Southport Cockle 09-06-23

Officers present: AB, AG, JH, GG
Tides: LW 10:30 1.8m (Liverpool tides)

Survey method - Jumbo and 0.5m^2 quadrat

67 stations were sampled from a 350m grid. The survey grid location was based on the 2022 cockle surveys. The cockle is in a similar location with and the bed running from NE to SW. There has been a significant decrease in density of across the bed which is expected due to fishery and natural mortality over winter.

Means

Means were calculated from all stations with zero counts on the edge of the bed removed. There were no less than 5mm cockle recorded in the survey.

Mean number of size cockle	14 per m²	(min 0, max 78)
Mean number of undersize cockle	3 per m²	(min 0, max 16)
Mean weight of size cockle kg/m²	0.126 kg/m²	(min 0, max 0.832)
Mean number of undersize cockle kg/m²	0.019 kg/m²	(min 0, max 0.232)

Maps

Maps were created showing the overall survey area, density of size cockle, the frequency of size classes (pie charts show the frequency of different 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]
Southport	**637**	**800**	**120**

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

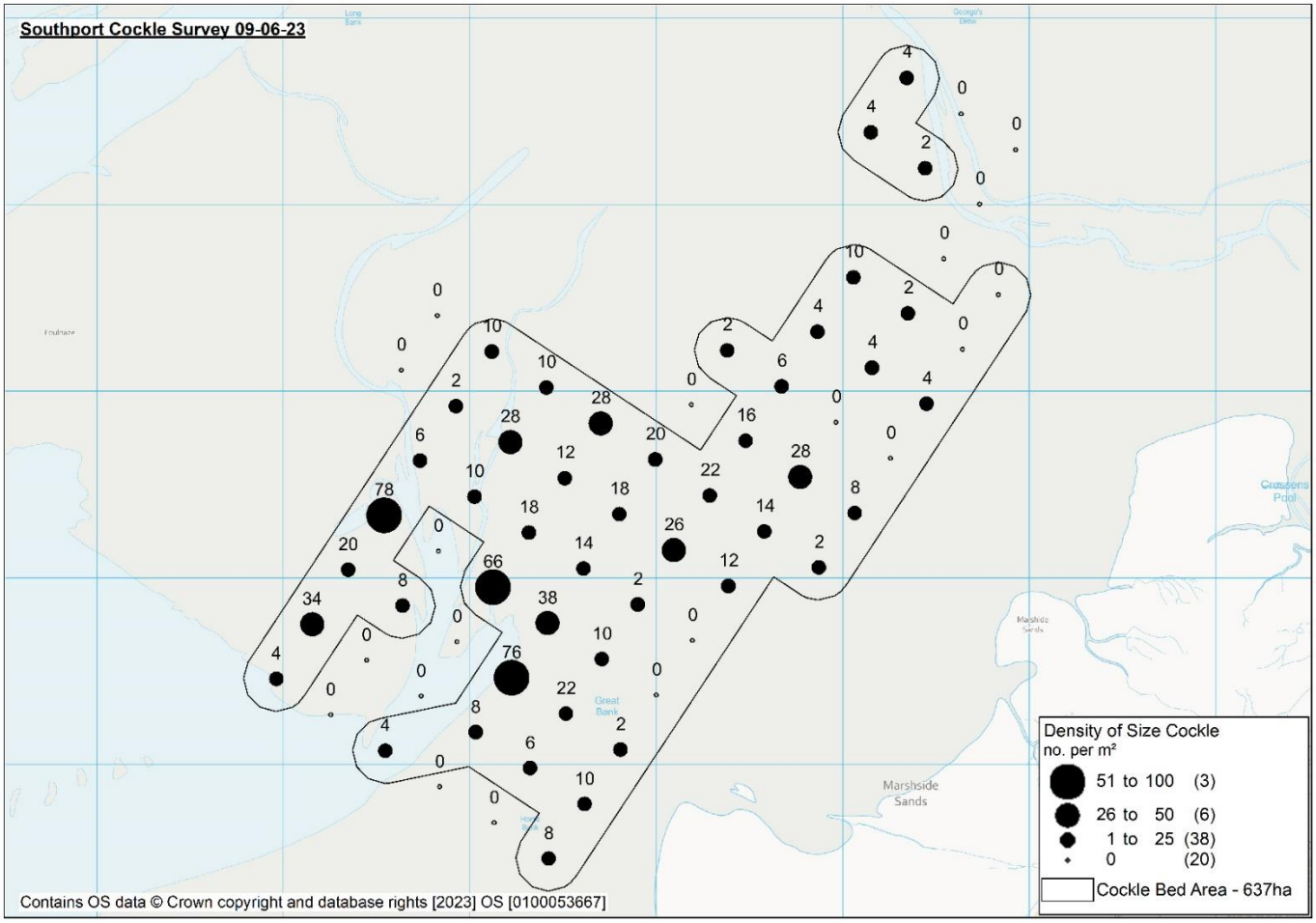

Figure 1. Density of size cockle per m² at Southport June 2023.

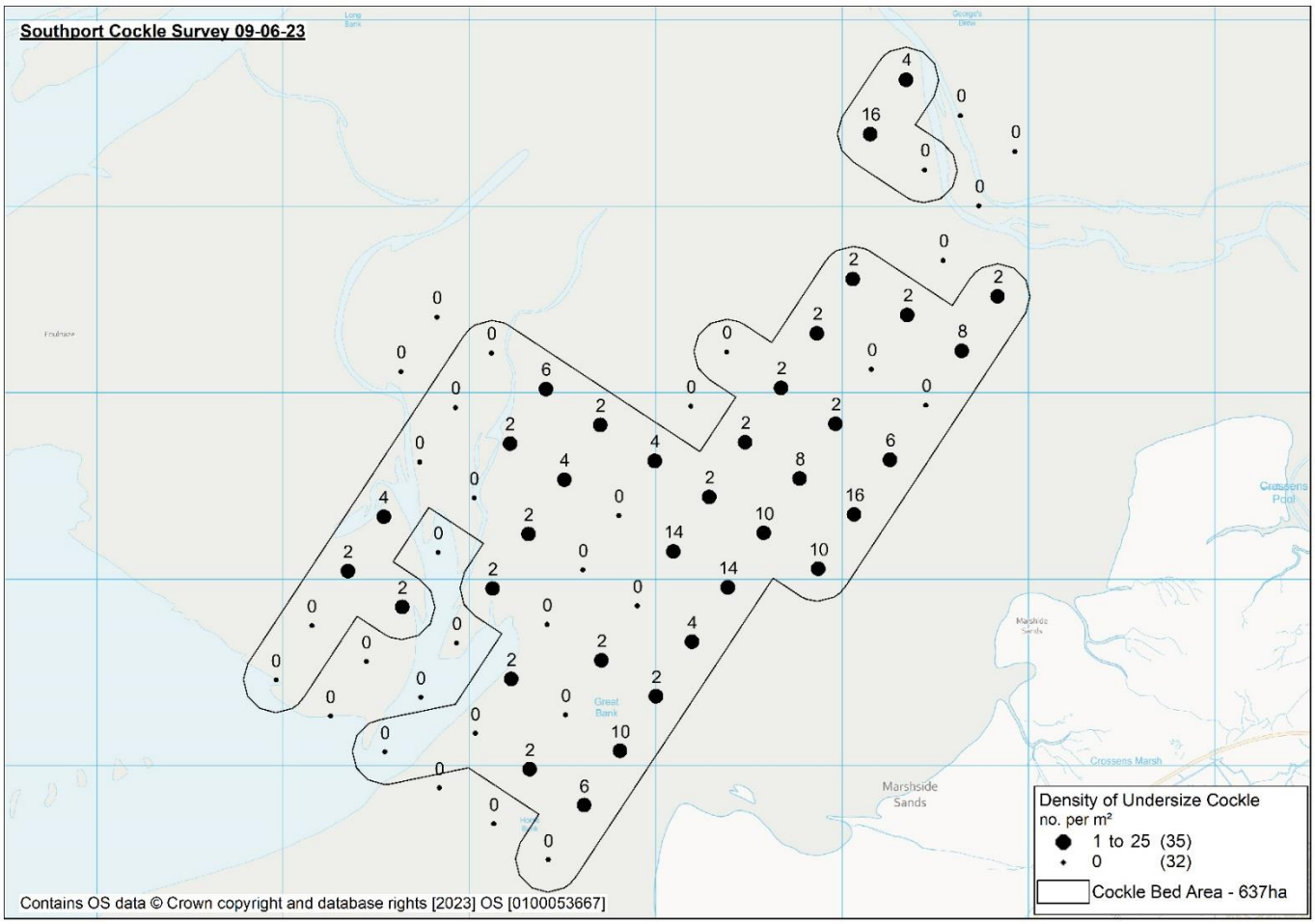

Figure 2. Density of undersize cockle per m² at Southport June 2023.

