

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

1985 RESEARCH VESSEL PROGRAMME

REPORT: CHARTER DOUBLE-BEAM TRAWLER (Brixham)

STAFF:

M R Vince
D W Palmer

DURATION:

30 September-11 October

LOCALITY:

Western English Channel

AIMS:

1. To repeat some of the tows carried out on a similar survey in October 1984.
2. To collect length distributions and otolith samples of sole caught on the grounds fished.
3. To carry out a series of tows by depth bands from close inshore and out to deep water. This objective to be carried out both in daylight and dark if time permits.
4. To collect samples of ungutted fish for A Franklin (Burnham on Crouch).

NARRATIVE:

Messrs Vince and Palmer travelled to Brixham by van on 29 September. The following morning after the gear was put aboard and the vessel taken the BOGEY ONE sailed for grounds situated about 20 miles SSE of Start Point.

During the following 10 days the pre-planned survey was carried out on an opportunistic basis with only one day completely lost due to a SW gale. The attached chart shows the approximate positions of the 59 half hour tows made. The weather was generally moderate to poor with strong winds from the SW predominating.

VESSEL AND GEAR:

The vessel was the same 300 HP twin beam-trawler used on the 1984 survey. The gear was the same 5 m beams equipped with similar nets, but rigged with 80 mm coullene cod-ends instead of the 70-75 mm used previously. The port side cod-end was again fitted with the same 60 mm nylon blinder in order that any small sole present on the grounds were sampled.

RESULTS:

1. The survey grid covered the same general area as in 1984 and consisted of approximately 96 rectangles measuring about 6 x 5 miles. Of these, a total of 40 were on offshore grounds (south of 50°N) which yield smaller numbers of sole. Fifteen tows were made in this area spread evenly over the ground. Out of the remaining 56 rectangles 44 were sampled. No void hauls were experienced.

On every haul any sole, plaice, 'monk', lemon sole, brill, turbot and red mullet were measured, also approximate quantities of other fish species and benthos was recorded. This second survey which covered the area more comprehensively than in 1984 has provided a valuable record of the type of seabed and related benthos.

The grounds well out in the channel (south of 50°N) are generally very hard varying from large granite boulders to deadshell, the latter consisted mainly of Arctica islandica, Glycymeris glycymeris, Pecten maximus and Chlamys sp. This ground has less sole but more monk and lemon sole than the shallower areas surveyed. Inshore of 50°N there are two distinctly different bottom types. Situated to the east of 3°W is an area of dead shell and starfish formed into large banks some of which rise 5 fathoms or more. This ground tends to have more ray than elsewhere and both large mature and small immature Raja undulata are found here. The numbers of sole are generally small at the time of the surveys. The grounds to the west of 3°W are much finer and consist of large areas of muddy sand with the usual attendant Ophiuroids, Asteroids and Buccinum undatum. These are the main sole grounds.

2. In total the catch of sole, plaice, lemon sole and scallop were almost identical from each net. The total catch of sole was 536 which gave a mean catch per hour of about 10 fish. This varied between a mean of 44 fish/hour in the 15-19 fms depth band to 7 fish/hour in the 40-44 fms depth band. The modal length was about 31 cms. Numbers of plaice per haul varied considerably but the total number caught and the catch/hour was almost the same as sole. Lemon sole and 'monk' catch were low. The catch rates of both were down on last years survey; the monk by about 50%. The modal length was also less falling from 50 cms in 1984 to about 33 cms this year.

3. Half of the tows were made within the hours of darkness and covered all depth bands. A separate exercise to examine this aspect was not possible due to the poor weather and time restrictions. The results obtained will be worked up at a later date.

4. Samples of whole ungutted sole, plaice and hake were collected and frozen for A Franklin for the ICES Baseline survey.

A sample of 76 'monk' with a length range of 20-88 cms (total length) were measured before and after processing by the crew to add to the whole/tail length data already collected.

All scallops caught (91) were measured for the shellfish section. A few samples of Bryozoa and Hydrozoa were collected at various stations for examination for scallop spat.

