

R1/12

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

FRV *Scotia*

Cruise 1008S

REPORT

5 – 29 August 2008

Personnel

K A Coull	(SIC)
C G Davis	
I Penny	
K Summerbell	
L Ritchie	
E Guiry	(5–16 August)
H Drewery	(16–29 August)
R Eades	(JNCC)
A Batty	(JNCC)

Objectives

1. To undertake an internationally co-ordinated demersal trawling survey of the North Sea.
2. Obtain temperature and salinity profiles at each trawling station.
3. Obtain low nutrient water seawater samples from statistical rectangle 45F1 (or an adjacent rectangle).

Out-turn days per project: 25 days – RV0809

Narrative

Due to the vessel having to undergo repair between voyages, sailing was delayed until 5 August. The vessel sailed from Aberdeen at 1500 and completed one haul at the trawling station off Aberdeen. A further 4 stations were successfully completed off the east coast of Scotland the following day and with the extended weather forecast indicating favourable weather, the decision was taken to work on the northern part of the survey area first. The vessel then proceeded in a northerly direction, covering stations off the northeast coast, Moray Firth, Orkney and southeast Shetland regions. With continuing good weather, the stations west of the Shetland Isles were completed on 12 August. *Scotia* then worked easterly, entering Norwegian waters on the evening of 13 August. A further 3 stations were completed in this area before docking in Stavanger for the mid cruise break on the morning of 15 August. *Scotia* departed from Stavanger at 0900 on 16 August and completed 2 stations in the Norwegian Sector before returning to complete a series of stations around the Fladen area. *Scotia* then completed the southern stations within the Norwegian Sector on 20 August, with the stations in the Danish sector being completed on the morning of 22 August. The southern stations in the Dutch and German territorial waters were completed on the evening of 24 August and *Scotia* then returned to UK waters to complete the allocated stations in the southern part of the survey area. With this work completed on

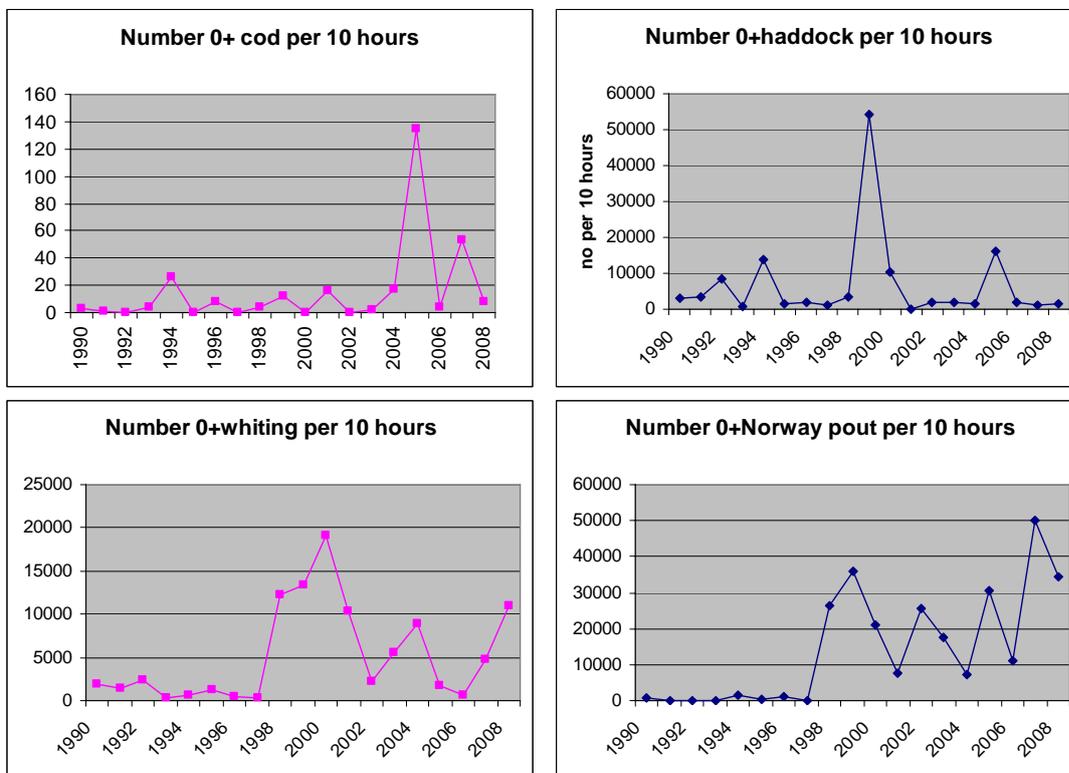
the evening of 27 August, 3 additional stations off the east coast of Scotland were completed in support of the international coverage.

