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MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1982 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 8

STAFF:

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DURATION:

Left Lowestoft 1300h, 14 June
Arrived Lowestoft 3 July

LOCATION:

Western English Channel, Bristol Channel, Celtic Sea

AIMS:

1. To carry out a groundfish survey in the Celtic Sea and Western Approaches.

2. To carry out a TTN survey for fish eggs and larvae.

3. To recover a current meter rig and sediment trap moored in the Nab Tower area.

NARRATIVE:

CLIONE left Lowestoft it 1300h on 14 June and began the recovery of the Nab Tower current meters at 0830h on 15 June. The surface doughnut buoy was missing, but the pellet from the subsurface float was in position and the rig was hauled from that end. Only one current meter, the sediment trap and the chain anchor were recovered, although part of the clamp for the other current meter was still in position.

Calibration of the TTN was completed on 15 June and the plankton grid commenced off Portland Bill. The trawl survey was begun on the following morning and the track of trawl stations is shown on the attached chart. Trawling and TTN survey were carried out alternately throughout the cruise, but trawling only took place during daylight hours. One trawl and one TTN station was carried out in nearly every ICES statistical rectangle in sub divisions VIIe, f, g, h and the distances between stations meant that in general only three one hour trawl hauls could be carried out per day.

The track followed during the cruise was not the one originally intended, because permission to fish in French waters was not confirmed until several days after work had started. The requirement to inform the French authorities every day about position, intentions and of every crossing of 49°N also tended to hamper the planning of the cruise track and in the event the information sent may be false if plans have to be changed because of bad weather.

Trawling continued in the British Channel and South East of Ireland until the morning of 22 June when bad weather stopped work and it was decided to abandon the remaining rectangles in VIIg and start on those in VIIh. Trawling started again in poor weather conditions on the morning of 23 June and with the outlook continuing unsettled it was decided to put in to Concarneau a day earlier than originally planned.

CLIONE docked in Concarneau at 1900h on 24 June and was met by Mlle Du Buit of the College de France Marine Laboratory. The following day visits were paid to that laboratory and to the fish auction at Concerneau and the Fishing Museum. In the afternoon Dr Brander was taken to the ISTPM laboratory in Lorient by M Gueguen, who had helped to make the arrangements for the visit to Concerneau. As well as useful discussions about Nephrops with staff at the Laboratory, M Gueguen kindly supplied several fishing charts for use on the cruise. CLIONE left Concarneau at 0600h on 26 June and trawling recommenced that evening although weather conditions remained poor.

The remaining trawl and TTN stations in VIIe and h were completed by noon on 2 July and CLIONE sailed for Lowestoft, docking at 1730h on 3 July.

RESULTS:

AIM 1

43 valid trawl hauls were carried out and only 6 ICES rectangles in sub divisions VIIf and g were not fished, due to bad grounds and bad weather. All rectangels in VIIe and VIIh were fished. All species were identified, weighed and counted and all commercial species were measured and otolith samples were taken. Full details of the sampling levels are given in the attached table. Stomach samples were taken from a range of species and identification of contents was carried out on board.

In general, catches were fairly light, ranging from 107kg/h in VIIf and g to 71.kg/h in VIIe, but a wide range of species was taken and the quantities were adequate to fill sampling targets and to provide a broad picture of distribution of the main species. In VIIe most of the catch consisted of low value or non utilised species (scad, pout, whiting, poor cod, lesser and greater spotted dogfish) and the only "commercial" species with higher catch rates in this area than in the others were whiting and rays.

Appreciable quantities of blue whiting were taken in VIIf and g, but also hake, cod and spurdogs and the overall catch of commercially utilised species was highest in this area. In VIIh the main species caught was ling, but most of this came from one very large haul and the species taken most consistently in this area were monk, pollack and saithe. Catch rates of megrim were also higher in VIIh than in the other areas and for the cruise as a whole, twice as much megrim (by weight) was caught as the total of plaice, sole and lemon sole. The gear being used is not in any case suited to flatfish fishing, with rubber bobbins in the Bosom. Catches of megrim were almost entirely from west of 6°W.

AIM 2

43 TTN hauls were carried out, covering the same rectangles as the trawl survey. Problems were encountered with the chart recorder and with

the temperature probe, depth probe and electric flowmeter readout. Replacement equipment was put to use, but the fault seemed to lie in a progressive deterioration of the cable end, which could not be repaired.

AIM 3

The Nab Tower current meter rig was recovered, but was found to have been damaged.

Further results

1. A small sample of Metridium was deep frozen for Dr A Bucklin MBA Plymouth.
2. Samples of small gadoids and other species were frozen for fish identification courses (A Watson).
3. Scad were sampled on board and samples were frozen for D Eaton.
4. A preliminary exercise was carried out to look at the relationship between Nephrops carapace length and tail length, in case a minimum landing size based on tail length is introduced. The measurement seems simple to carry out, is not excessively variable and the current 25mm carapace length is equivalent to a tail length of 50mm.
5. Special attention was paid to sampling megrim and monk and all were measured and otoliths taken. Megrim were also weighed individually and a weight length relationship has been obtained. A small mesh cover was used over the cod end in order to investigate the selection factor for megrims and although the numbers involved are rather low, the result is a very clear one. The 50% selection length was 22cm and the codend mesh size was 80.05mm (double twine), giving a selection factor of 2.75.

