

Leasowe Cockle Survey 24th July 2023

Officers present: MC, AP, AB, MT

Tides: 24-07-23 LW 10:26 2.4m (Liverpool tides)

Survey method - Jumbo and 0.5m² quadrat

73 stations were sampled from a 250m grid. There was a wide range of cockle sizes across the bed from < 5mm to 35mm. Size cockle is low in density. Undersize cockle is present in high densities across sites at the centre of the bed. There is evidence of a 2023 cockle settlement across a number of survey stations.

Means

Means were calculated from all stations with zero counts on the edge of the bed removed. Less than 5mm cockle was not used in the undersize figures due to the high variable survivability of cockle at this small size but has been included as a separate figure.

Mean number of size cockle	6 per m ²	(min 0, max 40)
Mean number of undersize cockle	863 per m ²	(min 0, max 5952)
Mean number of 0-5mm cockle	5 per m ²	(min 0, max 100)
Mean weight of size cockle kg/m ²	0.073 kg/m ²	(min 0, max 0.482)
Mean weight of undersize cockle kg/m ²	0.257 kg/m ²	(min 0, max 1.880)

Maps

Maps were created showing the overall survey area, density of size cockle, density of undersize cockle (excluding cockles in the 0-5mm size range) the density of the 0-5mm size class, the frequency of size classes, the size of the pie chart indicates the total density of cockles present, and the weight of undersize and size cockle.

Biomass

	Area (ha)	Size Cockle (tonnes) ¹	Undersize Cockle (tonnes) ²
Leasowe	234.7	171	604

¹In regards to biomass size cockle defined as cockle which will not pass through a square gauge 20 x 20mm in size.

²The biomass of undersize cockle does not include any estimates of cockle less than 5mm due to the high variability of survival of this size class.

