

R1/12

Not to be cited without prior reference to the Laboratory.

FRV *Scotia*

Cruise 0891S

REPORT

9-29 August 1991

Personnel

K A Coull	HSO (in charge)
A P Robb	HSO
M A Bell (Miss)	SO
G I Henderson	SO
D S Berveridge	SO
K J Peach	ASO
C G Davis	ASO
J Watt	Visitor

Objective

To undertake a demersal trawling survey of the North Sea.

Narrative

The scientific staff travelled from Aberdeen to join the vessel in Leith on the morning of 9 August. *Scotia* sailed at noon and commenced trawling off the Firth of Forth. Work continued on the stations off the east coast until the morning of 12 August when engine problems prevented the vessel from fishing. *Scotia* resumed trawling on the afternoon of 13 August and continued work on the eastern and northern boundaries of the survey area until the morning of 19 August when the vessel docked at Lerwick for the mid cruise break.

Scotia sailed at 0815 the following day and had completed the stations in the Shetland region by the evening of 21 August. The vessel then worked southwards, completing the survey area on 27 August. Stations off the east coast were repeated before *Scotia* docked at Aberdeen on the evening of 28 August.

Results

A total of 91 hauls was achieved with only one regarded as invalid.

Catches were generally less than 10 baskets. In the central North Sea area there were 6 hauls of 15-70 baskets and they consisted mainly of herring, whereas in the northern North Sea area there were 6 hauls of 10-27 baskets which were mainly haddock and whiting.

Catches of 0-group haddock were on a similar level to that encountered in 1990. The average numbers per hour of 0-group haddock and whiting caught in each statistical rectangle are shown in Figures 1 and 2 respectively. The number at each age of cod, haddock, whiting and saithe for each sampling area are given in tables 1 to 4.

All length frequency and haul summary data were punched at sea and stored on floppy disk using a BBC micro-computer. All cod, haddock and saithe otoliths were read at sea.

As part of the ICES stomach sampling programme a total of 14198 fish were examined.

K A Coull

1 October 1991

Table 1 Cod

Numbers at age (per 10 hours)

Age	Shetland		Viking		Moray Firth		Buchan		Forties		Central		Humber	
	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
0	-	-	-	6	-	-	-	1	5	4	7	2	1	-
1	4	21	3	4	-	53	9	72	17	28	16	13	19	16
2	80	19	82	11	3	-	8	4	83	24	42	18	40	26
3	20	27	7	33	-	5	1	1	3	11	3	14	7	4
4	15	1	25	3	-	-	1	-	11	2	2	2	9	1
5	3	1	5	3	-	-	1	-	5	-	-	-	6	3
6	1	-	2	1	-	-	1	-	1	-	1	1	-	-
7+	1	-	-	4	-	-	-	-	2	-	1	0	-	-

Table 2 Haddock

Numbers at age (per 10 hours)

Age	Shetland		Viking		Moray Firth		Buchan		Forties		Central		Humber	
	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
0	860	3,119	4,677	14,276	2,070	1,745	3,239	798	3,211	9,866	4,189	867	3,163	17
1	784	1,328	417	1,074	100	1,983	1,647	2,845	1,305	1,610	1,031	1,095	310	2,251
2	349	240	81	52	48	225	336	248	287	129	171	161	211	112
3	66	34	73	9	3	25	14	27	39	18	24	10	8	26
4	152	9	76	9	10	-	165	6	66	4	93	2	49	-
5	24	24	3	11	3	5	6	24	3	8	2	7	3	30
6	4	5	-	-	-	-	-	5	1	-	-	1	-	1
7+	12	4	6	3	-	-	1	3	2	-	2	-	6	2

Table 3 Whiting

Numbers at age (per 10 hours)

Age	Shetland		Viking		Moray Firth		Buchan		Forties		Central		Humber	
	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
0	600	294	11,152	3,263	3,518	10,666	410	1,113	3,551	846	907	883	48	-
1	83	93	18	19	3,066	7,071	2,635	3,974	170	120	944	264	15,539	6,532
2	1,030	1,296	274	184	1,579	618	3,687	1,549	801	587	627	470	9,576	1,929
3	151	1,647	125	183	-	473	143	1,169	332	551	227	160	846	1,007
4	380	67	168	70	8	38	176	41	197	47	134	32	938	107
5	98	51	52	28	3	23	47	34	32	54	13	19	113	104
6	4	26	2	14	-	-	-	3	1	10	9	5	11	-
7+	1	-	2	4	-	-	2	-	-	1	3	-	-	-

