

REPORT CR/2/88

Fisheries Research Laboratory, Coleraine.

Not to be cited without prior reference to the laboratory.

CRUISE LF/2/88

7-11 NOV 1988

REPORT

Personnel

D J Agnew	HSO	(in charge)	7-8 Nov
R P Briggs	PSO	(in charge 9-11 Nov )	9-11 Nov
W J McCurdy	SSO		7-11 Nov
A Heaney	ASO		7-9 Nov
L McKay	ASO		9-11 Nov

Objectives

1. To carry out further trials of the rockhopper net.
2. To sample as many diverse stations of the proposed young gadoid survey as possible in the time available.

Narrative

Lough Foyle sailed at 0810 on Monday 7 from Belfast and proceeded south to Anglesey, sampling stations 30 and 19 on route with rockhopper gear fitted with a small mesh liner. Fishing started on Tuesday at 0710 and stations 29, 27, 23 and 20 were sampled this day. The weather was good throughout the first 2 days (S 4-5). D Agnew disembarked and L McKay embarked at 0800 on Wednesday when the vessel sampled stations 5 and 4. Returning to Belfast 1800 Wednesday, A. Heaney disembarked and R. Briggs embarked to take charge of the remainder of the cruise. The second part of the week was characterised by worse weather (S 6-7); stations 3, 2, 4 and 1 were completed on Thursday 10th and although the net was damaged and the sample was lost in Red Bay, fishing was possible on Friday at stations 10, 9 and 34. On this last tow the net was damaged badly. Lough Foyle docked in Belfast at 1800 Friday 11 November 1988.

Results

The cruise track is shown in fig 1, together with station positions, and the latter are specified in Table 1. Fig 2 shows histograms of the results of 11 tows (% by weight) and table 2 the weight of fish sampled at each site. Length frequencies for cod, whiting and hake are shown in Tables 3-5. Fish were not aged due to pressure of time; However, the frequencies for cod and whiting have been applied to the quarter 4 age/length key derived from FRL port sampling in 1987, that of whiting including a component from the discard surveys age-length key (ages 0-

1). The age-length key for hake was derived from consideration of the length frequency (fig 3) and is not analytical. As would be expected the closest inshore site, station 7, yielded most 1 year cod. 0 and 1 year whiting were most abundant at station 30 (Dundrum Bay), but considerable numbers were found in the north channel and south of the Isle of Man. 0 group hake were found principally at stations south and west of the Isle of Man and in the North Channel, although 1 group hake appear to have a slightly different distribution.

Plaice were abundant only at station 30 and 7. The length frequency for the former is given in Fig 4.

In view of these results it may be advisable to drop stations 29 and 27 in the juvenile young gadoid cruises.

The results are summarised below.

	COD	WHITING	HAKE
Mean 0 group/hr fish	no age/len	554.15	11.71
Mean 1 group/hr fished	8.15	243.31	17.10
	N = 14 Tows	N = 13	N = 14

