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MRV *Scotia*

Survey 1621S

PROGRAMME

30 October – 12 November 2021

Ports

Loading: Aberdeen, 29 September 2021

Unloading: Aberdeen, 12 November 2021

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 Summary Report a nil return is required, if appropriate.

Estimated Days per Project: 14 days – RV2113/20668

Fishing Gear:

2 x Jackson BT 184 bottom trawl
2 x Groundgear Bosom bag (for centre section only)
1 x pair Morgere ovalfoil trawl doors (1700kg)
1 x Agassiz benthic sampling trawl
Scanmar trawl sensors
Bottom contact sensor
Depth/temperature (DST) logger

Objectives

Primary Objectives:

- To map the composition, distribution and abundance of continental slope species on the western deepwater continental slope from Donegal to the Flannans (55–59°N) and Rosemary Bank (Figure 1).

Secondary Objectives:

- To collect samples of key species for population studies and / or chemical analysis.
- To incorporate a groundgear bagnet on the BT184 at selected stations to further evaluate BT184 catchability of deepwater fish species at different depths and provide data on benthic assemblages.
- To collect temperature at depth during all hauls using a data storage sensor attached to the trawl headline.

- To undertake any other sampling requests such as MSFD marine litter recording.

Procedures

Loading and rigging of the BT184 and ancillary gear will take place on 29 October in Aberdeen. *Scotia* will sail on 30 October and proceed to the area of shelf slope most appropriate to the conditions and the long range forecast.

Trawling on the Hebrides Slope will be at fixed stations on slope Transects 1-8 (Figure 1) at depths of 500 m, 1000 m, 1500 m, 1800 m and 2000 m (Transects 1-6) and 500m, 1000m and 1500 m (Transects 7-8) where possible. Additional trawls may be undertaken at intermediate depths within selected transects where logistics allow. Further trawls will be undertaken on Rosemary Seamount at the stations indicated or a subset of these if time there is limited. Trawl duration will typically be 60 minutes (30 minutes at Rosemary) and the locations of trawling stations will be provided to the vessel at the commencement of the survey. Daily meetings will take place between the fishing master, captain and the SIC to discuss and refine the survey plan as the survey progresses. While it may be on occasion necessary to trawl during the evening or later at night, it is expected that fishing operations will mainly be conducted over a 12 hour period 0600-1800.

On selected tows a ground gear bagnet will be attached to the BT184 for benthic sampling. The Agassiz 2 m benthic trawl will be deployed for short (2-5 minute) hauls in certain areas.

From all trawls the entire catch will be sorted, weighed and length-frequency data collected for all fish species encountered. Invertebrate by-catch will also be recorded. Additional biological sampling will be carried out on pre-selected species.

In the event of unworkable conditions in the areas covered by the core stations, contingency stations (not illustrated) have been identified in the Faroe-Shetland Channel over the depth range of 300-1100 m. These stations will also be utilised if there is still time available after completion of core stations. Positions will be provided closer to the time if either of these are required.

Conditions and logistics permitting, a Slocum glider (unmanned vehicle transmitting near real-time environmental parameters) will rendezvous with and be recovered by MRVScotia during the survey on behalf of NOC Southampton.

Scotia will unload on the morning of 12 November in Aberdeen.

Normal contacts will be maintained with the Laboratory.

Submitted:
J Drewery,
22 October 2021.

Approved:
I Gibb,
28 October 2021.

Figure 1: 1621S – Survey area showing downslope Transects 1-8 on the Hebrides Slope and fixed stations at Rosemary Bank.