Scotia then returned to Aberdeen at 2330 on 28 August, with unloading taking place during 29 August.

Results

The survey was successfully completed with the standard 87 stations being sampled and an additional two stations in statistical rectangles 40E8 and 41E7 being completed to support the international coverage. All catch data was processed at sea and on returning to Aberdeen, all otoliths were read 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+) cod, haddock, whiting and Norway pout for the period 1990 – 2008.



Numbers of juvenile cod (0+) were down on last year's numbers and more in line with the long term trend. Distribution of juvenile cod (Figure 1) was restricted to inshore stations off the Scottish coast. Numbers of juvenile haddock showed an increase on the last year but with the exception of the 2005 year class, the survey indices for this species in recent years appears to be relatively low. The numbers of juvenile haddock (Figure 2) 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 showed a continuing increase on last years figures, with the distribution (Figure 3) being wide across the survey area. Numbers of Norway pout were slightly down on last years results but still high in relation to the recent average. Distribution of this species (Figure 4) showed slight variation from last year with the higher numbers being encountered in the northern and western part of the survey area.

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:

- Sea Mammal Research Unit;
- Food Standards Agency;
- Aberdeen University.

The ship's thermosalinograph was run continuously throughout the cruise and a CTD and reverser bottle were deployed at each station to obtain temperature and salinity profiles. 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.

K A Coull
7 October 2008

Seen in draft: Captain Eric Casson

Quarter 3 - Groundfish Survey 2008
Distribution of Juvenile (0+) cod (number per hour)