D 3 A 26-11-81

Table 1

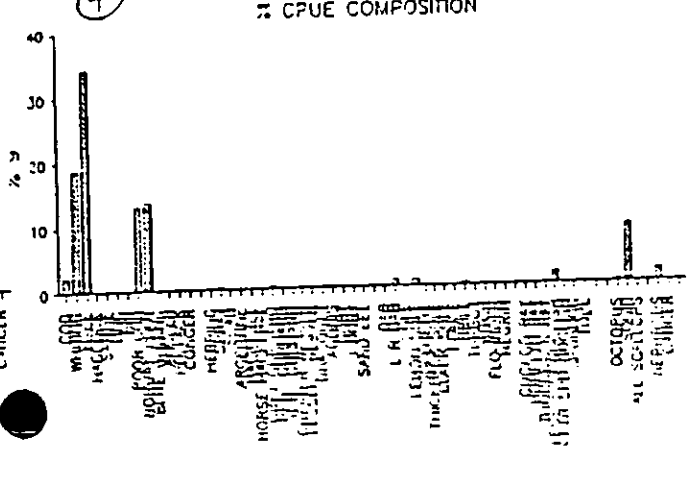
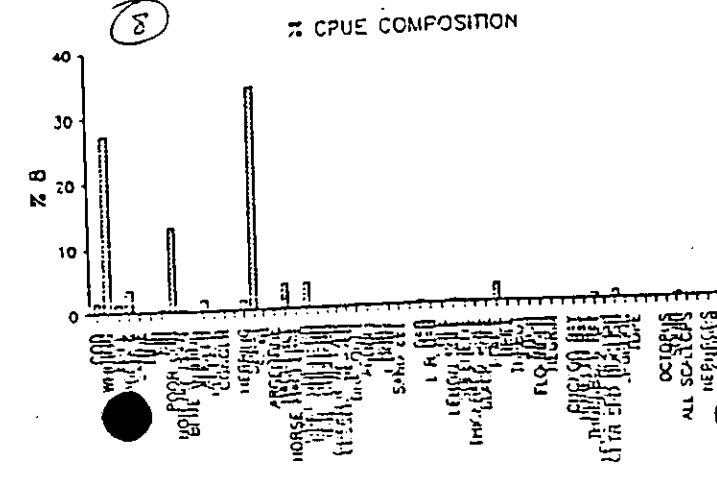
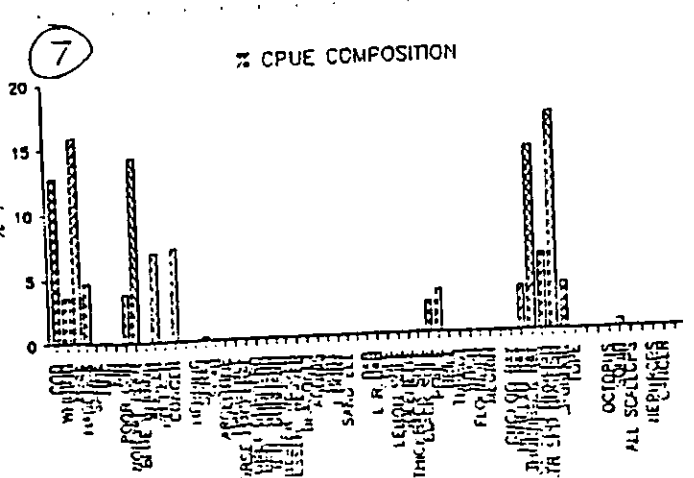
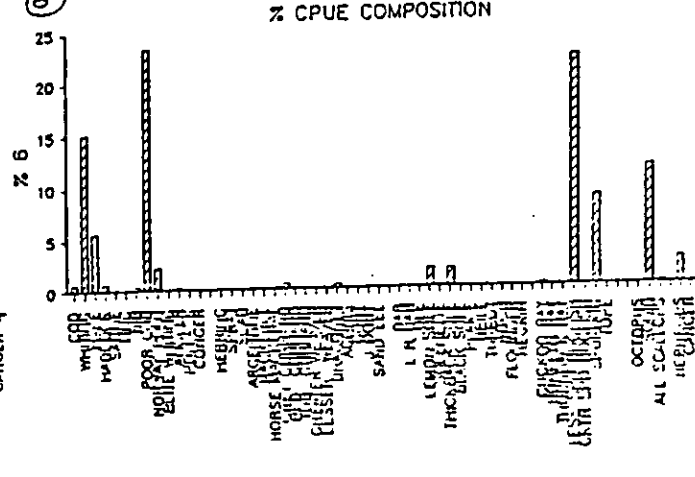