Keith Brander
5 July 1982

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ADDENDUM

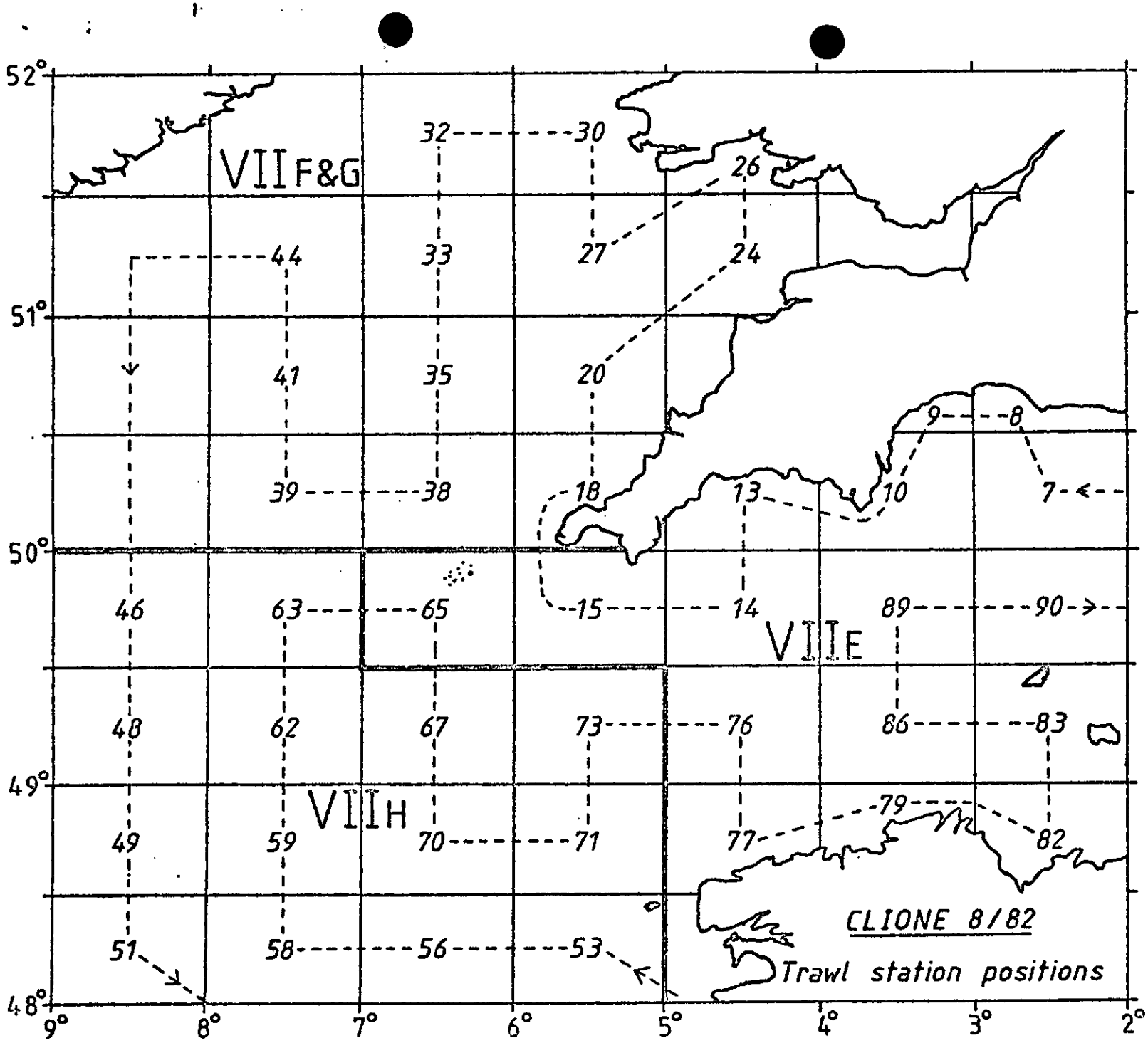
REPORT: RV CLIONE: CRUISE 8

S I C: Dr K Brander

CLIONE 8/82

All Areas

	Stomach Contents	Numbers Measured	Numbers Otolithed
Hake	154	547	
Cod	42	45	45
Monk	76	76	57
Pollack	21	36	
Saithe	27	27	
Whiting	128	583	118
Haddock	4	53	1
Ling	4	77	
Conger	3	3	
Megrim	163	250	246
L.sole	-	68	67
Sole	-	19	17
Plaice	-	37	37
Turbot	1	1	1
LR dabs		134	
R montagui	34	26	
R brachyura	17	17	
R clavata	13	20	
R microocellata	4	4	
R naevus	21	22	
R fullonica	1	1	
R undulata	1	1	
L S dog	198	453	
G S dog	18	14	
Spurdog	77	77	
Red gurnard	140	292	
Grey gurnard	82	132	
J dory	39	39	39
Blue whiting	32	451	
Pout whiting	94	198	
Poor cod	137	392	
N pout	58	182	
Black sea bream	1	1	
Mackerel	-	309	12
Herring	-	79	-
Scad	-	2099	278
Sprat		195	
Sandeels		79	
Shad		1	
G weever		1	
Dragonet		2	
Nephrops		331	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CLIONE 8/82
Trawl station positions