in bottom time has any significant effect on catchability for certain assessed species. As a parameter of diversity, species richness will also be compared. See attached chart for the configuration of stations and their subsequent tow duration. The reduction of stations as well as the tow duration experiment should allow additional stations (see Figure 2.) to be sampled in the area to the south and west of Shetland. In addition, Scotland is the tertiary country in eight rectangles and will only be required to undertake a tow if the primary and secondary country fail to do so (see Figure 1). Contact will be maintained with the other survey participants prior to and during the survey and a decision will be made regarding these stations and additional stations once the survey is underway. Trawling will be undertaken during the hours of daylight which will vary depending on the vessels latitude at any given time. The GOV survey trawl will be used during the survey with the 47 m (short) sweeps used throughout the survey area. Two groundgear types will be utilised during the survey, the lighter A rig being used on all the survey stations south of 57’30N and the heavier B rig being utilised on all the stations north of 57’30N. The SCANMAR system will be used to monitor the headline height, wing spread and door spread for each haul. Bottom contact data from each trawl 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 the lab and will provide information on salinities, nitrates, silicates and phosphates.

Normal contacts will be maintained with the Laboratory.

Submitted:
R Gillespie-Mules
14 July 2016

Approved:
I Gibb
27 July 2016

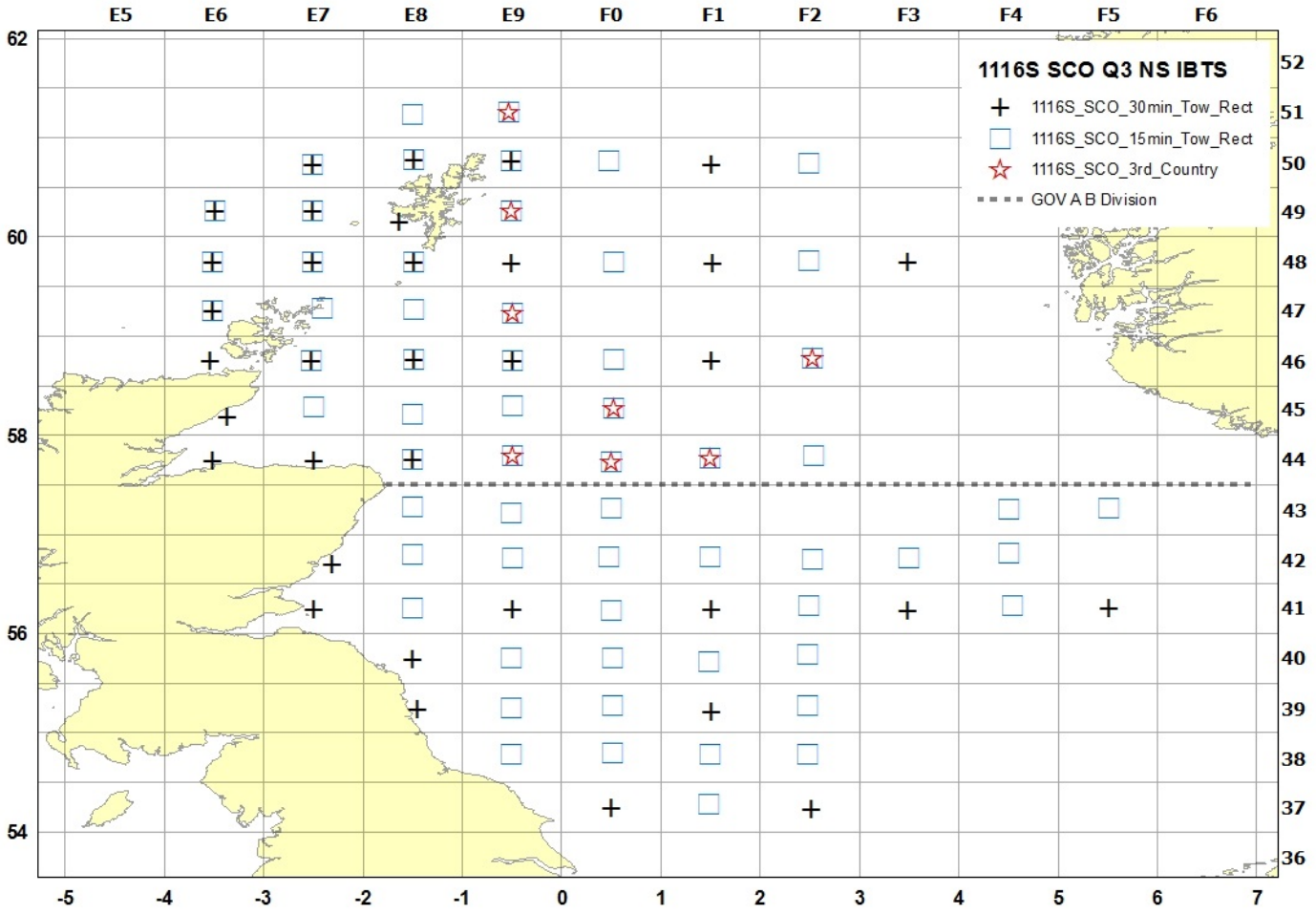

Figure 1: 1116S Area for Scotland.

