

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

1982 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 7
 (PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

D. Key
 P. M. Connor
 P. Walker
 D. Miller
 P. Dare (part time)

DURATION

Left Lowestoft 1900 h 5 May
 Arrived Lowestoft 1000 h 25 May

AIMS

- (i) To assess stocks of scallops to the south, east and west of the area examined in 1981 (ICES rectangle ZZ99).
- (ii) To compare the results of scallop stocks assessed by underwater TV used from the MBA ship SIR FREDRICK RUSSELL with those made by dredges.
- (iii) Make repeat tows in selected areas to assess the validity of the results from individual tows.
- (iv) Collect samples for AEP1 and Marine Science Laboratory, Menai Bridge.

NARRATIVE

CORELLA arrived off The Lizard to commence work on the morning of 7 May and the survey grid was worked systematically until 14 May. The ship put into Plymouth at 0900 h on 15 May where P Dare joined the cruise and some repairs to gear was arranged. The ship sailed again at 0900 h on 16 May.

A plot of ground was identified for the comparisons of dredges with TV off Dodman Point but water conditions proved unsatisfactory due to phytoplankton near the sea bed. The SIR FREDRICK RUSSELL with P Walker aboard as MAFF observer therefore examined other grounds further offshore while CORELLA was engaged in repetitive tows with dredges (Aim (iii)).

On the evening of 19 May, P Walker returned to CORELLA and P Dare was taken aboard SIR FREDRICK RUSSELL. The following day further dredge hauls were made in the region of the successful TV survey.

The stock survey work was recommenced on 21 May in the region of the Wolf Rock and west of The Lizard. This area was completed on 23 May and CORELLA sailed for the eastern channel where a further station was worked on 24 May to obtain a sample for AEP1 and CORELLA docked at Lowestoft at 1000 h on 25 May.

RESULTS

- (i) Scallops caught in each dredge were kept separate throughout the survey and they were measured, the age assessed and gonad development determined. All commercial fish and shellfish species caught were measured and their condition regarding marketability recorded.
- (ii) 147 stations were worked extending the survey grid of stations examined in 1981 to between Start Point and Wolf Rock. Densities of scallops per 15 minute tow varied between 0 and 280 but few stations produced zero catches.
- (iii) Three tows were repeated in the area where surveying by underwater TV had been carried out. These gave total counts of 78, 88 and 99 scallops per haul. These catches will be used for comparison with the estimates from the video tapes.
- (iv) Repeat tows over a small area of ground gave results which were reasonably consistent. Within a 2 Km square 3 lanes were each dredged 4 times. Total catches with 3 Newhaven dredges and one French dredge worked simultaneously on each occasion were:

Haul	Track	X	Y	Z
1		63	48	26
2		103	49	26
3		79	50	34
4		46	51	35
Average		<u>72.75</u>	<u>49.5</u>	<u>30.25</u>

These results indicate that while dredging techniques may give an acceptable indication of the stock level on the ground over which the dredges pass there are considerable variations in stock densities in localised areas.

- (v) Several stations worked in 1981 were reworked during this survey to determine whether fishing activity in the intervening period had markedly reduced stock levels.

D Key (SIC)

Barrow 10 June 1982

INITIALLED: DJG

SEEN IN DRAFT: G Sinclair (Master)

R C Newrick (Fishing Skipper)

DISTRIBUTION:

Basic List

D Key

P M Connor

P Walker

D Miller

P Dare