

R1/12

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FRV *Scotia*

Cruise 1097S

REPORT

5 - 25 August 1997

Personnel

K A Coull	SSO
I R Bricknell	SSO (15-25 August)
J A King	HSO (15-25 August)
M C Mathewson	ASO
D J Tait	ASO
F N Burns	ASO
J Drewery	ASO
I Penny	ASO
D Poulding	Aberdeen University
M Wayland	Visitor (15-25 August)

Objective

To undertake a demersal trawling survey of the North Sea.

Out-turn days per project: 21 days DAC1

Narrative

Scotia sailed from Aberdeen on the morning of 5 August and commenced trawling on stations in the Aberdeen Bank region. Fishing continued off the east coast of Scotland until the afternoon of 7 August when the fishing gear became entangled on a wreck. Efforts to retrieve the gear proved unsuccessful. The vessel then headed for Middlesborough where arrangements had been made to transfer spare parts for the main engine raft. A further four hauls were carried out off the northeast coast of England before the vessel stopped in order to complete the replacement of faulty parts on the main engine raft. After picking up replacement scanmar units at Anstruther, trawling recommenced on stations off the Firth of Forth and continued on the southern part of the survey area until the evening of 13 August when problems with the port and centre engines delayed work. Temporary repairs allowed work to continue the following day before *Scotia* docked on 15 August for the mid cruise break in Stavanger.

With repairs completed, the vessel sailed as scheduled on 16 August and resumed trawling on the stations on the eastern and northern boundary of the survey area. With the vessel operating in the vicinity of the Shetland Isles, the opportunity was taken to transfer crew members during the night of 19/20 August. *Scotia* then worked southwards and having completed the survey, docked at Aberdeen at 2200 hours on 24 August.

Results

The survey area was successfully covered with a total of 87 valid hauls being completed. Water samples and temperatures were taken at 57 stations.

The number of 0-group haddock and whiting caught per hour in each statistical rectangle are shown in Figures 1 and 2 respectively. The numbers of whiting, haddock and Norway pout caught per 10 hours fishing during the August groundfish surveys since 1982 are shown in Tables 1, 2 and 3 respectively. The number of 0-group haddock and whiting caught were lower than the survey average. Although the number of 0-group Norway pout was the lowest recorded since the survey commenced in 1982, the 1-group (1996 year class) was very high.

All length frequency data, haul summary information, and age data for cod, haddock, whiting, saithe and Norway pout were punched at sea and stored on micro-computer. The Scanmar system was used throughout the cruise to monitor headline height, wing spread and distance covered during each haul.

K A Coull
27 October 1997

Seen in draft: J Nichols

Table 1

Results from Scottish surveys conducted in August

Numbers of Whiting per 10 Hours Fishing - North Sea

Survey Year	Valid Hauls	<-----				Age	----->			
		0	1	2	3		4	5	6	7
1982	77	102	653	971	972	224	60	16	3	+
83	79	210	563	578	407	511	116	17	3	5
84	82	442	1048	371	170	77	92	18	5	+
85	83	169	1577	973	247	63	36	18	10	+
86	80	406	1111	452	224	27	5	5	1	0
87	73	120	1405	1150	208	77	16	3	+	+
88	86	642	967	1606	452	70	19	2	0	2
89	86	427	4043	741	733	157	13	6	1	0
90	85	1943	2239	2053	248	255	47	5	1	1
91	90	1379	1769	950	759	51	40	9	+	0
92	87	2417	2925	1267	553	585	47	26	5	-
93	87	247	3169	1168	423	156	182	6	11	+
94	87	648	2635	950	254	57	34	23	+	1
95	87	1243	4176	2010	903	196	58	22	15	3
96	85	440	2888	3047	1215	460	43	15	22	9
97	87	317	1824	1434	1191	319	122	17	8	+

Table 2

Results from Scottish surveys conducted in August

Numbers of Haddock per 10 Hours Fishing - North Sea

Survey Year	Valid Hauls	<-----				Age	----->			
		0	1	2	3		4	5	6	7
1982	77	1235	2488	996	1336	115	7	2	1	2
83	79	2203	1813	1611	372	455	53	12	1	1
84	82	873	4367	788	336	55	65	9	5	1
85	83	818	1976	2981	232	103	14	22	4	2
86	80	1747	2329	574	598	36	27	4	3	+
87	73	277	2393	704	106	128	8	5	1	2
88	86	406	467	1982	170	27	23	2	1	+
89	86	432	886	214	574	31	4	7	1	+
90	85	3163	1002	240	32	103	7	1	3	1
91	90	3471	1705	178	21	5	16	2	+	1
92	87	8270	3832	963	48	8	3	8	+	+
93	87	859	5836	1380	269	6	4	1	3	+
94	87	13762	1265	2080	210	53	2	+	+	+
95	87	1566	8153	734	926	74	28	2	0	0
96	85	1980	2231	4705	231	206	22	6	+	0
97	87	972	2779	849	1397	66	56	6	+	+

