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MRV *Alba na Mara*

Survey 1315A

PROGRAMME

1-10 September 2015

Ports
Loading: Fraserburgh, 28 August 2015
Sailing: Fraserburgh, 01 September 2015
Unloading: Fraserburgh, 10 September 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

K Summerbell (SIC)	
N Collie	
N Aldridge	
J Mair	5-10 September
D Watson	Safety Net Technology (Visitor) 1-5 September

Costs to Project: 20208 - 10 days.

Equipment:

- 2 x BT 201 Prawn net - One rigged with separator panel and two 80mm codends One rigged with a single live capture codend
- Grid with separator bar
- 80mm codend with SMP
- Trawl doors
- Sweeps, bridles, backstrops and pennants
- Spare netting and twine
- PSL5000 light unit x 2
- 2 x 20m + 3 x 30m light fibre
- Video Cameras
- Flashback recorders and housing
- Pyramid camera frames
- Scanmar units – wing, door, height and depth
- Catch bins
- Catch sorting table
- Tanks for live fish capture
- Fish traps x 4

- Light emitting devices
- Turbidity meters x 2

Objectives

- Testing a range of light emitting devices to assess whether they withstand the trawling process at a variety of positions on the trawl.

- Live capture of haddock for fish behaviour work back at the lab by trawling with a live fish codend and deployment of fish traps.

- Testing durability of the rigid grid fitted into the extension of the trawl. Assessing the effect that separator bar height and lights attached to the grid has on catch composition.

- Camera footage of a range of light emitting devices, separator panel operations and rigid grid deployments.

Procedure

Alba na Nara will depart Fraserburgh on 1 September and steam to a suitable nearby fishing ground. Trials will be carried out to allow light-emitting battery powered devices to be attached to different parts of the trawl and their ability to withstand the trawling process assessed. At the end of each working day, and for the first four days of the survey the vessel will return to Fraserburgh overnight. On the morning of 5 September D. Watson will disembark the vessel and J Mair will join for the remainder of the survey. Once the testing of the light emitting devices is complete, work will focus on the collection of live haddock by trawling with the BT 201 with the live fish codend. Fish traps will be deployed for retrieval at a later date. The length of deployment and depth at which the traps are set will be based on success rates of initial deployments at different depths and different soak times. The live fish capture will require slow retrieval of the trawl and fish traps to ensure the best quality of fish possible. Trials will also be carried out using the BT 201 where the separator panel has been removed and a rigid grid inserted into the extension. These modifications will take place on-board *Alba na Mara*. Trials will be carried out to identify any necessary modifications required to optimise fishing with this device. Trials will be carried out within the Moray Firth on prawn grounds and if possible anchoring overnight. The vessel will return to Fraserburgh on the evening of 9 September and the scientific personnel and equipment will be unloaded the following day.

Light Emitting Device Trials

A number of light-emitting devices will be tested in a variety of positions on the trawl to see if they can withstand the trawling process. Camera footage of the devices on the net will also be captured. Scanmar units will be used to monitor wing spread, door spread, and headline height during each haul.

Live Fish Capture

Short dedicated tows for the live capture of haddock will be carried out for use in fish behaviour work back at the lab. The tows will last <30 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 seawater. Fish traps will also be deployed for live haddock capture. There will be 4 traps in total and deployment depth and soak times will be dictated by the success rates of initial deployments.

Fishing Trials with Grid

Fishing trials will be carried out with the BT 201 fitted with a rigid grid in the extension. This will require the separator panel to be removed from the gear once sufficient camera footage of the panel has been captured. Cameras will also be attached to get footage of the grid while fishing. Fishing operations will be carried out daily using the BT201 prawn net fitted with the grid and two separate 80 mm codends. Hauls will initially be 1.5 hours long, with the potential for adjustment depending on catch volume. The net will be towed at three knots. Scanmar units will be used to monitor wing spread, door spread, and headline height during each haul. The fishing tows will alternate between the lights being on and off when attached to the grid. The light fibre can be wound onto the net drum but the PSL5000 light unit will be attached/detached during the shooting/hauling process. To ensure staff safety the trawl will be secured prior to attaching/detaching the lights.

Half height bins will be used on deck for receiving and storing the catch from the separate codends. The catch will be sorted into key species, weighed and individual total length measurements recorded.

Turbidity Meters

Turbidity meters in protective housings will be attached to the back strops behind the doors for each haul. The meters will be attached on shooting and removed on hauling each time. The position of the turbidity meters along the back strops will vary throughout the survey.

Normal contacts will be maintained with the laboratory.

Submitted:
E Mackenzie
29 July 2015

Approved:
I Gibb
03 August 2015

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PROGRAMME AMENDMENT

- J Mair will now participate for the whole survey.
- B O'Neill will be onboard for 1-3 September
- D Watson will depart on evening of 4 September
- N Aldridge will join on evening of 4 September.
- Project number changed to 20303.

I Gibb
31/08/2015