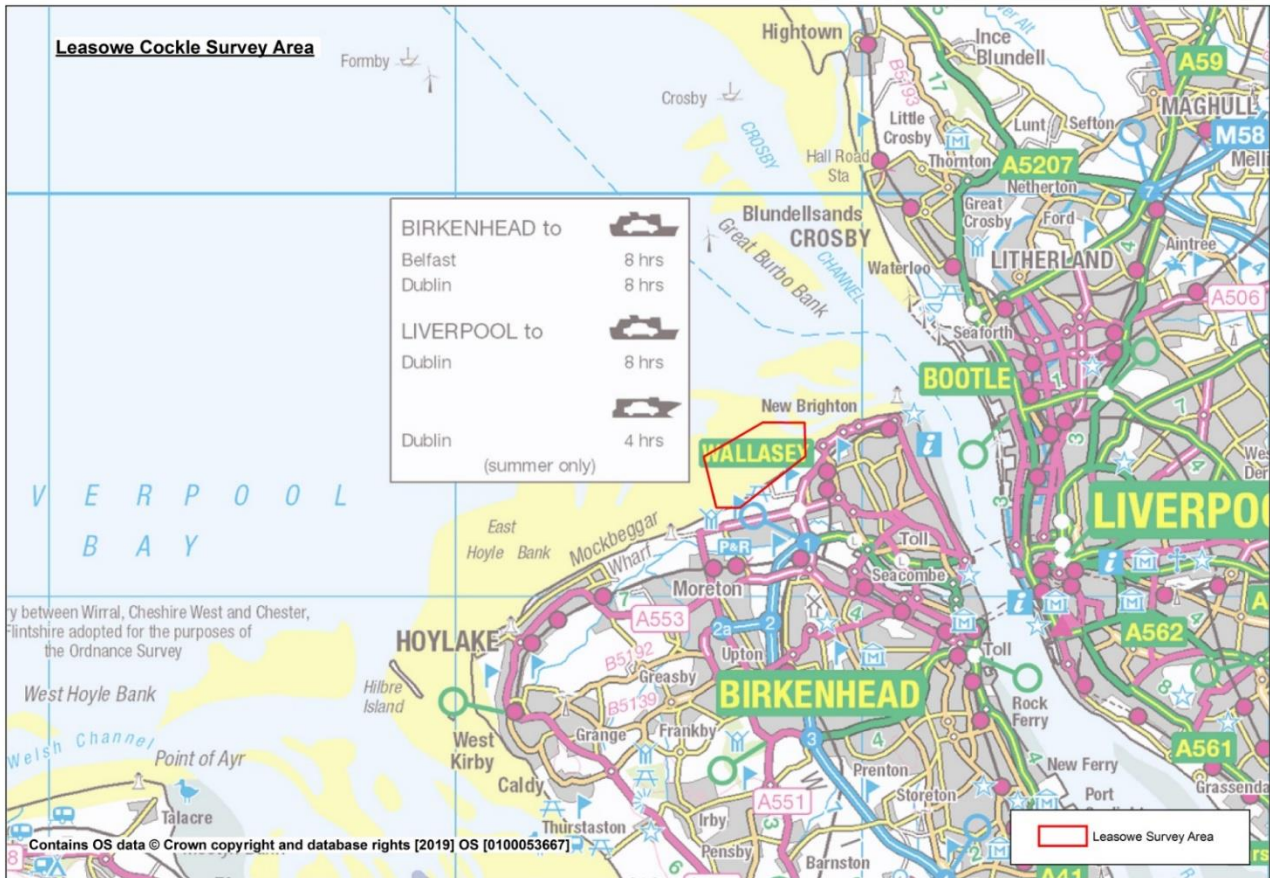


Figure 1. Illustration of position of Leasowe cockle bed.

