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MRV *Scotia*

Survey 0220S

PROGRAMME

24 January – 13 February 2020

Ports

Loading: Aberdeen, 21 January 2020

Half landing: Kirkwall (date flexible)

Unloading: Aberdeen, 13 February 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 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: 21 days, RV2001/20543

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 and sprat larvae during the hours of darkness within the trawl survey area. 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. To collect samples of surface and near seabed water for nutrient analysis (nitrates, silicates and phosphates).
5. To collect additional biological data in connection with the EU Data Collection Framework (DCF).
6. To collect electronic monitoring footage of selected species of known length on the conveyor belt.

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
24-31 January	0747 - 1635	0815 - 1545
1-10 February	0729 - 1658	0749 - 1636
11-13 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 (see Figure 1) 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 as per the most recent version of the IBTS sampling manual (ICES SISP 10 –IBTS IX) with additional biological data collected for species as determined.

MIK Sampling

Pre-metamorphosed herring larvae will be sampled during the hours of darkness with the MIK mid-water trawl (Round frame). A minimum of two double oblique tows is planned for 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 20 mm round frame net (MIKeyM net) will also be deployed on all MIK stations for the purpose of collecting pelagic fish eggs from the survey area.

Hydrography

Surface and bottom temperatures and salinities will be taken at all trawl stations.

Normal contacts will be maintained with the Laboratory.

Submitted: J Drewery, 08 January 2020

Approved: I Gibb, 08 January 2020

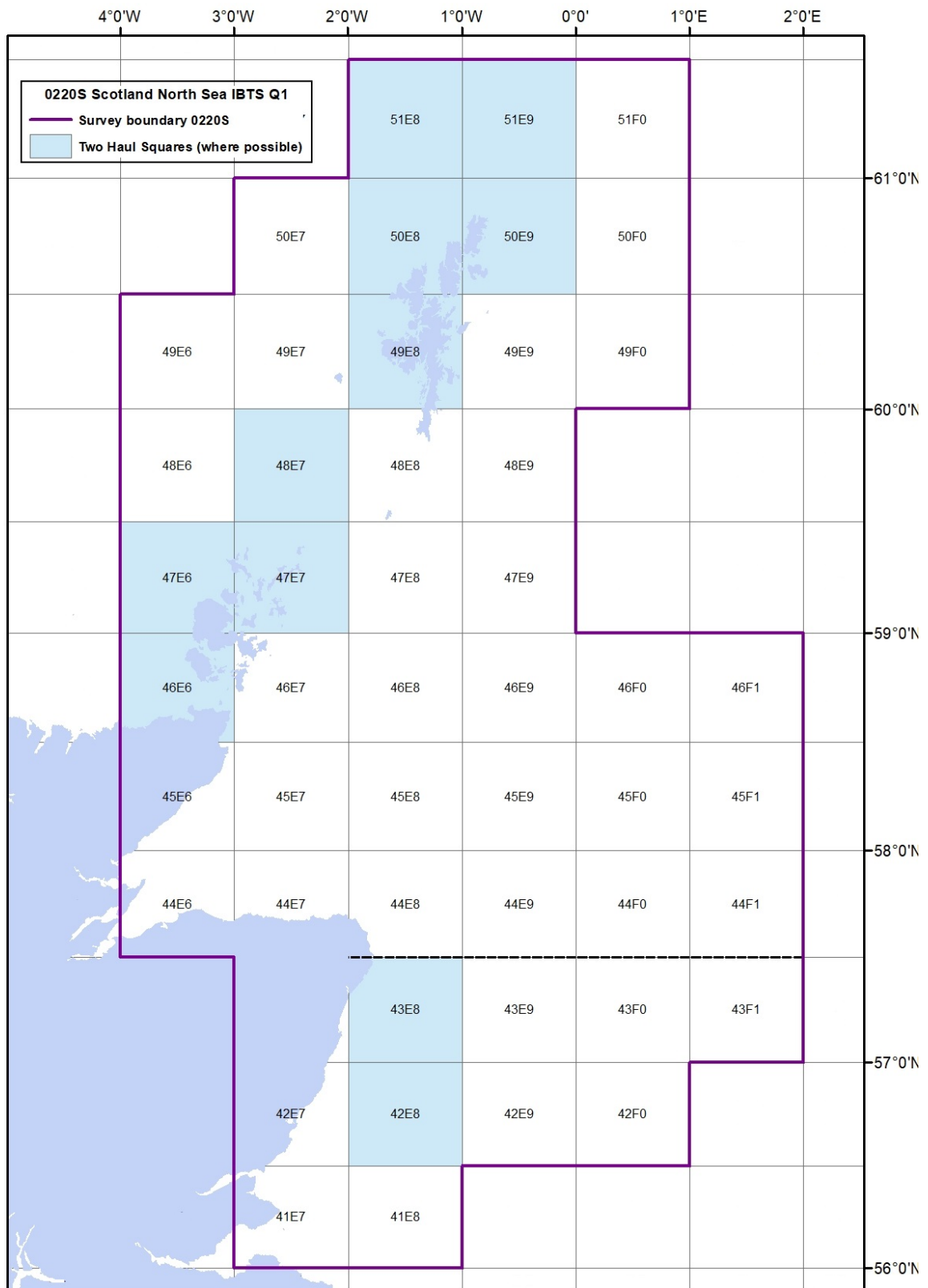


Figure 1: Scottish survey area for 0220S. Dashed line at 57.5 degrees north indicates dividing line between groundgear types (A south of line, B north of line).