Table 3

Results from Scottish surveys conducted in August

Numbers of Norway Pout per 10 Hours Fishing - North Sea

Survey Year	Valid Hauls	<----->								
		0	1	2	3	Age 4	5	6	7	8
1982	77	80	9913	439	220	1	-	-	-	
83	79	133	4895	908	10	0	-	-	-	
84	82	19	6151	688	83	5	-	-	-	
85	83	47	6357	1731	54	0	-	-	-	
86	80	384	3887	538	89	15	-	-	-	
87	73	74	3379	226	11	1	1	-	+	
88	86	137	382	2092	44	3	-	-	-	
89	86	15	3817	214	143	13	-	-	-	
90	85	579	2062	510	15	5	-	-	-	
91	90	97	7317	423	62	0	-	-	-	
92	87	122	17146	2213	240	4	-	-	-	
93	87	17	5804	3291	204	1	-	-	-	
94	87	1360	3872	1063	58	3	-	-	-	
95	87	368	24383	2336	208	13	-	-	-	
96	85	1270	4117	3210	78	7	-	-	-	
97	87	10	21536	1300	319	13	+	-	-	

August Groundfish Survey - 1997

0-Group Haddock (Number / hour)

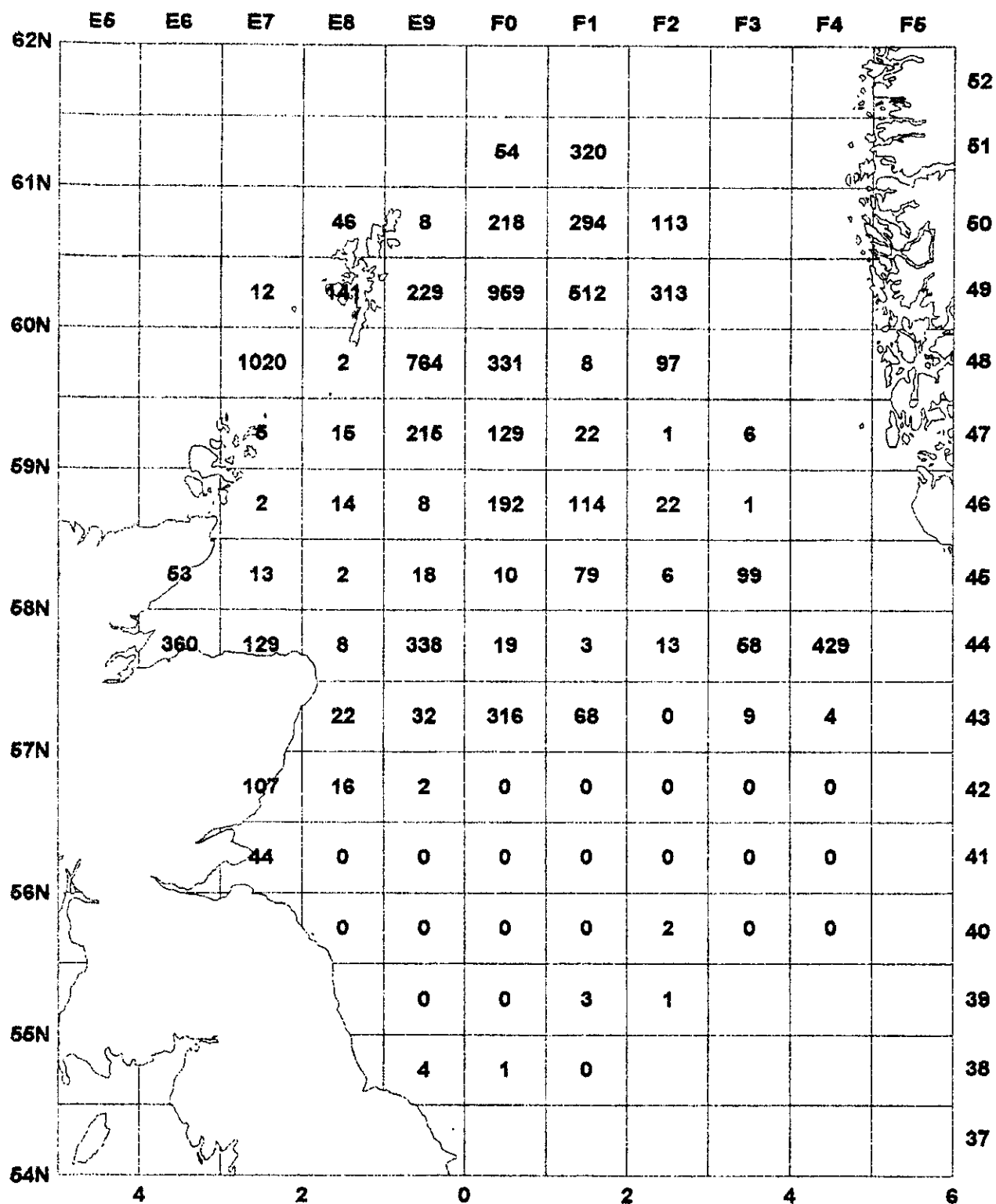


Figure 1.

