

Seed Mussel Survey Report for Cahore Point/ Rusk Channel – 3 to 5/07/2018

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

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

Area surveyed: Along the shore south of Cahore point and the south end of the Rusk Channel (see attached map).

Survey summary:

This survey is a preliminary one, as what has been found so far will need more time to grow and a more quantitative survey will be carried out later in the summer.

As in previous years, the historical seed mussel settlements were surveyed around Cahore; nothing was found just south of Cahore point but scattered signs were observed in the dredges further south. Following this discovery the side scan sonar was deployed in the area and a number of features have been investigated. The sonar was then deployed at the southern end of the Rusk Channel where more interesting features were observed. A number of dredge tows were carried out and scattered small seed was found at the two locations.

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

- Area 1 which represents approximately 35 hectares:

Latitude	Longitude
52° 29.008' N	6° 12.063' W
52° 28.780' N	6° 12.098' W
52° 28.304' N	6° 12.320' W
52° 28.352' N	6° 12.654' W
52° 28.599' N	6° 12.514' W
52° 29.008' N	6° 12.063' W

- Area 2 which represents approximately 30 hectares:

Latitude	Longitude
52° 28.994' N	6° 15.310' W
52° 29.182' N	6° 14.619' W
52° 28.751' N	6° 15.129' W
52° 28.728' N	6° 15.646' 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).

Those two areas are not well defined yet as the seed is still very small and scattered. It seems there has been two different settlements in Area 1 as the population in the sample showed that 34% of the seed is comprised between 8 and 12 mm and 32% is comprised between 18 and 20 mm. The seed in Area 2 is a bit smaller and more scattered, 76% of this seed in the sample was between 6 and 12 mm.

In addition a lot of small spat has been found throughout the sample as well. A few small starfish were observed directly in the two locations but there is no sign of predation yet. It is too soon to estimate the possible tonnage for the two areas.

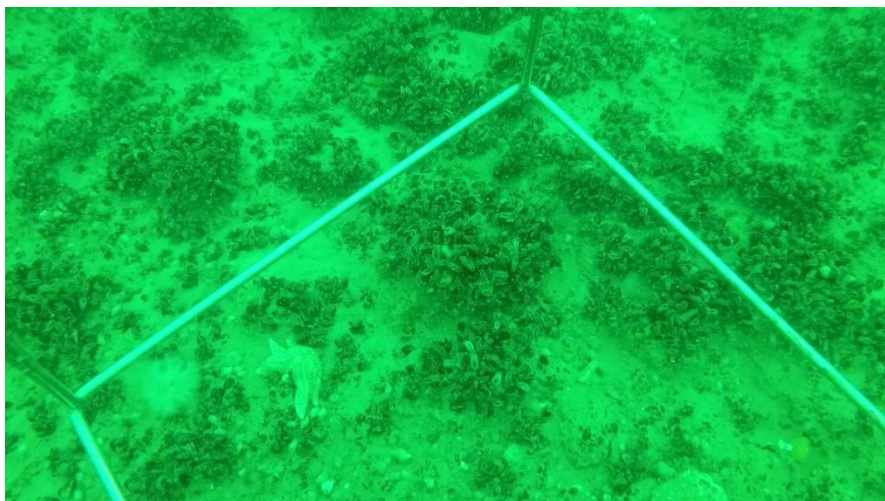


Fig. 1: Seed Mussel in Area 1

Bottom type: mainly sandy mud with stones.

Recommendations:

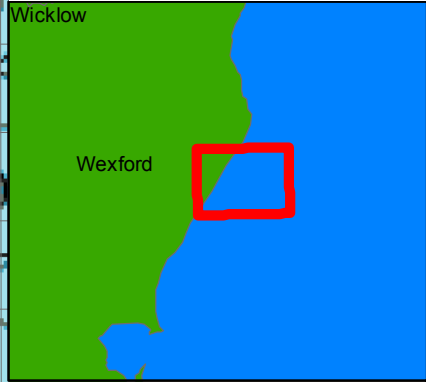
These settlements need to be monitored for predator impact and growth. It is too soon to carry out tonnage estimation as the seed is still small and scattered. Those areas will be resurveyed before the fishery starts.

