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## Not to be quoted without reference to the writer

### R. V. TELLINA

# Report for Cruise 8/1968

Staff:

D. W. R. Rout

S. Flatman

Duration:

1515 hours, 17 April - 2200 hours, 26 April All times are B.S.T.

#### Aims

- 1. To continue fecundity studies within the ray survey area off the north Norfolk coast.
- 2. To collect blood samples for Dr. R. M. E. Parkhouse of The National Institute for Medical Research.

### Narrative

TELLINA sailed from Lowestoft at 1515 hours, 17 April. It was decided to cover the area surveyed during TELLINA 6/1968 for the first half of the Cruise, leaving the second half for sampling outside the area.

Fishing commenced at 0820 hours, 18 April using the standard 8m trawl in 13 fathoms of water at a position 2 miles northeast of the west Sheringham buoy. The bulk of the catch consisted of Raia clayata and R. montagui with small dabs, plaice and soles as the by-catch. Radio contact was made with "Remus" owned by Mr. G. Legget and three other boats fishing in this area.

An orange marker buoy was dropped in this area on 19 April and fishing commenced again at 0730 hours. Six hauls of an hour's duration produced only ten R. clavata for sampling.

Hauls were carried out at the Burnham Flats and Woolpack Buoy on 20 April. The catches consisted of mainly small dabs and plaice with no rays.

TELLINA arrived at King's Lynn at 1300 hours, 20 April and sailed again at 1400 hours, 21 April making for a position northeast of Blakeney. After patchy fishing on 22 April, TELLINA fished a position 2 miles east of the Well's buoy on 23 April when 18 R. clavata were caught during 7 hauls (The last 4 hauls were with the new "roker" trawl)

On 24 April various other positions were tried with poor results, but much better results were obtained on 25 April when a new position was tried northwest of Wells at the Bridgirdle buoy. This is evidently a nursery ground as many small, immature R. clavata were caught with the customary mature females.

Unfortunately the net was ripped twice and the bridle was parted and cod-end lost. Fishing was abandoned after two changes of trawl, and TELLINA sailed for Lowestoft, arriving at 2200 hours, 25 April.

#### Results

1. As a result of 42 hauls 126 Raia clavata were caught, 64 of these were females. The minimum size for maturity was 79 cm.

32 of the female  $\underline{R}$ . clavata were mature; 6 carried soft partly formed capsules; 17 had hard fully formed capsules within the shell glands or partly extruded.

Of the 62 male R. clavata 33 were mature with 69 cm as the minimum size for maturity.

2. 21 Raia montagui were caught. 7 of these were immature females, and 14 were immature males, the maximum size for all fish being 41 cm.

/Samples

Samples of ovaries, shell glands, and vertebral sections were taken, and cloaca depth and stomach contents observed. Most of the fish had been feeding on small crabs and shrimps.

3. Blood samples were collected from rays and stored at 0°C in 1% merthiclate. A total of 20 samples was taken for Dr. R. M. E. Parkhouse of The National Institute for Medical Research.

D. W. R. Rout 1.5.68

Seen in Draft: WB

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Initialled: AJL

## Distribution

Basic list, plus the following:

D. W. R. Rout

S. Flatman

Mr. G. Legget, West House, Wells-on-Sea, Norfolk.