

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

**1995 FIELD TRIP REPORT : FSM2 Shellfish Resource Group**

PROGRAMME: MF0206D0 Cockles

STAFF: P Walker )  
A Lawler ) MAFF ESFC - crew of "ESF SURVEYOR"

LOCATION: The Wash

DATES: 24 September-2 October 1995

**AIM:**

To estimate the distribution, density and biomass of cockles within standard survey areas.

**NARRATIVE:**

Messrs Walker and Lawler travelled to Holbeach in Transit vans containing hired ATV's and associated sampling equipment on the morning of 24 September. Access to the sands via the usual route proved impossible due to changes in substrate in the immediate vicinity of the RAF's access road. Three hours were spent seeking an entry point before a difficult route was discovered. Only 13 of the 33 standard sampling stations could be worked in the time remaining over low water.

The two ATVs and other sampling equipment were loaded on "ESF Surveyor" at 0700 BST on the morning of 25 September at Port Sutton Bridge. The vessel then sailed to Daseley's Sand where sampling was completed satisfactorily. No cockles were found at any of the 27 stations sampled on Gat Sand on 26 September.

"ESF Surveyor" sailed for the Roger Sand on 27 September but strong winds and confused seas ruled out any possibility of landing on this sand. "EFS Surveyor" therefore returned to the mouth of the R. Nene and beached on the Inner Westmark Knock. Small quantities of spat were found in some of the samples taken there. A problem with one of the GPS navigators was traced to a damaged antenna cable. Attempted repairs proved unsuccessful. Mr Lawler travelled to the Lowestoft laboratory on 28 September to collect a replacement GPS set. Dr Bennett joined "Surveyor" for the day to observe the sampling procedures employed in surveying the Roger Sand.

Both ATVs were unloaded from "Surveyor" at Port Sutton Bridge on the morning high water of 29 September. The replacement GPS set was then fitted before sampling commenced at Stubborn Sand on the afternoon low water. Soft sediments prevented the ATVs crossing Wolferton Creek and consequently the two outer lines of stations could not be worked.

Access to the Wainfleet/Wrangle Sands was gained through the RAF range on 30 September and 1 October. One ATV developed an intermittent ignition fault on 1 October which caused sampling to be abandoned before all the stations on the lower beach had been worked.

Despite remedial measures undertaken that evening, the ignition fault recurred the following morning (2 October) at Holbeach Sand. Only seven further samples could therefore be collected before the ATVs had to leave the sands before the start of firing activity at 0830 BST.

Staff then returned to Lowestoft and removed all sampling equipment from the ATVs which were then pressure washed. The ATVs were returned to their owners on the morning of 3 October.

## RESULTS

Table 1 gives details of the sampling effort and numbers of cockles collected on each sand during the survey. A total of 225 stations were worked.

Spat settlement appears to have been very poor in all the areas surveyed, the total collected (282) being less than 5% of the total taken on last year's survey.

Survivors of the 1994 settlement were found only on Holbeach Sand, in very small numbers.

Peter Walker  
October 1995

INITIALLED: C T M

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Table 1.

PROVISIONAL RESULTS OF MAFF/ESFC COCKLE SURVEY OF SELECTED WASH BEDS.  
 SEPTEMBER-OCTOBER 1995

Sand	No of Stations	Total number of cockles in samples				
		1995	1994	1993	1992 and older	
Inner Westmark Knock	33	240	0	1	9	
Daseley's	27	13	0	0	19	
Roger-Toft	33	1	0	3	61	
Holbeach	20	27	7	1	10	
Stubborn	32	1	0	1	0	
Gat	27	0	0	0	2	
Wainfleet-Wrangle	53	3	0	0	13	