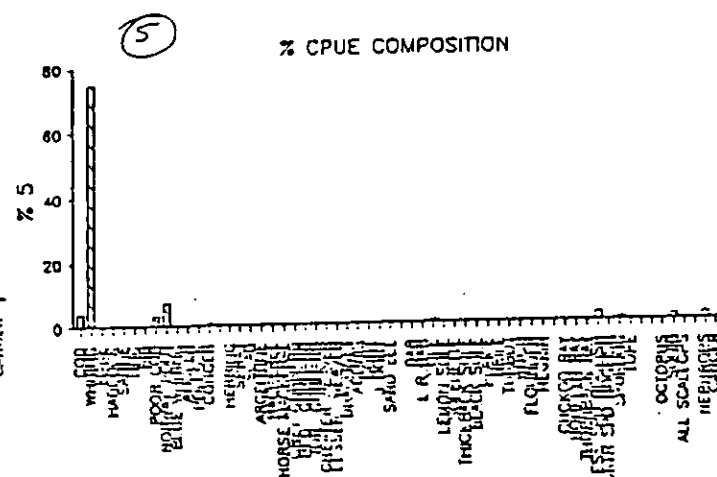
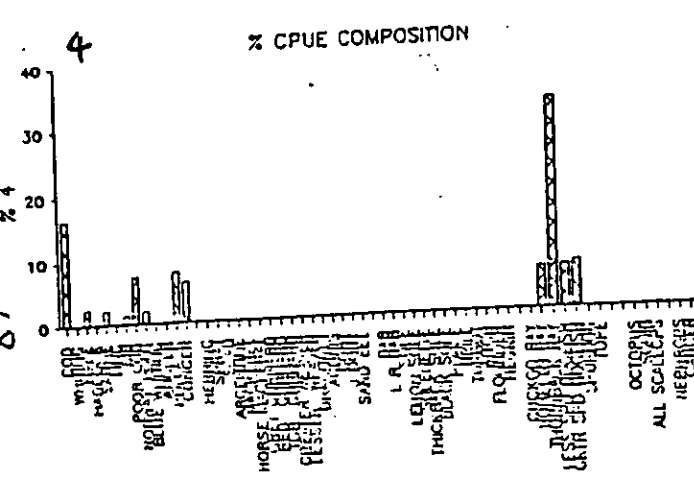
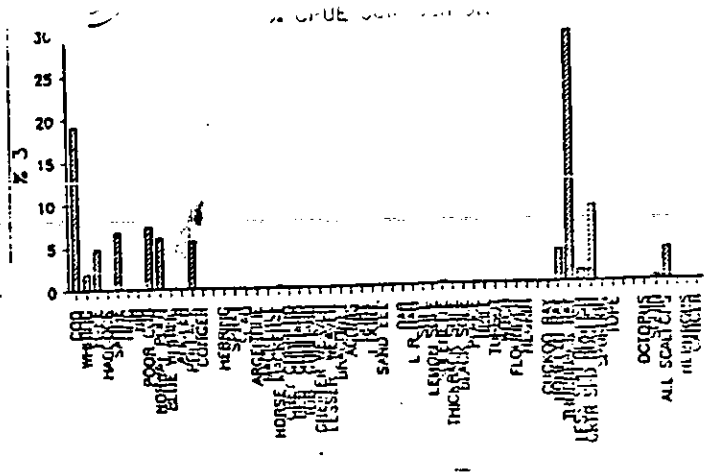
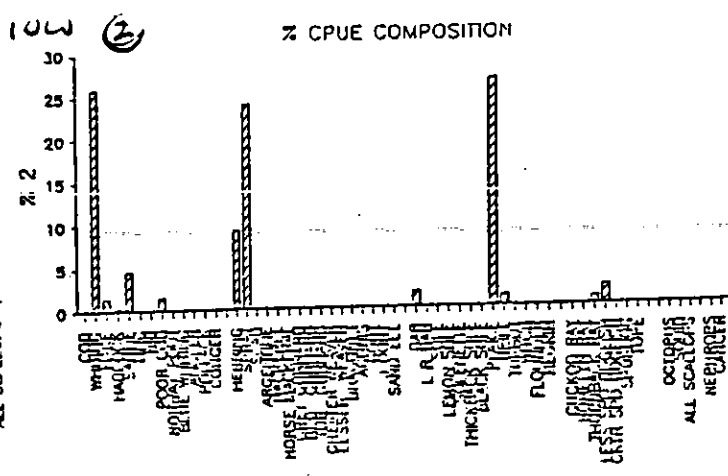
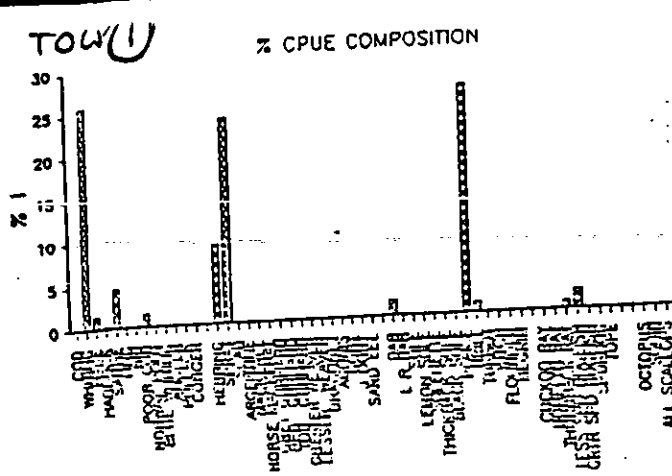
Cruise LF/2/88

