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

1983 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE : CRUISE 13

(Provisional - not to be quoted without prior reference to the author)

STAFF: M R Vince

P Scholes (25-26 October only)

S Flatman

D R Eaton

S R Lovewell

J M Everett

J M Elson

DURATION:

25 October - 9 November

LOCALITY:

Western English Channel

AIMS:

1. To obtain fish by trawling at the Smiths Knoll for transport to the laboratory alive. (FE11)
2. To tag suitable demersal fish caught by trawling on grounds in the Western English Channel. (FA111)
3. To obtain selection data for demersal fish species of commercial value for which there are little or no data. (FA111)
4. To carry out three separate echo sounder surveys for pelagic fish shoals on grounds between Beachy Head and Lands End, and identify the composition of any located. (FA14)
5. To carry out hauls with the Neuston net for Dr Lockwood. (FA14)
6. To obtain otolith samples from suitable fish in order to back up the routine market samples. (FA11)

NARRATIVE:

(all times at GMT)

RV CLIONE sailed at 1030 hrs 25 October and proceeded to Smiths Knoll. Two one hour hauls were made in the afternoon with excellent plaice catches and having completed Aim 1 of the cruise the ship returned to Lowestoft, docking at 2145 hrs.

The exchange of staff and unloading of the live fish having been completed by 1000 hrs the ship sailed at 1030 hrs 26 October. On 27 October between 0030 hrs and 0630 hrs an echo grid was carried out off Beachy Head. Fishing commenced at 0700 hrs 28 October approximately 26 miles SW of Wolf Rock. Seventeen one hour tows were completed in this area by 1400 hrs 30 October. During the night of 30-31 October an echo survey was carried out between Lands End and Dodman Point. This was part of a more extensive grid

to cover the inshore area between Lands End and the Bill of Portland. From 0630 hrs and 1700 hrs 31 October six trawl hauls were made between 4 to 10 miles SSE of Dodman Point. The echo survey was continued during the night of 31 October - 1 November. Fishing recommenced at 0630 hrs 1 November 5 miles SE x E of the Eddystone. Five hauls were made in this area before nightfall. The echo survey conducted during the night of 1-2 November covered the Start Point area. Six hauls with the trawl were made on 2 November to the SE of Start Point. The echo survey was continued that night to the east finishing at 0216 hrs 3 November. Fishing recommenced at 0650 hrs 10 miles S x E of Beer Head. Six hauls were made in this vicinity. The echo survey was completed during the night of 3-4 November and three trawl hauls were made on grounds 21 miles SW of the Bill of Portland during the morning 4 November.

CLIONE took water at Cherbourg between 4 and 5 November and completed a 10 hour echo survey in the vicinity of the Hurd Deep during the night of 5-6 November. The last two days fishing were spent between 8-13 miles S x W of Start Point. Tows with the Neuston net were made during the cruise. The ship commenced steaming at 2045 hrs 7 November to dock at Lowestoft 0900 hrs 9 November.

RESULTS:

- Aim 1 21 large plaice in excellent condition were landed alive for sector scanner work.
- Aim 2 The increase of the double beam trawl fleet in the south-west has resulted in a very large increase in landings of megrim, 'monk', sole and lemon sole. To date no reliable data exists for fishing effort on most of above species from grounds exploited by this fleet. To improve this lack of knowledge an injection of tagged fish into the fishery was needed. For megrim the indications are both from this cruise and a previous cruise (Dew - Genen - Ny '82) that even when the condition of the fish appears to be good on capture, the survival of fish retained in the tank prior to being tagged is nil. Consequently no megrim were tagged despite reasonable catches of this specie on grounds 26 miles SW of Wolf Rock. Total numbers of other species tagged can be found on table I.
- Aim 3 Current proposals to increase the minimum legal mesh size in the channel has prompted an investigation into the mesh selection for demersal fish for which little or no data exists. Results of this cruise have yet to be processed but measurements were carried out for the following species: Gurnard (Red and Grey), Dab, Megrim, Hake, Pout, and Red Mullet. On this cruise a cod-end cover of 30 mm double braided nylon which completely covered the 80 mm mesh cod-end was used. This overall cover was equipped with three pairs of trawl pellets on the topside panel to hold it off the main cod-end and thereby assist the flow of water and fish. One obvious advantage of this cover was its ability to withstand damage and retain reasonable weights of fish without splitting.

