jh

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

1979 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA: CRUISE 11
(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

B C Bedford (NIC 28 Nov - 3 Dec)
J P Bridger (NIC 3 Nov - 16 Dec)
M R Vince
J Dann
R Turner
D Eaton
Mrs W A Dawson
A Fordham
G Moore (28 Nov -3 Dec)
R Bray (British Museum)
G Falkous (Sandwich Course Student)

DURATION

Left Grimsby 1215 h 28 November
Arrived Grimsby 1600h 16 December

LOCALITY

Northern North Sea

AIMS

1. To describe the distribution of gadoids within the area of the small-meshed fishery for Norway pout using a semi-pelagic high headline trawl.

2. To obtain biological samples of all gadoids taken during the survey.

NARRATIVE

CIROLANA sailed from Grimsby at 1215 h 28 November with Mr Bedford in charge, Dr Bannister having reported sick some 48 hours prior to departure. After a good passage north fishing began in the most southwesterly rectangle of the survey grid at 0730 h 29 December. Eighteen fishing stations were completed during the next four days of almost continuous working, there being only two interruptions, each of only a few hours, for bad weather. Work was finished at 2200h 2 December and the ship steamed to Aberdeen Roads arriving at 0630 h 3 December. Messrs Bedford and Moore then left by pilot boat and Mr Bridger joined the ship to take charge of the remainder of the cruise.

G Moore had joined the cruise for the first five days to test out and resolve any problems encountered in the recently enhanced computer facilities aboard the RV CIROLANA and to provide, if necessary, back-up support in the routine processing of the station data. The first two days were spent resolving software problems, the hardware functioning satisfactorily. However, on the third day, the newly installed printer/terminal became inoperative due to a hardware fault. Because of the low priority of actually processing the data whilst at sea it was decided not to delay the vessel at Aberdeen whilst Hewlett Packard personnel repaired the fault - instead a spare teletype was installed to replace the printer/terminal.

With the change-over of staff completed by 0730 h 3 December the vessel set out to complete the grid but from then on the weather deteriorated and severely restricted operations. A single haul was successfully made off the Moray Firth on the afternoon of 3 December before westerly winds of 40 + knots forced the vessel to dodge until 1030 h 5 December. Four stations were worked that day and another in the early hours of 6 December when severe WSW gales forced the vessel to dodge for a further 25 hours. Three hauls were made on 7 December and 6 hauls on the 8th but by 0430 h 9 December severe easterly gales and heavy swell caused a further 36 hour stoppage. A single haul on 10 December, 4 on the 11th and 3 more by 0930 h 12 December were completed before the weather again broke and remained quite impossible for the rest of the cruise. On 12/13 December the vessel dodged in 60-70 knot easterly winds and a mountainous swell and at 0900 h 14 December with a SE wind of 45-50 knots and a forecast of force 10-11 winds for the next 24 hours all hope of completing the full grid of 72 stations had to be abandoned. Having slowly steamed south to a point off Kinaird Head the vessel was forced to dodge yet again for 20 hours and after an uncomfortable passage the vessel docked at Grimsby at 1600 h 16 December.

RESULTS

Despite the weather 43 one-hour trawl hauls were made, see chart, of which one (grid station 2) was invalidated by gear damage and another (26) was of doubtful validity due to the same cause. All stations within the Norway Pout box (56-60°N: 4°W-2°E) were carried out together with two stations to the north of the box and four stations to the east of 2°E.

Catches were generally high. Within the box the mean catch was 739 Kg/h of which cod comprised 2.4%, haddock 29.4%, whiting 35.0% and Norway pout 26.1% by weight. As on previous cruises the abundance of Norway pout increased markedly with depth, from 0.35 Kg/h at 60-79m to 551.1 Kg/h (63.9%) at 140-159m.

All the catch and length data collected were entered on the HP computer but due to the hardware fault on the printer and graph plotter only a limited amount of catch data was available via a spare teletype and the M.D.U. unit.

The outstanding difference between the catches on this and earlier cruises was the quantity of 2 & 3 gp whiting, which, particularly in the shallow hauls, often comprised over 50% of the catch.

As well as obtaining the length distributions of all gadoids at each station otoliths were taken in North Sea Roundfish sampling areas 1, 2 & 3 and stomach contents of cod, whiting and haddock examined. In all 168 cod, 224 haddock, 247 whiting and 150 Norway pout were otolithed and the stomachs of 190 cod, 383 whiting and 273 haddock examined. 20 small haddock were deep frozen at each station for Mr Child.

Dr Bray examined a wide range of species for parasites.

Gear Damage. Both spare bellies for the 35/42 semi pelagic trawl were utilized, the second replacement however survived virtually undamaged. In addition some wirework had to be replaced.

J P Bridger
21.12.79.

SEEN IN DRAFT: T H Finn - Master
W J Saxby - Fishing Skipper

INITIALLED: AJL

DISTRIBUTION:

Basic List	J Dann	A Fordham
B C Bedford	R Turner	G Moore
J P Bridger	D Eaton	R Bray (British Museum)
M R Vince	Mrs W A Dawson	G Falkous (S.C.S.)

DEPTH CONTOURS METRES

Figure 1 Industrial fisheries project "Norway pout" stations