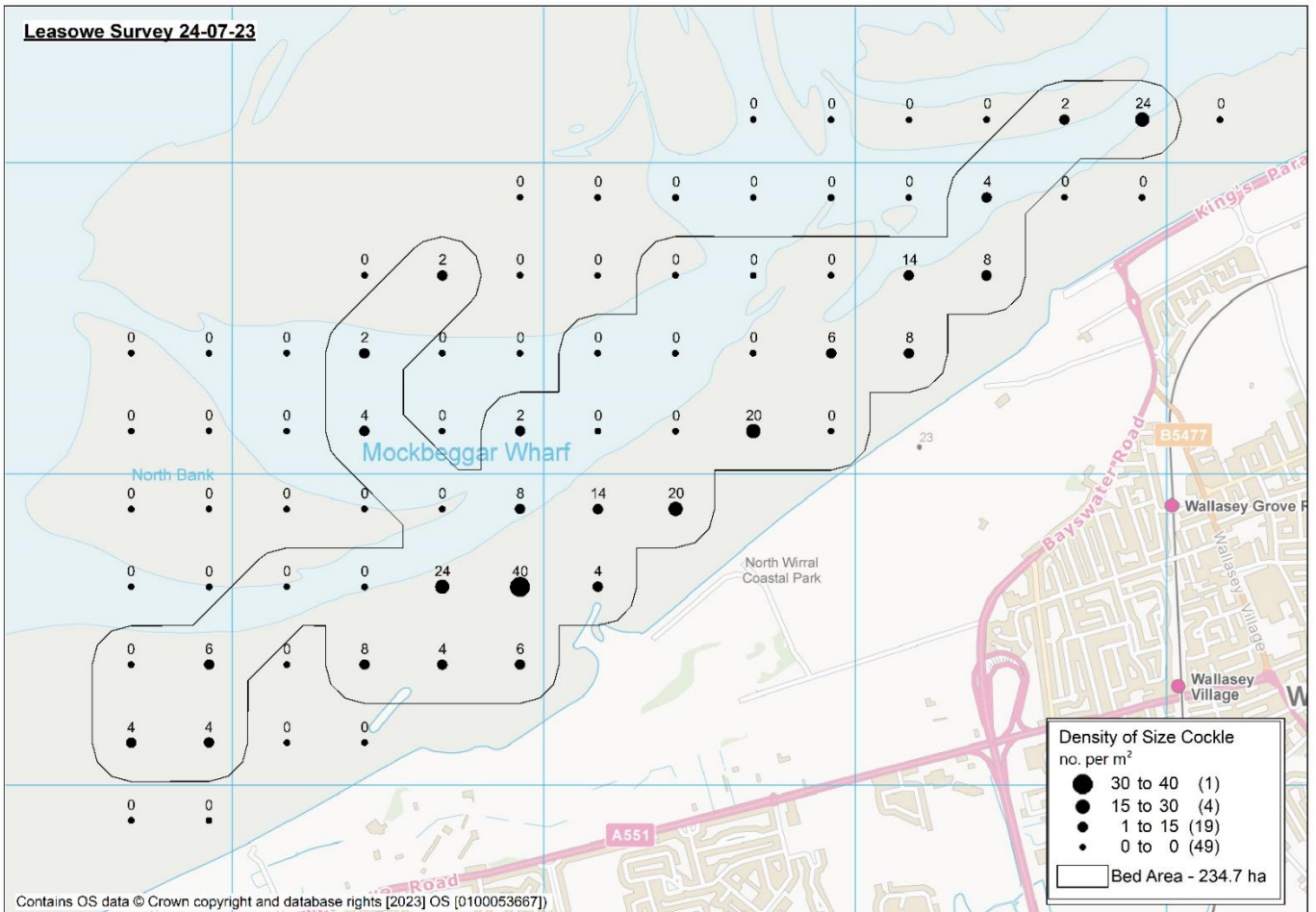


Figure 2. Density of size cockle per m² Leasowe July 2023.

