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FRV Scotia

Cruise 1109S

REPORT

9-31 August 2009

Ports

Loading : Aberdeen, 5 August 2009
Half landing : Stavanger, 21 August 2009
Unloading : Aberdeen, 31 August 2009

Personnel

I Penny	(In charge)
K A Coull	
M Mathewson	
K Summerbell	(part 1)
L Ritchie	
L Richardson	
D O'Sullivan	(part 2)
S Helyar	(Part 1 visitor Bangor University)

Fishing Gear

GOV Trawl (BT 137) with ground gear A & B

Objectives

1. To undertake internationally co-ordinated demersal trawling of the North Sea.

2. Obtain temperature and salinity profiles at each trawling station.

3. Obtain (5*25 litres) low nutrient seawater from statistical rectangle 45F1.

Project: RV0909 (23 days)

Narrative

Due to the tidal situation at Aberdeen, sailing was at1200 hrs on 9 August. The vessel completed two hauls, one at the station at Girdleness and a second at the station off Montrose. A further 5 stations were successfully completed off the east coast of Scotland the following day

and with the revised survey area in mind, the decision was taken to work on the south western survey area first. Work continued over the next 3 days in this area with the vessel averaging 5 hauls per day before tracking back North West to cover the remaining stations around the mainland coastline and islands. This allowed for sampling of spawning Herring to take place in areas 4A and 4B before the scheduled half landing. Progress was slowed on 19 and 20 August by fresh SSE winds but did not hinder the vessel landing in Stavanger on 21 August for the scheduled stop for rest and staff changes.

The vessel departed Stavanger at 0800hrs on 22 August and completed 2 trawling stations late on that day. The following day it became apparent that the CTD sampling equipment had developed a fault and an alternative method of sampling for hydrographic data was adopted for the remainder of the trip to meet IBTS requirements. The vessel then proceeded in a general southerly direction to complete the remaining stations in the Norwegian and Danish sectors before returning to the UK sector. *Scotia* then made a detour to put a crewman ashore for compassionate reasons at Peterhead on the morning of 27 August. Over the next 2 days the vessel suffered gear damage in stats rectangles 48F0, 49E6 and 48E6, the vessel made passage for the remaining 2 stations due to time constraints. *Scotia* completed the survey area at 1300 hrs on 30 August and made passage for Aberdeen

Scotia docked Aberdeen at 0900hrs on 31 August, where unloading took place.

Results

The survey was completed satisfactorily with the standard 84 stations being sampled over a total of 85 hauls with 82 being valid. Two of the new stations (49E6 & 48E6) proved once again problematic for the standard survey gear deployed and more investigation is required to identify areas within these squares that can be sampled with the standard survey gear. All catch data was processed at sea and results processed within the sea-going suite of software programmes.

The charts shown below give an indication of the survey indices for juvenile (0 year class) cod, haddock, whiting and Norway pout for the period 1990 – 2009 (mean numbers/10 hours) over the survey area covered.

Fig 1:

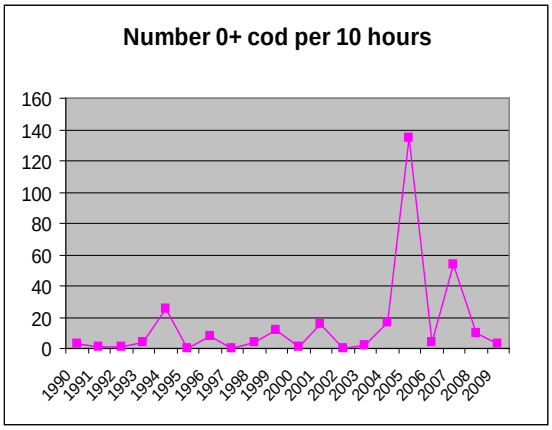


Fig 2:

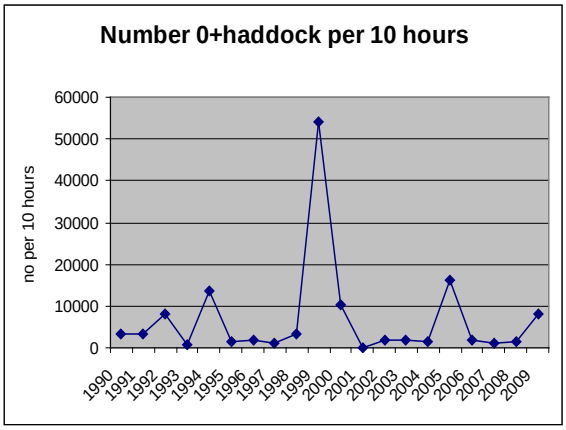


Fig 3:

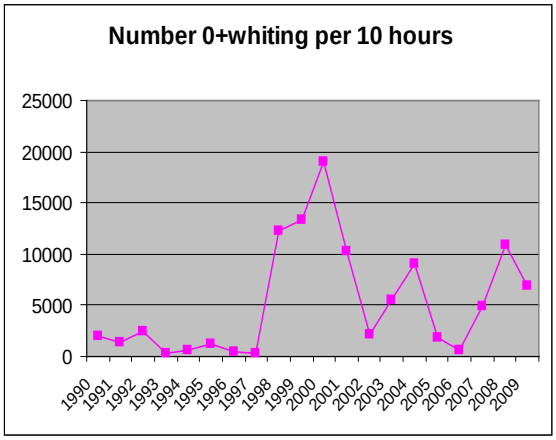
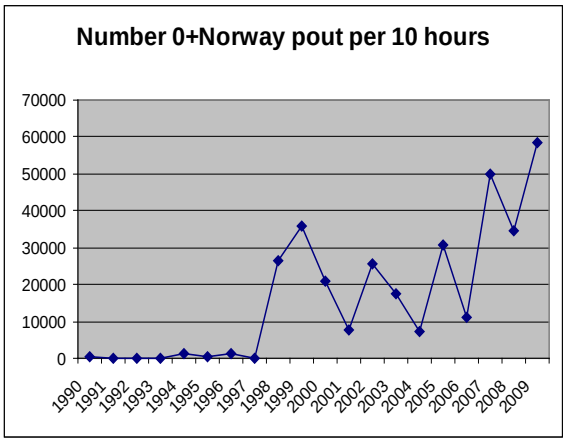


Fig 4:



Numbers of juvenile cod (0+) (Figure 1) were down on last year's numbers with the distribution of juveniles restricted to inshore stations off the Scottish coast. Numbers of juvenile haddock (Figure 2) showed a more considerable increase on the last few years which have been relatively low with the exception of 2005. The numbers of juvenile haddock were higher in the stations off the east and northeast coasts of Scotland, with the overall distribution being similar to last year. The number of juvenile whiting (Figure 3) showed a decrease following the promising increases of 2007 and 2008, with the distribution being wide across the survey area. Numbers of Norway pout (Figure 4) were up considerably on last year's results and are still high in relation to the recent high mean figures. Distribution of this species showed slight variation from last year with the higher numbers being encountered in the northern and western part of the survey area. It should be noted that the survey area has changed from last year with 10 stations being dropped from the south eastern (Danish and German sectors) and an additional 7 stations being included in the vicinity of the Shetland and Orkney Isles.

Length, weight, sex and maturity data were collected from several species, as defined by WGIBTS. Frozen samples of fish were also collected in order to fulfil requests received from several sources, including:

St Andrews University

Bangor University

Aberdeen University.

