

MINISTRY OF AGRICULTURE FISHERIES AND FOOD  
FISHERIES LABORATORY LOWESTOFT SUFFOLK ENGLAND

1974 RESEARCH VESSEL PROGRAMME

REPORT: R V CLIONE: CRUISE 5

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

STAFF

B C Bedford  
S Flatman  
R N Tucker  
M W Easey  
D J Peek  
S A Guzman del Proo (Mexico, FAO fellow)

DURATION

Left Lowestoft 2220 h 26 March  
Arrived Lowestoft 0915h 9 April  
All times are Greenwich Mean Time

LOCALITY

Northern North Sea

AIMS:

1. To tag cod in the northern North Sea as part of the ICES North Sea Roundfish Working Group investigations on cod sub-populations.
2. To inject with tetracycline and tag small (less than 55cm total length) spurdogfish for age validation studies.
3. To collect live female adult plaice for Mr Scholes.
4. To collect live halibut for Dr Purdom
5. To collect wings from various species of ray for Dr Greer Walker for muscle fibre studies.
6. To collect samples of blood, liver, heart and muscle from 50 plaice for enzyme studies (Mr Thompson).
7. To release sea-bed drifters in the vicinity of Flamborough Head for Mr Walker.
8. To collect specimens of various species for model making (Mr Jenner, Exhibition committee).

NARRATIVE

Sailing was delayed from the planned time in order to repair a radar fault. CLIONE left Lowestoft at 2230h 26 March and proceeded to the Flamborough Head area where sea-bed drifters were released on the 27th. Fishing began on 28 March on Turbot Bank ENE of Aberdeen but cod catches were poor. In search of cod in sufficient numbers for tagging, grounds at Fair Isle, east of Sumburgh Head, Pobie Bank, Muckle Flugga and Foula were all fished in the period up to 3 April. Weather conditions were generally good and the only time lost was at Muckle Flugga on 2 April when strong SE'ly winds limited fishing to two hauls. Cod were scarce on all grounds and local fishermen who were contacted by radio were unable to suggest any areas where they might be found in good concentrations.

Otter Bank was fished on 4 April and good catches of spurdogfish up to 50 baskets per hour - were made. Cod however, were still scarce. Thick fog persisted throughout the day. During the night of 4/5 April a deckhand fell sick and following medical advice from the shore he was put ashore at Scalloway early on 5 April. Fog persisted throughout the following day and prevented a return to the grounds east of Sumburgh Head where catches had been marginally better than elsewhere.

Grounds east of Orkney were fished on 6 April again in thick fog and again with very poor cod catches. Fishing was completed on 7 April some 40 miles ESE of Aberdeen still in thick fog but with improved catches of cod. Fog persisted throughout the passage to Lowestoft making a total of 6 consecutive days during which visibility was seldom greater than 200 yards. CLIONE docked at Lowestoft at 0915 h 9 April.

#### RESULTS

General 9 separate grounds were fished, 7 in the Shetlands area and 2 off Aberdeen. 55 Trawl hauls were made. Catches of cod were poor throughout, the best being one of 10 baskets for 1 hour on Pobie Bank. Other hauls there did not sustain this rate.

Rates of rejection as unsuitable for tagging were high for cod taken from rough ground and deep water around Shetlands.

AIM 1. 366 cod were tagged. Of these, 266 were tagged in the Shetlands area and 100 on the two grounds off Aberdeen. Otolith samples were obtained from cod caught on all grounds; 145 from the Shetlands grounds and 30 from off Aberdeen.

AIM 2. 404 spurdogfish were tagged. Almost all of the fish caught were taken in one day at Otter Bank and all were larger than the small fish that had been hoped for. Approximately half of the dogs tagged (the smallest fish) were injected with tetracycline.

AIM 3. About 30 live female adult plaice were brought back for the laboratory hatchery.

AIM 4. Only 2 halibut were caught. These were kept alive in the tanks but each succumbed after a few days.

AIM 5. Wings from *R naevus*, *R fullonica*, *R radiata*, *R batis*, *R clavata*, *R circularis* and *R montagui* were obtained for Dr Greer Walker's studies.

AIM 6. Blood, liver, flesh, heart, and otoliths were obtained from 66 plaice.

AIM 7. 50 sea-bed drifters were released at each of 5 stations in the Flamborough Head area.

AIM 8. Specimens of haddock, starry ray, cod, dab, angler, lemon sole, red gurnard, grey gurnard, cuckoo ray and nurse hound, all in good condition were deep frozen for model making.

#### MISCELLANEOUS

(1) 50-60 kilos of mixed small gadoids were kept deep frozen as hatchery fish food.

(2) Advantage was taken of the relatively calm conditions to obtain data of length/whole weight/gutted weight for northern North Sea cod.

B C Bedford  
(Naturalist in Charge)  
16 April 1974

SEEN IN DRAFT J R G Master  
A H B Skipper

INITIALLED A J L

DISTRIBUTION  
Basic List

B C Bedford  
S Flatman  
R N Tucker  
M W Easey  
D J Peek  
S A Guzman del Proo (Mexico, FAO fellow)