

R1/4

In Confidence

FRV 'Explorer'

Cruise 2/81

2ER81

Report

11th February - 3rd March 1981

Objectives

To take part in the ICES Young Fish Survey in the North Sea.

Narrative

'Explorer' sailed from Aberdeen at 1830 on 11th February and proceeded to work stations off the east coast of Scotland. However, faults developed in the vessels two radars and 'Explorer' was forced to anchor off Granton for 12 hours whilst shore based technicians effected repairs. 'Explorer' resumed her scientific programme on 14th February and after completing work off the Scottish and English coasts 'Explorer' steamed to the Dogger Bank. On completion of these stations 'Explorer' proceeded to further stations off the Danish Coast; whilst in this area a visit was made to Esbjerg (on 19th February) and the opportunity was taken to collect scientific samples from the Danish Fisheries Institute. All scientific work was completed in the southern North Sea by 21st February and 'Explorer' then proceeded to stations SE of the Orkney Islands. Work continued until southerly gales forced 'Explorer' to seek shelter in the Moray Firth. As the weather showed no sign of moderating in the Moray Firth an attempt was made to continue scientific work to the west of the Orkneys but again this work was thwarted by bad weather and shelter was sought in Dunnet Bay. 'Explorer' returned to Aberdeen on 3rd March, docking at 0300 hours.

Results

Bottom trawling was carried out using a GOV trawl which was fitted with rubber discs for the stations off the Danish and Dutch coasts and fitted with rubber bobbins for all other stations. The hauls were of 1 hour duration and Table I provides a summary of the principle species (at 0+ and 1+ years) occurring in each square sampled. Where more than 1 haul was made in a particular square the results were averaged to produce a 'per hour' figure.

Catches of Cod, haddock and whiting were further examined to produce an analysis of catch per 10 hours per age group. The results for the international reporting areas surveyed by 'Explorer' are shown in Table 2.

In order to participate in the ICES stomach sampling programme a total of 4449 cod, haddock, and whiting stomachs were examined; stomachs which showed no sign of regurgitation during capture were preserved for detailed analysis in various European laboratories.

In addition 2870 cod, haddock and whiting were sexed and otolithed, the otoliths were read during the course of the cruise.

Using the Isaac-Kidd midwater trawl, 2 night hauls for pre-metamorphosis herring larvae were made in each of the 28 statistical squares sampled by 'Explorer'.

A W Newton
6 May 1981

Seen in draft T W Henderson

TABLE I

ST SQUARE	37F6	37F7	38F6	38F7	37F2	37F3	38F2	38F3	39E8	39E9	40E8	40E9	41E7	41E8	41E9
HERRING < 20cms	518	353	790	432	0	1590	0	59	486	794	52	82	1100	3475	106
COD < 25cms	4	5	2	90	0	1	0	1	9	0	0	0	2	1	0
HADDOCK < 20cms	1	0	0	0	0	0	0	0	1	2	1	29	15	331	10
WHITING < 20cms	177	35	155	111	1	45	100	48	1433	157	5	213	1125	398	59
T. ESMA- RKII < 15cms	0	0	0	0	0	0	0	0	69	0	2	55	0	4	5
ST SQUARE	42E7	42E8	42E9	44E6	44E7	44E6	44E7	45E8	45E9	46E8	46E9				
HERRING < 20cms	140	1281	148	12050	1486	12050	1486	7	0	0	0				
COD < 25cms	3	1	8	0	1	0	1	3	0	0	2				
HADDOCK < 20cms	4	76	62	51	187	51	187	643	318	742	258				
WHITING < 20cms	604	75	122	2217	1059	2217	1059	68	86	91	21				
T. ESMA- RKII < 15cms	28	8	38	32	3697	32	3697	13	2792	2159	3219				