Aim 4 An echo survey was conducted for pelagic traces in the Beachy Head area, the inshore area between Portland Bill and Lands End, along the northern edge of the Hurd Deep, and during passage between fishing areas when feasible. The survey was carried out using the Kelvin Hughes MS44 sounder and Furuno colour-sounder. The bridge Elac sonar was also used on a 90° side to side and return search pattern.

No sizeable traces were found during the survey although scattered small shoals were detected approx. 30 miles south of Start Point on 6 November. Very little fishing activity was observed, other than the Mevagissey area mackerel handline fleet south of the Dodman on 31 October.

At least one vessel (49 ft) was single boat trawling for sprat on the grounds situated approximately 10 S x E of Beer Head. Small traces were observed whilst trawling but the catches were mainly large mackerel.

Aim 5 The Neuston net was only shot 8 times and only 4 samples were preserved. Little was caught on any occasion. Difficulty was experienced positioning the net away from the ships side despite re-rigging the bridles with an extra shackle on one side only. If this gear is to be used in future from this ship a vane that causes it to sheer away should be fitted.

Aim 6 Measurements and otolith samples were taken from every haul when necessary and a complete summary may be found on table I. In addition to the results already listed the following information was recorded:

(a) On all grounds fished the Decca navigator plotter was used. All tows were recorded and are listed in the records kept by RV CLIONE for future use.

(b) Catches of scad and mackerel although small in quantity in commercial terms were extensive in distribution. The modal length of mackerel ranged from 30 cms from grounds off Dodman Point where a small fleet of handliners were working, to 41 cms on grounds 10 mile S x E of Beer Head. Catches of up to 60 stone for a one hour tow were made on the latter grounds. Little commercial interest was shown in these catches by other vessels fishing this area.

(c) An increase in the landings of Red Mullet in the south-west had been noted this year. This cruise witnessed catches of this specie (*Mullus surmuletus*) far in excess of any previously recorded by the staff on board. Distribution was again widespread along the south-west coast, but the heaviest catches numerically came from the grounds off Beer Head. One tow of 1 hours duration resulted in a total number of 156 fish taken mainly from the cod-end cover. The majority of fish ranged from 5 cm to 12 cm with a modal length of 10 cm. There were, however, a few fish between 18 and 22 cm. An extensive sample of all sizes of this specie was frozen for further processing.

Finally the exceptionally fine weather with no time lost was instrumental in all aims of the cruise being completed.

M R Vince
29 November 1983

Seen in draft: J French, Captain
R Newrick, 1st Fishing Mate

Initialed: DJG

DISTRIBUTION:

- Basic list +
- M R Vince
- P Scholes
- S Flatman
- D R Eaton
- S R Lovewell
- J M Everett
- J M Elson

TABLE I CLIONE 13/83

SUMMARY OF FISH SAMPLED AND TAGGED

<u>Species</u>	<u>No Tagged</u>	<u>No Otolithed</u>		<u>Samples Frozen</u>	<u>Samples for Fish Identification</u>	<u>Samples for EAU York</u>	
		107E	107H			EAU	York
Sole	40	13	13		1		
Lemon Sole	116	3	31				
Lophius piscatorius	103	21	21				
Lophius bidegassa	3						
Bass	1			1			
Plaice		72	16				
Megrim			74		1		
Whiting		54	43		1		
Hake			(35)		1		1
Scad			(115)				
Mackerel				1			
Pilchard				1			
Herring				1			
Red Mullet				1			
Sand Sole					1		
Black Sea Bream					1		
Blue Whiting					1		
Poor Cod					1		
Scaldfish					1		
Sprat					1		
Pollack					1		
Pout Whiting					1		
Solenette					1		
Dab					1		
Thickback Sole					1		
Shads							1

CLIONE 13/83 CRUISE TRACK

6°

3°

0°

5°

