

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

1985 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 9

(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF:

P D Wallace
K Stokes
C N Humphries
S Flatman
MRs W A Dawson
Ms S Millward

DURATION:

8-25 July

LOCALITY:

Celtic Sea Western English Channel

AIMS:

1. To carry out a survey for young pelagic fish.
2. To carry out a depth stratified trawl survey of the Celtic Sea.
3. To carry out a fishing and echo survey in the Western English Channel.
4. To obtain biological samples from a number of species to supplement market sampling information.

NARRATIVE:

CLIONE sailed at 1400h and made a good passage to the specified position off Start Point where the Plessey rig was successfully laid. The ship then carried out a series of tows with the Neuston Net and 2 tows with the Portugese High Headline trawl before proceeding to a position off Brixham on 10 July where Mr Flatman joined the ship.

On 11 July, 2 trawl hauls were carried out off the N Cornwall coast, then as fresh to strong south west winds were forecast, it was decided to move to Cardigan Bay where further trawling was carried out in a sheltered area. During the night of 12 July and the following day CLIONE carried out a neuston net survey for pelagic fish from Cardigan Bay to Lundy Island then westwards to the Celtic Deep where the 5 standard trawling stations were completed by the evening of 15 July.

Throughout the survey bottom trawling using the Portugese High Headline trawl took place during the day and at night surface tows with the neuston net were carried out although at times heavy swells prevented the use of this gear. On 17 July weather conditions were too rough to use the neuston net so the Boothbay net was shot. On hauling however, it was found that the frame had sheared although the net was intact. The weather then gradually deteriorated and in view of a bad forecast it was decided to work the southern most stations of the survey on 18 July.

Later that day course was set for Concarneau and CLIONE docked there at 0900h 19 July. The Boothbay frame was repaired and after obtaining freshwater, CLIONE sailed at 1500h on 20 July, after having been delayed for 7 hours due to a fault in the gyrocompass. A further trawling station was carried out that day, then the ship moved north to the Parson's Bank area where further trawling

took place. The ship steamed towards the Eddystone area and completed two trawling stations before strong SW winds stopped any further work. CLIONE sheltered throughout the night of 22 July off Brixham. On 23 July a previously invalid tow was successfully repeated before the ship steamed to Lowestoft where she docked at 0330h, 25 July.

RESULTS:

Aim 1. A total of 51 stations were worked with the Neuston net over a wide area mainly at night. Each tow was of 15 minutes duration and all fish were picked out and preserved for identification. Mackerel larvae (8 to 20 mm) were caught in the 'Smalls' area and one 0 group mackerel (34 mm) was caught near St Davids Head. Rockling were fairly abundant and sand eels, blennies, lobster larvae, saury pike and clupeoid larvae were present in some of the samples. Large numbers of jellyfish in the Cardigan Bay area caused problems with net clogging in some of the tows in that region. Many pilchard larvae were caught in the area between the Great Sole and the Little Sole Banks. Mackerel larvae ranging from 7 mm to 20 mm in length were also present there. At times throughout the cruise heavy swells prevented the use of this gear.

Aims 2 & 3. A total of 24 valid hauls were made over a wide area of the Celtic Sea and Western Channel. Each haul was of one hour duration. The trawl used was a Portuguese high headline trawl rigged with rubber ground rope, 14" rubber bobbins, bunt tickler and cod end liner.

All fish species were identified, counted, weighed and measured and the data were recorded on catch and length record forms. Station, catch and length data were recorded during the cruise using the new groundfish survey suite. No major problems were encountered once the database utilities (RSG3) and groundfish programs (FSM) were installed. The groundfish survey input program was found to be reliable and very easy to use.

Generally, catch rates were low over the wide area surveyed and a large proportion of the catch by weight and numbers was made up of species such as horse mackerel, blue whiting, Norway Pout and Poor Cod. Relatively large quantities of mackerel (371 Kg per hour) were caught in Cardigan Bay. Most of these fish were 'small I ringers' of the 1984 year class.

The last trawl haul of the trip in Start Bay consisted largely of I group scad. 1,551 Kg of these fish were caught in one hour.

Aim 4. A total of 1,119 pairs of otoliths were taken from the main species (for details see otolith summary sheet). Samples of megrim, red mullet and Angler fish were frozen for more detailed examination in the laboratory.

Aim 5. A selection of fish species was frozen for the fish identification course at Lowestoft.

Aim 6. Samples of blood plasma from a wide variety of fish species were collected for Dr Jamieson. These included Blue shark, Greater and Lesser spotted dogfish, Starry smoothhound, *R. clavata*, *R. montagui*, *R. brachyura*, *R. fullonica*, *R. naevus*, *Lophius piscatorius*, *Lophius budegassa*, Pollock, Hake, Ling, Conger, Megrim, John Dory, Boarfish and Red Gurnard.

Aim 7. The food in the stomachs of various fish species caught in the Celtic Deeps area was identified and the stage of digestion noted. Fish thus examined included Blue whiting, whiting, cod, pollack, saithe and hake.

Bass were kept for Mr Pickett. Six Black Sea Bream for Dr Mackenzie and samples of Nephrops and berried Nephrops were kept for Mr Symonds and Dr Bromley.

Peter Wallace
5 August 1985

SEEN IN DRAFT:

M W	Master
R N	Fishing Skipper

INITIALLED:

D J G

DISTRIBUTION:

Basic List +
P D Wallace
K Stokes
C N Humphries
S Flatman
Mrs W Dawson
Ms S Millward
Foreign Office (copies for France and Ireland)

OTOLITH TALLY SHEET

ICES DIVISION

<u>Species</u>	<u>107A</u>	<u>107E</u>	<u>107F</u>	<u>107G</u>	<u>107H</u>	<u>107J</u>	<u>108A</u>
Plaice	34	20	1	3		3	
Sole							2
Lemon Sole		2	3	14	3	2	1
Whiting	3	38	21	22	7	5	1
Ling		4		1	5		3
Hake		2	27	29	13	23	50
Cod				23	2	4	
Pollack				13			
Blue Whiting		13	28	7		34	14
Pilchard			31				
Horse Mackerel		59	109	25		99	118
Mackerel	100	26	26			46	

