

## **Seed Mussel Survey Report Updates for the South Irish Sea – 1/07/2014 to 3/07/2014**

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

**Equipment:** 1 m dredge, 400 kHz Side Scan Sonar

**Area surveyed:** South east of Wicklow Head, around the Glassgorman Bank, along the shore south of Cahore Point and around the settlement found earlier West of the Long Bank.

### **Survey summary:**

→ **Wicklow – map 1:** An extra 7 tows were made south of Wicklow Head to fill up the gap left on the previous survey (see online report). No significant amount of seed was found in the area, only small traces of very scattered spat were observed.

→ **Glassgorman Bank- map 2:** Six tows were made around the Glassgorman Bank but no seed was found.

→ **Cahore Point (shore) - map 3:** On the previous survey, only the Rusk Channel and north of the point were checked.

For that second part of the survey, the side scan sonar was deployed along the shore in 10-15 metres of water. A number of interesting features were marked during the scan and subsequently investigated.

Seed was found in three tows covering a little over 1 kilometre. The seed is in good condition and only a very small amount of starfish was found in the dredges. A lot of spider crabs were found in each tow as well. The current size averages between 12 to 14 mm), but a lot of smaller individual were found in the samples (3600 to 5000 Pieces per kilo). The waste in the sample represented 67 % for the north tow (possible north end of the settlement) and 33 % for the second tow.

From the side scan sonar data, it seems the settlement stretches over 74 hectares, although the southern end of the bed is not as clearly defined as the northern part.

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

Latitude	Longitude
52° 30.543' N	6° 13.525' W
52° 29.676' N	6° 14.270' W
52° 29.841' N	6° 14.631' W
52° 30.608' N	6° 13.807' 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.

➔ **Long Bank West – map 4:** Back in April, some small spat was observed on the northwest side of the Long Bank. At the time the spat was stretching over 1,400 metres long.

Eleven extra tows were made on the second part of the survey, good quantities of seed were found in 2 and good signs were found in 3 others. The seed is in good condition and a little bit bigger than the settlement found along the shore in Cahore. The current average size is over 15 mm (3000 P/Kg), the amount of waste in the sample represented 34 % (mainly old oyster shells and bryozoans). Only a few starfish were observed in the dredges.

From the side scan sonar data, it seems the settlement stretches over 149 hectares. The south end of the settlement has not been clearly defined. The average depth of water on the bed is 18 metres.

Table 2: Area coordinates (in Degrees, decimal minutes WGS84):

Latitude	Longitude
52° 20.763' N	6° 17.360' W
52° 19.123' N	6° 17.606' W
52° 19.118' N	6° 17.756' W
52° 20.159' N	6° 17.934' W
52° 20.754' N	6° 17.893' W
52° 21.038' N	6° 17.615' 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.

**Summary:**

There has been significant growth on the bed previously found in April and it is expected that the settlement in the Rusk Channel (not checked during this second survey) will also have benefited from the same level of growth. Both settlements looked in good condition and they do not currently seem to be under predation threat.