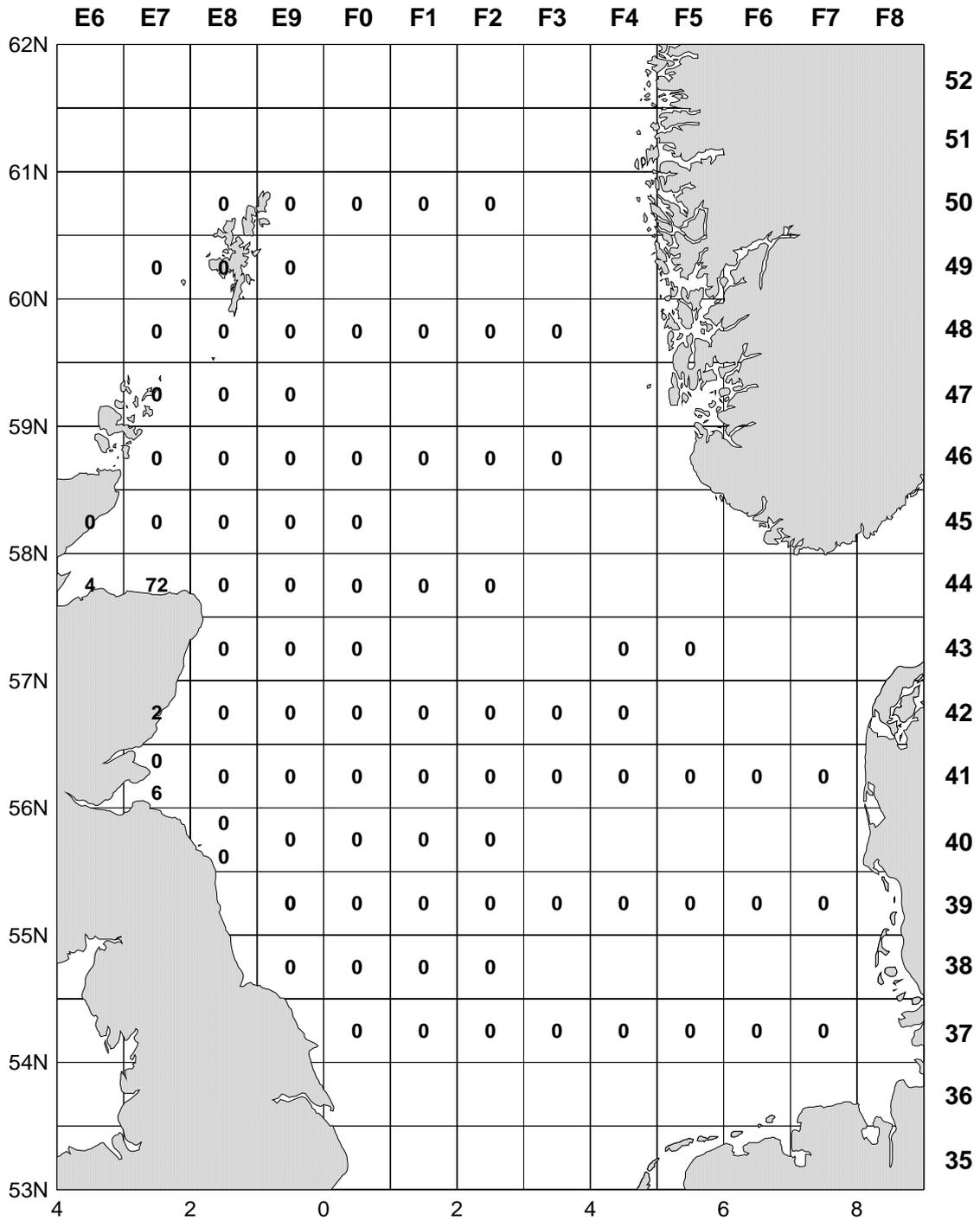


Figure 1

Quarter 3 - Groundfish Survey 2008
Distribution of Juvenile (0+) Haddock (number per hour)