S.	TNo.	Start		End				89 STN Nos	
		Lat	Long	Lat	Long				
1	12	55°	04.91'N	6°	01.32'N	55°	08.31'N	6 ° 00.53'W	
2	10	55°	06.13'N	5°	18.86'W	55°	07.90'N	5 ° 21.84'W	30?
3	9	55°	06.37'N	5°	13.17'W	55°	09.24'N	5 ° 13.23'W	31?
4	11	55°	00.00'N	5°	36.83'W	55°	04.1 'N	5 ° 38.06'W	32?
5	7	54°	51.26'N	5°	34.90'N	54°	53.80'N	5 ° 35.41'W	33
7	8	54°	44.60'N	5°	37.82'N	54°	43.28'N	5 ° 41.62'W	35
9	14	54°	43.54'N	5°	04.12'N	54°	42.38'N	5 ° 07.04'W	37?
10	13	54°	31.21'N	4°	52.67'W	54°	29.15'N	4 ° 54.23'W	38
19	2	53°	57.18'N	5°	31.08'W	53°	54.0' N	5 ° 31.24'W	
20	6	53°	59.39'N	4°	57.83'W	54°	02.01'N	4 ° 59.47'W	
23	5	53°	50.94'N	4°	57.34'W	53°	54.03'N	5 ° 00.29'W	
27	4	53°	36.06'N	4°	37.92'W	53°	37.90'N	4 ° 37.56'W	
29	3	53°	15.23'N	5°	4.37'W	53°	19.22'N	5 ° 3.55'W	
30	1	54°	12.28'N	5°	38.6 'W	54°	10.08'N	5 ° 40.64'W	44?
34	15	54°	32.23'N	5°	20.67'W	54°	35.04'N	5 ° 21.44'N	38?