Table 4 Saithe

Numbers at age (per 10 hours)

Age	Shetland		Viking		Moray Firth		Buchan		Forties		Central		Humber	
	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	18	-	-	2	-	-	-
2	36	2	46	-	-	-	77	3	48	42	1	-	-	-
3	64	31	228	31	3	-	19	-	62	168	1	-	-	-
4	11	6	26	19	-	-	-	-	15	26	-	-	-	-
5	3	1	24	4	-	-	-	-	12	2	-	0	-	-
6	2	-	2	-	-	-	-	-	8	-	1	1	-	-
7+	11	1	11	1	-	-	-	-	11	3	-	7	-	-

Haddock '0'-group average numbers/hour

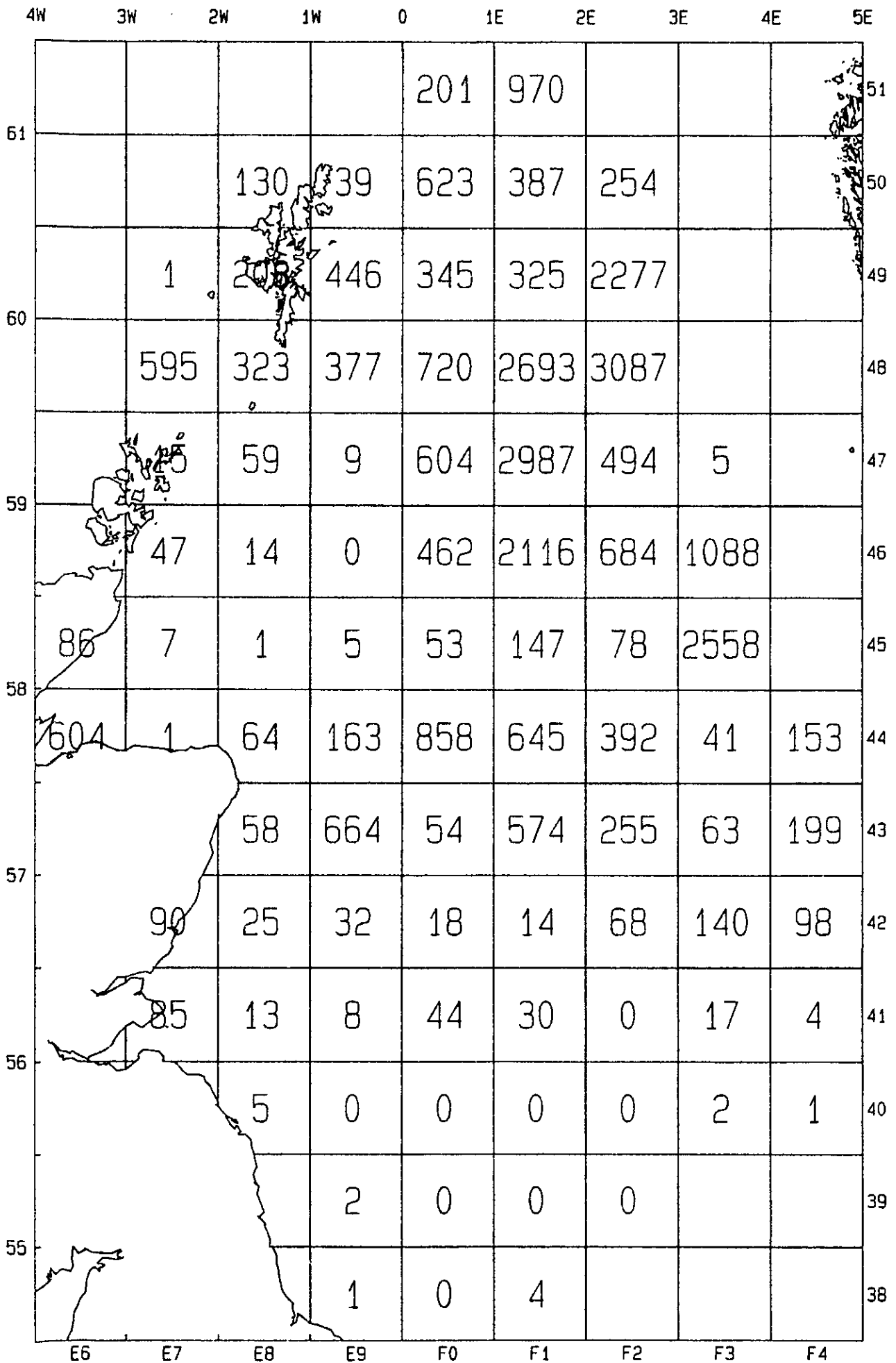


Figure 1

Whiting '0'-group average numbers/hour

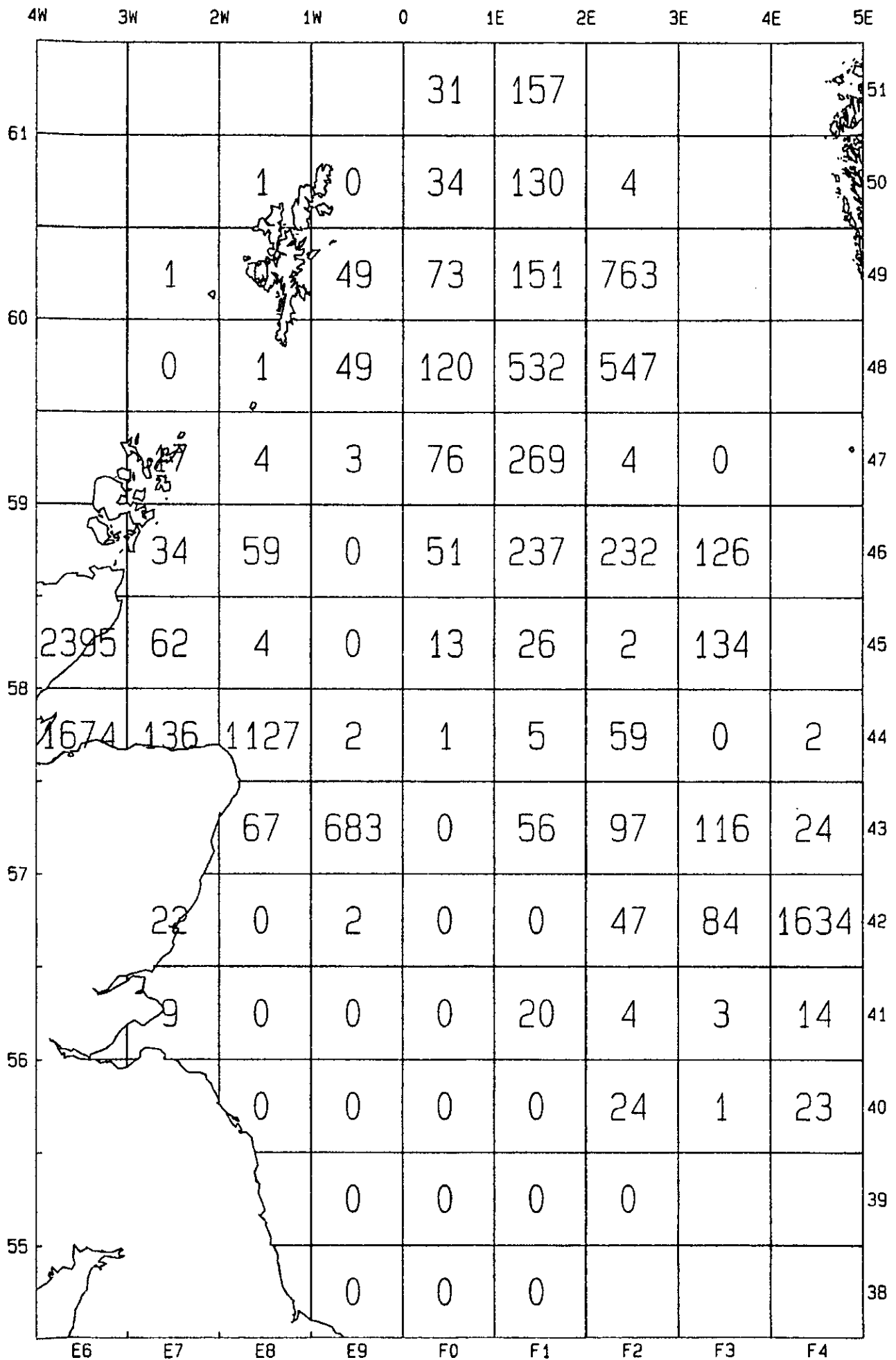


Figure 2

SCOTIA 0891S 09/08/91 - 28/08/91

