

R1/12

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FRV *SCOTIA*

3SR90

Cruise 3/90

**REPORT**

1-21 March 1990

**Personnel**

K A Coull	HSO
D C Emslie	HSO (13-21 March)
R D Galbraith	HSO
A P Robb	HSO (1-12 March)
C D Hall	HSO
M E Black (Mrs)	HSO
R Hutcheon	SO
M D Ross	SO (1-12 March)
K J Peach	ASO
C G Davis	ASO
C Yau (Miss)	University of Aberdeen

**Objective**

Demersal trawling survey of the grounds off the north and west coasts of Scotland.

**Narrative**

*Scotia* sailed from Aberdeen on the morning of 1 March. Water samples for radio-caesium studies were collected from the sampling positions - off Aberdeen, off Buckie and Pentland Firth - whilst on passage to the survey area.

Trawling commenced the following morning and *Scotia* worked stations off the north coast of Scotland, Butt of Lewis and North Minch until weather prospects improved on 7 March. Work continued on the southern part of the survey area until the evening of 10 March, when with weather conditions deteriorating, *Scotia* headed for the Minch to repeat stations. *Scotia* docked at Stornoway on the morning of 12 March for the half landing and sailed again the following morning.

*Scotia* proceeded to the stations off the north coast of Scotland and worked northwards. Progress was slowed when gear damage was encountered at three successive stations in the Orkney/Shetland region. *Scotia* then worked southwards completing as many of the outer stations as possible before docking at Greenock on 21 March.

## **Results**

From a total of 51 hauls, 44 were treated as valid tows. Seven stations were not sampled due to adverse weather conditions or the possibility of gear damage on grounds where severe damage had been encountered in the past.

The Scanmar system was used throughout the cruise to monitor headline height, wing spread and distance covered during each haul. This system did not function well in poor weather conditions.

All length frequency and haul summary data were punched at sea and stored on floppy disk using a BBC microcomputer.

Catches of 1-group haddock and whiting are given in Figures 1 and 2 respectively. Average numbers of herring caught per hour are given in Figure 3. Although herring were widely distributed throughout the survey area, the only stations where large quantities were encountered were 46E2 (93 baskets), 45E2 (19 baskets) and 44E1 (27 baskets).

Significant catches of 1-group mackerel were obtained from 46E2 (1015/hour), 40E3 (5700/hour) and 45E2 (5100/hour).

All anglers, megrim and squid caught during the survey were frozen and taken back to the laboratory for detailed examination.

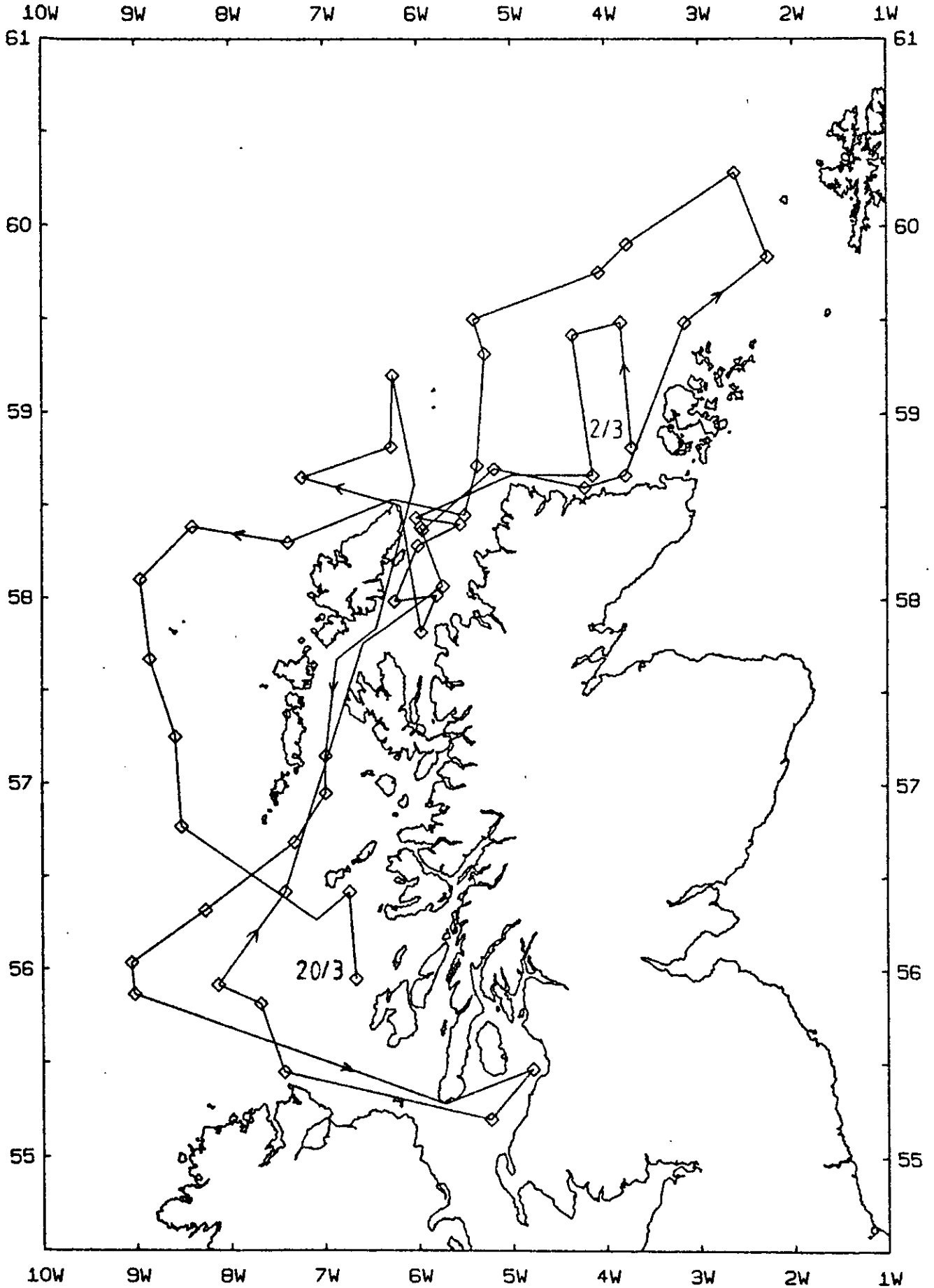
Numbers of otoliths taken were:

