

Seed Mussel Survey Report for the South Glassgorman Banks Area – 15/08/2017 to 25/08/2017

Vessel: MV T.Burke (BIM), Skipper John Murphy, Survey Officer Nicolas Chopin

Equipment: 1 meter dredge, 0.1 m² Day grab, 400 kHz side scan sonar.

Area surveyed: South of the Glassgorman Banks and in the front of Courtown Harbour

Survey summary:

This survey was carried out following industry reports of seed in this area. A number of tows were made with the dredge to assess the potential seed bed extent. The side scan sonar was then deployed to confirm the area. Finally, grabs were taken in order to estimate the tonnage.

Three main settlement areas were identified, two in the general area of the 2015 settlement and one further north. Density was calculated using the results from dredge and grab samples - density varies from 1.5 kg/m² to 6 kg/m².

There is the possibility of more patches in the area but these were not mapped.

Table 1: Area coordinates (in Degrees, decimal minutes WGS84) from North to South:

- Area 1 which represents approximately 74 hectares:

Latitude	Longitude
52° 38.026' N	6° 9.877' W
52° 37.827' N	6° 9.468' W
52° 37.443' N	6° 9.476' W
52° 37.218' N	6° 9.754' W
52° 37.252' N	6° 10.080' W
52° 37.726' N	6° 10.209' W

- Area 2 which represents approximately 55 hectares:

Latitude	Longitude
52° 37.100' N	6° 9.066' W
52° 37.127' N	6° 8.837' W
52° 36.790' N	6° 8.631' W
52° 36.325' N	6° 8.584' W
52° 36.416' N	6° 9.103' W

- Area 3 which represents approximately 25 hectares:

Latitude	Longitude
52° 36.011' N	6° 8.754' W
52° 36.028' N	6° 8.533' W
52° 35.486' N	6° 8.324' W
52° 35.441' N	6° 8.583' W
52° 35.912' N	6° 8.787' W

NOTE: The areas displayed on the attached map have been established following the side scan sonar data verified by ground truthing (opaque area on the map). These coordinates represent a simplified polygon of the area of the settlements identified (the light green line on the map).

As in 2015, the quality and density of the seed varies throughout the area. The seed in the two southern areas has weak shell and some starfish damage is already evident; Grab samples showed that 62% of the population is in the size range of 26 to 34 mm. The average depth in the area is 17 m. The average waste per samples was above 50%, this is mainly due to the collection method, with grabs increasing waste by approximately 20% over that recorded when using the dredge.

On the northern settlement the seed is a bit bigger (65% of the population is in the size range of 30 to 36mm) and the shell is a bit harder. There is less damage from the starfish in this area and the average waste is approximately 25 %.

The seed is scattered and patchy throughout the 3 areas.

Combining the grab results and the sonar data, the estimated tonnage for the entire area is **3000** metric tonnes.

A rock outcrop is situated on the southeast part of the one of the areas. Scattered rocks were found on the southwest too (see grey zones the map).

Bottom type: mainly sandy mud with stones and few hard patches.

Recommendations:

This settlement is in average condition with a starfish threat mainly in the southern area and is suitable for fishing.

As mentioned above, the seed is very patchy throughout the 3 areas and there is already a bit of mortality in some zones. There is a possibility of more patches in the vicinity.

Nicolas Chopin
BIM Inshore Survey Officer
Aquaculture Technical Section

Notes for the map:

TG stands for Tow Glassgorman

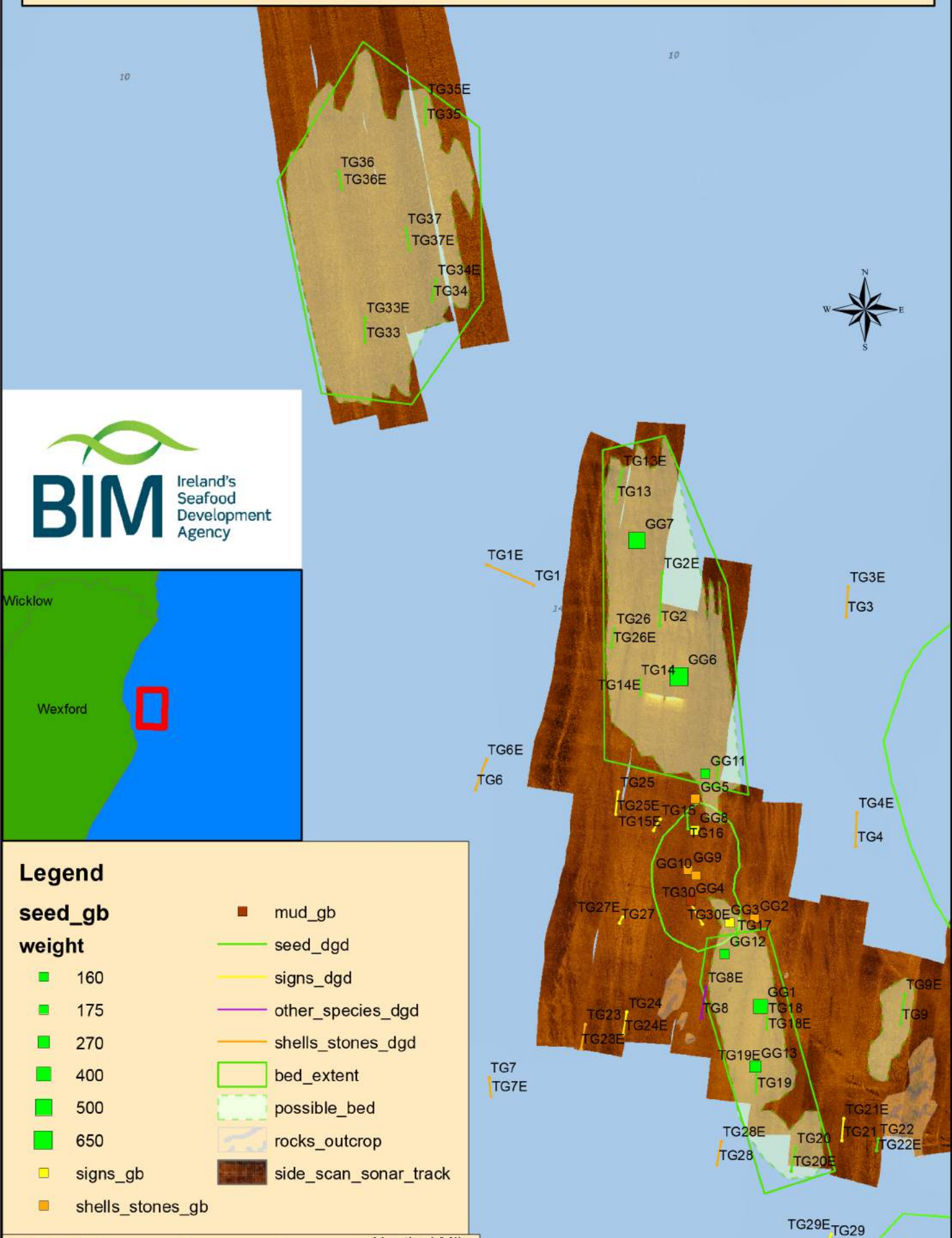
GG stands for Grab Glassgorman

In the legend dgd stands for Dredge

In the legend gb stands for Grab

In the legend wt_in_g represents the weight in grams in each grabs.

Seed Mussel Survey Map of The South Glassgorman Area - BIM - August 2017



Legend

seed_gb	mud_gb
weight	seed_dgd
160	signs_dgd
175	other_species_dgd
270	shells_stones_dgd
400	bed_extent
500	possible_bed
650	rocks_outcrop
signs_gb	side_scan_sonar_track
shells_stones_gb	



Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors, Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, and other contributors