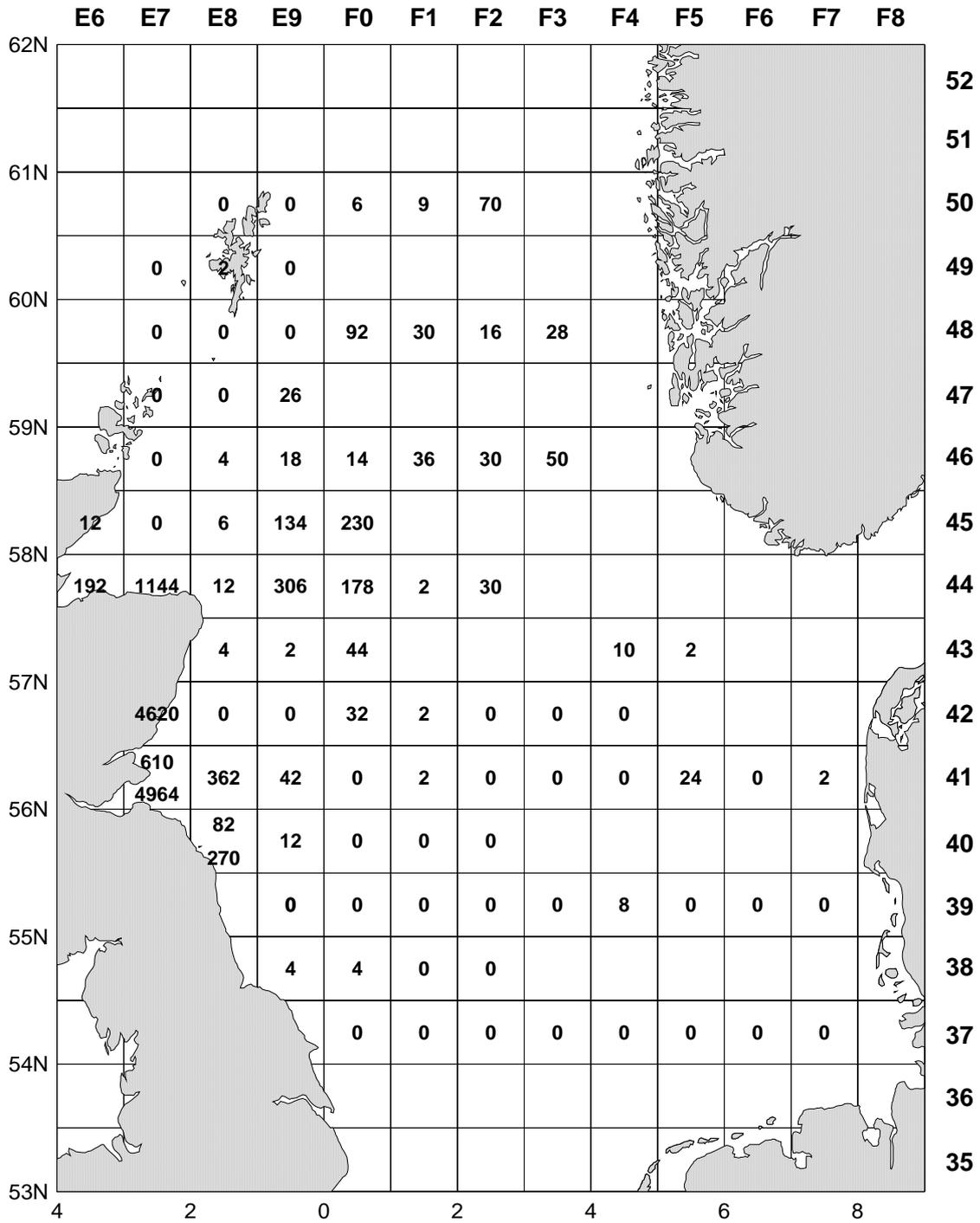


Figure 2

Quarter 3 - Groundfish Survey 2008
Distribution of Juvenile (0+) Whiting (number per hour)

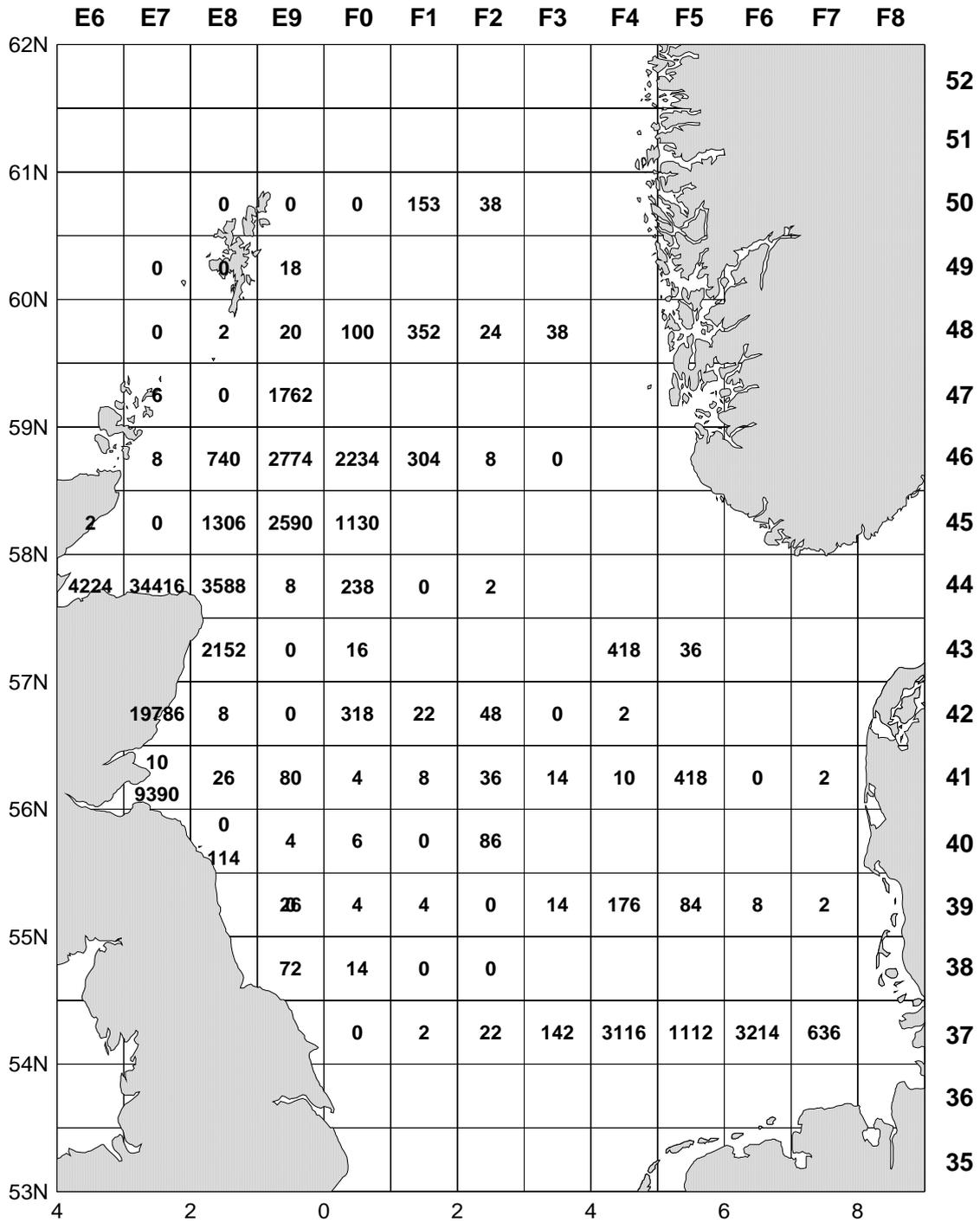


Figure 3

Quarter 3 - Groundfish Survey 2008

Distribution of Juvenile (0+) Norway pout (number per hour)