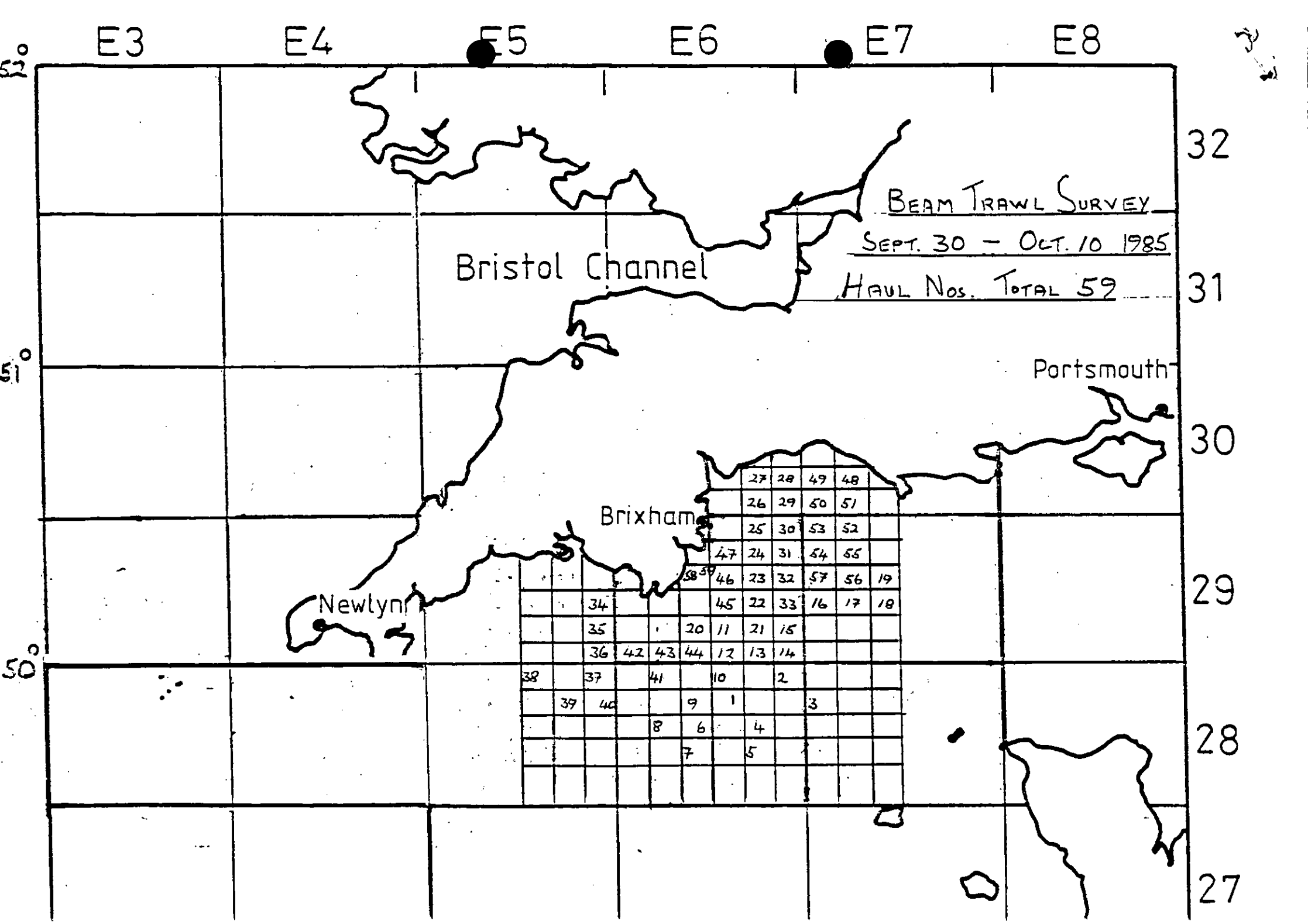
Beam trawlers fishing commercially in the vicinity during the period of the survey reported catches to be very poor. Many of the Brixham beamers were in port for much of the time either for weather or refitting. A few of the larger vessels were equipped with scallop dredges on their large beams and were working as close as 3½ miles off the land.

The staff gratefully acknowledge the help and enthusiasm received aboard the BOGEY ONE without which it would have been difficult to complete the charter in the time allowed.

M R Vince
22 October 1985

INITIALLED: D J G

DISTRIBUTION
Basic List+
M R Vince
D W Palmer



BEAM TRAWL SURVEY

SEPT. 30 - OCT. 10 1985

HAUL Nos. TOTAL 59

Bristol Channel

Portsmouth

Brixham

Newlyn

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| | | | | 47 | 24 | 31 | 54 | 55 | |
| | | | | 58 | 59 | 46 | 23 | 32 | 57 |
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| | | | 35 | | 20 | 11 | 21 | 15 | |
| | | | 36 | 42 | 43 | 44 | 12 | 13 | 14 |
| | | | 38 | 37 | 41 | | 10 | | 2 |
| | | | 39 | 40 | | 9 | 1 | | 3 |
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