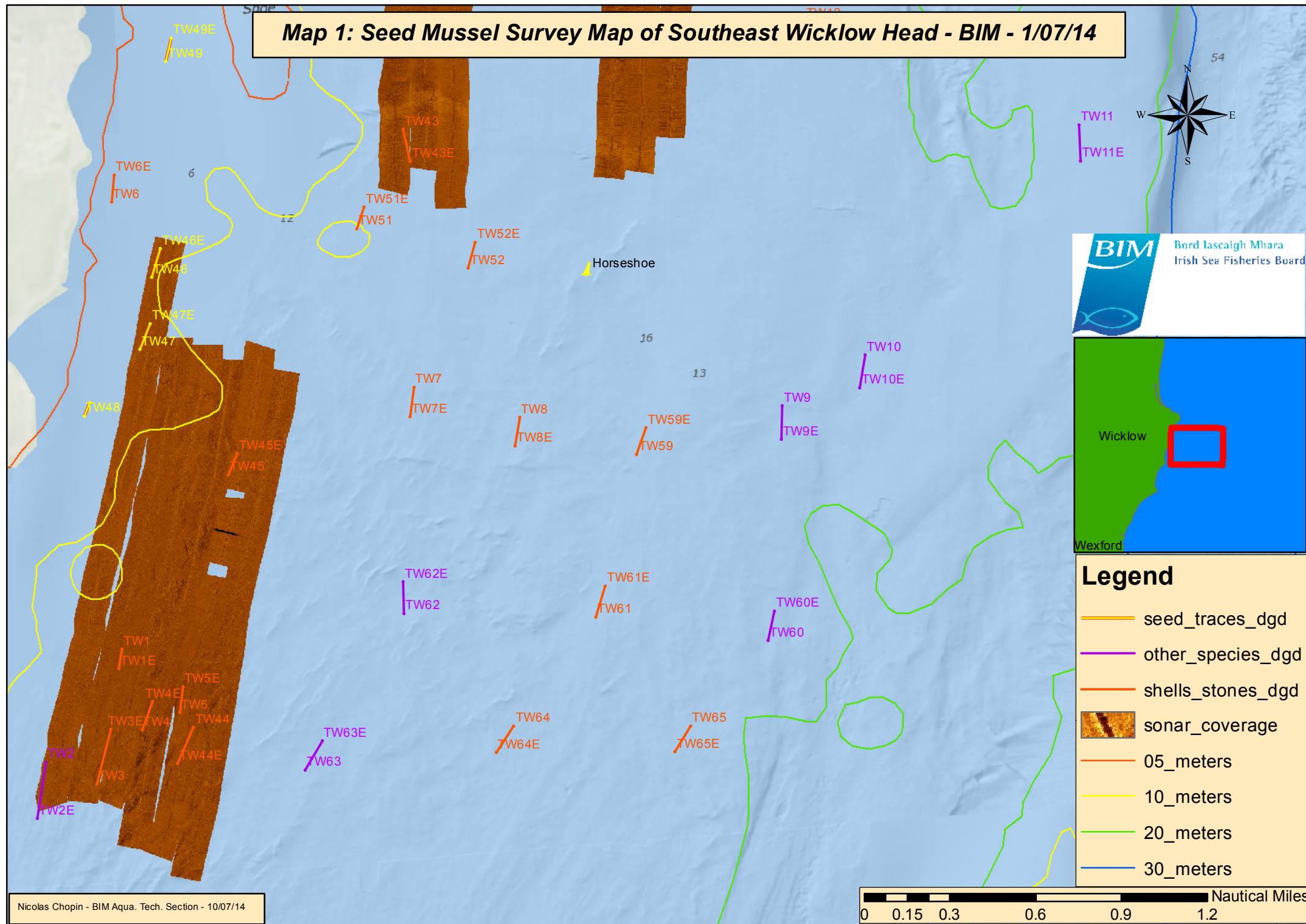
Due to weather and tide condition, it was not possible to deploy the grab and thus a definitive tonnage could not be estimated. However, based on previous experience, historic data, the current tonnage (at the current size) of the three areas (Rusk channel, Cahore shore and west Long Bank) may be conservatively estimated as being between 2500 and 4000 metric tonnes. A more definitive tonnage estimate will be calculated before the opening of the fishery later this year (depending on growth performance, mortality and predation), but it is safe to conclude now that the 1500 minimum opening tonnage threshold has certainly been identified and exceeded in these locations.

