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FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1970 RESEARCH VESSEL PROGRAMME

REPORT: R V ERNEST HOLT: CRUISE 3/1970

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

STAFF

R W Blacker  
J Pope  
M W Easey  
T Watson  
J R Corbin (Hull)  
C Lee (Hong Kong)

DURATION

Left Grimsby 1330 hours 1 April  
Arrived Great Yarmouth 1300 hours 9 April

Left Great Yarmouth 2100 hours  
Arrived Grimsby 0733 hours 10 April

(All times B S T)

LOCALITY

North Sea

AIMS

1. To make a trawl survey of plaice and dab populations.
2. To collect stomach contents of plaice and dabs.
3. To survey selected grounds using underwater cameras and Petersen Grab.
4. To collect gonad material from late spawning plaice and cod.
5. To collect cod and plaice blood and muscle samples for Fe<sup>55</sup> determination (Radiobiological Laboratory).
6. To collect cod livers for the Fish Pathology Unit (Weymouth).
7. To collect live starfish (Radiobiological Laboratory).
8. To collect live plaice for acoustic tag studies.

NARRATIVE

The ship left Grimsby at 1330 hours, 1 April in a northwesterly gale and, since there was no prospect of working, anchored in Hawke Road in the Humber in company with a large number of other vessels. On the following morning course was set for the Flamborough Off ground but strong winds and

heavy swell gave little prospect of working there so the ship steamed to the Haddock Bank where one trawl haul was made before freshening winds stopped work again. The remainder of the 2nd was spent dodging back to the Flamborough Off ground. During the 3-4 April hauls were made on the Flamborough Off, Southernmost Rough, Middle and Outer Rough. On the 5th one haul was completed on the Coffee Soil, east of the Dogger Bank, before freshening winds and a heavy swell made conditions unworkable. With the forecast giving no hope of improving weather in the area, course was set southwesterly in the hope of finding less wind and swell south of the Dogger. Later that day fishing was restarted in Clay Deepes and the next three days were spent fishing Cleaver Bank, W Mud Hole, Outer Silver Pit, Upper Scruff and Swarte Bank. Fishing was finished on the Swarte Bank at 0100 hours, 9 April so that a bereaved fireman could be landed at Yarmouth at 0600 hours. The ship then anchored off Great Yarmouth and entered port at 1300 hours to land scientists and live fish. The ship sailed again at 2100 hours and docked at Grimsby at 0733 hours, 10 April.

## RESULTS

1. Plaice fishing was light (Never more than 1 basket per hour) on all grounds fished and large plaice were scarce, but sufficient otoliths and length measurements were obtained from most areas. 687 plaice were otolithed.

Dabs were much more numerous and one haul usually provided sufficient otoliths and length measurements for age-length keys. 702 dabs were otolithed.

2. Plaice and dab guts were examined or preserved from all areas. Plaice were not feeding heavily in any area.

3. Grab sampling was limited by weather conditions, but samples were obtained from Clay Deep, W Mud Hole, Silver Pits and Upper Scruff. Camera work was also hindered by the weather. The door-to-door tickler chain was in front of the headline and this prevented the use of a camera on the headline, but even when this tickler was removed no pictures of the bottom were obtained from the headline camera because of turbidity. A camera lowering showed that visibility was about 3 to 4 feet and some pictures of the sea bed were obtained by trailing the camera close to the bottom.

4. Ovaries from 4 late spawning cod and 3 plaice were preserved in Gilson's Fluid.

5. About 60 cod and 40 plaice blood and flesh samples were obtained.

6. Livers from a selection of various size "normal" cod were obtained for comparison with those from diseased fish.

7-8. Live starfish and plaice were brought back to Great Yarmouth.

9. Miscellaneous: Samples of small cod (I and II group) were measured from the cover catches in the "Rough" areas of the Dogger.

Small gadoids were deep frozen for turbot feeding experiments.

Various fish specimens were preserved for Dr Greer Walker's muscle studies.

Weather observations at synoptic hours were made when the ship was far enough away from land.

R W Blacker  
13 April 1970

Seen in draft: E A B (Master)  
W J S (Fishing Skipper)

Initialed: AJL

Distribution:

Basic List  
Mr Blacker  
Mr Pope  
Mr Easey  
Mr Watson  
Mr Corbin  
Mr C Lee