S. = Station

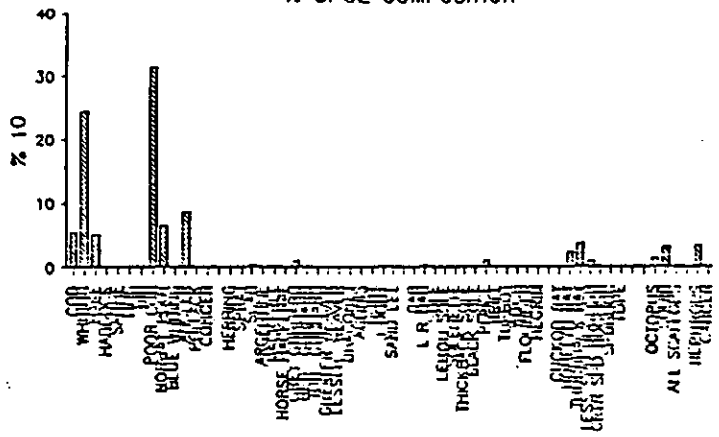
TNo. = Tow No.





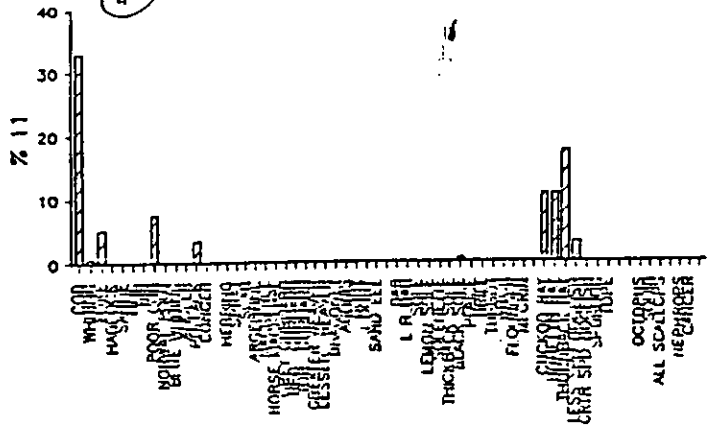
10

% CPUE COMPOSITION



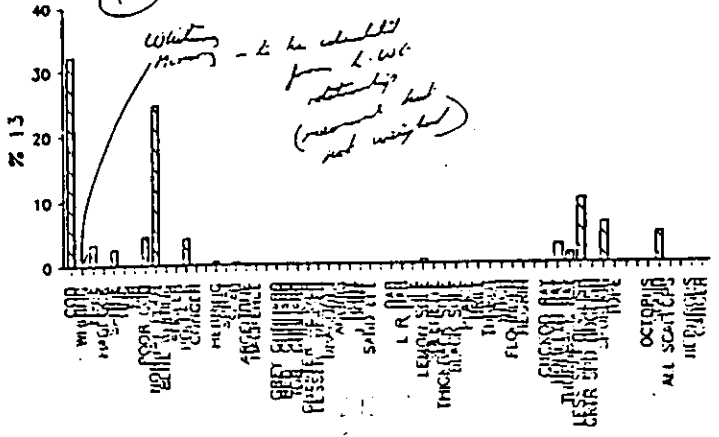
11

% CPUE COMPOSITION



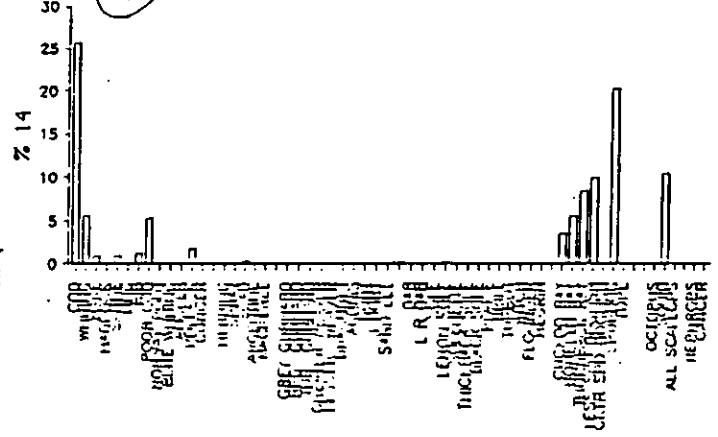
13

% CPUE COMPOSITION



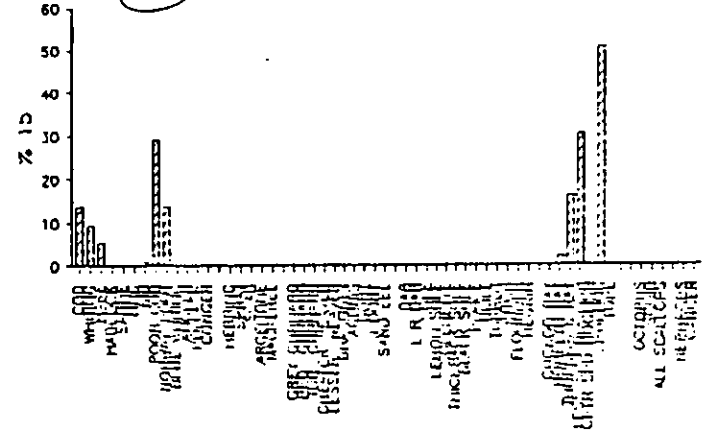
14

% CPUE COMPOSITION



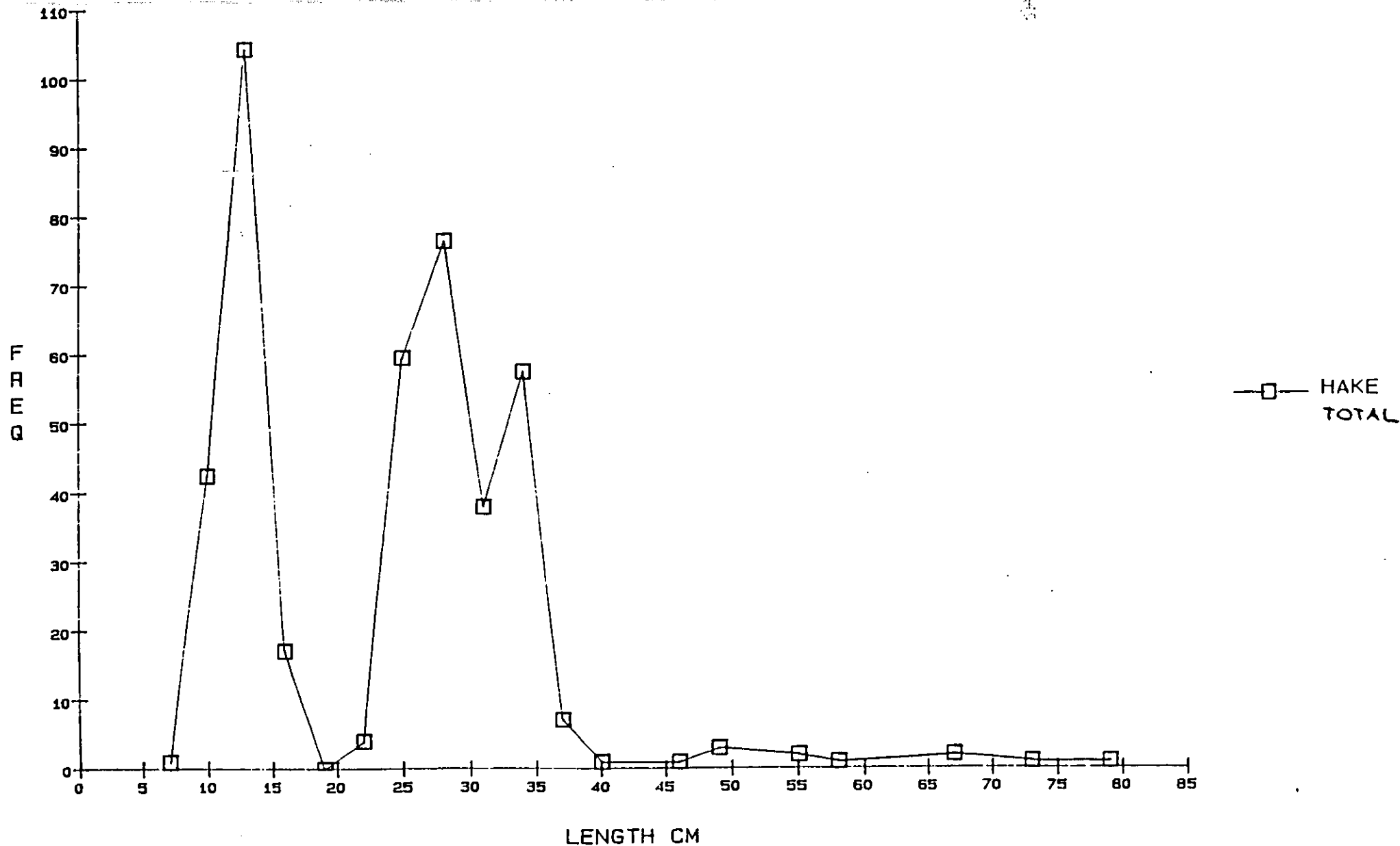
15

% CPUE COMPOSITION

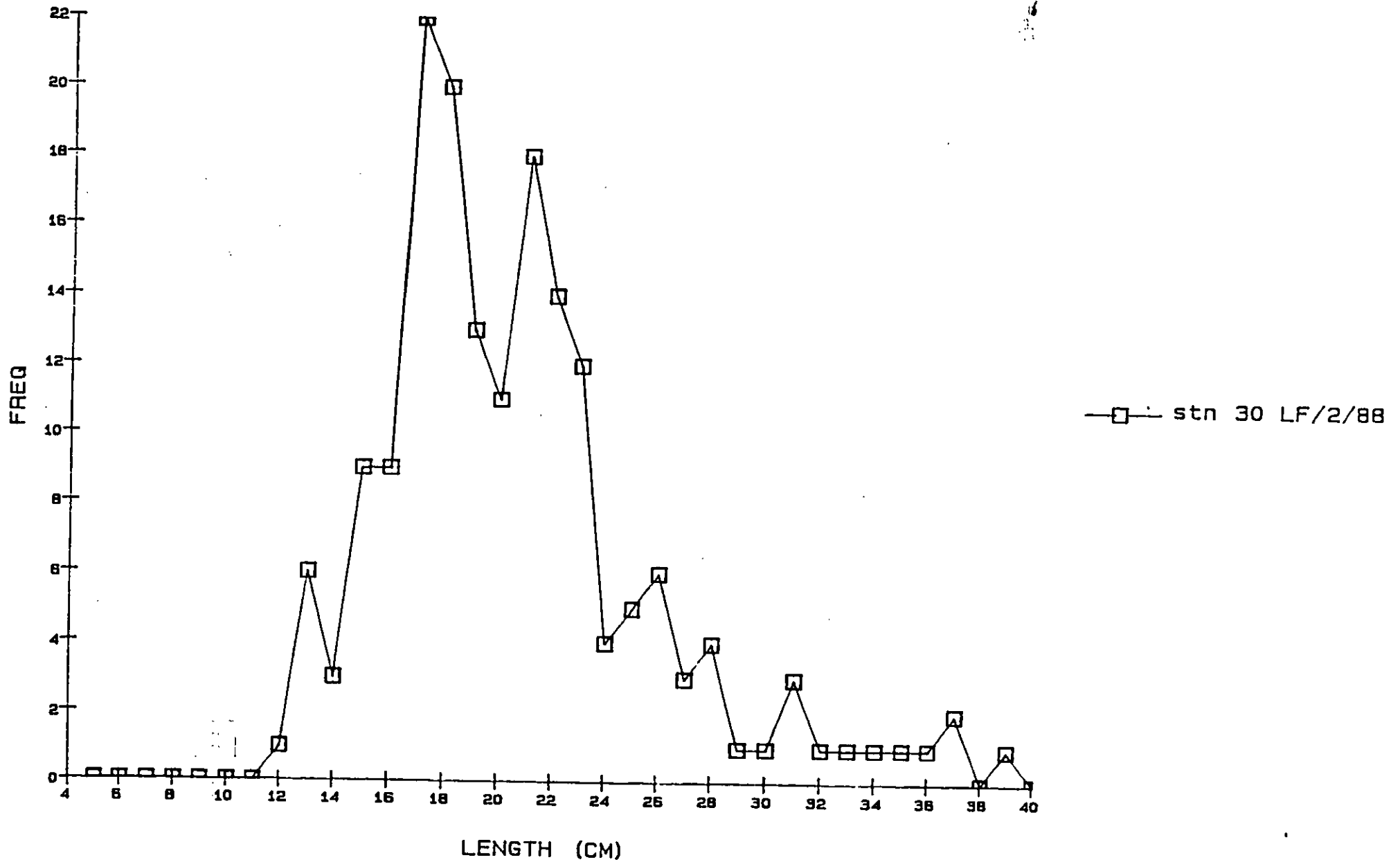


DATA FROM TABLE: HAK288

*Handwritten notes or scribbles at the top of the page.*



PLAICE LENGTH FREQUENCY FROM STATION 30







1288 29R x 16C  
STATION 30  
TOW 1

19 29 27 23 20 5 7 3 2 4 1  
2 3 4 5 6 7 8 9 10 11 12

16-NOV-88 12:11 Page 1  