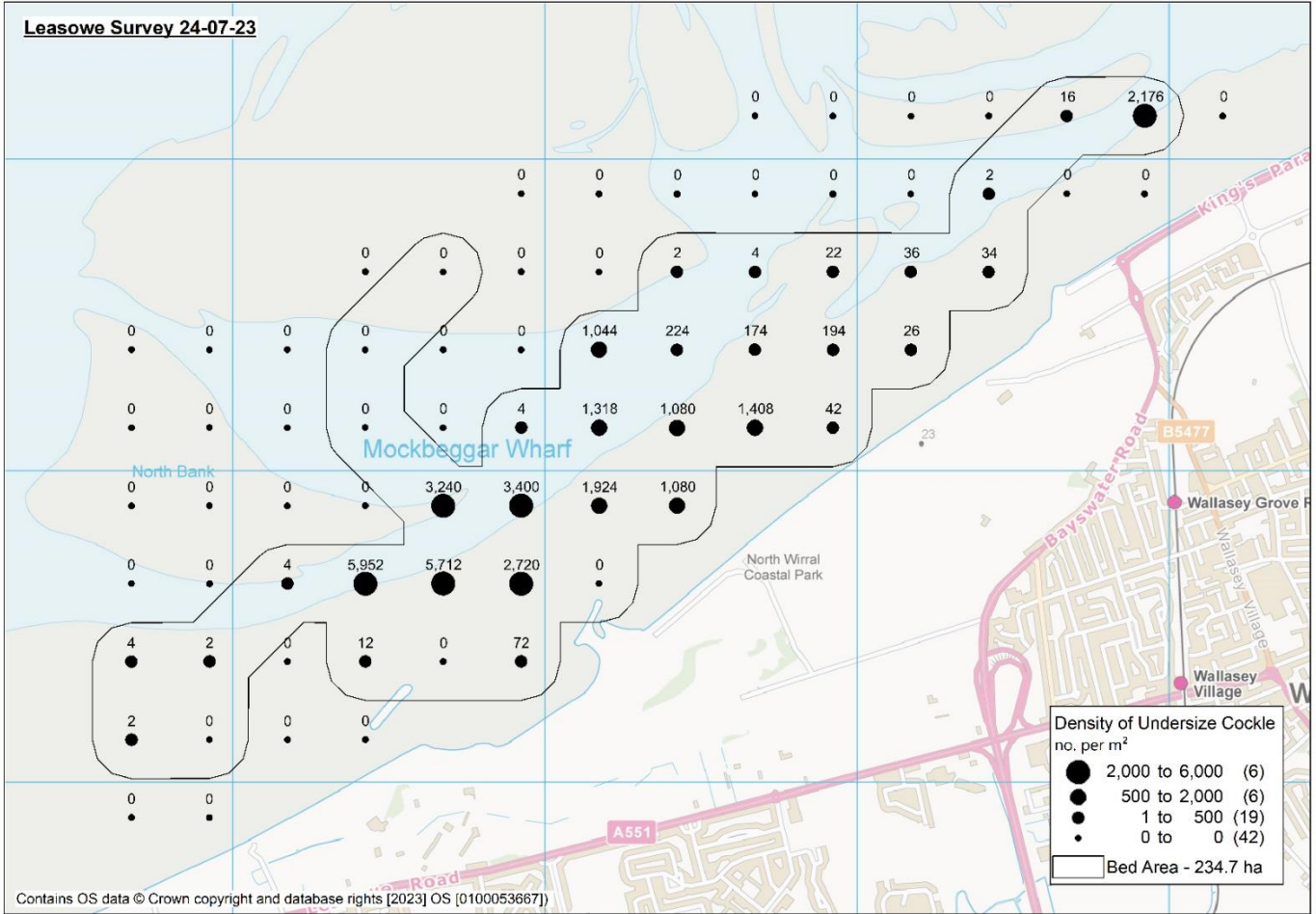


Figure 3. Density of undersize cockle per m² Leasowe July 2023.

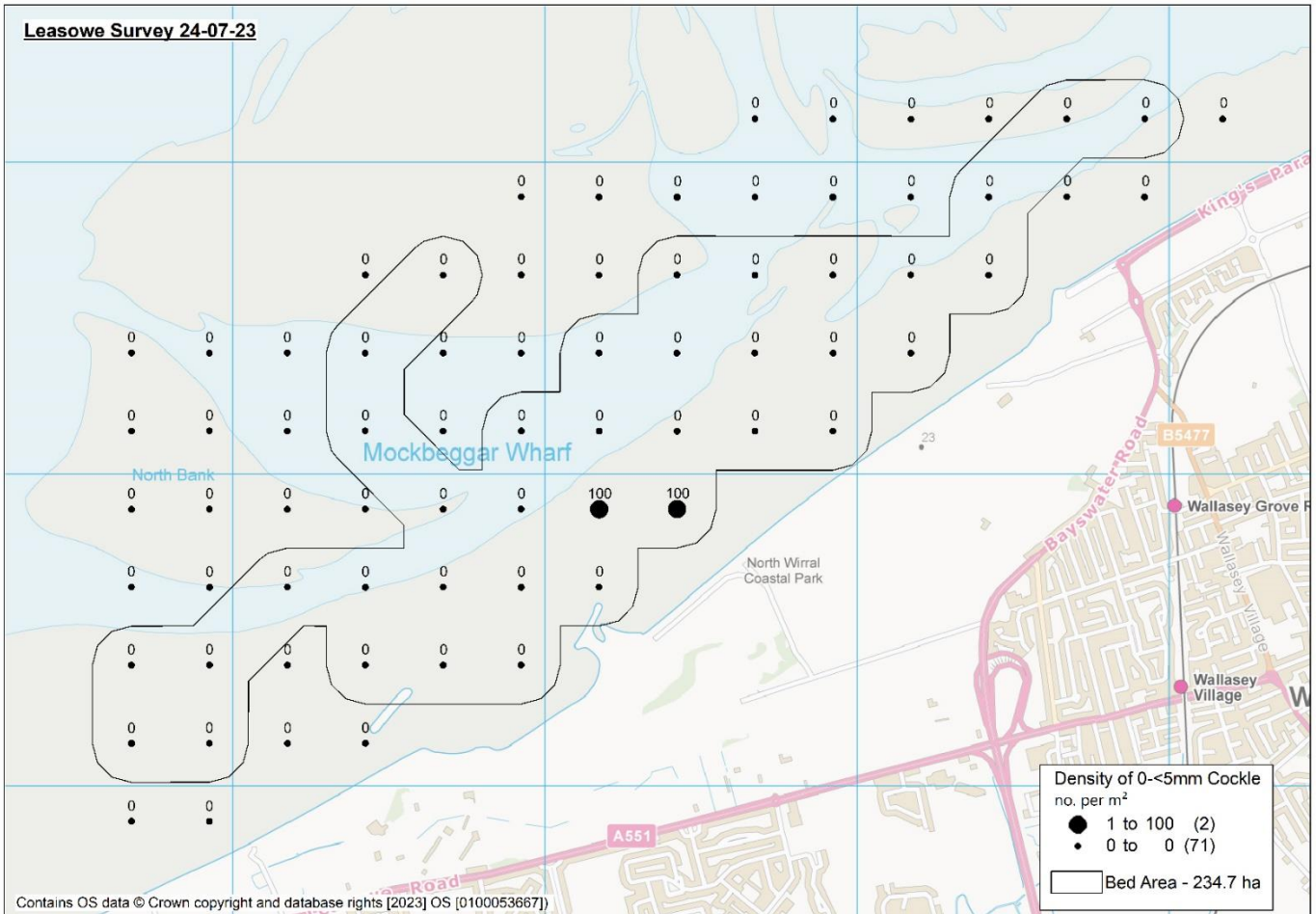


Figure 4. Density of 0-5mm cockle per m² on Leasowe July 2023.