Nicolas Chopin  
Inshore Survey Officer  
BIM Aquaculture Technical Section

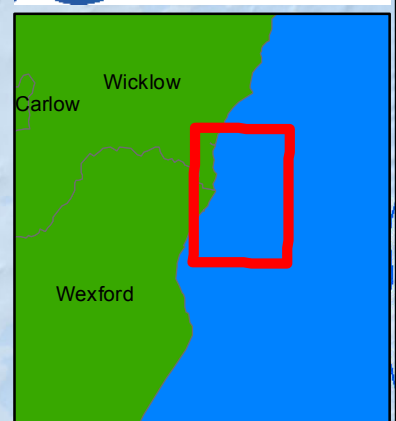
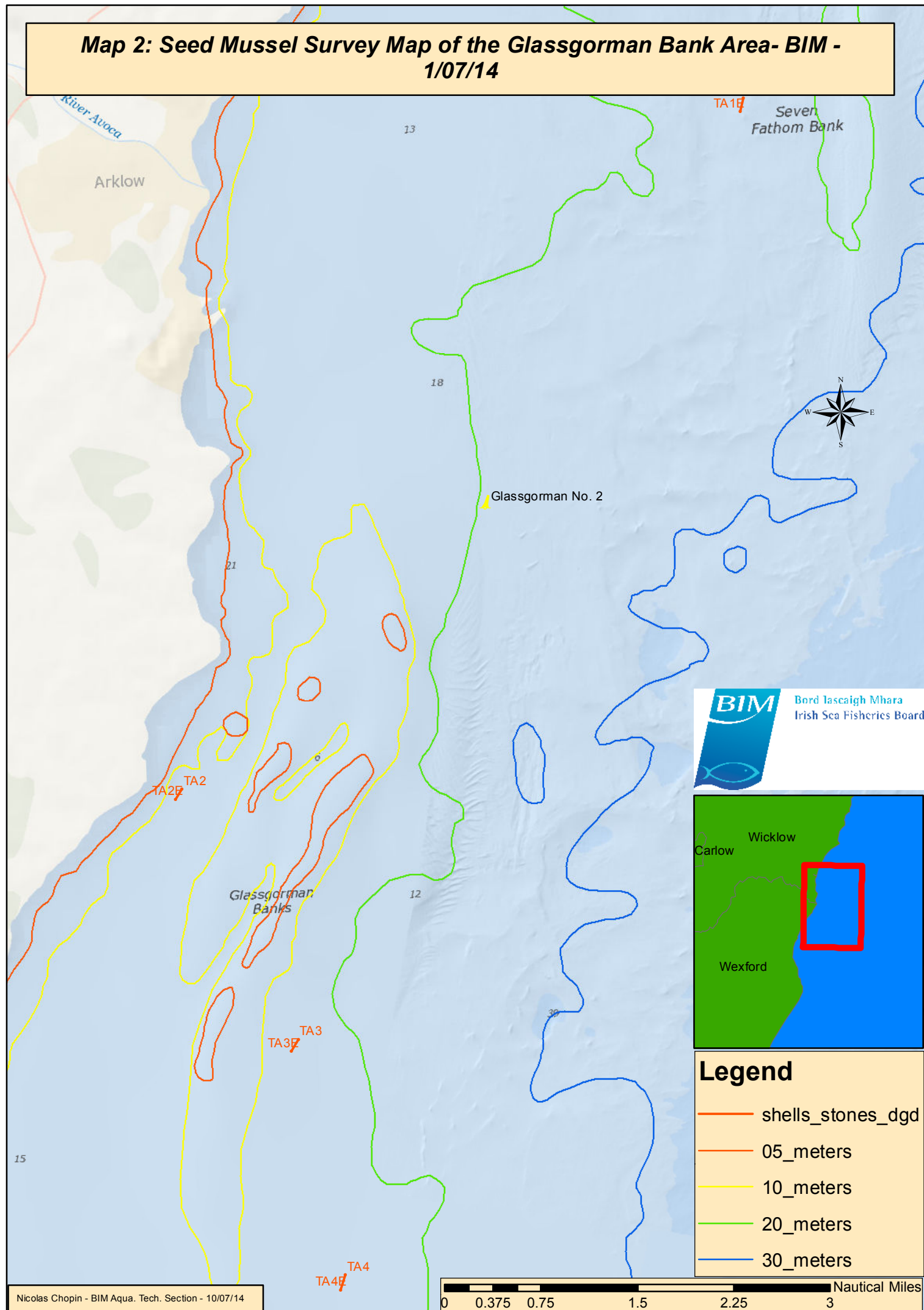
**Notes for the maps:**

- Map 1 – Wicklow: TW stands for Tow Wicklow
- Map 2 – Glassgorman: Ta stands for Tow Arklow
- Map 3 – Cahore Point: TC stands for Tow Cahore
- Map 4 – Long Bank West: TR stands for Tow Rosslare
- For all maps legend: dgd stands for dredge

