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MRV Scotia

Survey 1120S

PROGRAMME

30 July - 19 August 2020

Ports

Loading: Aberdeen, 26 July 2020 Departure: Aberdeen, 30 July 2020 Unloading: Aberdeen, 19 August 2020

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 onboard before work is commenced.

In the interest of efficient data management it is now mandatory to return the Survey Report to lain 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.

Estimated Days Per Project: 21 days - RV2010 / 20584

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 water column 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. To collect and quantify all marine litter encountered on the survey for MSFD.
- 5. To identify and quantify the presence of non-indigenous species observed.
- 6. To collect surface water phytoplankton samples at each trawl station.
- 7. To collect low nutrient sea water from 43F0 for the MSS chemistry department.
- 8. To retrieve acoustic mooring 80nm east of Montrose.

Procedures

General

Loading of all trawl and scientific gear will take place on 26 July. *Scotia* will sail on the morning of 30 July. Once safety drills have been completed, the vessel will proceed to the first station southwest of Aberdeen (Montrose Bank), where a shakedown haul/first trawl station will be completed 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 74 programmed stat-squares to be surveyed, 16 stat-squares to be sampled twice as presented on the attached charts (Figure 1. and 2.). Trawling will be undertaken during the hours of daylight which will vary depending on the vessels latitude at any given time. Standard towing time at each station is 30 minutes. *Scotia* will intend to complete the southern part of the survey first with the intention of completing the programmed stat-squares northwest of Shetland last. This will allow, if time permits, to conduct the double sampling of stat-squares that might not otherwise be possible due to processing time constraints with modified Covid SOPs.

The GOV survey trawl will be used solely with the 47 m (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. This will require a ground gear swap during the survey following the completion of all stations south of 57° 30' N.

The SCANMAR system will be used to monitor the headline height, depth, 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 IBTS manuals and MSS SOPs.

Hydrography

CTD casts will be taken at every trawl station. These provide temperature and salinity profiles of the water column. Water will be collected from the non-toxic supply with each CTD profile to enable CTD calibration.

A number of 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.

Phytoplankton

Phytoplankton samples will be collected during CTD deployment using a hand held net.

Acoustic Mooring

Retrieval of acoustic mooring @ 56° 38.824 N, 000° 05.636' W in 82 metres of water 80 miles east of Montrose. Mooring retrieval will be planned to be undertaken during daylight whilst in transit between trawl stations.

All staff and equipment will be unloaded on the morning of the 19th August 2020.

Normal contacts will be maintained with the Laboratory.



Submitted: R Gillespie-Mules, 21 July 2020 Approved: I Gibb, 21 July 2020

Figure 1: 2020 IBTS Quarter 3 Proposed Survey Grid - All Participants (D: Denmark, E: England, G: Germany, N: Norway, Sc: Scotland, Sw: Sweden).



Figure 2: 2020 IBTS Quarter 3 Proposed Survey Grid - Scotland.