

## Seed Mussel Survey Report for South Glassgorman Area – 8 and 9/08/2023 and 15/08/2023

### Methodology:

Acoustic data collection using 400 kHz side scan sonar, data processing on SonarWiz 7 and ground-truthing of acoustic targets with an industry-standard seed fishing dredge (BIM, 2016; Van Lancker et al., 2007; van Overmeeren et al., 2009). The data (dredge and grabs) was recorded using ESRI Field Maps with the Arrow 100 GNSS receiver for submeter accuracy.

**Area surveyed:** East of Courtown, in the general location of previously known seed mussel settlement (see map).

### Survey details:

Following 16 tows carried on the 08/08/2023, few signs of seed mussel were observed in the area surveyed. Noticeably, half a dredge of good quality seed was collected in the centre of the surveyed area (TG6 on the map). Additional tows around this location failed to highlight the extent of a possible bed.

This was also confirmed following the collection of acoustic data through the side scan sonar on the 09/08/2023. No consistent seed mussel pattern was observed on the image. However, what appeared like small patches were spotted. Those were investigated on the 15/08/2023 using the dredge, collecting another 9 tows, which confirmed small patches of scattered seed of which one sample was collected. On the total of 25 tows, 2 presented half a bag of seed, and 3 only few clumps.

### Biometrics:

The seed found averages **21.65 mm** (maximum: 27.85 mm, minimum: 11.38 mm) with 56% of the sampled mussels (N=100), comprised between 19 and 23 mm. The seed appears to be in good conditions with no visible signs of predation.



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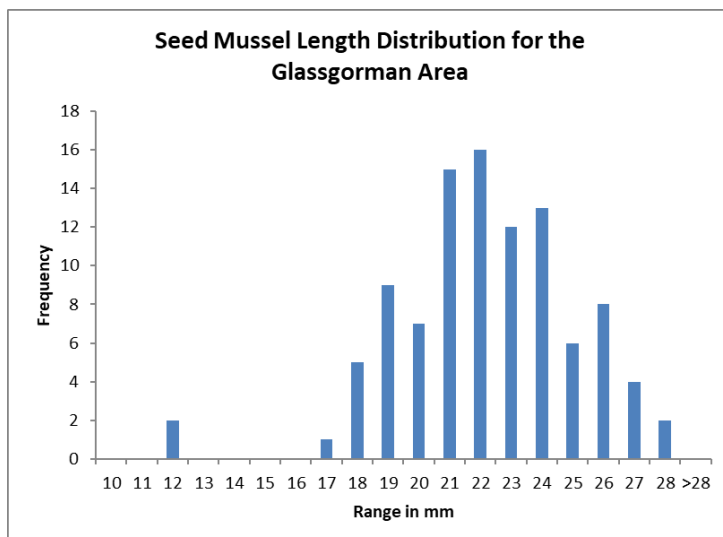


Fig.1: Seed mussel length distribution for the Glassgorman area 15/08/2023



Fig.2: Example of seed mussel found in the Glassgorman area

### Summary:

As for the Blackwater and Cahore areas, only scattered amounts of seed mussel were found during the survey in this area, no large extended settlement were found despite the seed being in good condition.

Aquaculture Technical Section

Seafood Technology Services Business Unit

BIM

### References

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- Van Lancker, V., Du Four, I., Papili, S., Verfaillie, E., Schelfout, K., Rabout, M., & Degraer, S. (2007). Habitat signature catalogue, Belgian Part of the North Sea.
- van Overmeeren, R., Craeymeersch, J., van Dalfsen, J., Fey, F., van Heteren, S., & Meesters, E. (2009). Acoustic habitat and shellfish mapping and monitoring in shallow coastal water - Sidescan sonar experiences in The Netherlands. *Estuarine, Coastal and Shelf Science*, 85(3), 437–448. <https://doi.org/10.1016/j.ecss.2009.07.016>



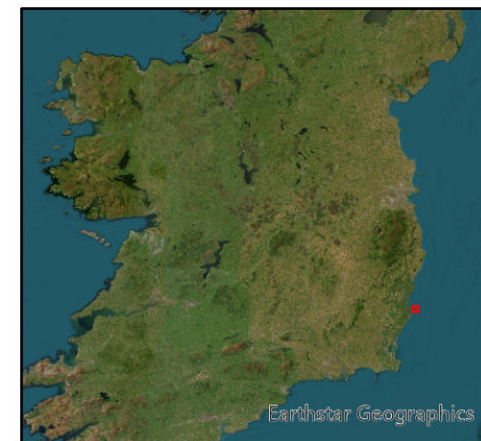
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# Seed Mussel Survey Map for the South Glassgorman - 08/08 to 15/08/2023



## Legend

### Tows

- seed
- other species
- shells stones
- signs of seed
- side scan sonar track
- rocks\_outcrop

### INFOMAR Bathymetry

- 0 to -10 m
- -10 to -20m
- -20 to -30m
- -30 to -40m
- -40 to -50m
- below -50m

Do not use for navigation  
 Map prepared by: Nicolas Chopin, BIM  
 28/08/2023  
 Credit bathymetry: INFOMAR 2022