

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

1979 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 4A

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

STAFF

B C Bedford

G J Howlett

R J Turner

R W Unsworth

P Scholes (29 March only)

DURATION

Left Lowestoft 0900 h GMT 29 March

Arrived Grimsby 1130 h GMT 18 April

AIMS

1. To investigate the species, size and age composition of catches in the Danish industrial fishery for gurnards centred around the Middle Rough area, and to identify the bi-catch.
2. To measure selectivity of a 90 mm cod-end for gurnards.
3. To tag cod and if possible other gadoid species in the general area between Cape Wrath and Muckle Flugga.
4. To obtain data on the whole weight/gutted weight relationship from as many commercial species as possible.
5. To obtain otoliths from cod, haddock and whiting to supplement the regular commercial vessel sampling programme.
6. To obtain specimens in good condition from as many species as possible for Mr Blacker's next fish identification course.
7. To bring back live halibut for Dr Purdom.
8. To obtain fish food (sandeels) for FCG.

NARRATIVE

CLIONE sailed from Lowestoft at 0900 h 29 March and proceeded to Smith's Knoll where 3 hauls were made that afternoon to obtain live plaice for Dr Greer Walker. Of the planned complement for the cruise only 4 staff sailed, Messrs Brown and Hawke having been unable to sail. The ship returned to Lowestoft briefly at 1930 h to land the live fish and Mr Scholes, who had come to supervise this work. CLIONE left again and set course for the Middle Rough area arriving there at 1730 h 30 March. There were no Danish boats in the area and a single trawl haul was made before embarking on a search of other areas where this fleet had been reported in previous years. Two more hauls were made on 31 March during the passage northward at grounds where good catches of gurnards had been reported previously.

Fishing for roundfish for tagging began on 1 April at Dutch Bank, south-east of Fair Isle and later the same day grounds between Fair Isle and Sumburgh were fished. An overnight move was then made to The Patches, west of Papa Bank which was fished throughout 2 April. Grounds at Rona and around the Butt of Lewis were fished during 3 and 4 April. CLIONE anchored in Loch Carloway (west side of Lewis) on the evening of 4 April for work on Aim 4 to be carried out. Grounds south-east of the Flannans were fished during the morning of 5 April, followed by a move some 15 miles to the north where a number of English commercial vessels were working. The next 3½ days were spent here with one further overnight visit to Loch Carloway for Aim 4 during 7/8 April. CLIONE left the Flannans fishing grounds at 2100 h 8 April and steamed to Stornoway arriving there at 0800 h 9 April.

CLIONE left Stornoway at 0800 h 10 April and returned to the Flannans arriving at 1700 h. Fishing continued here until the evening of 11 April when a move was made to North Rona. After fishing here during 12 April CLIONE steamed to Loch Eriboll where fish weighing was again carried out in still conditions. The ship left Loch Eriboll at 0130 h 13 April to return to The Patches ground which was fished throughout that day. Various grounds around Papa Bank and toward Noup Head were fished during 14 April and others at The Hole, Otter Bank and Foula on 15 April, the ship anchoring in Clift Sound that evening again for Aim 4 work. Grounds NE and NW of Fair Isle were fished on 16 April with a final visit to Holland Bay, Stronsay again to weigh fish that evening. CLIONE left this anchorage at 2330 h 16 April and arrived at Grimsby at 1130 h 18 April.

RESULTS

1. Only 2 gurnards were caught in the 3 hauls made in pursuit of this aim. There was no sign of the Danish industrial fleet in the areas where they might have been expected. In an attempt to locate their whereabouts a call was made to Fisheries Intelligence Unit RAF Kinloss. They reported that their surveillance flight of 30 March covering the area from Smith's Knoll to Aberdeen out to the median line had observed no group of foreign fishing vessels.
2. Only a few gurnards were caught in covered net hauls made in the main fishing areas but all were measured. Unfortunately both nominal 90 mm cod-ends used were lost through accidents (see "Gear Damage" below).
3. 72 hauls were made in the four general areas shown in the table below. All roundfish were exceedingly scarce everywhere except at the Flannans where large cod in spawning condition were concentrated. Although individual hauls were very variable this was good fishing for the commercial vessels. CLIONE succeeded in taking 50/60 baskets of cod in one 1-hour tow. Elsewhere although gadoids were scarce, spurdogfish were abundant in most of the areas fished. One haul of 1 hour approximately 20 miles north of Papa Bank yielded an estimated 200+ baskets of dogs which proved impossible to get aboard, the cod-end and part of the lower end having to be cut away.

Tagging record

<u>Area</u>	<u>Cod</u>	<u>Haddock</u>	<u>Saithe</u>
Dutch Bank/Fair Isle	7	3	0
Patches/Papa	28	39	0
Rona/Butt of Lewis	11	0	0
Flannans	411	27	10

4. 452 fish from 15 species were measured and weighed to determine the whole weight/gutted weight relationship. Good data sets were obtained for cod, spurdogs and lemon sole and useful numbers obtained for haddock, ling, monkfish, megrim and dab.
5. Otoliths were obtained from 6 cod, 30 haddock and 18 whiting within the commercial size range for North Sea Sampling Area 1; plus 93 cod and 37 haddock from West of Scotland Sampling Area 1.
6. Specimens from a wide range of flatfish and roundfish were deep frozen for Mr Blacker's next fish identification course.
7. A single halibut of approx 70 cm total length was caught and kept alive for a few days. Unfortunately it expired during the passage home.
8. All sandeels caught were deep-frozen plus a few boxes of minor gadoids.

GEAR DAMAGE

Damage and total loss of fishing gear has been unusually heavy during this cruise. One complete trawl from abaft the dan lenos was lost on an obstruction at Butt of Lewis. This included one complete heavy bobbin rig for bosom and bunts. Record is made above of the heavy catch of spurdogs resulting in the loss of one cod-end and part of the lower end. Damage to the after lower wing occurred on a number of occasions and two new lower wings were used together with several shooting in pieces. On one occasion one bridle parted and on another the complete cod line and clip were missing on hauling. Two cod-end covers and one cod-end liner were written off.

B C Bedford
25 April 1979

SEEN IN DRAFT: Captain: JRF
Fishing Skipper: GFL

INITIALLED: AJL

DISTRIBUTION: Basic List +

B C Bedford
G J Howlett
R J Turner
R W Unsworth
P Scholes