1988 RESEARCH VESSEL PROGRAMME

REPORT: Charter Vessel 'DAWN HUNTER'

STAFF : C G Brown, T Watson

DURATION: 9-29 February 1988

LOCALITY: NE Coast (N.Shields)

## AIMS:

1. To conduct a trawl survey of the NE coast Nephrops grounds, using a conventional Nephrops trawl with a codend liner.

- To collect long rough dabs.
- To obtain discard samples from N.Shields if time allows.

## NARRATIVE:

Staff travelled by road to N.Shields on the 9th February and sailed on 'DAWN HUNTER' on the morning of the 11th February as weather conditions were too bad to work on 10th February.

Trips were made to the fishing grounds on a daily basis. 'DAWN HUNTER' returning to N.Shields each night. Of the 18 days spent at N.Shields it was possible to fish on 13 of these, the days not spent at sea were used to work up samples of Nephrops discards obtained during the week and frozen. The area of the survey covered the whole of the N.Shields Nephrops fishing grounds, between Dunstunburgh Castle (55°30'N) and Hartlepool (54°40'N) and between 3 miles (1°30'W) and 25 miles (0°40'W) offshore. This area was divided into 5 mile squares each of which it was hoped to sample by means of at least one ½ hour trawl haul.

Some of the proposed squares were too rough or unsuitable. The gear was damaged on two separate occasions both when large boulders were picked up on the edge of the Nephrops grounds.

All the 34 5 mile squares in which it was possible to work a Nephrops trawl were sampled and a further six stations were trawled to establish the extent of the highest densities of Nephrops.

The survey was terminated on 28 February because of force 10 NE winds and a heavy swell.

Staff returned to Lowestoft on the 29th February.

## RESULTS:

- 1. During 13 days at sea a total of 40 stations were trawled. Catches of up to 8820 Nephrops per hour were obtained in the central area of the fishery with densities becoming smaller towards the edges of the survey area but with individual fish being of a larger size particularly in the North and East. The size range caught was between 13 and 61mm carapace length with males predominating. Very few berried females were caught.
- 2. Samples of long rough dab were collected from all trawl stations.
- 3. All cod caught were measured and a sample taken for otolith examination to establish the length cut-off point between 1 and 2 year olds.
- 4. Various samples requested by AEPl, Burnham, Weymouth and Oxford University

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of herring, Nephrops, diseased fish and hagfish, were obtained throughout the survey.

- 5. When it was not possible to get to sea because of bad weather or gear damage samples of total catch, discards and all landed categories were taken from commercial Nephrops fishing vessels. A total of 3 boats were examined and all samples were sorted, weighed, measured and recorded.
- 6. Pot caught berried female Nephrops were collected from Amble and preserved in Alcohol for fecundity estimates.
- 7. A visit was made to the Amble fish buyer (Douglas) and Nephrops processors (Border Lairds) to explain the recent Nephrops tagging programme and to make arrangements for the collection of any tagged Nephrops found by them or the fishermen.

Clive Brown 9 March 1988

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