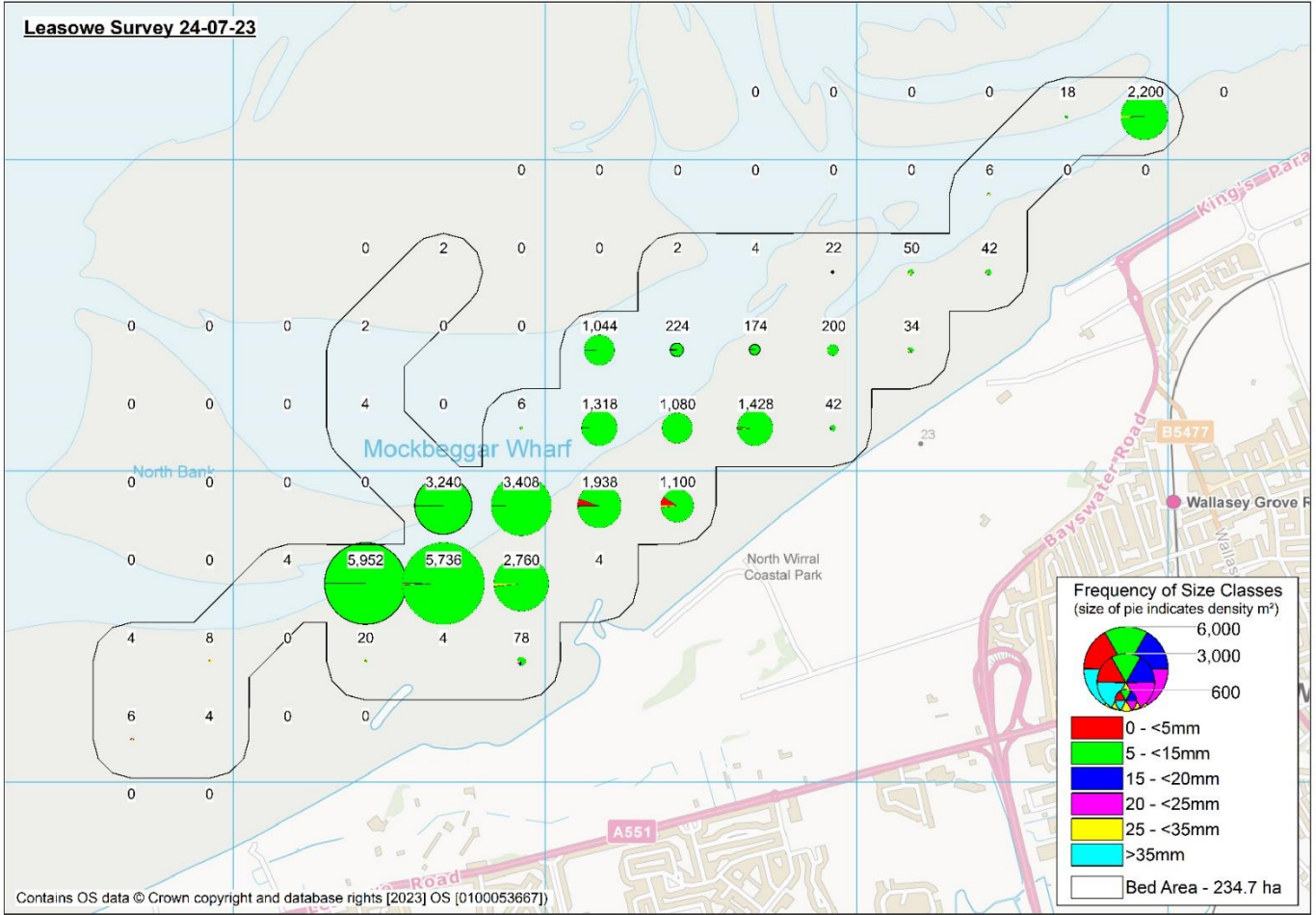


Figure 5. Frequency of size classes of cockle per m² Leasowe July 2023.

