

R1/12

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FRV *Scotia*

Cruise 0408S

REPORT

15-30 April 2008

Personnel

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Objectives

1. To undertake a nationally co-ordinated demersal trawling survey of anglerfish on the Rockall Plateau.
2. To undertake counts of anglerfish and determine coral density using the Seatronics TV chariot.
3. To tag anglerfish with data storage tags and return them to the sea.
4. To obtain temperature and salinity profiles at each trawling station.

Out-turn days per project: 16 days – MF01T

Narrative

On departing from Aberdeen at 1020 on 15 April, *Scotia* proceeded to a location off of Peterhead where familiarisation procedures were carried out with the trawl gear and the Seatronics TV chariot. On completion of this work, the vessel then set course for the survey stations on Rockall Plateau, carrying out further training and familiarisation procedures on route.

Scotia arrived at the fishing locations at 0630 on 17 April and after surveying the potential tow with the ship's echo sounder, commenced trawling operation. Four tows were completed during the day but with strong south easterly winds continuing, the vessel was unable to deploy the underwater camera at night. *Scotia* then proceeded to cover the stations on the north west of the survey area over the next two days and with the weather easing during 19 April, was able to deploy the underwater camera through the night. Five stations were completed at the southern end of Rockall Plateau on 20 April with the underwater camera being deployed within a protected area of coral and on the location of the first trawl for the morning of 21 April. The vessel then worked on the south western edge of the survey area with 6

hauls and 2 camera deployments being successfully achieved (within two coral areas). Due to unsuitable ground conditions, 2 tows were reallocated on the southern area and these were completed during 23 April along with 2 programmed tows. The underwater camera was deployed within the closed coral area during the night and the vessel resumed trawling on the stations off the south east sector of the survey area. With poor weather forecast for a few days ahead, it was decided to move to an area east of Rockall where the camera was deployed along 3 proposed trawling stations in order to ensure there was no conflict with presence of coral. This was completed on the morning of 25 April and Scotia returned to trawling operations in the area west and south of Rockall but was unable to carry out camera work this time due to poor weather conditions. After completing 4 successful tows on 26 April, the opportunity was taken to carry out an additional tow in order to obtain live monkfish for tagging purposes. By the time this work was completed at 2200, the weather had improved sufficiently to allow Scotia to deploy the underwater camera in the same location. A further 4 hauls were completed east of Rockall on 27 April with the camera being deployed in an area within a closed coral box (north of Rockall). After completing the last programmed survey station at 1030 on 28 April, Scotia set course for Aberdeen, docking at 0700 on 30 April 2008.

Results

A total of 45 hauls was achieved, covering the 44 stations on the initial programme. The trawl gear performed very well and although the vessel came 'fast' on several occasions, no damage to the fishing gear was encountered. Scanmar units were used throughout the cruise to monitor headline height, wing spread, door spread, net depth and haul duration. A bottom contact sensor was attached to the trawl to provide information relating to the actual time of contact between net and seabed.

A total of 823 anglerfish were caught with the total live weight being 2288 kilograms. The number caught and weight caught (standardised to an hour) at each trawl location are shown in Figure 1 and Figure 2 respectively. A total of 1693 megrim, weighing 508 kilograms was achieved for the cruise.

The Seatronics TV chariot was deployed at 11 locations during the survey with the sampling sites highlighted in Figure 3. Summary details of site location, hours recorded and initial observations are provided in Table 1.

One haul was successfully completed to provide live anglerfish for tagging purposes. In addition to 5 anglerfish being released with data storage tags attached, a further 3 anglers were tagged with conventional 'T' tags.

At the deep water station (960 metres) in statistical rectangle 42D3, the catch was processed fully in accordance with standing instructions in order to provide length frequency data for all species.

Temperature and salinity data were collected during each trawl by attaching a Microcat SBE37 to the headline. The ship's thermosalinograph was used throughout the cruise to monitor surface temperature and salinity.

All data relating to Scanmar sensors, bottom contact sensors and CTD will be downloaded to FRS' computer on return to the laboratory.

