

Not to be cited without prior reference to Marine Scotland, Marine Laboratory, Aberdeen

MRV *Alba na Mara*

Survey 0317A

## **PROGRAMME**

8-22 March 2017

### **Ports**

**Loading:** Fraserburgh, 06 March 2017

**Sailing:** Fraserburgh, 08 March 2017

**Unloading:** Fraserburgh, 22 March 2017

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

D Copland

J Clarke

L Barros (Visitor)

**Costs to Project:** 20303 - 15 days.

### **Equipment:**

BT 201 Prawn net - rigged with separator grid and two 80mm codends

Trawl doors

Sweeps, bridles, backstrops and pennants

Spare netting and twine

SafetyNet Technologies light unit

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.

## Procedure

Equipment will be loaded onto MRV *Alba na Mara* at Fraserburgh on 6 March 2017, where the trawl will be rigged onto the net drum. Scientific staff will join *Alba* around 0830 on 8 March and will then leave harbour shortly after and steam, weather permitting, to the Dog Hole fishing grounds approximately 9nm east of Aberdeen. 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. *Alba* will return to Fraserburgh on the evening of 21 March to unload equipment and scientific personnel on the 22 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. The SafetyNet Technologies light unit and 12V battery pack that powers the light will be mounted ahead of the grid. The light unit will be programmed to emit a specific colour (red, green or blue) and flash rates (continuous light or three flashes per second) for each haul. The grid will also be fished without any lights to show the standard reaction to the grid.

The light unit cannot be wound onto the net drum so will be detached from the net during hauling as it comes over the stern rail. The grid cannot be wound onto the net drum either because it can damage the light fibre cables. During hauling the net will be wound onto the drum up to the grid, then the power block used to bring the codends aboard.

The working hours will be approximately 0700 to 1900 hours for the behaviour trials, so that all hauls will be conducted in daylight. Around four fishing hauls will be carried out each day, with the last haul being heaved up at 1700-1730 hours. Hauls will be 90 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.

## **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  
20 February 2017

Approved:  
I Gibb  
24 February 2017