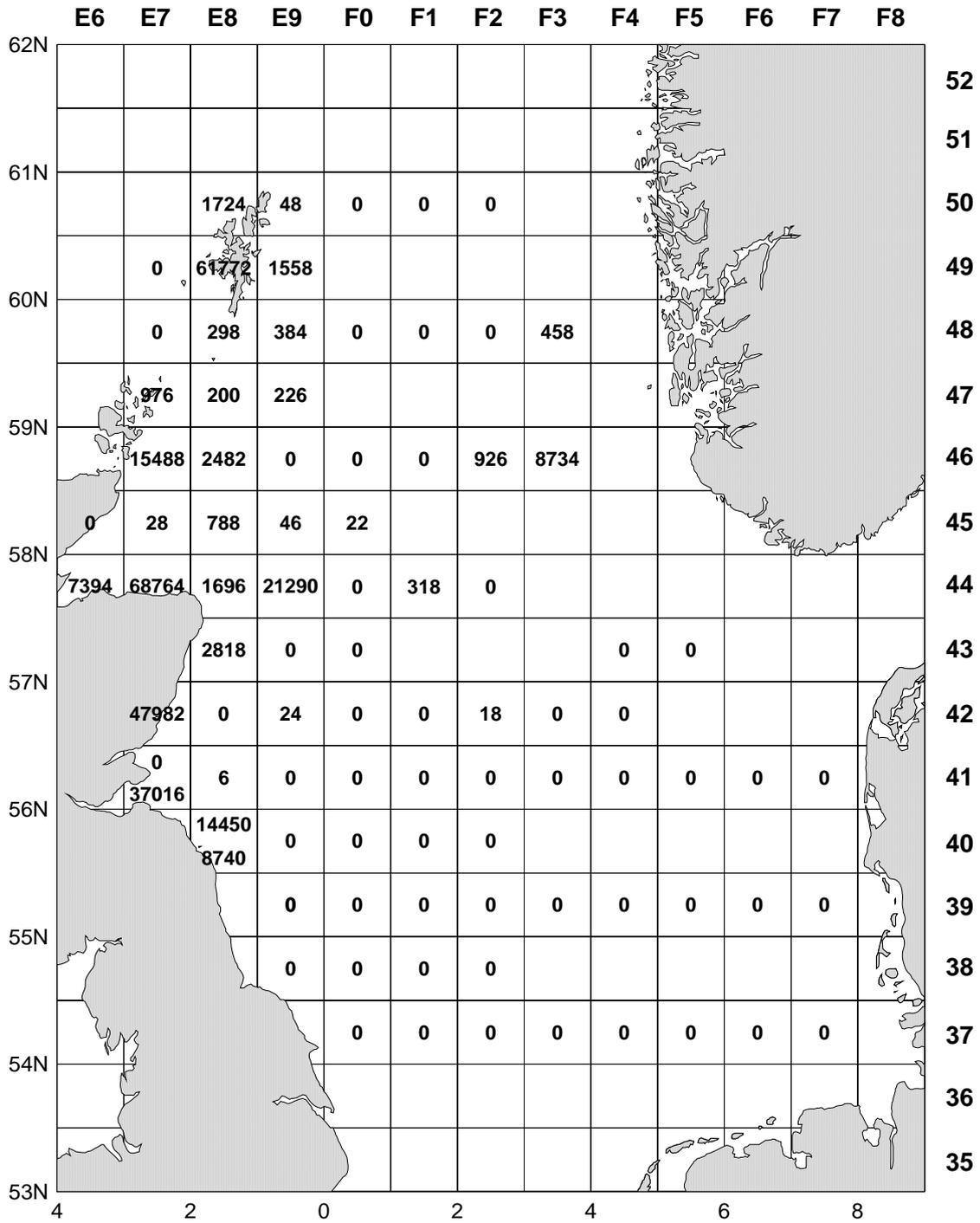


Figure 4

Quarter 3 - Groundfish Survey 2008

