

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

1979 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 1

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

STAFF

B C Bedford

M W Easey

M Macdonald (Folkestone)

P More (Grimsby)

J Little (Whitby)

B Thompson (part time 13-24 January)

DURATION

Left Lowestoft 1445 h GMT 4 January

Arrived Lowestoft 0500 h GMT 24 January

AIMS

1. To tag cod and if possible other gadoid species, preferably large fish in spawning condition, in the general area from the North Minch to Muckle Flugga.
2. To obtain data on the whole weight/gutted weight relationship for as many commercial species as possible.
3. To obtain otoliths from cod, haddock and whiting to supplement the regular commercial vessel sampling programme.
4. To obtain specimens in good condition from as many species as possible for Mr Blacker's next fish identification course.
5. To measure the selectivity of a 90 mm cod-end for gurnards.
6. To bring back live halibut for Dr Purdom.

NARRATIVE

CLIONE sailed from Lowestoft at 1445 h 4 January. The strong easterly winds prevailing at sailing time quickly gave way to better weather during the passage northward but this lull proved only temporary and freshening southwesterly winds had reached gale force when Fair Isle was reached at 1300 h 6 January. Shelter was found that evening at Fetlar and with winds going more westerly fishing was begun next day in the lee of Unsk. Despite the sheltered position only one haul was possible as conditions deteriorated rapidly, one gust of 80 knots being recorded while the ship was fishing. The same ground was fished more extensively on 8 January and weather conditions had improved sufficiently to allow work NW of Muckle Flugga on 9 January. Work continued throughout 10 January here and to the west of Ronas Voe, the ship returning to a sheltered anchorage in the evening so that Aim 2 could be carried out. North easterly gales on 11 January terminated further work here and a move was made to grounds between Foula and Sumburgh. After one haul here during the evening of

11 January passage was made to Lerwick arriving at 0900 h 12 January.

At Lerwick the Fishing Skipper, a greaser and a deckhand left the ship to return home, the two former because of family bereavements, the latter with an injured arm. At the same time Dr Thompson (who had been unable to sail from Lowestoft) and a replacement deckhand joined the ship. CLIONE sailed from Lerwick at 1030 h 14 January.

Grounds to the east of Sumburgh Head and northeast of Fair Isle were fished the same afternoon, the ship returning to a sheltered anchorage at night in Hoswick Bay again in pursuit of Aim 2. The same grounds were fished on 14 January and with winds increasing from the southeast an anchorage was found that night in Clift Sound. The ship remained there while southeasterly gales persisted throughout 15 January but these had moderated sufficiently by 2100 h to allow an overnight passage to The Patches ground. This area was fished on 16 and 17 January but with a return of strong southeasterly winds CLIONE steamed to Loch Eriboll where fish weighing was again carried out in steady conditions. Cape Wrath grounds were fished on 18 January and after a 5-hour evening return to Loch Eriboll CLIONE steamed overnight to the Noup Head area. Fishing here had to be terminated late in the afternoon of 19 January again due to southeasterly gales which also prevented any work on 20 January. Fishing was resumed in the same area at 0700 h 21 January and finished at 1600 h when course was set for the return to Lowestoft. Passage was interrupted for two plankton hauls off N Ronaldsay at 1900 h 21 January and again at 1830 h 22 January off the Firth of Forth. With work completed CLIONE continued her passage in good conditions, docking at Lowestoft at 0500 h 24 January.

RESULTS

1. 45 hauls were made at 8 distinct fishing grounds from Cape Wrath to Muckle Flugga but cod of any size were extremely scarce everywhere. The greatest number caught in a single haul was 18 fish; only 14 cod greater than 80 cm total length were caught throughout the cruise. Only 75 cod were tagged.

Haddock were caught at all grounds in quantities up to 3 baskets per hour. Those greater than approx 35 cm total length were generally adult and in immediate pre-spawning condition. Because of their susceptibility to damage from other 'rough' species in the cod-end (usually present in catches in these areas) few of those caught were suitable for tagging. Only 76 haddock were tagged.

Coalfish were present in numbers other than odd ones, in only 3 hauls. All of these were small fish between 40 and 60 cm total length. 21 saithe were tagged.

2. More than 650 fish from 23 species were measured and weighed for whole weight, 'stomach and intestines empty' weight and gutted weight. Where appropriate weighings were made of the fish in their usual or sometime landed state (ie monk tails, skate wings, headless cod and haddock). The new Sartorius balance was used very successfully although it was found to be extremely sensitive to the ship's general movement in any sort of swell. Hence very still, sheltered conditions must obtain if it is to be used to most effect. A feature of the work on this aim was the data obtained from 6 different ray species. Good data sets were obtained for R. montagui and R. naevus and useful numbers of R. radiata and R. brachyura were weighed. A single haul at Cape Wrath yielded 23 baskets of spurdogs from which a sample of 112 covering most of the

commercial size range were measured and weighed.

3. Otoliths were collected from 44 cod, 41 haddock and 48 whiting within the commercial size range for North Sea Sampling Area 1, 5 cod and 27 haddock for North Sea Sampling Area 3 and 25 cod and 50 haddock for West of Scotland Sampling Area 1.

4. Specimens from a wide range of flatfish and roundfish were deep frozen for Mr Blacker's February fish identification course.

