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MRV Scotia

Survey 0719S

PROGRAMME

8-30 May 2019

Ports

Loading: Aberdeen, 05 May 2019

Half Landing: Cork / Galway, 18 May (TBC)

Unloading: Aberdeen, 30 May 2019

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.

Out-turn days: 23 – RV1904, 20529

Fishing/Sampling Gear

PT160 pelagic trawl

Gulf VII plankton sampler

Objectives

1. To complete a mackerel and horse mackerel egg survey (as part of the ICES Triennial Survey), on the western shelf and shelf edge in the area from 51°N to 61° N (see Figure 1).
2. To collect fish samples, by trawling, for atresia and fecundity analysis back at the laboratory.

Procedures

Scotia will depart from Aberdeen on 8 May and, after all vessel drills have been completed, proceed North, heading through the Pentland Firth to the first plankton station at 58°45'N 4°45'W. *Scotia* will then continue sampling on this latitude utilising the adaptive survey methodology (described below). Survey transect spacing will typically be at 30' intervals latitudinally with stations on the transects at 30' E/W intervals. Plankton stations will be taken using the Gulf VII sampler with mounted Seabird 19+ CTD which will record salinity and temperature during the deployments. The plankton tows will require the vessel to deploy at and maintain a steady speed of 4 knots. The sampler will be lowered at a steady rate (6 m/min) from the crane to within 5 m of the seabed or 200 m – whichever is shallower. The sampler will then be recovered at the same speed. Once aboard, plankton samples will be washed into the sampler net before being removed, fixed in formalin and scored for egg

abundance. Trawl samples will be taken at the discretion of the scientist in charge. There should be a maximum of ten trawls for the whole survey, and will usually be taken at or adjacent to the shelf edge. The precise length of each survey transect cannot be defined in advance as this survey uses an adaptive design, where sampling on a transect will continue until zero or very small numbers of newly spawned mackerel eggs are found.

Scotia will proceed to survey in a southerly direction along the west coast of first Scotland and then Ireland, although in previous years the spawning behaviour of mackerel has required *Scotia* to steam over and beyond Rockall Bank in an attempt to fully delineate the mackerel spawning boundary. The exact extent of the surveys western boundary will be decided during the survey. The southern boundary is at 51°30'N, which is almost level with the Fastnet Rock off the SW tip of Ireland. The half landing is expected to be around 18-19 May and although the location will depend on the progress made either Cork or Galway are likely candidates. Following the half landing the survey will proceed back over the area covered in the first half with transects interlaced between those previously undertaken.

The vessel will return to Aberdeen for unloading on 30 May 2019.

Normal contact will be retained with the laboratory throughout, and with other vessels taking part in the survey.

Submitted:
F Burns
25 April 2019

Approved:
I Gibb
26 April 2019

Figure 1: Map showing survey area for 0719S.

