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

1987 RESEARCH VESSEL PROGRAMME

REPORT : Charter Double-Beam Trawler (Brixham)
(PROVISIONAL : Not to be quoted without prior reference to the author)

STAFF: M R Vince
D W Palmer

DURATION: 28 September-7 October

LOCALITY: Western English Channel

AIMS:

1. To carry out a trawl survey for sole by repeating the grid of station positions established in the 1985 survey.
2. To collect length distributions and otolith samples of sole and 'monk'.
3. To collect samples of Bryzoa and Hydrozoa from all hauls on which they occur for later examination by the shellfish group for scallop spat.

NARRATIVE:

Messrs Vince and Palmer travelled to Brixham by van on 27 September. The following morning after taking ice, fuel and water the BOGEY ONE steamed to grounds situated about 25 miles SE of Start Point where the survey commenced.

The survey continued uninterrupted until 7 October. A total of 54 half-hour tows were made, with only 3 of the planned stations not worked due to deteriorating weather. The two six metre beam-trawls were replaced with the normal commercially used four metre gear in the River Dart at the end of the survey. The staff and scientific gear came ashore at Brixham on the afternoon of the 7th October. The return to Lowestoft was made the following day.

VESSEL AND GEAR :

The vessel and gear was the same as used on the previous three similar surveys. The two 6m beam-trawls were rigged with 70-73mm couliene cod-ends but with a 60mm liner in the port side one.

RESULTS:

1. The completed survey grid consisted of 52 valid tows out of a planned total of 57. Three of the offshore stations were not worked and two tows were void.

The mean cpue (uncorrected numbers per hour towed) for sole was down this year by about a third on 1986. In terms of numbers this years survey resulted in a mean catch rate of 17 sole per hour compared with an overall mean of 21 for three previous surveys of 1984-86. The initial analysis based only on length indicate the strength of the 2 year olds to be below any of those in the previous three surveys. This will be re-examined after the otolith samples have been processed.

In contrast, the cpue of plaice shows a steady increase over the past four years. The cpue for monk (L.piscatorius) is slightly up on the 1986 survey

but really there has been little change in numbers per hour since the catch rate declined by 50% between 1984 and 1985. The numbers of lemons sole caught are small but the trend in cpue is down. Turbot and brill are caught in even smaller numbers but little change in catch per hour has been seen.

2. Catches of all species were small and rarely exceeded more than half a standard fish basket of saveable fish per tow. Sole and plaice were the most numerous of the commercially valuable species, but all others in this category were measured as well.

The mean length of sole was 31cms and not significantly different from the previous two years. However, the modal length in 1987 was about 4cms greater than last year and almost certainly reflects the growth of the slightly stronger 1983 year class as 3 year olds in 1986 to 4 year olds this year.

The mean length of 'monk' (*L.piscatorius*) was down by 10cms this year at 42cms compared to 52cms last year. This however is mainly due to a reasonable number of recruiting fish around 22-29cms which were completely absent in 1986.

3. The main species of benthos were recorded on every haul and a total of 28 samples of Bryzoa and Hydrozoa were collected for scallop spat examination.

COMMERCIAL FISHING ACTIVITY

No concentrations of beam-trawlers were observed during the charter. Only 3-4 vessels were seen at any one time. The smaller beam-trawlers have reverted to the 4 metre beams to enable them to fish within the 12 mile limit legally. There was no fishing for scallops taking place, in contrast to the previous two years when large vessels were working French dredges into the three mile limit.

Three of the small vessels were working offshore with pelagic gear on very dispersed tiny shoals of sprat. Their success was only due to continuous use of sonar. Hauls of between 100 and 160 kit (10 stone) were taken on successful days. Crabbing activity was very intense on all the recognised grounds and some problems were encountered by the BOGEY ONE due to French crabbers working areas outside the agreed zones.

In all, this was again a very useful survey, and provided an independent set of data on the Western Channel beam-trawl target species.

Sincere thanks must again go to the skipper and crew of the BOGEY ONE for their unfailing help and interest in the work. Also for providing a real insight into the current problems facing that section of the fishermen in the south-west.

M R Vince
23 October 1987

INITIALLED : D J G

DISTRIBUTION :
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