5. Up to 30 gurnards per haul were caught on the northerly grounds around Muckle Flugga when an uncovered cod end was fished. After a cover was fitted following the visit to Clift Sound only 132 more gurnards (100 in the cod end and 32 in the cover) were taken from 20 hauls. Preliminary analysis suggests an approximate 50% length of 24 cm for the cod end of mean mesh size 76 mm.

6. No halibut were caught but 8 live plaice were brought back for Mr Scholes.

MISCELLANEOUS

1. A few small samples of herring caught in the Cape Wrath area were brought back deep frozen for Mr Wood.

2. Specimens of 4 species of euphausiids were identified by Dr Thompson and deep frozen for electrophoretic studies by C Anderson.

Despite the fact that much of the fishing time was spent working unfamiliar, very rough grounds very little gear damage was sustained and none was lost. Acknowledgement is made here of the advice on suitable tows generously given by Skipper Wally Stokes of the ROSS PANTHER of Grimsby and Skipper Tom Christy of the ARMANA of Fleetwood.

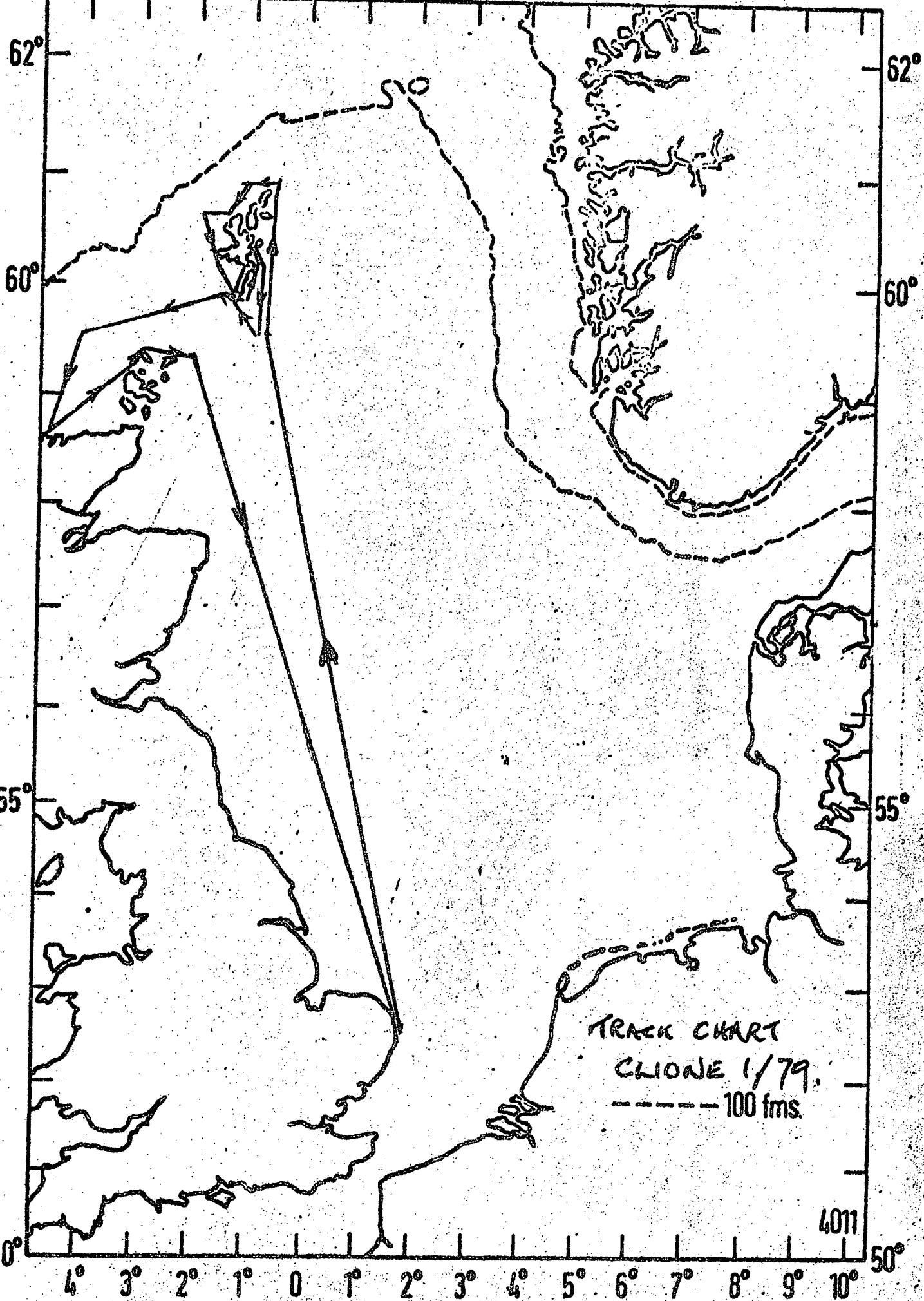
SEEN IN DRAFT: JF Captain
RG Fishing Skipper

B C Bedford
1.2.79

INITIALLED: AJL

DISTRIBUTION: Basic List +
B C Bedford
M W Easey
M Macdonald (Folkestone)
P More (Grimsby)
J Little (Whitby)
B Thompson

4° 3° 2° 1° 0 1° 2° 3° 4° 5° 6° 7° 8° 9° 10°



TRACK CHART
CLIONE 1/79.
----- 100 fms.

4011