

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

1987 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA : CRUISE 10

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

STAFF:

B W Jones
P O Johnson
W L Huggins
M R Vince
S Flatman
A F McCulloch
Mrs W A Dawson
S M Stevens
S Warnes
Ms C Pineiro (Observer, Spain)

DURATION:

25 November-20 December

LOCALITY:

Celtic Sea

AIMS:

1. To carry out a trawl survey of the western Celtic Sea.
2. To sample juvenile fish.
3. To sample pelagic shoals.

NARRATIVE:

CIROLANA sailed from Hay's Wharf, London, at 1630 h on 25 November and made a good passage through the Channel. With good weather prevailing the ship proceeded to the shelf edge where fishing on the trawl survey commenced at 1300 h on 27 November. Fishing continued in good weather along the shelf edge and 17 stations were worked before a deterioration in weather conditions caused fishing to be suspended for about five hours on 1 December. Only one haul was possible during the following two days. Weather again prevented any fishing on 8 December and half a day was lost on 10 December.

On 11 December CIROLANA had to steam to St Ives bay to land the Radio Operator who was sick, but weather conditions would, in any case, have made fishing impossible. Fishing on the survey grid recommenced on 12 December and continued to 18 December with only one further interruption due to weather on 16 December when fishing had to be abandoned after one haul.

After completing the planned trawl survey grid on the morning of 18 December CIROLANA proceeded to the south coast of Cornwall. During the night of 19/20 December a search was made for mackerel shoals. One of the shoals was relocated in the morning and a haul was made through it with the bottom trawl. No further shoals could be relocated so CIROLANA set course for Lowestoft. After a good passage the ship docked at 2020 h on 20 December.

RESULTS:

Aim 1. A total of 52 valid survey stations were worked on the continental shelf between 47°30'N and 51°00'N and between 4°00'W and 12°00'W (see attached track chart). All stations were worked using a Portuguese High Headline trawl fitted with rubber bobbins, a bunt tickler chain and a cod-end liner. Polyvalent trawl doors were used. At each station the catch of each species was weighed and all fish, or if appropriate a sample, were measured. Samples of otoliths were taken as required. The resultant data were input into computer database using the Groundfish Survey Database programs, and preliminary summations and analyses were made.

Horse mackerel was the most abundant pelagic species with a maximum catch per haul of four tonnes. Mackerel were more abundant than on the same cruise last year. Of the demersal species spurdogs were most abundant in terms of weight, followed by blue whiting, megrim, poor cod, boarfish and hake.

Aim 2. Juvenile fish were sampled routinely during the survey. About 80% of the mackerel caught on the survey stations were of the 1987 yearclass. A high proportion of the hake caught were also of the current yearclass. Horse mackerel in the catches covered a range of age groups including 0-group.

Aim 3. No pelagic shoals were located during the survey although shoals of pelagic species were encountered close to the bottom and several of these were sampled during the course of the survey. The majority of these were of horse mackerel. The single shoal of pelagic fish located on the bottom in the vicinity of the Eddystone contained a mixture of horse mackerel, pilchard, and mackerel with a small number of sprat and anchovy.

MISCELLANEOUS:

1. Samples of fish were preserved frozen for use in fish identification courses.
2. Samples of mackerel ovaries were preserved for histological examination for fecundity studies. (Dr. Greer-Walker).
3. Additional samples of mackerel ovaries were collected for a PhD student at the University of North Wales, Bangor.
4. Specimens of long rough dab were preserved frozen for a visiting student (D. Harding).
5. Small fish for use in laboratory feeding experiments were preserved frozen (Dr. P. Bromley).
6. Hake eyeballs and otoliths were collected for ageing studies.
7. Three bass were frozen and returned to the laboratory (Dr. Pawson).
8. Spines from spurdogfish were collected for Mr. G. A. McFarlane, Canada.
9. During the cruise transcription to database format was completed for the remaining earlier cruises which had not already been converted to this format.
10. A sample of mackerel was obtained for Dr. McKenzie (DAFS).

GEAR DAMAGE:

The following loss or damage to fishing gear was sustained during the cruise:

- 1 x Dan Leno bobbin.
- 1 x 10 fm bridle.
- 1 x 25 fm spreader.
- 1 x 22.5 fm spreader.
- 2 x 5 fm legs.
- 1 x 48' chain.
- 2 x 20' groundrope.
- 1 x 20' rubber bobbins.
- 1 x 5' rubber groundrope.
- 1 x PHHT belly.
- 1 x PHH Trawl excluding cod-end and lengthening piece.

B W Jones
11 January 1988

SEEN IN DRAFT:

M J W
R G

INITIALLED:

D J G

DISTRIBUTION:

Basic List+

B W Jones
P O Johnson
W L Huggins
M R Vince
S Flatman
A F McCulloch
Mrs W A Dawson
S M Stevens
S Warnes
Ms C Pineiro

CIROLANA 10/87 VALID PHHT HAULS

SHOWING :
STATION POSITION
STATION NUMBER
COASTLINE