TABLE 2
NOS./10 HOUR

GOD

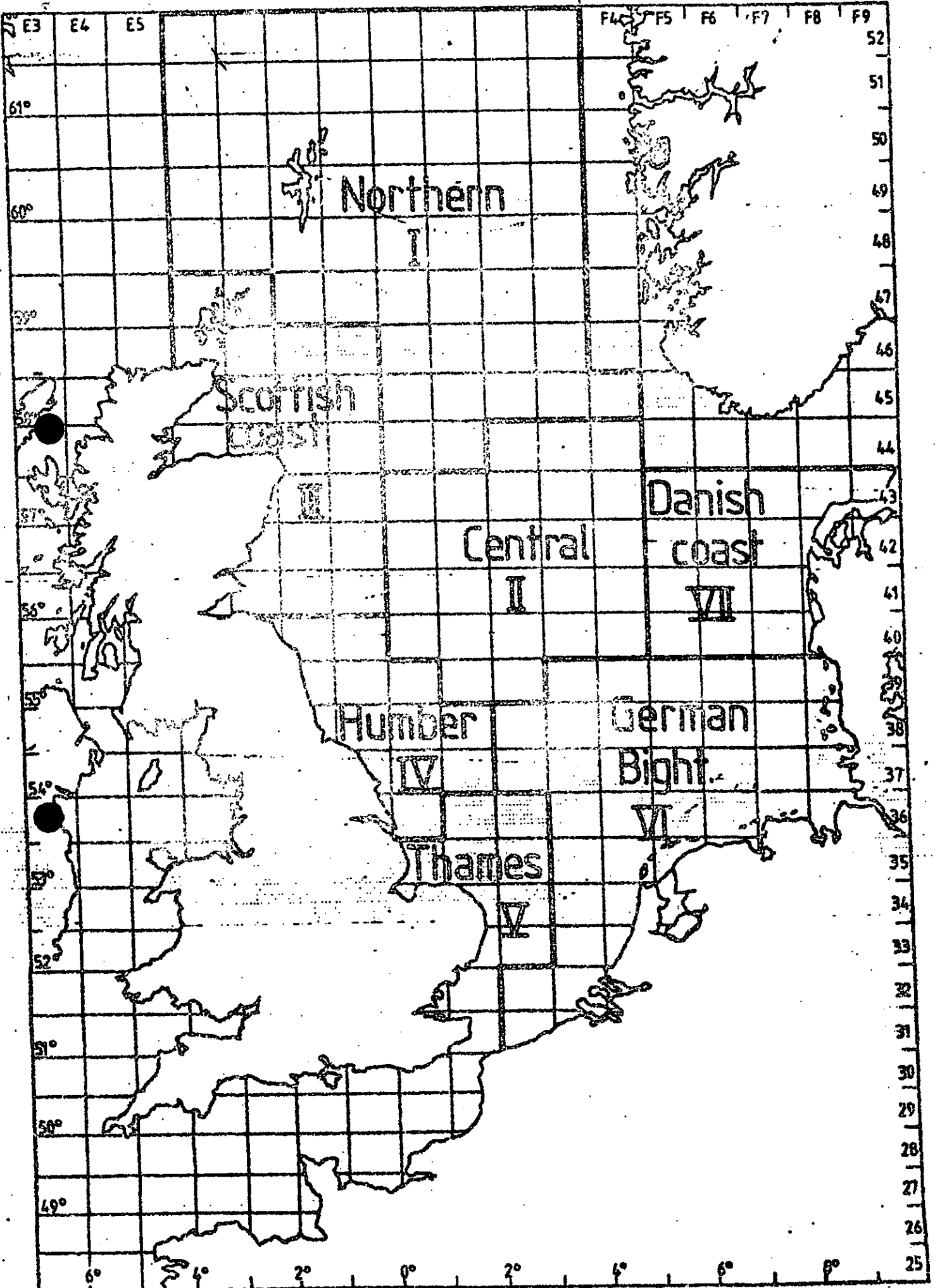
Reporting Area/Age	1	2	3	4	5	6	7	28	Total
III	9	79	41	30	11	3	1	1	174
IV	3	325	15	8		5	3		358
VI	201	184	10	10	7	3	2	1	419

