

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

1982 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA: CRUISE 10
(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

J Pope (NIC)
P Wallace
A Child
J Read (up to 12.12.82).
G Howlett
D Eaton
D Palmer
J Elson
H Edge (Plymouth)

DURATION

Left Grimsby 1110 h 24.11.82.
Arrived Grimsby 0825 h 19.12.82.

LOCALITY

Celtic Sea, Rockall Bank, Biscay

AIMS

1. To carry out a fishing survey for mackerel and scad.
2. To service the Rockall current meter array.
3. To obtain mackerel samples for parasite studies by Dr McKenzie (Aberdeen).
4. To field test the Microfin portable terminal for fish measuring.
5. Collect tissue samples for electrophoretic analysis.

NARRATIVE

RV CIROLANA left berth at Grimsby at 1110 h 24.11.82. and set course for Lands End. Work commenced at 1235 h 26.11.82. south of Start Point and continued the next day on stations to the south of Ireland. Course was then set for Rockall Bank since weather prospects appeared likely to allow work on current meters.

RV CIROLANA arrived at the vicinity of meter rigs 07-82/08-82 at dawn of the 29.11.82. but poor weather conditions prevented their lifting and relaying until the next day. Similarly RV CIROLANA spent 1.12.82. and 2.12.82. dodging in the vicinity of rig 05-82 before it could be lifted in very marginal conditions on 3.12.82. Later that day an unsuccessful search was made for rig 06-82 (subsequently reported washed up on the Isle of Lewis) and rig 05-82 was relayed. (The successful servicing of this rig in very marginal conditions speaks highly of the professionalism of every one concerned). Rig 10-82 was successfully serviced on 4.12.82. and an I.O.S. Bathysnap Rig was successfully recovered on 5.12.82. during the steam back to the fishing grounds.

Fishing recommenced to the south of Ireland on the evening of the 5.12.82. The fishing plan was three two hour tows per day with the Portuguese High Headline Bottom Trawl. These were to be carried out at dawn, noon and dusk in separate degree by degree rectangles. This was achieved on 6.12.82, and again on the 7.12.82, though with reduced duration of tow due to poor weather. There after conditions deteriorated and were rarely better than marginal and frequently atrocious for the residue of the cruise. Thus only one fishing station was possible on the 8th and 9th and none on the 10th and 11th. On the 12th work was only feasible in the shelter of the Lizard Peninsular and two hauls were made. J Read landed having completed C.M. work. Work was just possible on the shelf on the 13th, 14th and 15th when two tows were made each day. On the 16th fishing was only possible in the shelter of the Lizard and the midwater trawl was used to sample midwater traces. It was used again on the 17th to sample traces in the vicinity of the Hurd Deep. Fishing here finished at 1503 h and with deteriorating conditions and gales forecast it was decided to make course for Grimsby. A cruise track chart is given (Chart 1). RV CIROLANA docked at Grimsby at 0825 h 19.12.82.

RESULTS

Aim 1. Fishing was carried out successfully in 22 of a possible 48 survey rectangles. The shortfall being due to lack of time (due to the conflicting aim 2) and poor weather conditions. Chart 1 shows the stations fished which are predominantly in the Celtic sea area. Priority was given to sampling the Great and Little Sole Banks and La Chapelle Bank where '0' group mackerel had been found in 1981. The catch rate (in weight) of all species were generally low except in the Eddystone area. Small (possibly 0-group) mackerel were caught only on Little Sole Bank off Start Point and over the Hurd Deep and only in small numbers at these places. In contrast '0' group scad were abundant and widely distributed.

At each station weights of all fish species were recorded and length distributions sampled following groundfish survey practice. These results are recorded on computer disc 81. Age at length material were collected from the following species.

Age-length materials collected - CIROLANA 10/82.

<u>Species</u>	<u>No</u>	<u>Species</u>	<u>No</u>
Scad	334	Sole	4
Blue whiting	136	Lophius	32
Mackerel	67	Whiting	45
Pilchard	91	Pollack	18
Lemon Sole	41	Cod	14
Megrim	74	Ling	5
Plaice	2	Bass (Scales)	4

Aim 2. This 'emergency' aim was to recover and relay 5 of the Rockall Bank current meter rigs, laid in June. These were to be re-fitted with lithium powered acoustic releases and collected data removed from the meters. This aim was afforded the greatest priority.

Four of the five rigs were recovered and relayed as planned (see table) but despite several hours of interrogating, in marginal weather conditions, at various positions no trace could be found of 82-06. (This rig was subsequently reported washed up on the Isle of Lewis). All 8 of the recovered meters were working when opened and each had its data removed. One meter had a loose

lower rotor bearing which was re-fixed and another was recovered with the securing split pin missing which had allowed the meter to slip upwards. The meters were timed while opened but timing was not altered and only a visual check was performed before redeployment.

<u>New rig no.</u>	<u>Old rig no.</u>	<u>Posn. (New)</u>	<u>A/R Number</u> <u>Freq. Serial</u>	<u>Depth</u>
82-15	82-08	52°59.13'N, 18°23.4'W	2337/360/1.12	3155
82-16	82-07	53°25.48'N, 19°01.44'W	2547/240/1.02	2495
82-17	82-05	54°05.21'N, 19°55'W	2185/380/1.04	1335
82-18	82-10	51°53.90'N, 19°37.42'W	2182/440/0.96	4340

Aim 3

A sample of mackerel was frozen for Dr McKenzie (Aberdeen) from the Eddystone area but nowhere else were mackerel caught in sufficient numbers to form a sample.

