



Seed Mussel Survey Report for the South Glassgorman Banks Area – 31/08/2015 to 3/09/2015

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 Courtown Harbour, 2.3 nautical miles East of Roney Rock

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. And finally, grabs were taken in order to estimate the tonnage.

The seed bed stretches over 3 kilometres in the north-northwest to south-southeast direction. The width varies from 200 meter in the south end to 500 meters in the north. The main seed area is over 130 hectares and there are two small patches to the southeast covering 6 and 10 hectares. There is the possibility of more patches in the area but those were not mapped.

Table 1: Area coordinates (in Degrees, decimal minutes WGS84):

Latitude	Longitude
52° 37.096' N	6° 9.076' W
52° 37.155' N	6° 8.805' W
52° 35.693' N	6° 7.887' W
52° 35.111' N	6° 8.001' W
52° 35.178' N	6° 8.662' W
52° 35.928' N	6° 9.209' 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).

The quality and density of the seed vary a lot throughout the area, but according the data collected from the grab, the tonnage was estimated to be between 2500 to 3000 metric tons. A lot of waste mainly composed of empty shells was found in the grabs, the amount was varying from 19% to 88%. It has to be note that the garb will gather more waste than the dredge due to the way it samples the seabed.

The seed size is very variable across the settlement: from 600 to 800 pieces per kilogram (grab GG1, GG2, GG6 and GG7 on the map) to 1200 to 1500 pieces per kilogram (grab GG3, GG4, GG5 and GG8 on the map). The average size is comprised between 20 and 30 mm and the most represented population is from 22 to 26mm (over 55% of the mussels sampled).

Starfish have been observed on the north side but the rest of the settlement seems clear.

A rock outcrop is situated on the southeast part of the bed and between the two small patches. Scattered rocks were found on the southwest too (see grey zones the map).

Bottom type: mainly mud with few stones.

Recommendations:

This settlement is in good condition with strong seed and no immediate threat from predation. Good quantities were collected in the dredge despite short tows and strong tidal currents which could indicate good density on the seabed; nevertheless, the density seems to vary a lot on the north side. Although, a lot of waste was found in the grab (mainly shells filled up with mud), the content of the dredges were much cleaner. 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.

