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MRV *Alba na Mara*

Survey 0316A

PROGRAMME

7-21 March 2016

Ports
Loading: Fraserburgh, 04 March 2016
Sailing: Fraserburgh, 07 March 2016
Unloading: Fraserburgh, 21 March 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

K Summerbell (SIC)
J Mair
A Edridge
M Watson
N Aldridge

Costs to Project: 20303 - 15 days.

Equipment:

BT 201 Prawn net - rigged with separator grid and two 80 mm codends
Trawl doors
Sweeps, bridles, backstrops and pennants
Spare netting and twine
Live capture codends
PSL5000 light unit x 2
4 x 10m side emitting light cables
Battery pods
Video Cameras
Flashback recorders and housing
Pyramid camera frames
TechnoSmart AXY tilt sensor
Scanmar units – wing, door, height and depth
Catch bins
Catch sorting table

Objectives

- Investigate whether light influences fish behaviour in the extension of the trawl.
- Obtain video footage of the separator lighting grid.
- If time permits at the end of the cruise, carry out live capture of haddock for fish behaviour work back at the lab.

Procedure

Equipment will be loaded onto MRV *Alba na Mara* at Fraserburgh on 4 March 2016, where the trawl will be rigged onto the net drum. Scientific staff will join *Alba* on the evening of 6 March, then leave harbour and steam to fishing grounds approximately 9nm east of Aberdeen to commence work on 7 March. A number of short hauls will be carried out to ensure the separator grid in the trawl is rigged correctly through observations with video cameras mounted on the trawl and analysis of a tilt sensor mounted on the grid. After the rigging trials are complete fish behaviour trials will commence. If sufficient valid fish behaviour hauls are completed during the survey, then some time at the end of the trip will be used for live fish capture. *Alba* will return to Fraserburgh on the evening of 20 March to unload equipment and scientific personnel on 21 March.

Fish Behaviour Trials

The BT201 prawn trawl is fitted with a horizontal separator grid in the extension that leads to two separate 80 mm codends. There will be two light fibre lines permanently attached to the grid, one illuminating the upper half and one illuminating the lower half of the grid. This will allow four lighting variables to be trialled: upper light on, lower light on, both lights on and both lights off. The lighting variable will be changed between hauls so that each gets an even distribution of the working period throughout the survey. The PSL5000 light unit and 12V battery pack cannot be wound onto the net drum so will be attached to/detached from each light fibre cable during shooting/hauling as required.

The working hours during the survey will be midday to midnight. This is to allow hauls to be conducted in daylight and dark conditions. Around four or five fishing hauls will be carried out each day, with the aim of achieving at least two light and two dark hauls per day. Hauls will be 45 minutes long initially, with the potential to be adjusted depending on the catch volume. The net will be towed at three knots. Scanmar units will be used to monitor wing spread, door spread, and headline height and depth during each haul.

Large bins will be used on deck to receive and store the catch from the separate codends. The catch will be sorted into key species, weighed and individual total length measurements recorded.

Live Fish Capture

The separator grid and twin codends will be replaced with the live capture codend. The tows will last 20 minutes and the net will be hauled back slowly. The catch will be sorted on-board with healthy haddock in good condition being placed in tanks of aerated seawater. The fish will be handed over to MSS aquarium personnel once in harbour for transporting back to the marine lab.

Marine Litter

Any marine litter brought onboard during trawling operations will be documented before being placed into “KIMO Fishing for Litter” bags. At the end of the survey the bags will be deposited safely on the quayside to be collected for disposal.

Normal contacts will be maintained with the laboratory.

Submitted:
K Summerbell
19 January 2016

Approved:
I Gibb
29 February 2016