Aim 4

An attempt was made to test the microfin portable terminal for fish measuring in field conditions but it failed to hold its battery charge and attempts to recharge it were unsuccessful.

Aim 5

Tissue samples for electrophoretic analysis were taken from *T. esmarki* and *T. luscus*.

Other Matters

An IOS Bathysnap rig was recovered from Porcupine Bank in response to a telegraphed request. The Neuston net was used at 12 stations to search for larval fish. Only 3 larval fish were caught. These were preserved for identification at Lowestoft.

The Thermograph was run throughout the cruise. The environmental package was run intermittently but considerable problems were experienced with aeration of the salinity electrode. 10 boxes of fish food were frozen. Samples of mixed gadoids and mixed pelagic fish were frozen for fish identification courses.

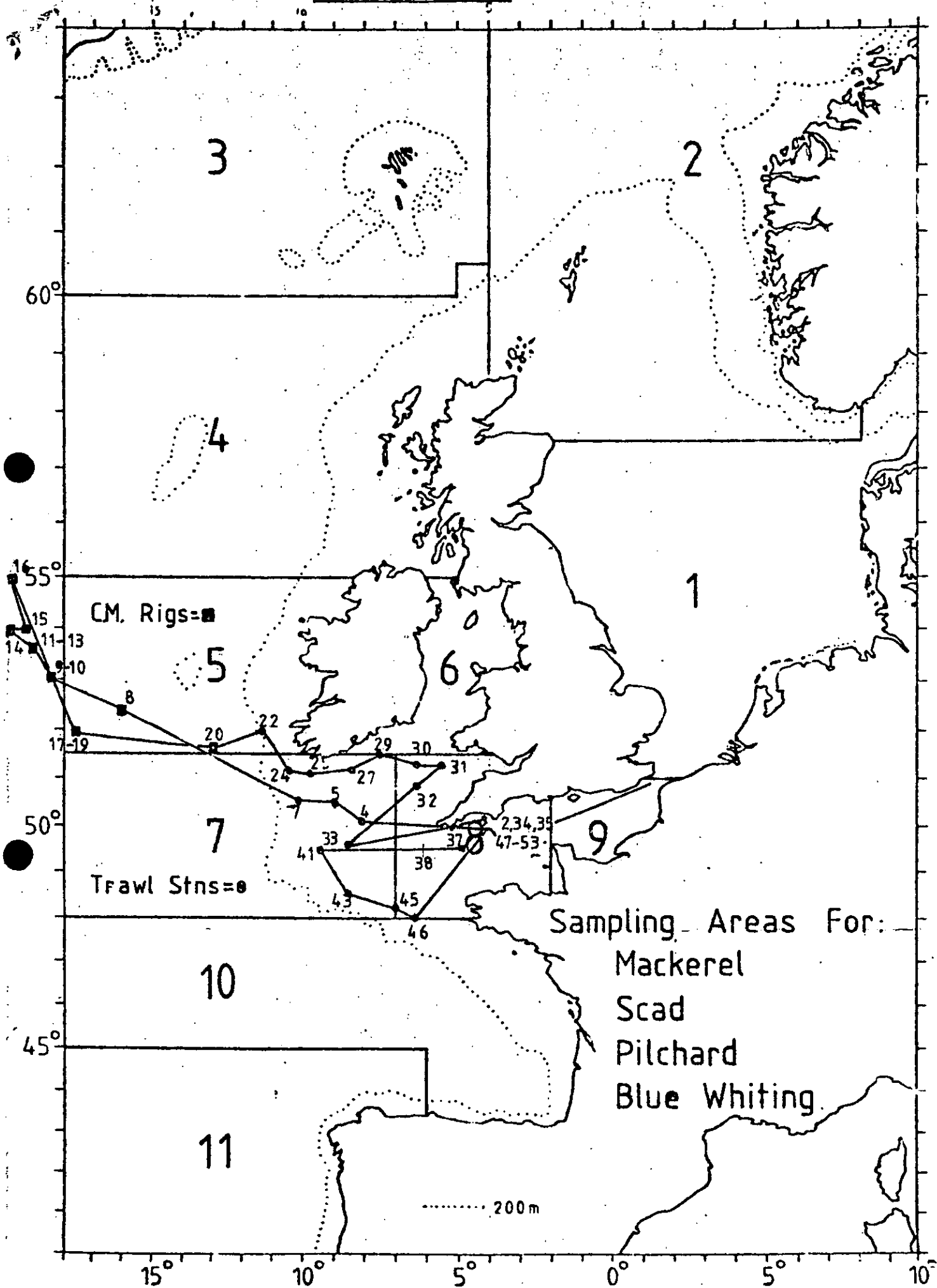
John G Pope
4 January 1983

SEEN IN DRAFT: B A Chapman - Master
W J Saxby - Fishing Skipper

INITIALLED: DJG

DISTRIBUTION:

Basic List	
J Pope (NIC)	D Eaton
P Wallace	D Palmer
A Child	J Elson
J Read	H Edge (Plymouth)
G Howlett	Mrs Boon



CM. Rigs=■

Trawl Stns=●

Sampling Areas For:
Mackerel
Scad
Pilchard
Blue Whiting.

..... 200m