Nicolas Chopin
BIM Inshore Survey Officer
Seafood Technical Services and Business Unit

Notes for the map:

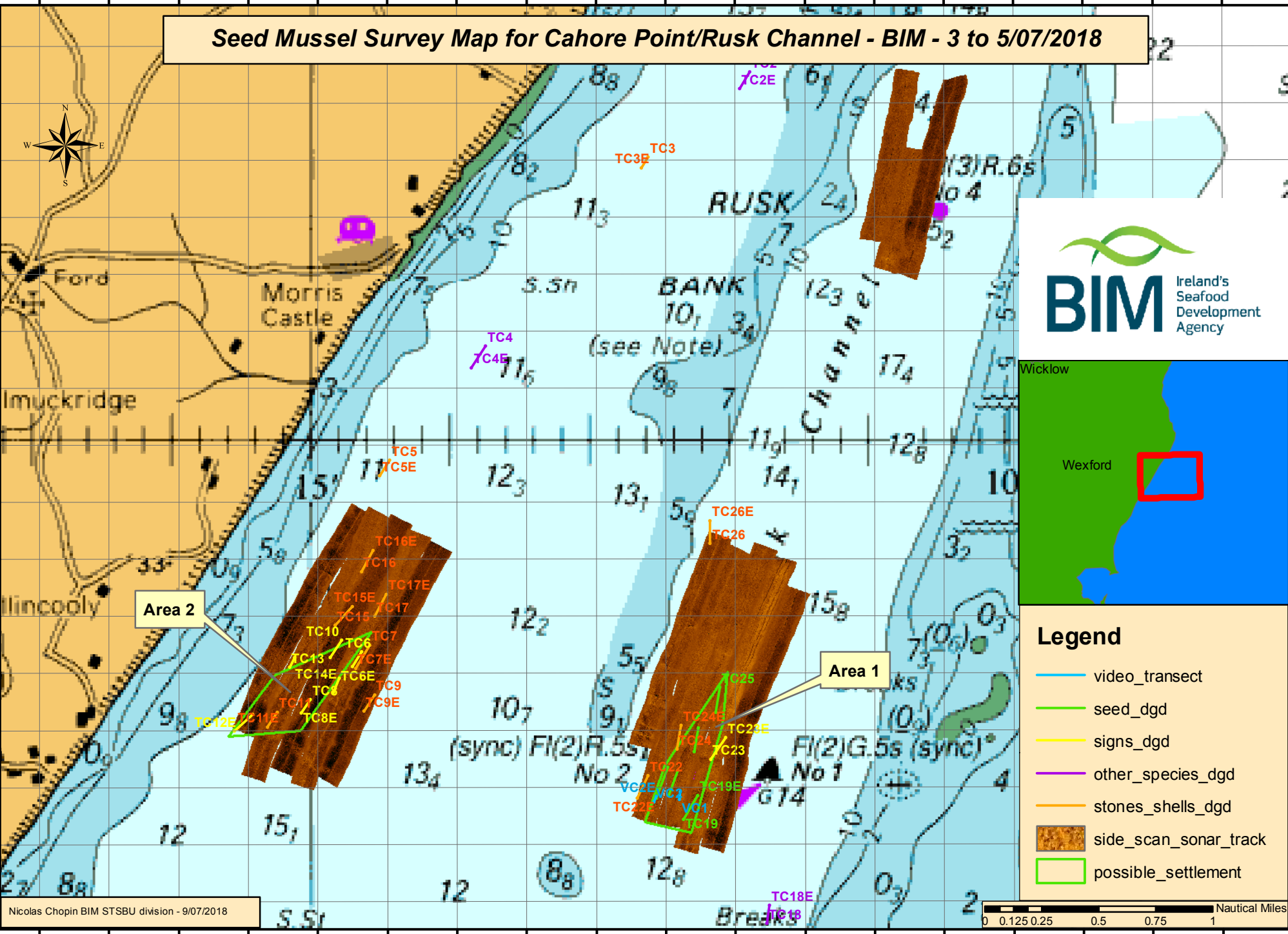
TC stands for Tow Cahore
In the legend dgd stands for Dredge

Seed Mussel Survey Map for Cahore Point/Rusk Channel - BIM - 3 to 5/07/2018



Legend

- video_transect
- seed_dgd
- signs_dgd
- other_species_dgd
- stones_shells_dgd
- side_scan_sonar_track
- possible_settlement



Area 2

Area 1

Nicolas Chopin BIM STSBU division - 9/07/2018

0 0.125 0.25 0.5 0.75 1 Nautical Miles