

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

1970 RESEARCH VESSEL PROGRAMME

REPORT: RV ERNEST HOLT: CRUISE 1A

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

STAFF

R C A Bannister
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DURATION

Left Grimsby 1230 hours, 2 January

Arrived Yarmouth 2400 hours, 11 January

All times are British Standard Time

LOCALITY

North Sea

AIMS

1. Routine trawl survey of North Sea plaice and dab populations.
2. Collection of gonad material for plaice, dab and cod fecundity studies.
3. Collection of pituitary material from cod (for Dr Purdom) and from sole (for Dr Shelbourne, Isle of Man).
4. Collection of a sample of demersal and pelagic species for Dr Portman (Burnham Laboratory).
5. Collection of live plaice from Borkum (Dr Purdom).
6. Preservation of 50 codling for Dr Holmes, Department of Zoology, University of Oxford.
7. Collection of a sample of solenette for Dr Dando (M.B.A., Plymouth).

NARRATIVE

ERNEST HOLT sailed from Royal Dock, Grimsby at 1230 hours, 2 January and proceeded towards the Middle Rough ground. Wind and swell increased steadily during this passage and on arrival at the first station south of the Rough at 0525 hours, 3 January the northwesterly winds had reached gale force, thereby preventing an immediate start. ERNEST HOLT dodged on station for the following 32 hours. Trawling began at 1415 hours, 4 January and thereafter continued on the Middle Rough, Coffee Soil, Tail End, White Bank and P Buoy grounds until just after

mid-day 8 January, when fishing operations were halted by increasing south easterly winds. During the afternoon of 8 January it was decided to run westerly towards the Cleaver Bank but by 1730 hours this course became inadvisable in the heavy swell conditions prevailing and the ship turned and dodged in the area north of Buoy P3. High winds of up to 50 knots persisted until 2100 hours on the following day but with a subsequent easing of conditions the ship was able to run westward again, reaching the Cleaver Bank at 0715 hours, 10 January. Trawling was resumed at 1000 hours that day and continued on the Texel Ground and Brown Bank on 11 January. After completing the last haul at 1700 hours 11 January, ERNEST HOLT made a good passage to Yarmouth, berthing at 2400 hours, 11 January, preparatory to handing over to Dr Purdom for the second part of the cruise.

RESULTS

1. Comprehensive dab and plaice age length key material was obtained satisfactorily on those grounds where weather permitted work, a total of 995 plaice and 618 dab otoliths being collected. Bad weather prevented work on grounds in the Clay Deep, Silver Pit, Botney Gut, Mud Hole and Norfolk Bank areas. Plaice were generally quite abundant on the grounds visited, though it is the smaller size groups which predominate in catches at this time of the year.

2. Gonads from maturing or ripe female plaice were collected throughout the length distribution at a number of stations. Gonads from 163 fish were preserved in Gilsons Fixative and a further 20 deep frozen. Cod gonads were taken from 20 large sprags, and dab gonads from 15 fish.

3. Pituitary glands were taken from those cod yielding ripe gonads. Some sole pituitary material was obtained for Dr Shelbourne but adults of this species were in short supply during this cruise and the target of 50 fish was not completed.

4. Plaice and whiting samples were deep frozen for Dr Portman (Burnham).

5. At the White Bank stations 25 filling female and 15 mature male plaice were placed in the deck tanks together with several sole. Despite the use of sand and wooden tank covers as a heavy weather precaution a number of these fish died during the bad weather period which followed their capture, but 18 plaice and 3 sole have been transferred successfully to the hatchery.

6. Codling of the required size were completely absent from hauls made during this part of the cruise and this request has been carried over to the second part.

7. A sample of 260 solenette was obtained from the cover at the Texel Ground.

8. In summer and autumn of last year gadoids, particularly haddock, featured prominently in trawl hauls made over a wide area of the North Sea (see for example Report for CORELLA Cruise 16/69). However this cruise was notable for the greatly reduced abundance of haddock and codling in the areas visited. Only whiting occurred in reasonable numbers (maximum catch rate of 5 baskets per 90 minutes on the Brown Bank). Of 0 & 1-group gadoids retained in the cover whiting were again dominant and cod generally scarce.

9. A single haul north of Texel yielded a total of 90 juvenile soles in the cover. Single hauls of this nature are not necessarily useful for

evaluating the comparative abundance of a species on a year to year basis but it is worth recording that no soles were taken at the same station in November 1968. Sole formed an important food organism for the nine sprags caught at this station.

10. In many parts of the North Sea it is not possible to land lively plaice by trawl. Numbers of fish are generally insufficient to provide adequate cushioning from the codend meshes while starfish often cause excessive abrasion. Hauls close to the 20 fathom line on the south side of the Tail End produced an exception to this rule. Such hauls contained large quantities of Alcyonidium sp. and, being exceptionally heavy, were difficult to bring inboard but the plaice contained therein were of exceptional quality.

R C A Bannister
20.1.70

SEEN IN DRAFT: James E H Balfour (Master)

INITIALLED: AJL

DISTRIBUTION:

Basic list

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