Cod	Haddock	Whiting	Saithe	Herring	Sprat	Mackerel	Pout	Sandeels
216	868	648	55	1444	266	507	276	38

**K A Coull**  
21 May 1990

Seen in draft: N E McInnes (CO)

Scotia 1 - 21 Mar Cruise 3/90



Haddock I-group average nos/hour

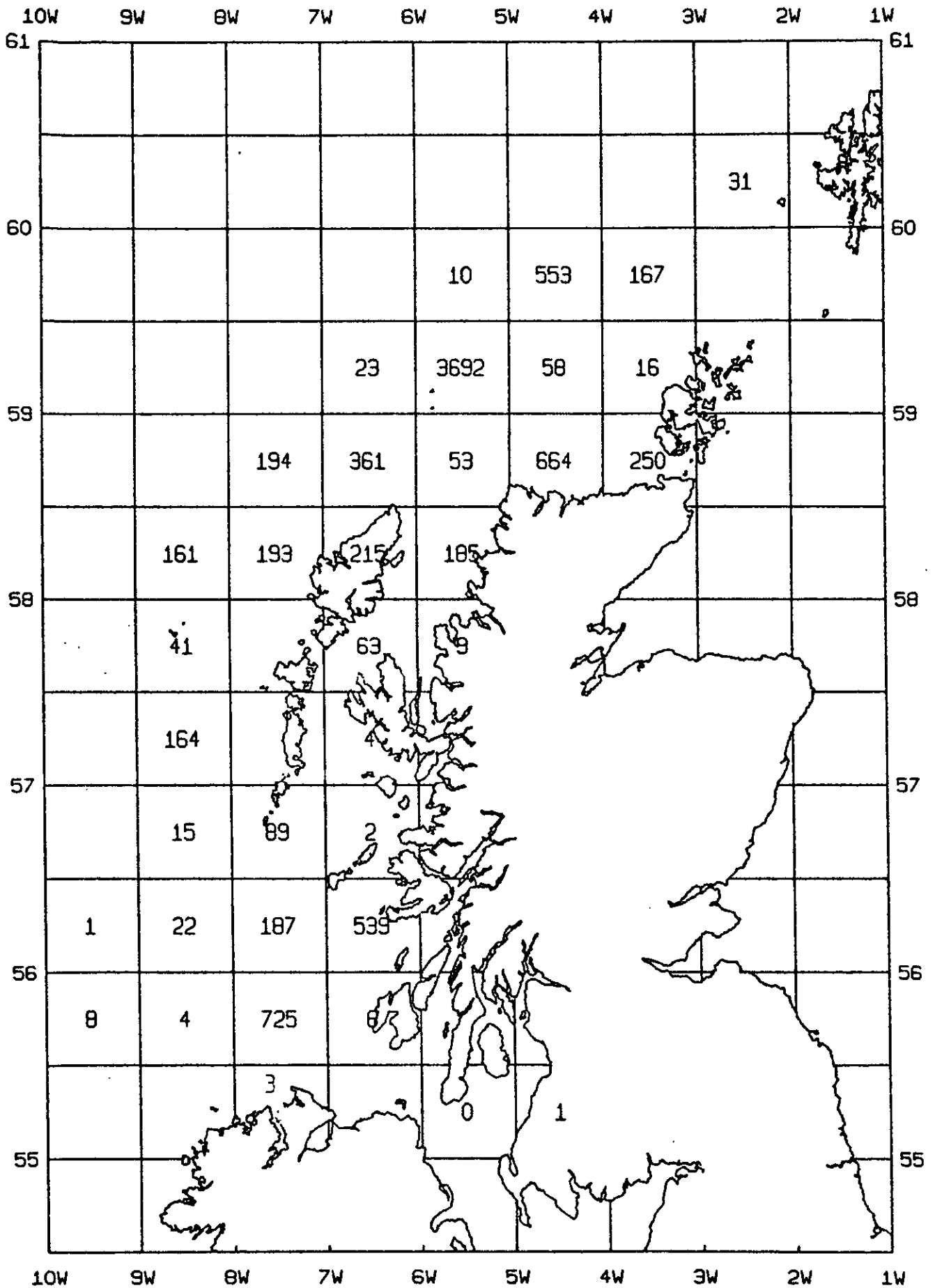


Figure 1