Danmarks Tekniske Universitet

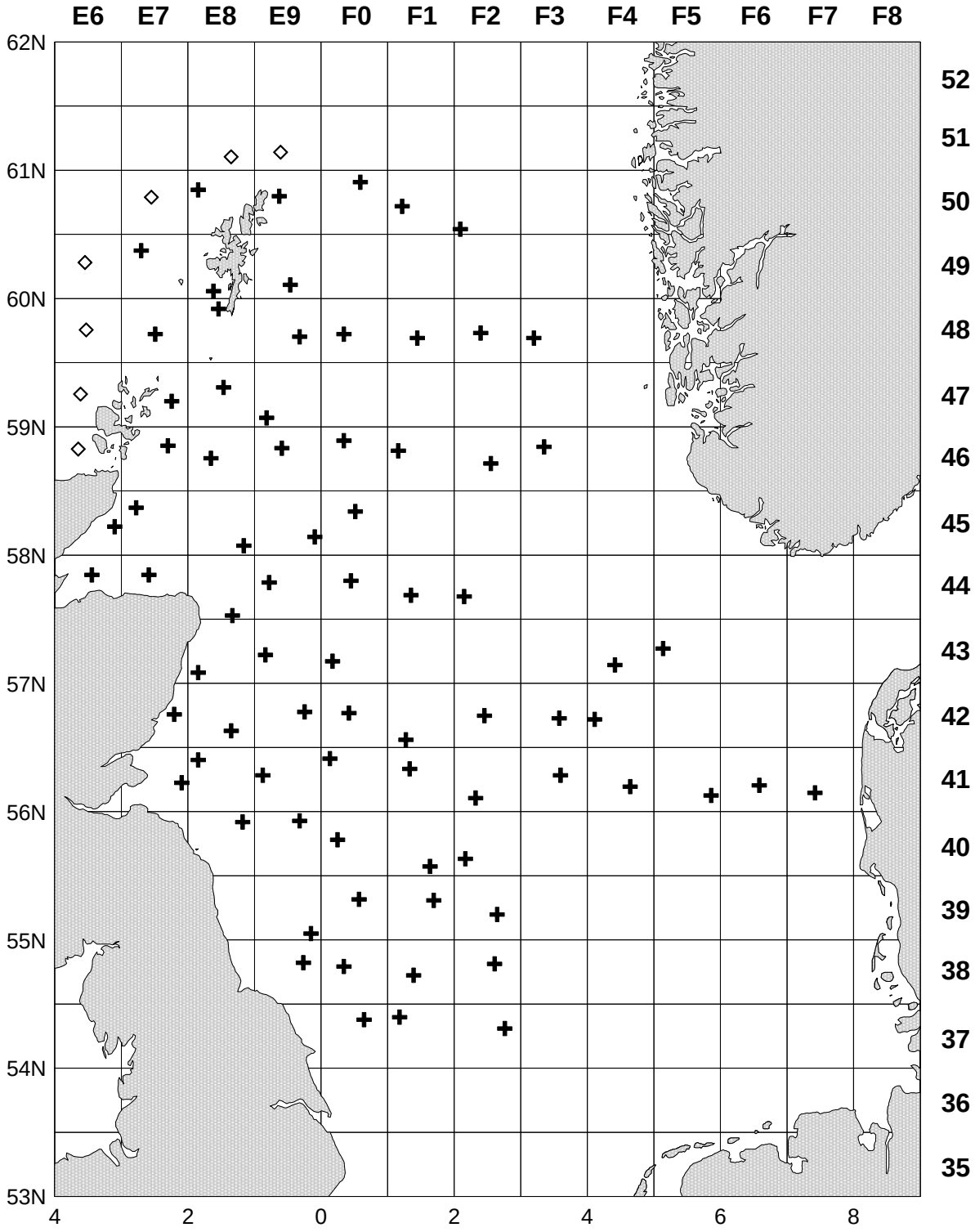
The ship's thermosalinograph failed at the outset of the cruise and prevented continuous sampling throughout the trip. The CTD and reverser bottle were deployed at each station to obtain temperature and salinity profiles, when this was no longer possible due to a CTD failure after the port call, a double dip method was employed to obtain temperature and salinity at surface and sea bed in line with minimum WGIBTS requirements. Samples of low nutrient sea water were collected in the region of statistical rectangle 45F1.

The Scanmar system was used at each station to monitor headline height, wing spread, door spread and distance covered by the fishing gear.

I Penny
22 September 2009

Seen in draft: Captain A Sommerton.

Quarter 3 - Groundfish Survey Stns 2009



Quarter 3 - Groundfish Survey Track 2009