



**North Western  
Inshore Fisheries and Conservation Authority  
Meeting 4: 30<sup>th</sup> September 2011,  
Morecambe Town Hall, 10.30 a.m.**

**Agenda Item 7: Annex 3**

**REVIEW OF COCKLE BEDS WITHIN THE RIBBLE ESTUARY**

**Purpose of Report**

To inform members of the status of the cockle stocks within the Ribble Estuary.

**Recommendations**

1. That the report be received.

**South Ribble Cockles Background**

1. Four main beds had been identified following the most recent addition in mid August which is now known as Foulnaze. The other beds remain known as South Gut, Penfold North and Penfold South, these beds have been monitored and surveyed prior to opening.
2. Officers proposed a closure of the Foulnaze bed from the 1<sup>st</sup> of September to allow time for officer to access the bed and to make a basic assessment of the stock to provide information to inform management measures. Officers were able to access the bed on the 31<sup>st</sup> August and found the bed to have an approximate density of 800-1000 per m<sup>2</sup> over a large area. Observed in areas close to the South Gut Channel were piles of cockles which appeared to have been washed out with large amounts of shell or dying cockle.
3. All four beds were open from the 1<sup>st</sup> September and approx 300 gathers were present across all beds, and two large boats dried out on the Foulnaze bed on the first workable tide.
4. A second survey of the Foulnaze bed was conducted on the 15<sup>th</sup> September. Officers were able to determine the beds boundary and collect samples to provide more information on the composition of the stock.

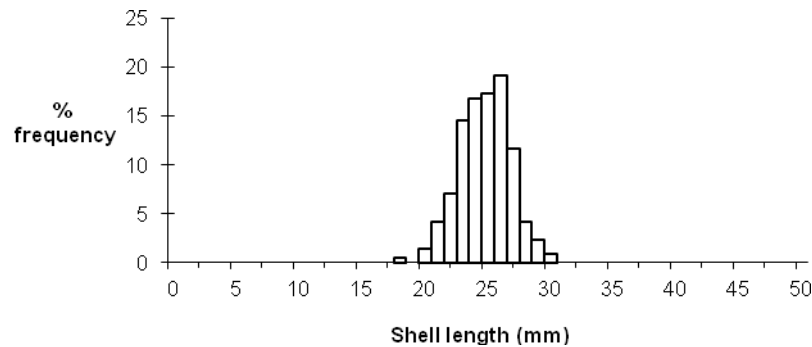
**North Penfold, South Penfold and South Gut Survey Results**

5. A total of 39 stations across the 3 bed areas were surveyed and monitored on several occasions. Average density of total adult cockle on the South Gut bed was 350 per m<sup>2</sup>. Average density of adult cockle on North and South Penfold beds combined was 85 per m<sup>2</sup>.

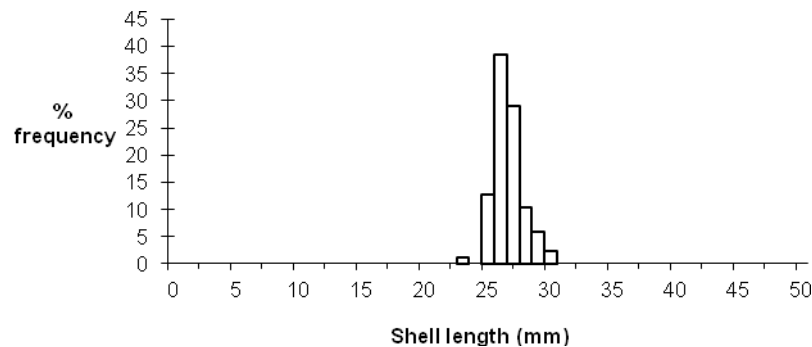
**Foulnaze Survey Results**

6. A survey was performed on foot having accessed the bed by boat. Officers completed a survey track of 3.5miles and collected samples.

7. Samples were collected and found that stock present on Foulnaze is all the same year class of 2010 settlement. Average size and weight of individual cockles were 25.22mm and 6.15g. Due to the stock being over one year class the shell size range is extremely narrow (Figure 1.)



*Figure 1. Percentage Frequency of Shell Length and Range of Shell Length of Foulnaze Samples n= 216*



*Figure 2. Percentage Frequency of Shell Length and Range of Shell Length of Foulnaze Over Size Cockles n=86*

### **North Ribble Cockles Background**

8. North Ribble Estuary has two main beds close to Lytham St Annes, Granny's Bay and North Run. Both beds have been surveyed during the summer 2011. Beds have been open from 1<sup>st</sup> September though due to the number of undersize have not been fished.

### **North Run Survey Results**

9. 37 stations were sampled at the beginning of August 2011. The considerable stock of 2010 cockle previously reported by Fishery Officers had survived and was growing on although 99% of cockles were undersized and not anticipated to reach size until winter months.
10. The greatest densities occurred around the channel with maximum of 6420 per m<sup>2</sup> and 75.7% of stations had densities of over 100 per m<sup>2</sup>. 29.7% of stations had densities of over 1000 per m<sup>2</sup>.

### **Grannys Bay Survey Results**

11. A rapid visual assessment of the stock on this bed was made in August, prior to a full survey being carried out. Evidence suggested a high percentage of undersize cockles similar in size and density to the North Run bed.

12. 16 stations were sampled on 16<sup>th</sup> September. Stock on this bed was not found to be as dense as the North Run bed. 97.8% were undersized and again not anticipated to reach size until winter months. Mean size of 2010/2011 cockles was 15.9mm (n = 477).
13. Densities were variable with a range of 0 – 1140 per m<sup>2</sup>. The mean density was 289 per m<sup>2</sup>.
14. Officers recommended that the North Ribble beds should be open at the end of the seasonal closure on 1<sup>st</sup> September but that the minimum size (Byelaw 13) should be enforced.

### **Multiagency Operational Plans**

#### **15. South Ribble Cockle Beds Operational Plan**

Sefton Council has led the creation of a multiagency response plan to help manage the South Ribble estuary cockle fishery. The plan allowed for clear and well marked access points, providing Fishery Officers and other agencies with a single area for checking permits and documents. Officers have attended these multiagency meetings providing information on the beds and advice on the fishery.

#### **16. North Ribble Cockle Beds Operational Plan**

Science and Fishery Officers have been working with colleagues from Fylde Borough Council and other agencies to formulate and implement a Multi-Agency Operational Plan to manage this fishery, and to manage the movement of cockles and gatherers accessing the South Ribble beds via the North Ribble beds.

**Helen Ake and Mandy Knott**  
**Scientific Officers**  
**20<sup>th</sup> September 2011**