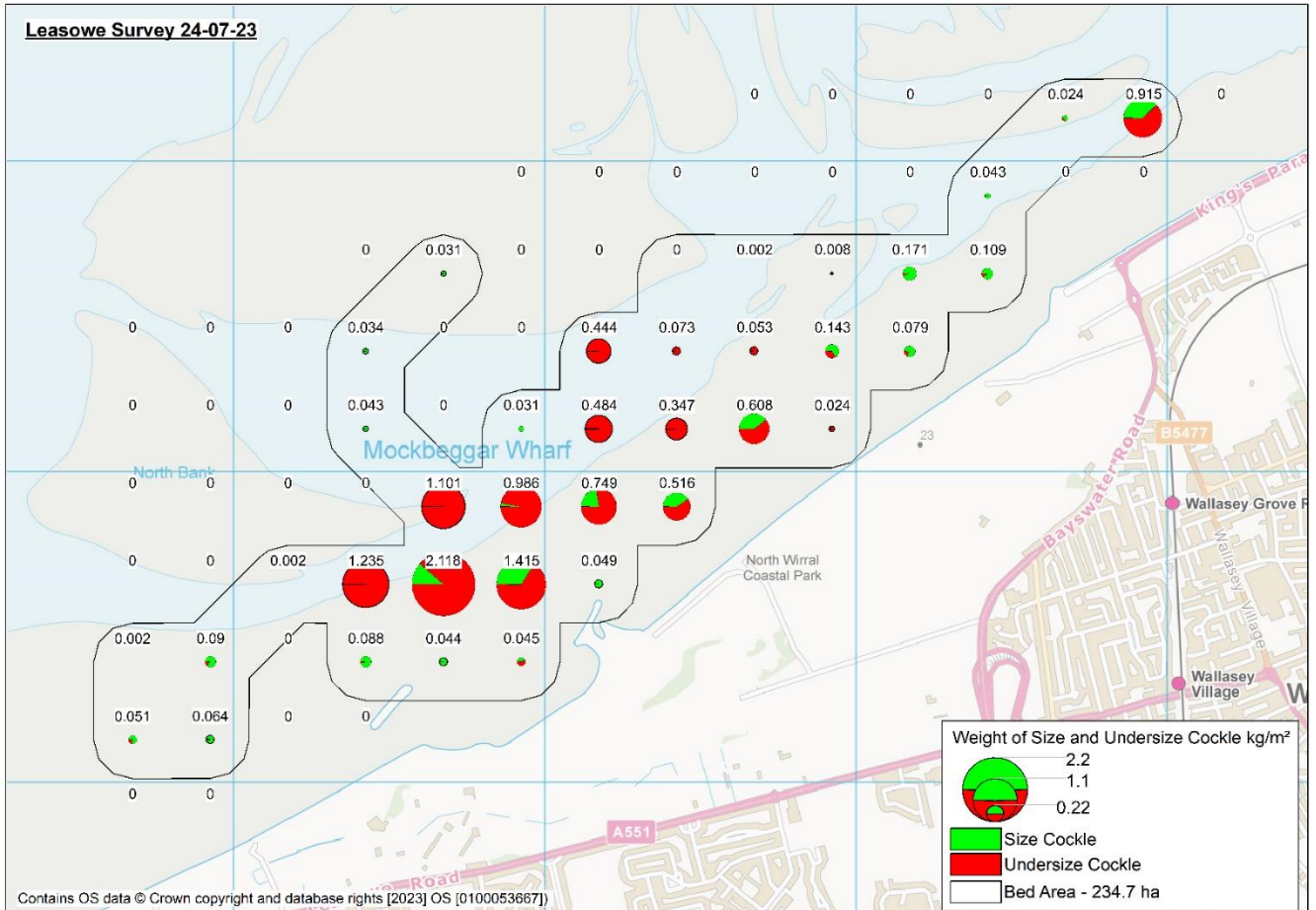


Figure 6. Weight of size and undersize cockle kg/m² at Leasowe July 2023.