Seed Mussel Survey Report for the Wicklow Area- 15 and 16/07/2015

Vessel: MV T’Burke (BIM), Skipper John Murphy, Survey Officer Nicolas Chopin

Equipment: 400 kHz side scan sonar, 1 meter dredge.

Area surveyed: 1.2 Nautical miles North-northwest of the North tip of the Arklow Bank around the 20 meter contour line.

Survey summary:
This survey was carried out following industry report of signs of seed in this area. The location was not surveyed in April but it was planned to resurvey Wicklow later in the season after a high levels larvae were observed during the larvae monitoring.

A constant amount of small seed was found over 4 km stretch. The settlement looks to extend over 190 hectares. Density seems to vary a lot in the area but not all seed is easily visible, it looks like multiple seeding occurred and seed size varies from few millimetres to 10-12 mm. No density was estimated due to the size of the seed.

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

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>52° 56.063’ N</td>
<td>5° 56.317’ W</td>
</tr>
<tr>
<td>52° 53.587’ N</td>
<td>5° 57.440’ W</td>
</tr>
<tr>
<td>52° 53.731’ N</td>
<td>5° 57.892’ W</td>
</tr>
<tr>
<td>52° 55.590’ N</td>
<td>5° 57.138’ W</td>
</tr>
<tr>
<td>52° 56.051’ N</td>
<td>5° 56.728’ W</td>
</tr>
</tbody>
</table>

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.

There are no signs of predation so far and the seed look in good condition (tough shells and well attached to the features on the seabed).
**Bottom type:** small stones and coarse sand at the depth from 14 to 20 m.

**Recommendations:**
From the data collected, it is too early to get an accurate density and tonnage. Currently the seed settlement looks to extend over large area which hopefully will produce a good tonnage. Wicklow appears to have recovered after nearly five years of poor or no mussel recruitment. Growth rates need to be checked later in August and a tonnage estimate will be established at that time.

Nicolas Chopin  
BIM Inshore Survey Officer  
Aquaculture Technical Section

**Notes for the map:**  
TW stands for Tow Wicklow  
In the legend dgd stands for Dredge
Seed Mussel Survey Map of South Wicklow Head - BIM - 16/07/2015

Legend
- seed_dgd
- signs_dgd
- shells_stones_dgd
- other_species_dgd
- possible_bed_wwjuly
- side_scan_sonar_track

Nicolas Chopin BIM Aqua. Tech. Section- 17/07/2015