10 9 34  
13 14 15

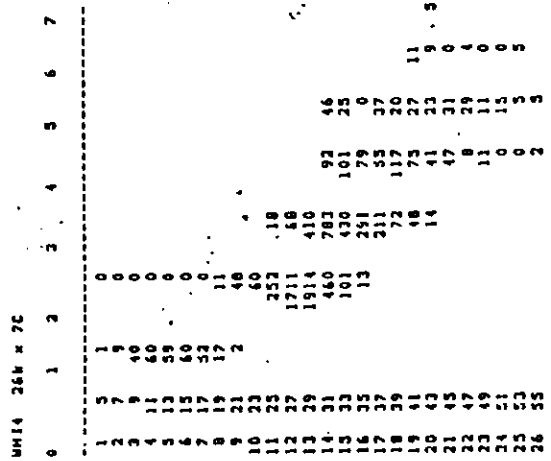
16 SUM

5															
7	59.00														
9	473.00	7.32		1.00	70.80	7.20			8.00						
11	1416	9.76		2.00	0.00	7.20			45.00	68.00	1.00				67.00
13	1829	12.20			177.00	3.60		44.00	55.00	68.00					678.32
15	826.00	26.84			106.20	3.60		176.00	40.00	80.00					1565
17	531.00	19.52			212.40	3.60		352.00	10.00	68.00					2189
19	118.00	0.00			70.80	7.20		308.00	5.00	34.00					1221
21	354.00	2.44			35.40	0.00		132.00	1.00	3.00					1155
23	590.00	19.52			212.40	3.60		132.00	5.00	6.00					508.00
25	0.00	19.52			283.20	3.60		193.00	6.00	15.00					534.84
27	177.00	17.08			495.60	3.60		44.00	3.00	19.00					980.52
29		12.20			177.00	10.80		0.00	5.00	15.00					529.32
31		7.32			106.20	25.20		22.00	1.00	8.00					757.28
33		9.76			35.40	14.40			0.00	5.00					216.00
35		4.88				7.20			0.00	2.00					170.72
37						3.60			5.00	1.00					71.56
39			1.00			0.00				0.00					28.08
41						0.00	1.00			2.00					9.60
43						0.00				0.00					9.00
45						3.60				6.00					9.00
47										6.00					2.00
49										1.00					2.00
51										1.00					1.00
53										1.00					1.00
55										1.00					1.00
NOS OYR	5219	75.74		3.00	610.80	29.57		764.28	163.81	310.06	1.00				7204
NOS IYR	1146	70.66		0.00	1203	33.00		614.17	20.13	62.69	0.00				3163
NOS 2YR	6.77	18.35	0.34		152.43	33.97	0.00	27.36	4.93	8.84					277.84