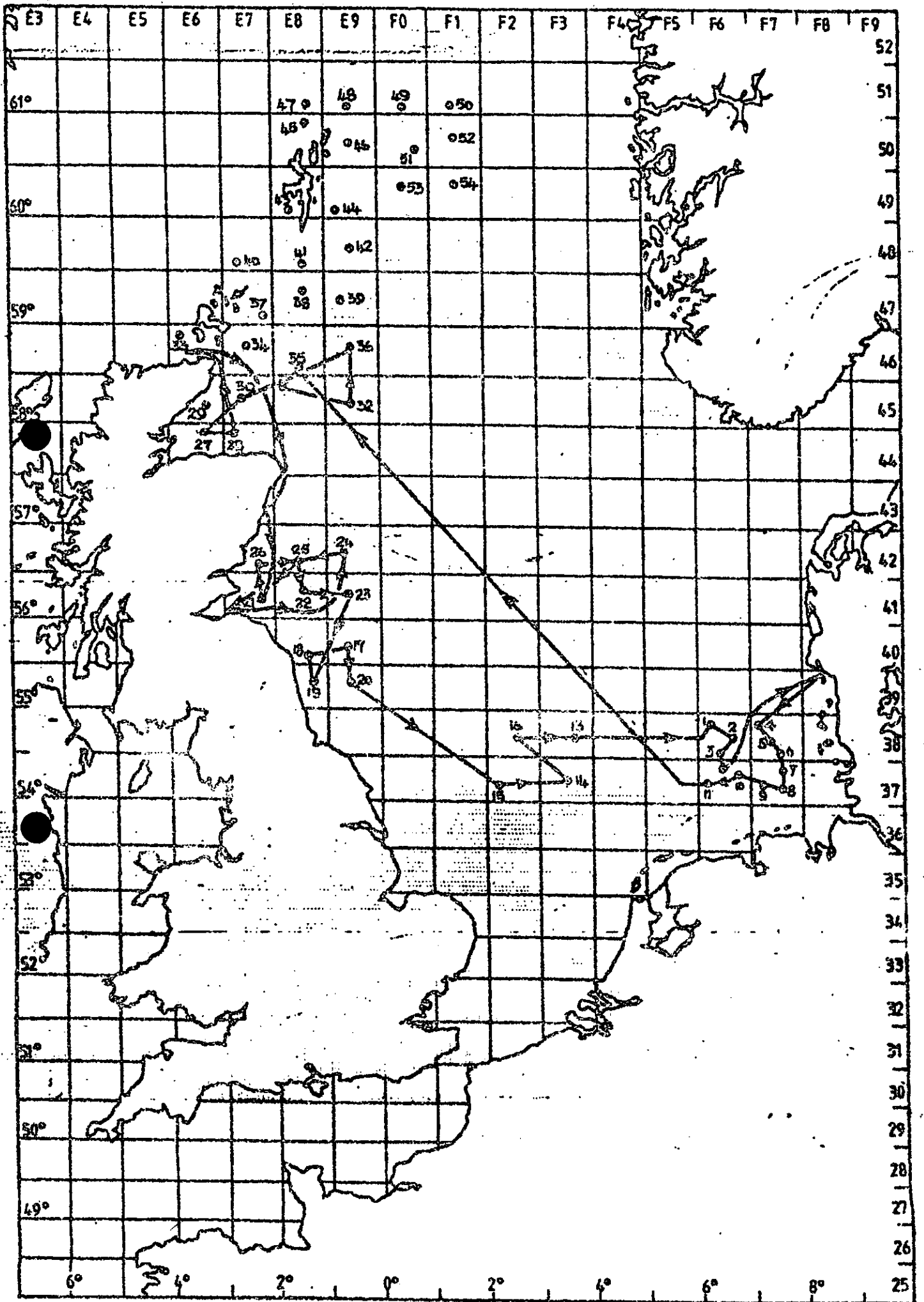
HADDOCK

Reporting Area/Age	1	2	3	4	5	6	7	28	Total
III	237	6958	635	43	6	7	36	7	10328
IV	135	3385	243	3					3765
VI	1	98	7	1					107

WHITING

Reporting Area/Age	1	2	3	4	5	6	7	28	Total
III	4700	8005	3293	652	123	64	4		16841
IV	3943	9751	2079	769	158	15	28		16743
VI	1092	320	123	41	12	1			1589





FRV Explorer 11/2 — 3/3/81

2EP81