



Bord Iascaigh Mhara
Irish Sea Fisheries Board

Seed Mussel Survey Report for Cahore Point/ Rusk Channel area -26/06/12 to 11/07/12

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

Equipment: 400 kHz side scan sonar, 1 meter dredge, 0.1 m² Day Grab.

Area surveyed: From Cahore Point to Morris Castle for the inshore part. Southwest of the Red Buoy No.2 and east of the Green Buoy No.1.

Survey summary:

The side scan sonar was deployed at first in the inshore part south of Cahore point, few marks were logged and investigated but nothing was found. Following local knowledge, the side scan was then deployed east of the Green Buoy No.1 and west of the Red Buoy No. 2. Very good marks were investigated and seed was found across an extensive area. The extent of the two seed mussel beds found was then estimated and defined.

Beds Coordinates (in Degrees, decimal minutes WGS84):

- Red Buoy No.2

Latitude	Longitude
52° 29.013' N	6° 13.249' W
52° 28.668' N	6° 13.275' W
52° 28.133' N	6° 13.757' W
52° 28.070' N	6° 14.053' W
52° 28.290' N	6° 13.989' W

- Green Buoy No.1

Latitude	Longitude
52° 29.374' N	6° 11.101' W
52° 29.271' N	6° 11.038' W
52° 29.069' N	6° 11.072' W
52° 28.269' N	6° 11.654' W
52° 28.201' N	6° 11.988' W
52° 28.340' N	6° 11.962' W

NOTE: The area displayed on the attached maps has been established following the side scan sonar data verified using the dredge. These coordinates represents a simplified polygon of the area of the settlement identified.

The estimated surface area for the beds is 43 hectares for the Red Buoy Bed and 49 hectares for the Green Buoy Bed.

Red Buoy Bed seed condition:

The seed on this bed is still very small, the average size at the start of July was around 11 mm for 7000 Pieces per Kilo. The seed is set on shell debris and very small gravel mixed with byssus. The sizes range from 4 mm to 20 mm and the largest population is comprised between 4 to 10 mm; the current percentage of waste on the bed is approximately 40%. Few starfish were observed in the dredges, all the tows northeast of the bed (marked in purple on Map 1 and 2) contained mainly 'brittle star' starfish. The current estimated tonnage (based only on the current seed size) is the region of 800 tons.

Green Buoy Bed:

The seed on this second bed is in a more advanced condition and it is set on gravel and old oyster shell. The average size at the start of July was 14 mm ranging from 4 to 22 mm; the largest population is comprised between 15 to 20 mm. The current percentage of waste varies from 20% to 40% in the north part of the bed (see TC22 on map 2). Up to 33% mortality has been observed in the north part (across all the sizes). The reason for this observed mortality is not clear, starfish don't seem to be responsible. It was observed that the seed in this area looks 'weaker' than the rest of the bed. The current estimated tonnage (based also on the current size) is estimated to be in the region 1900 tons.

The rest of the Rusk channel was not surveyed due to the high density of whelk pots making it inaccessible.

Bottom type: Small gravel and shell debris for the Red buoy bed and oyster shells and sand for the Green buoy bed.

Recommendations:

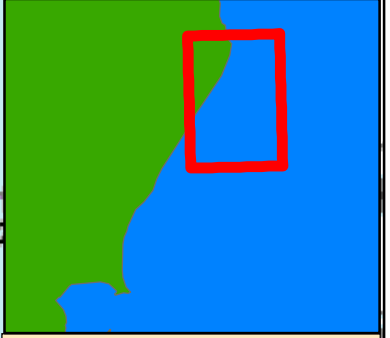
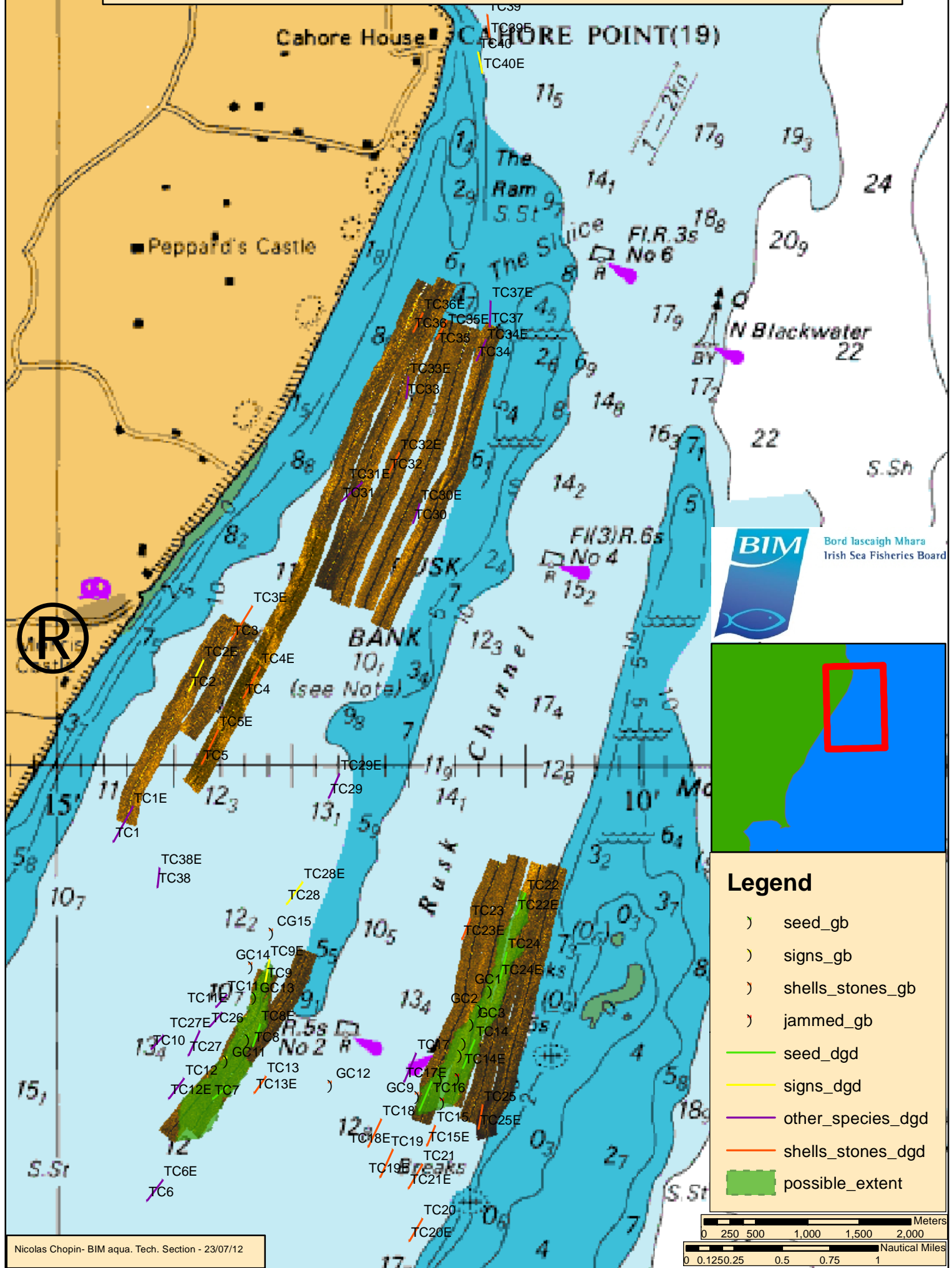
Due to the wide range of size (4 to 20 mm), the current average size (11 to 14 mm) and the low predation, it is the view of the survey officer that these beds should not be fished at this time. It is recommended that the seed should be monitored for growth and harvesting deferred for four weeks until the bulk of the stock has reached a harvestable size.

Nicolas Chopin
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Aquaculture Technical Section

Notes for the maps:

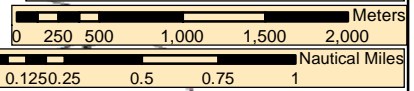
TC stands for Tow Cahore
DGD in the legend stands for dredge
GC stand for Grab Cahore
Gb in the legend stands for grab

Seed Mussel Survey Map for Cahore Point Area - from 26/06/12 to 11/07/12- BIM

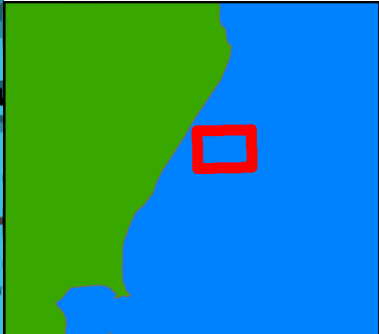


Legend

-) seed_gb
-) signs_gb
-) shells_stones_gb
-) jammed_gb
- seed_dgd
- signs_dgd
- other_species_dgd
- shells_stones_dgd
- █ possible_extent



Seed Mussel Survey Map for the South Rusk Channel Area - from 26/06/12 to 11/07/12- BIM



Legend

-) seed_gb
-) signs_gb
-) shells_stones_gb
-) jammed_gb
- seed_dgd
- signs_dgd
- other_species_dgd
- shells_stones_dgd
- - - possible_extent