NO RESULTS - TRAWL DAMAGE

RESULTS LOST

AGE - LENGTH KEY USED



LENGTH | TOW# | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 SUM

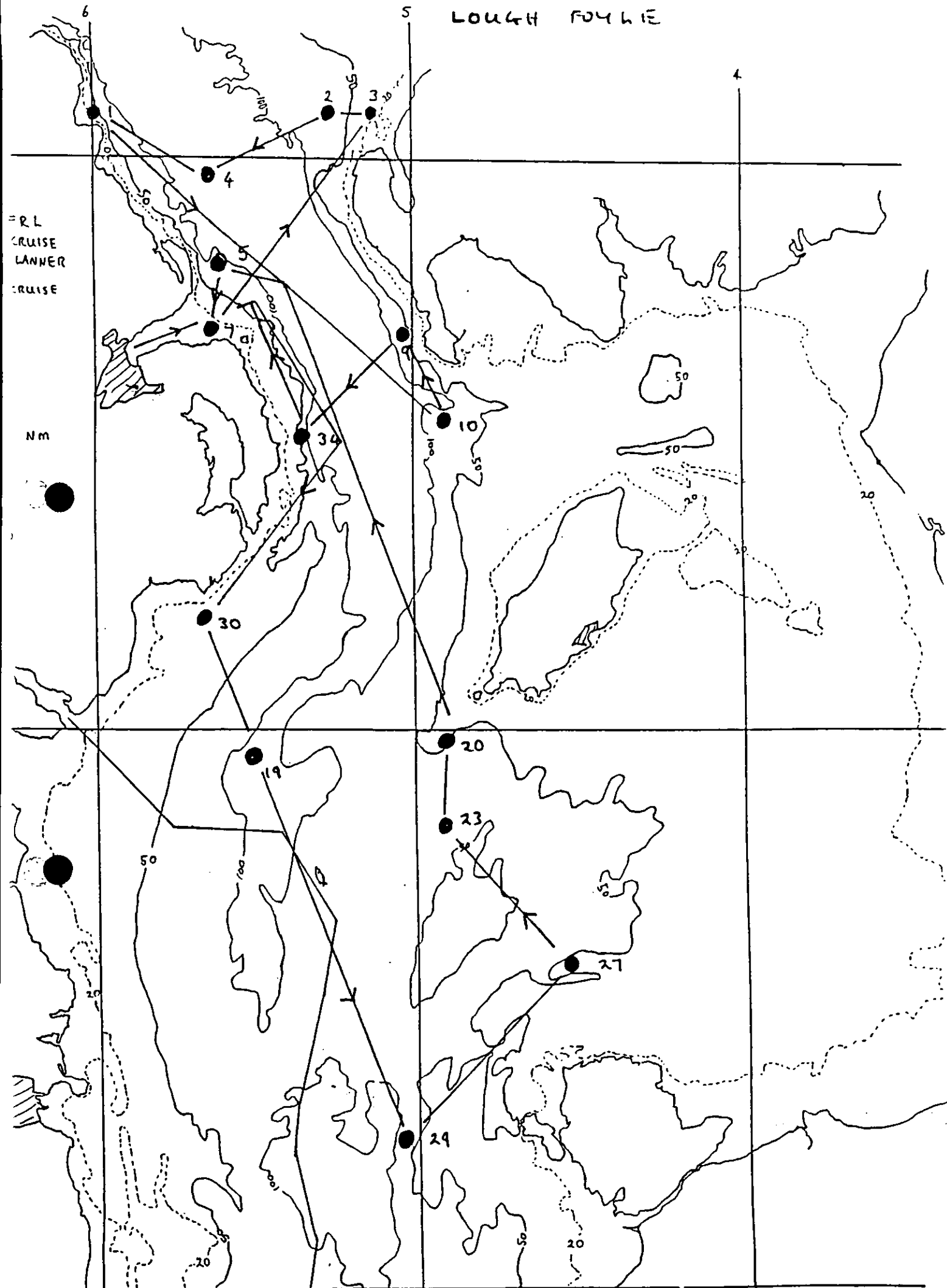
4																1.00
7							1.00									1.00
10		3.44				3.00	18.00		18.00			1.00				42.44
13		34.40				24.00	25.00		31.00							104.40
16						9.00	5.00		3.00							17.00
19																
22									3.00	1.00						4.00
25	12.50							1.00	37.00	9.00						59.50
28	12.50				3.00		8.00	1.00	42.00	10.00						76.50
31							16.00	8.00	11.00	2.00			1.00			38.00
34	37.50						5.00	9.00	2.00		1.00	1.00	2.00			57.50
37								4.00			1.00	1.00		1.00		7.00
40								1.00								1.00
43																
46													1.00			1.00
49												1.00	1.00			3.00
52																
55											1.00				1.00	2.00
58					1.00											1.00
61																
64																
67						1.00					1.00					2.00
70																
73								1.00								1.00
76																
79								1.00								1.00
82																
NOS 0YR		26.84				36.00	49.00		52.00	0.00		1.00				164.84
NOS 1YR	62.50					3.00	29.00	21.33	95.00	22.00	1.50	2.50	2.00	0.50		239.33
NOS 2YR					1.00			2.67			1.50	1.50	2.00	2.50		11.17

AGE-LENGTH KEY USED

AK4 27R x 3C

0	1	2	3
1	1		
2	1		
3	1		
4	1		
5	1		
6	1		
7	1		
8	1		
9	1		
10	1		
11	1		
12	1		
13	1		
14	1		
15	1		
16	1		
17	1		
18	1		
19	1		
20	1		
21	1		
22	1		
23	1		
24	1		
25	1		
26	1		
27	1		

LOUGH FOYLE



CRUISE TRACK  
STATION

Nm  
●

CRUISE TRACK: LF/2/88  
ORDER OF STATIONS: 30, 19, 29, 27, 23, 20, 5, 7, 3, 2, 4, 1, 10, 9, 34