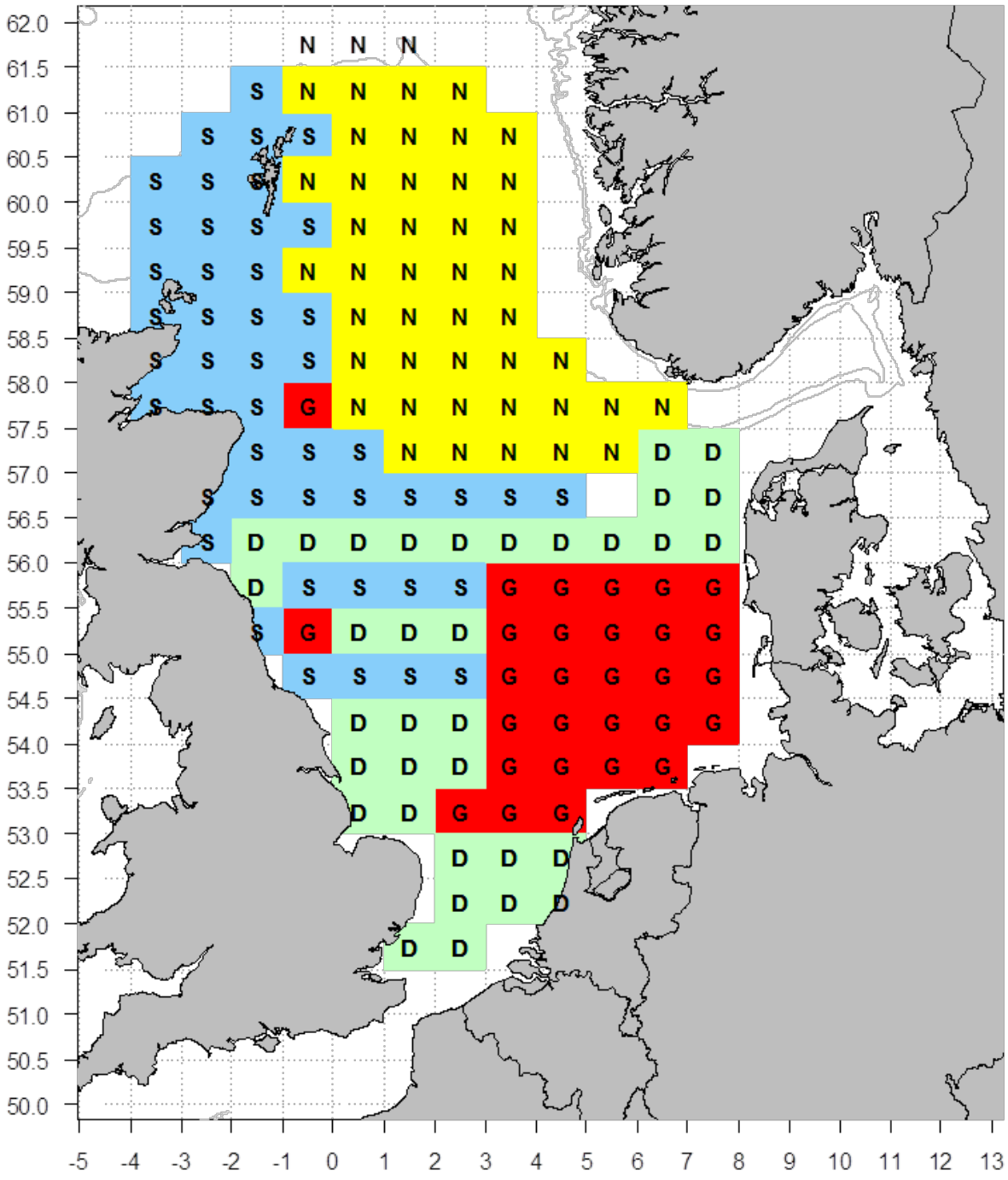

Figure 2: Proposed areas Denmark, Scotland, Germany, and Norway should focus their additional tows. Scotland areas in blue and with the letter S.