



## Seed Mussel Survey Report for Rosslare – 16/08/2016 to 18/08/2016

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

**Equipment:** 400 kHz side scan sonar, 1 meter dredge, 0.1 m<sup>2</sup> Day grab.

**Area surveyed:** In the South Shear in the front of Rosslare Europort Harbour, from the Calmines and South Holdens channel buoys in the south to the northwest tip of the Holdens bed.

### Survey summary:

Following industry reports and earlier observation the South Shear/ Rosslare area of seed settlement, the side scan sonar was deployed in the area. Seed mussel features were spotted and investigated. A total of 9 tows of 20 made were successful with seed mussel. The seed settlement area represents approximately 72 hectares, measuring a little under 2 km at its longest and 550 m at its widest.

*Table 1: Seed Mussel Settlement Coordinates (in Degrees, decimal minutes WGS84):*

Latitude	Longitude
52° 15.148' N	6° 17.632' W
52° 15.087' N	6° 17.716' W
52° 15.293' N	6° 18.490' W
52° 15.544' N	6° 18.843' W
52° 15.893' N	6° 18.827' W
52° 15.933' N	6° 18.674' W
52° 15.344' N	6° 17.786' W

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

The seed is in good condition and appears to be in good density at the centre of the settlement, 4 tows gathered 2/3 of the dredge or a full bag (TR 24, 25, 28 and 30 on the map). Spider crabs have been found mainly on the southern border but no or little starfish were observed in the dredges. Some part of the ground looked rough (rocks outcrop marked as rough ground on the map) on the side scan sonar.

*Table 2: Samples summary (over 100 individuals per sample)*

<b>Tows</b>	<b>Pieces/kg</b>	<b>Average size in mm</b>	<b>% waste</b>
<b>TR21</b>	964	21.91	41%
<b>TR23</b>	1264	20.74	33%
<b>TR24</b>	1024	22.96	15%
<b>TR25</b>	1088	22.56	24%
<b><i>Average</i></b>	<b><i>1085</i></b>	<b><i>22.04</i></b>	<b><i>28%</i></b>

There is only small variation in seed size across the bed, but like in the settlement in the Rusk Channel, it seems there are good few small seed within the bulk of the mussels. From the data analysis, 70% of the seed population is comprised between 22 and 28 mm. Nevertheless, there is more than 5% under 12mm again like on the Rusk Channel settlement.

Some scattered seed was found further north (TR 35 on the map), but no extent has been established.

Grabs were taken randomly on the settlement and the average weight across was 400 g of seed per grab (varying from 225g to 625g of seed per grab, see details on map). Therefore the tonnage has been estimated to be between 2500 and 3000 tonnes at the time of the survey.

**Bottom type:** For most of the bed, sand and mud with patches of rocks. The average depth of the settlement is 14 to 16 m. Unfortunately, no video was taken at the time of the survey.

### **Recommendation:**

From consultation with the industry and the results of this survey, it would be in the interest of all to delay the opening of the fishery to the next set of tide (September 8<sup>th</sup> instead of August 26<sup>th</sup>). This would allow smaller seed to develop and therefore increase productivity on the various beds.