Table 1: Summary of Camera Deployment

Location	Zone	Hours recorded	comments
1. 57 14.49N 14 43.64W	Closed coral area (SW corner of "banana" area)	4.3	Frequent coral, some nice patches. 4 Anglers.
2. 56 21.78N 14 41.63N	Close coral area- South East Rockall	5	Sandy area, no coral observed. 3 possible angler sightings.
3. 56 25.38N 15 14.31W	Potential coral area – South Rockall	1	Survey along fishing tow for next day. Sandy bottom – no coral, no anglers.
4. 56 43.41N 16 20.94W	Fishing area – South West Rockall	3	Deep area prevented survey inside closed area so surveyed nearby fishing area. No coral.
5. 56 05N 15 45N	Closed coral area – South East Rockall	7	Lots of coral sightings, some very large patches. No anglers.
6. 56 15.3N 15 01.4W	Closed coral area – South East Rockall	5	3 rd survey in this box. Some coral. 1 possible angler sighting.
7. 57 10N 13 24W	Potential coral area – North East Rockall	1	Survey along tow route to check for coral. None seen.
8. 57 25N 13 05W	Potential coral area – North East Rockall	1	Survey along tow route to check for coral. None seen.
9. 57 28N 13 16W	Potential coral area – North East Rockall	1	3 rd survey along tow route to check for coral. Areas of destroyed coral – none live.
10. 57 09.2N 13 23.2W	Potential coral area – North East Rockall	1.5	Due to large haul of anglers during day, decided to TV survey tow again for comp. None seen.
11. 58 04.2N 13 35.2W	Closed coral area – North East Rockall	5	2 nd TV survey in "banana" area. Some coral seen. No Anglers.