# Map 1: Seed Mussel Survey Map of Southeast Wicklow Head - BIM - 1/07/14



# Map 2: Seed Mussel Survey Map of the Glassgorman Bank Area- BIM - 1/07/14

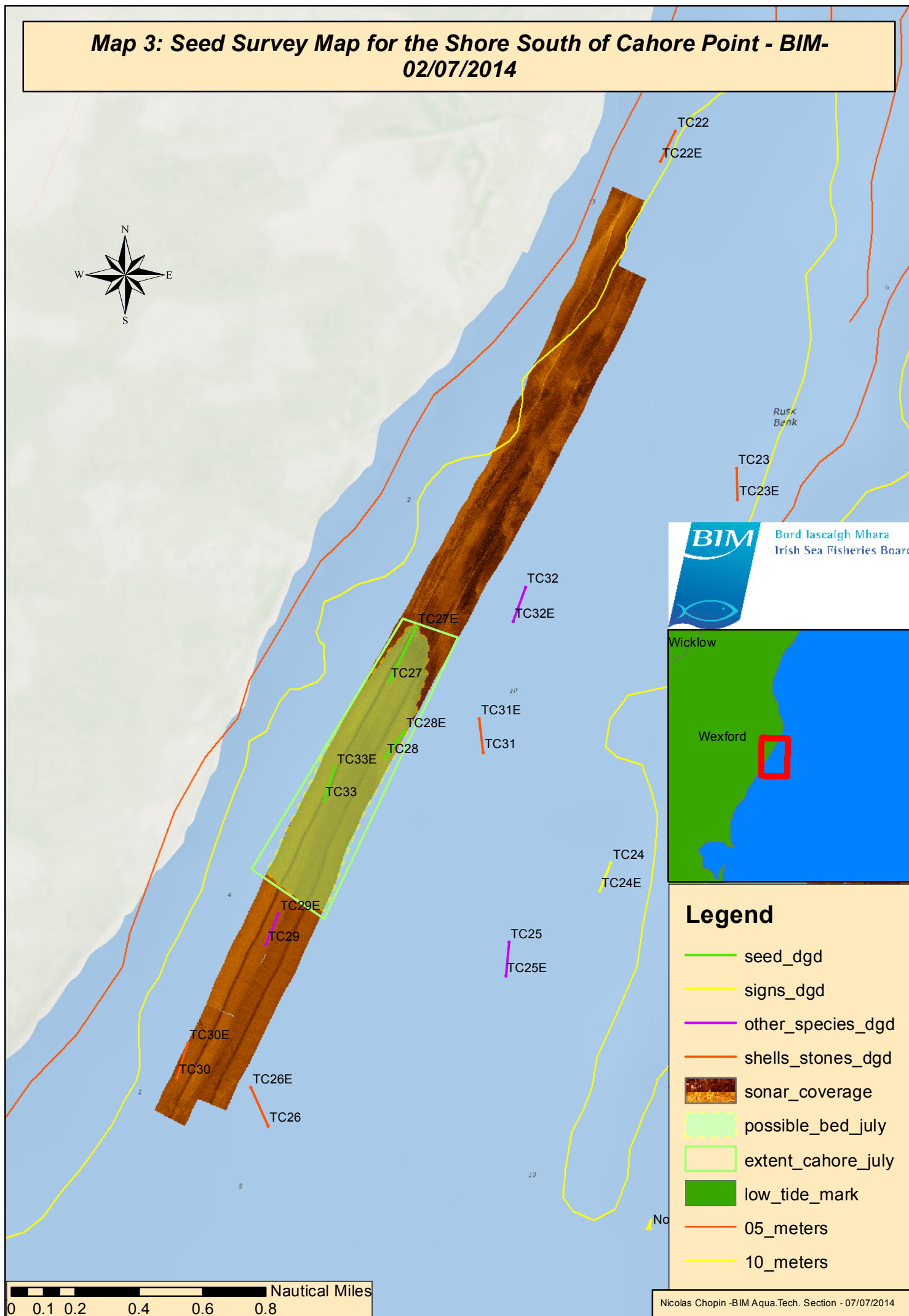


## Legend

- shells\_stones\_dgd
- 05\_meters
- 10\_meters
- 20\_meters
- 30\_meters



# **Map 3: Seed Survey Map for the Shore South of Cahore Point - BIM-02/07/2014**



# Map 4: Seed Mussel Survey Map of the West Long Bank- BIM-03/07/2014

