

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

1977 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE: 3/77

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

STAFF

K Brander

B Mumford

C Whiting

T Watson

M White

R Goulder

DURATION

Left Lowestoft 1130h, 24 February

Arrived Lowestoft 1500h, 15 March

All times are Greenwich Mean Time

LOCALITY

Irish Sea

AIMS

1. To carry out a plankton survey of cod spawning areas in the northern Irish Sea.
2. To collect material for studies on stock separation of cod (blood samples, vertebral counts, otoliths).
3. To tag cod on and off the spawning grounds.
4. To repeat part of the groundfish trawl survey in Cardigan Bay.
5. To collect fertilized plaice eggs for D Thompson.
6. To collect live dabs and turbot for Dr Htun Han.
7. To collect live lesser spotted dogfish and rays for Dr Greer Walker.
8. To collect frozen specimens of all species for Mr Blacker.
9. To collect live thornback rays for Dr Pentreath.
10. To collect lymphocystis-infected plaice for Mr D Walker.
11. To collect live plankton from the English Channel for Dr B Thompson.
12. To collect edible crabs for Mr Burfitt.

NARRATIVE

CLIONE left Lowestoft 1130h 24 February and steamed direct to the first station of the plankton survey grid off Anglesey, starting work at 0515h 27 February. The first two lines of stations along the N Wales coast were completed early on 28 February and trawling began in the sea off Constable Bank. Small cod had been reported from this area and a total of 56 were

tagged during the day, after further information on fishing grounds had been obtained from FV ALBERTUS.

This pattern of work-trawling for cod during the day and carrying on the plankton grid at night - was continued until 4 March, by which time the entire grid had been completed. Catches of cod were rather poor, but blood samples were taken from 50 fish off the Co Down coast. Only one trawl haul was possible east of the Isle of Man on 4 March, due to deteriorating weather, and 16 blood samples were taken. CLIONE then steamed into the lee of the Isle of Man and spent the rest of the day collecting fertilized live plaice eggs for Mr Thompson (aim 5). On 5 March the ship docked at Douglas and the live eggs and blood samples were flown back to Liverpool for collection.

After leaving Douglas on 6 March trawling recommenced on the ground SW of St Bees and one line of plankton stations was repeated to give an indication of the change in egg production with time. The line of plankton stations between the southern tip of the Isle of Man and Carlingford Lough was repeated on 7 March and at the same time hydrographic observations were made at depths down to bottom, as well as the usual surface observations. This work was held up because only four of the eight Nansen bottles on board functioned properly.

Further cod tagging was carried out on 8 and 9 March and 51 blood samples were taken east of the Isle of Man. Most of these came from one haul of about 18 baskets, the biggest of the trip. Thirty nine of the fish which were tagged had a blood sample removed from the tail. This did not appear to affect their condition, judging by a few kept in the tank for observation. The smallest cod treated in this way was 28cms long.

Strong winds prevented any work on 10 and 11 March and CLIONE sheltered in Redwharf Bay. On 12 March 8 groundfish trawl stations were carried out in Cardigan Bay to complete all the main aims of the cruise. In addition most of the requirements for live fish were met, including dogfish, large and small rays and dabs.

RESULTS

1. The plankton survey grid was completed and two lines of stations were repeated.
2. Blood samples were taken from 117 fish on both sides of the northern Irish Sea. Otoliths were taken from 194 fish and vertebral counts made on 181.
3. A total of 262 cod were tagged, all to the east of 5°W. Of these 75 were fish under 35cm in length.
4. Eight groundfish trawl survey stations were carried out in Cardigan Bay in depths of 8-25 fathoms.
5. Fertilized live plaice eggs were collected just off the east coast of the Isle of Man.
6. No turbot were caught, but live dabs were collected for Dr Htun Han.
7. Live lesser spotted dogfish and rays were collected for Dr Greer Walker.
8. Over thirty species of fish were frozen whole for Mr Blacker.
9. A number of small live rays of several species were collected for Dr Pentreath.

10. All lymphocystis-infected plaice were frozen for Mr D Walker, but the numbers were surprisingly small.
11. Poor weather prevented plankton collection with the $\frac{1}{2}$ metre ring net for Dr B Thompson in the Western Channel and instead plankton was filtered from the deck sea water supply while on passage.
12. All edible crabs were frozen whole for Mr Burfitt.