K A Coull
13 May 2008

Seen in Draft: Captain Richard Jowett, OIC, *Scotia*

Figure 1
0408s - Angler - number per hour

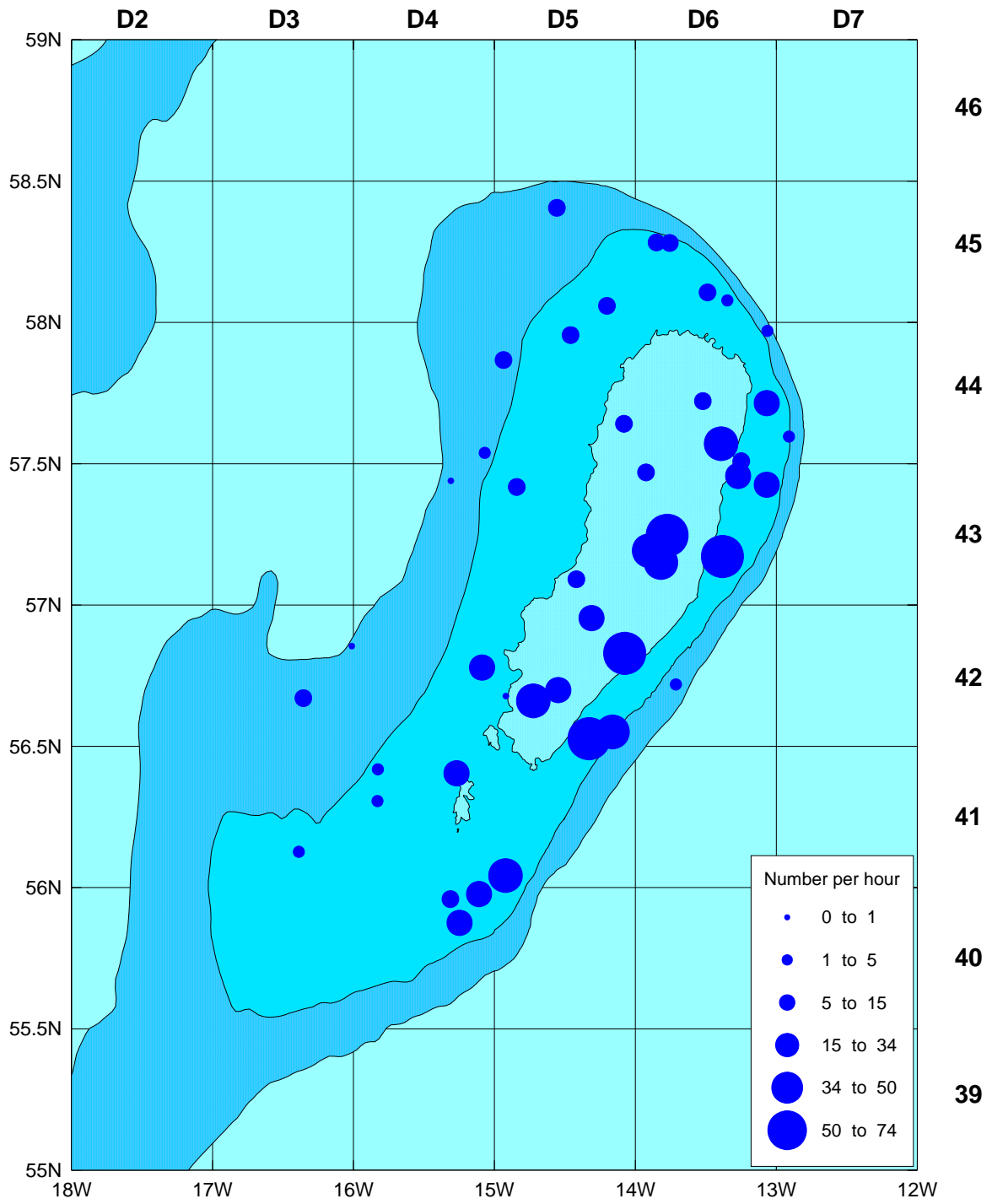


Figure 2
0408s - Angler - catch per hour (kilos)