Nicolas Chopin  
Inshore Survey Officer  
BIM Aquaculture Technical Section

### Notes for the map:

TR stands for Tow Rosslare

GR stands for Grab Rosslare

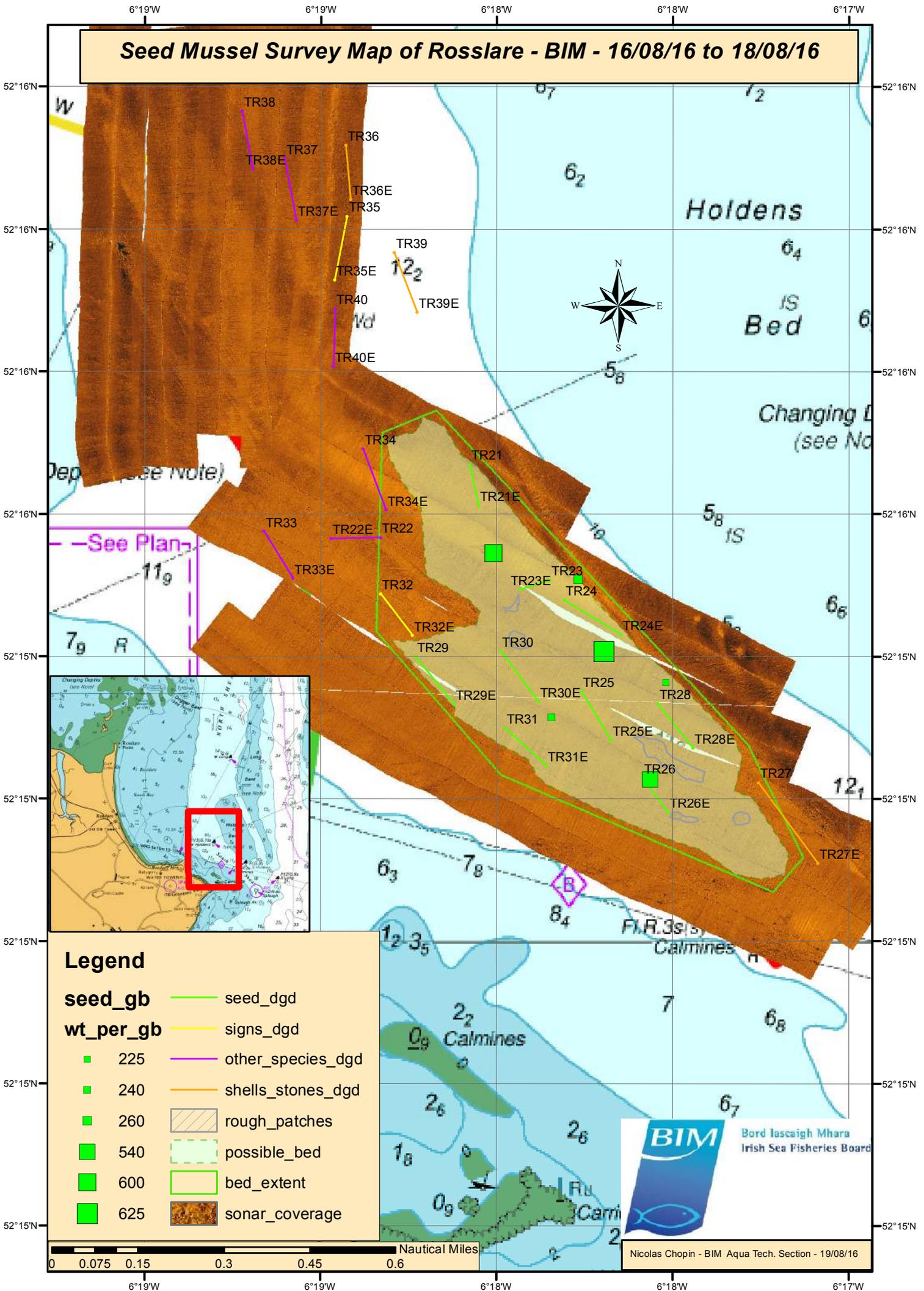
Dgd stands for dredge in the legend

Gb stands for grab in the legend

All grab weight on the map are expressed in grams



# Seed Mussel Survey Map of Rosslare - BIM - 16/08/16 to 18/08/16



## Legend

- |                  |   |                   |
|------------------|---|-------------------|
| <b>seed_gb</b>   | — | seed_dgd          |
| <b>wt_per_gb</b> | — | signs_dgd         |
| ■ 225            | — | other_species_dgd |
| ■ 240            | — | shells_stones_dgd |
| ■ 260            | ▨ | rough_patches     |
| ■ 540            | ▤ | possible_bed      |
| ■ 600            | ▥ | bed_extent        |
| ■ 625            | ■ | sonar_coverage    |

Nautical Miles



Nicolas Chopin - BIM Aqua Tech. Section - 19/08/16