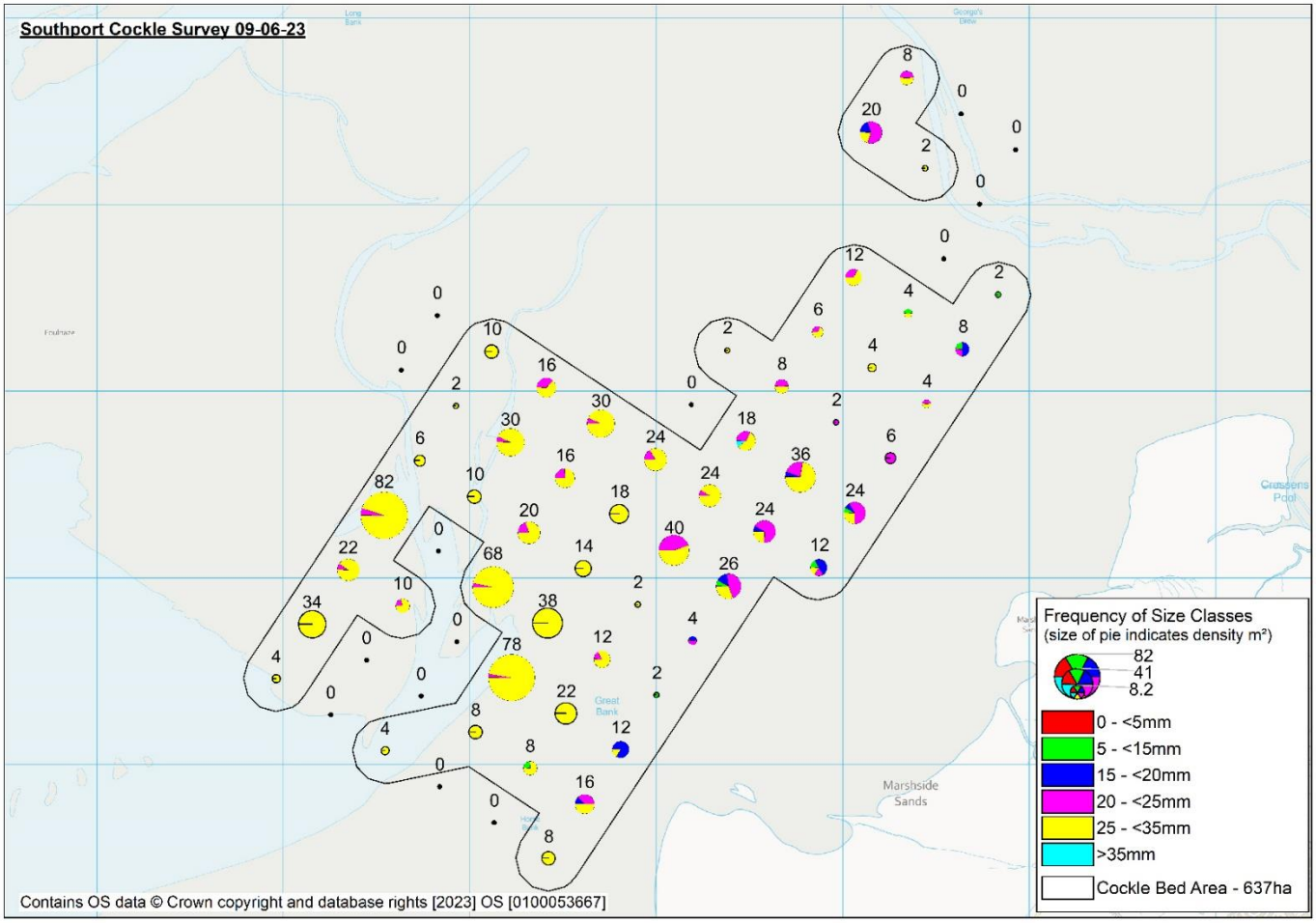

Figure 3. Frequency of size classes of cockle per m² at Southport June 2023.