Keith Brander
28 March 1977

SEEN IN DRAFT:

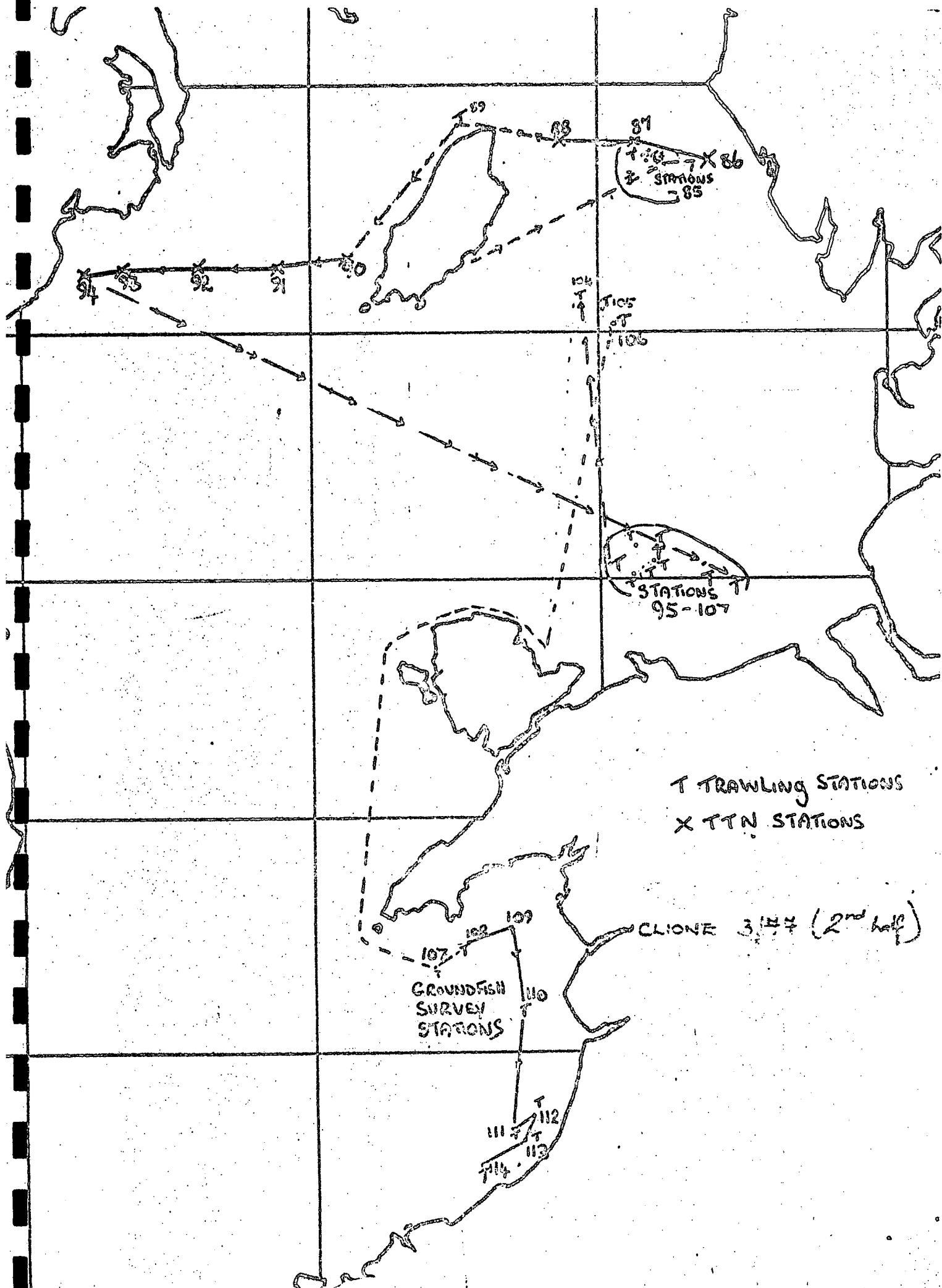
J R French (Master)
G F Lee (Fishing Skipper)

INITIALLED: AJL

DISTRIBUTION:

Basic List

K Brander	D Thompson
B Mumford	Dr Htun Han
C Whiting	Dr Greer Walker
T Watson	R Blacker
M White	Dr Pentreath
R Goulder	D Walker (Weymouth)
D Minchin (Ireland)	Dr B Thompson
	A Burfitt



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