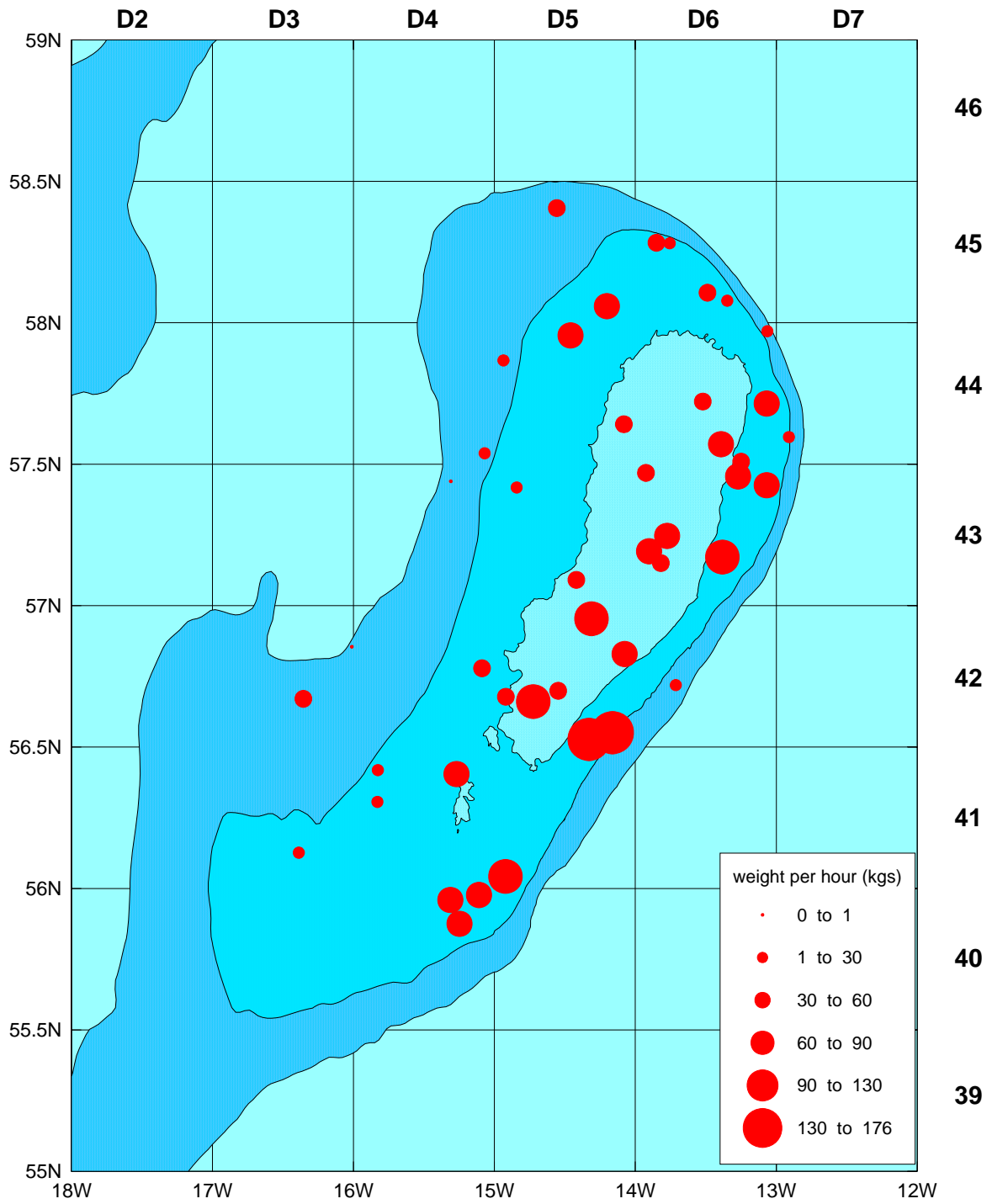
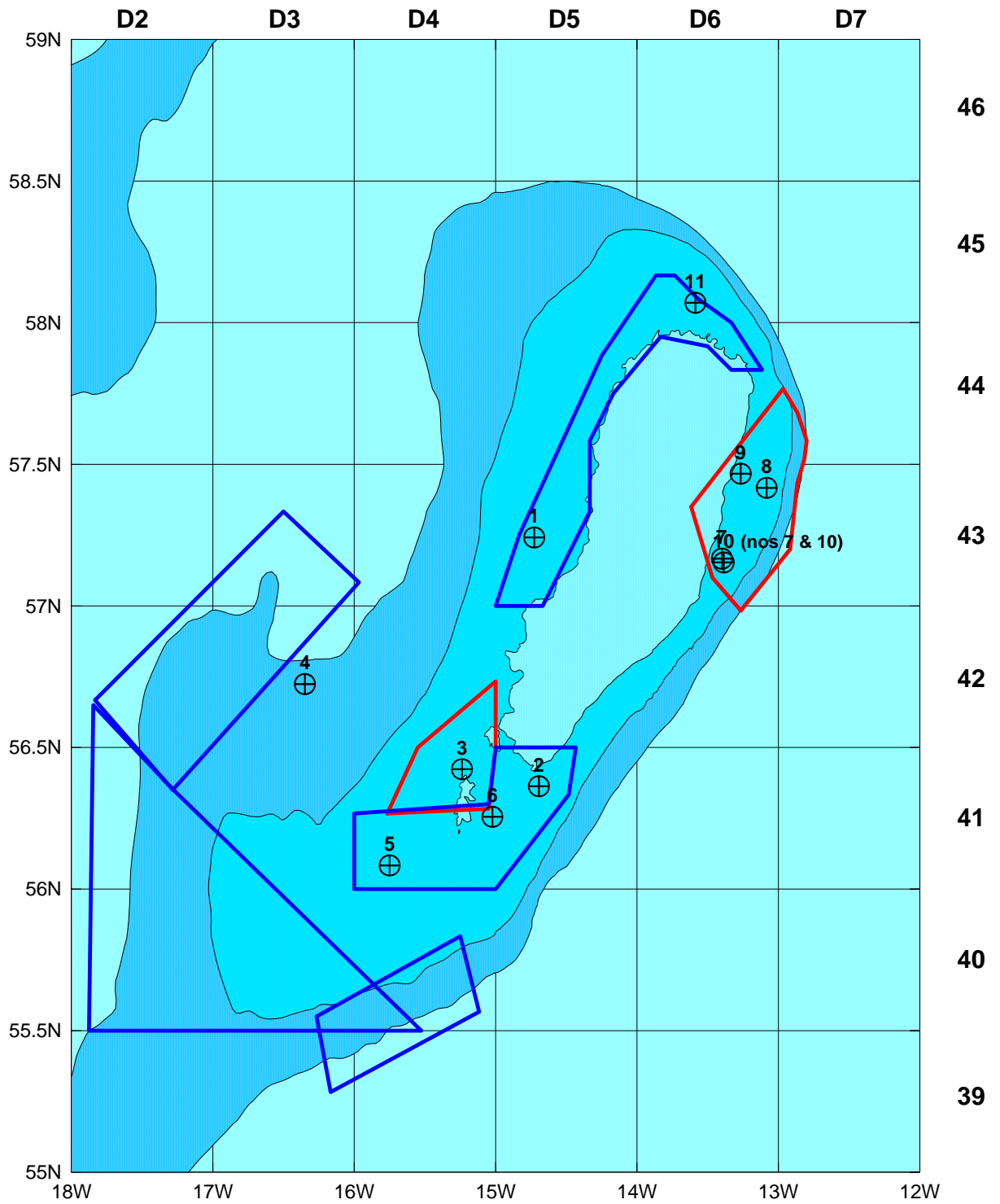


Figure 3
Location of Underwater Camera Studies



Trawl Station Positions - Rockall Monk 2008