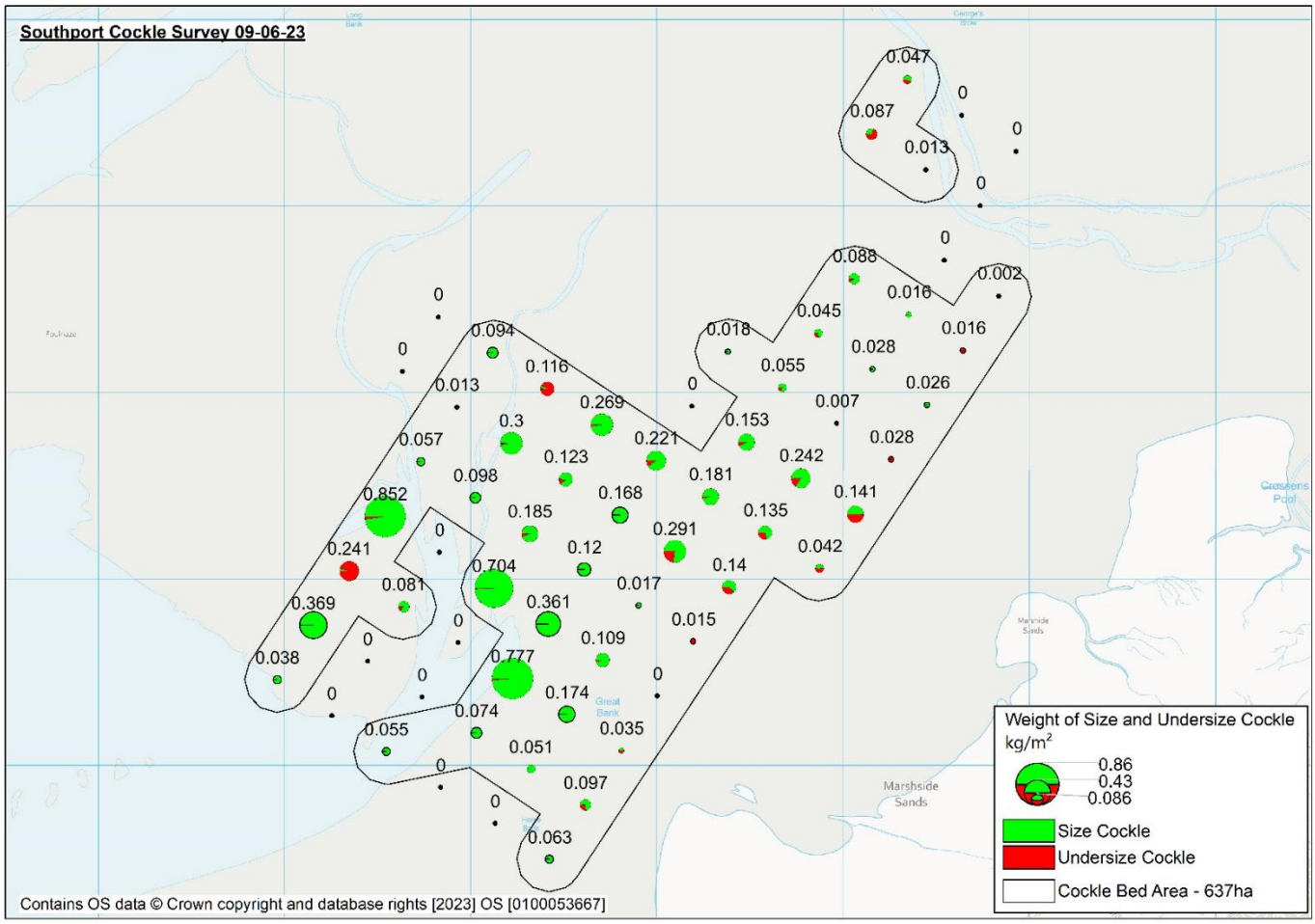

Figure 4. Weight of size and undersize cockle kg/m² at Southport June 2023.