Whiting I-group average nos/hour

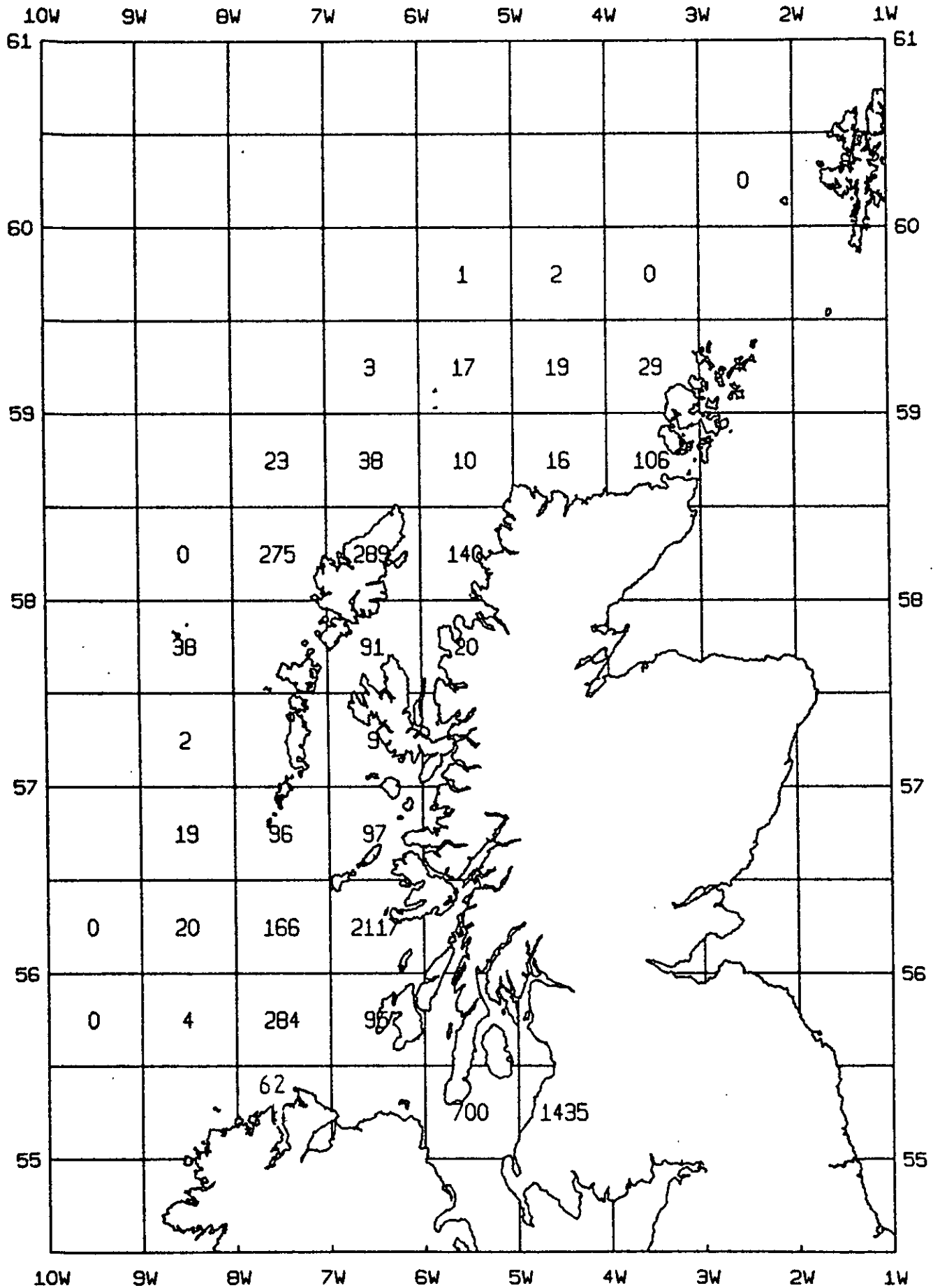


Figure 2

Herring average nos/hour

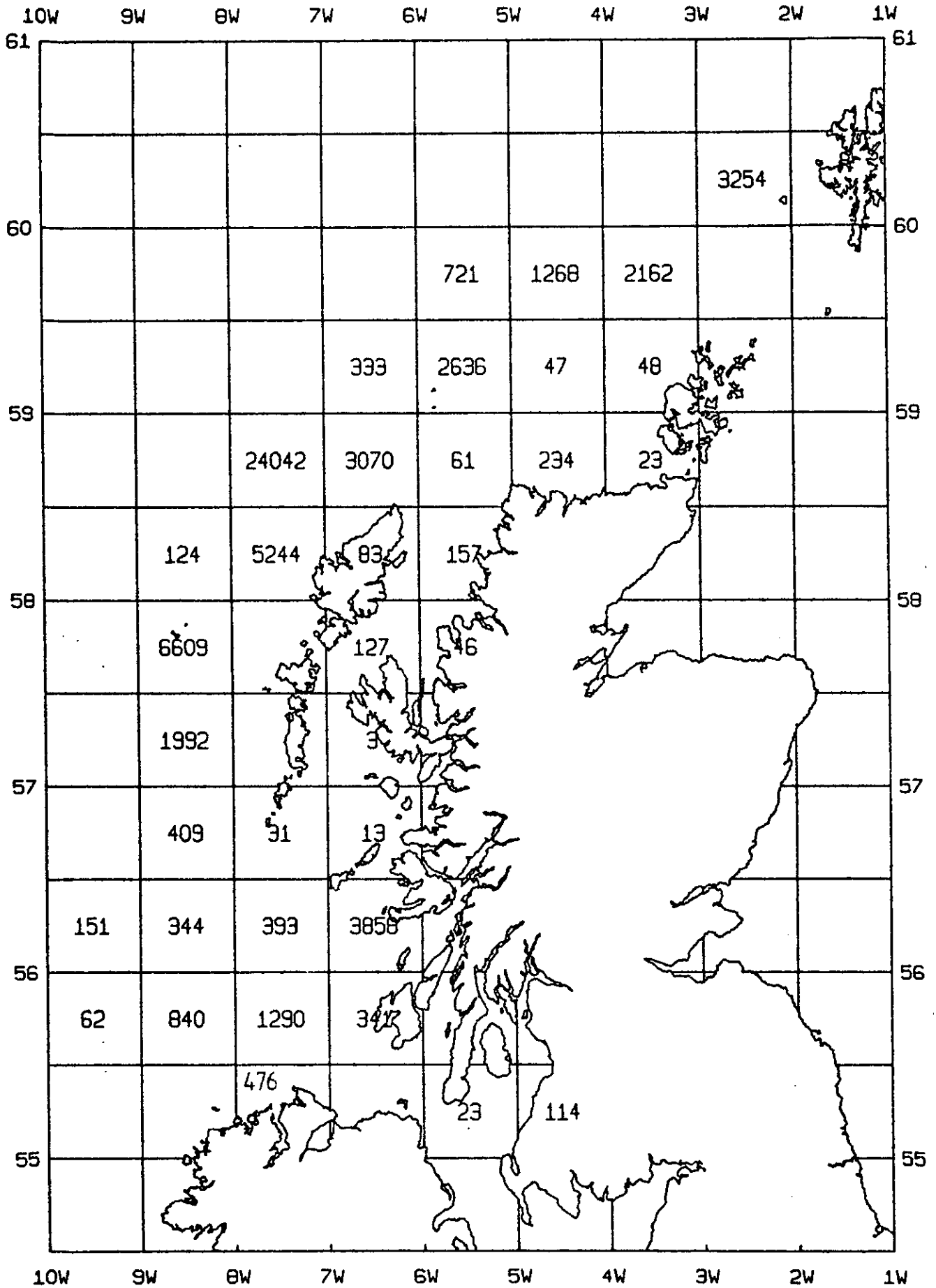


Figure 3