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In Confidence: not to be quoted without prior reference to the Laboratory

FRV "Scotia"

2SR86 MB

Cruise 2/86

Report

31 January - 20 February 1986

Personnel

A W Newton	SSO (in charge)
J A Gauld	HSO
Mrs M A Brown	SO
G I Henderson	ASO
D S Beveridge	ASO
P Clark	ASO
Miss G Guthrie	ASO
A Diamant	Visitor

Objective

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

Narrative

"Scotia" was due to sail at 1600 hours on Friday 31 January but Aberdeen harbour was closed due to severe SE gales and departure was delayed until 0500 hours on 1 February. Three trawl stations were completed off Aberdeen but a deterioration in the weather caused "Scotia" to seek shelter in Largo Bay. With no sign of conditions improving off the Scottish coast it was decided to steam to stations in the central North Sea where, hopefully, conditions would be more conducive to working. Seven stations were completed in this area before easterly gales forced "Scotia" to steam to more trawl stations off the Danish coast. "Scotia" docked in Esbjerg on Friday 7 and sailed again on Saturday 8. Mr Diamant left the ship at this point and returned to Aberdeen. An improvement in the weather allowed "Scotia" to finish all stations in the German Bight and then work northwest towards the Shetland Isles. During this period 2 nets were severely damaged and a brief call was made at Lerwick on 15 February to pick up a new set of gear. Work continued around Shetland and then into the Moray Firth. "Scotia" completed the cruise by trawling at stations off Aberdeen, docking at the latter at 0800 hours on 20 February.

Results

A total of 56 one hour hauls were made with the GOV trawl. For trawling on southern stations the ground gear was the standard set of rubber discs and 47 metre sweepers were used. For the deeper stations on rough bottom in the north heavier ground gear was used in conjunction with 97 metre sweeps. The headline height of the net was monitored with a Scanmar system. Table 1 provides a summary of the average numbers per hour of the principal species (below a length selected as a probable upper delimiter of 1+ fish) occurring in each square sampled. Preliminary analysis of the data indicates that the herring stock is continuing its strong recovery whilst the 1985 cod year class.

is much stronger than the 1984 year class. For both haddock and whiting the 1985 year class appears to be at least as strong as the 1984 year class.

During the hours of darkness the Isaacs-Kidd midwater trawl was shot although this year operations were restricted due to the long periods of bad weather. Initial analysis was carried out during the cruise. This also appears to indicate the continuing recovery of the herring stock in the North Sea.

In order to participate in the ICES North Sea stomach sampling project a total of 3917 whiting, 861 cod and 1743 herring stomachs were examined; stomachs which had not regurgitated were kept for subsequent analysis in various European laboratories.

Top and bottom temperatures and salinities were taken at all trawl stations. In addition phosphates, silicate and nitrates were also taken at each station.

A W Newton

12 March 1986

Seen in draft: N E McInnes

TABLE 1

AREA	SQUARE	HERRING <20	COD <25	HADDOCK <20	WHITING <20	N POUT <15
CENTRAL	44F2	14	5	427	346	222
	44F3	2	8	73	105	20
	44F4	20	56	1376	163	1500
	43F2	1108	17	221	282	207
	43F3	67	2	26	61	0
	43F4	776	10	66	148	6
	42F2	635	64	27	1198	197
	42F3	589	11	25	306	18
	42F4	4473	32	9	173	1
	41F4	388	25	7	217	222
	40F3	491	45	14	510	0
	40F4	666	7	2	382	0
DANISH COAST	39F6	931	2	0	211	0
	39F7	261	20	0	63	0
	38F5	1046	30	0	377	0
	38F6	2082	77	0	692	0
	38F7	34108	113	0	178	0
SCOTTISH COAST	43E8	176	10	928	801	830
	42E7	812	17	190	8958	11
	42E8	12	0	0	4	0
	41E7	312	90	88	12661	13
MORAY FIRTH	45E6	1822	1	1903	1253	883
	45E7	891	0	553	240	778
	44E6	457	1	235	569	517
	44E7	3196	0	1723	795	5844
FORTIES	47E9	31	0	1100	30	1295
	46E9	4	0	184	50	1040
	46F0	0	0	112	312	264
	46F1	0	0	354	114	2777
	45E8	318	0	472	139	714
	45E9	32	0	589	1600	1810
	45F0	0	1	185	186	558
	44E8	68	0	1600	385	10
	44E9	88	0	2469	401	1758
	44F0	112	0	776	82	2188
	44F1	0	0	103	4	335
ORKNEY	47E7	20	0	60	120	0
	47E8	25	0	274	20	60
	46E7	4	0	159	153	33
SHETLAND	51E8	0	0	50	0	680
	51E9	0	0	83	0	211
	50E9	0	0	130	4	63
	49E8	8	0	193	11	544
	48E8	4	0	963	0	226
	48E9	0	0	822	0	765