August Groundfish Survey - 1997

0-Group Whiting (Number / hour)

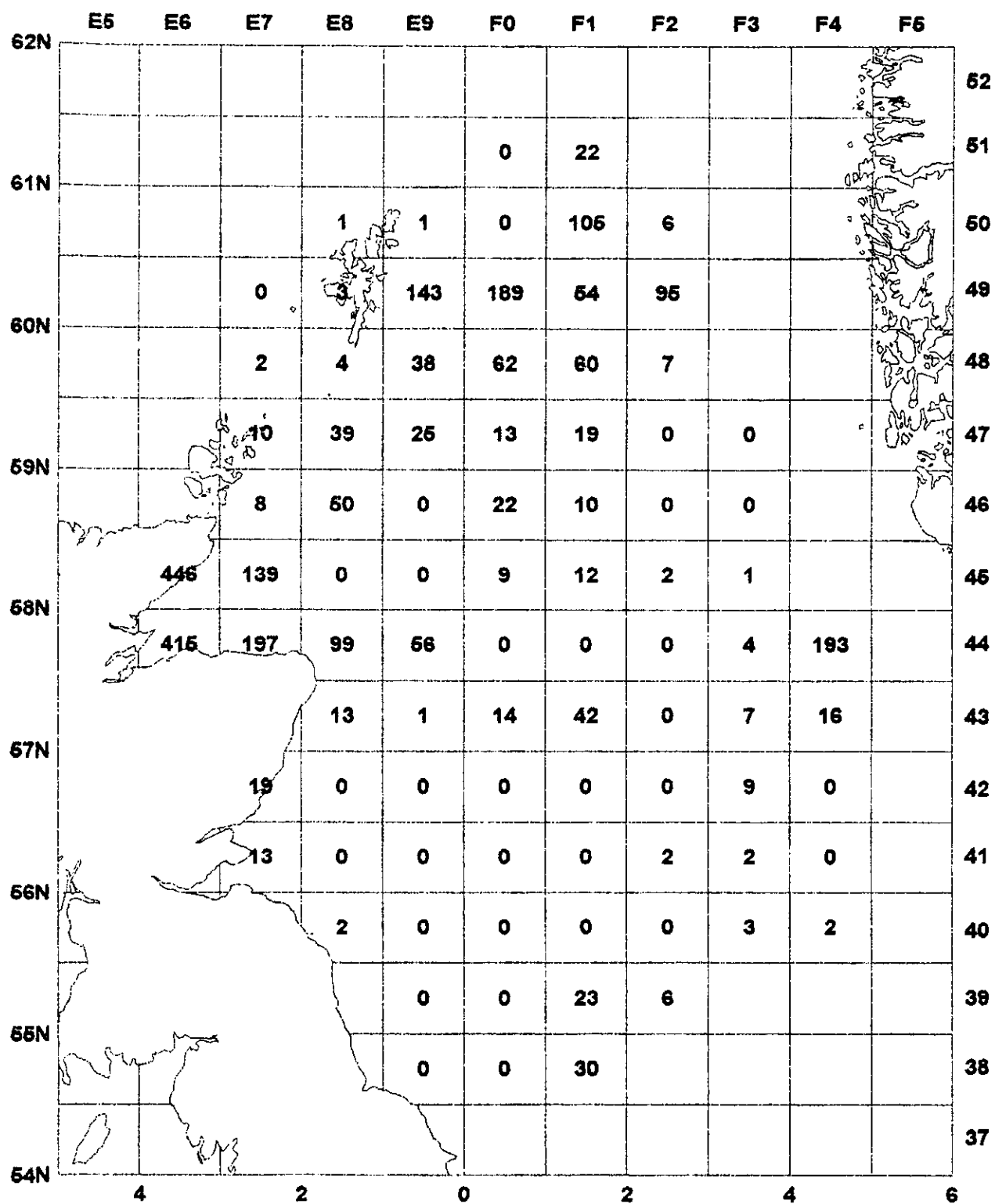


Figure 2.

Scotia 5 - 25 August 1997 Cruise 1097S

