Not to be cited without prior reference to the MSS Marine Laboratory, Aberdeen

MRV Scotia

Survey 1615S

PROGRAMME

4-15 November 2015

Loading: Aberdeen, 2 November 2015 Departure: Aberdeen, 4 November 2015 Unloading: Aberdeen, 15 November 2015

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 J Kynoch SIC F Burns N Collie M Watson K Summerbell J Mair F Mackay

Estimated days by project: 12 days - 20154

Fishing Gear

GOV Trawl (BT137) and ground gear B and new light rockhopper (E rig). 2 sets ground gear bags (port, starboard and center).

Objectives

- 1. To compare the catchability of a GOV trawl rigged with a new light rockhopper ground gear (E Rig) against the same net rigged with the bobbin ground gear rig (B Rig) use during IBTS North Sea surveys. Catchability will be assessed using the ground gear 'bagged' technique.
- 2. To obtain under water TV footage of ground gear contact, adjuster chain assembly and mid-bridle orientation.

3. To carry out instrumented gear measurements using self-contained load-cells and Scanmar to assess bridle loads and net drag.

Procedures

Loading of all trawl gear will take place on 2 November. Loading of all other scientific equipment will take place on 2 and 3 November with all equipment being set up and tested by the evening prior to sailing. *Scotia* will sail on 4 November and (after all safety drills and a shakedown trawl shoot), thereafter, commence fishing operations on suitable GOV tows East of Aberdeen, Moray Firth or East of the Orkney Islands. Weather conditions at the time will determine the exact start area. Trawling operations will be conducted from 07:00 hours until 21:00 hours and the survey schedule and operations will be decided by SIC after daily consultation with Fishing Master and Captain.

Fishing

The plan is to start the survey with the new light rockhopper gear (E Rig) and undertake TV observations and instrumentation trials. Once these have been completed the ground gear bags will be attached and catchability data collected. It is anticipated the duration for the observation and instrumentation hauls will be up to two hours (codend untied) and for the 'bagged' catchability tows 15 minutes (codends tied). Once sufficient hauls have been made with the rockhopper ground gear the GOV trawl will be re-rigged with ground gear B and the process repeated.

During the instrumentation hauls the tow procedure will consist of blocks (15 minute periods while towing at constant rpm) for three different speeds. Once the 15 minute blocks have been completed for each speed the vessel will turn and the same procedure repeated in the reciprocal direction. Prior to turning, the gear will be hauled until the ground gear is on deck and once turned then redeployed. The number of speed ranges will be dependent on the prevailing weather and may be reduced.

Scotia will return to Aberdeen during the evening of 14 November for offloading the following morning.

Normal contacts will be maintained with Marine Laboratory.

Submitted: R J Kynoch 2 September 2015

Approved: I Gibb 20 October 2015 Not to be cited without prior reference to Marine Scotland, Marine Laboratory, Aberdeen

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PROGRAMME AMENDMENT

J Mair will be replaced by J Drewery on this survey.

l Gibb 28/10/2015