



Bord Iascaigh Mhara
Irish Sea Fisheries Board

Seed Mussel Survey Report for the Area between the Long Bank and the Lucifer Bank – 25/06/2013 to 28/06/2013

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: Channel east of the Long Bank and West of the Lucifer Bank (See map below).

Survey summary:

As a known area for seed mussel settlement (previous settlements in 2005, 2008 and 2011), the area was assessed for the presence of seed mussels. Initial dredge samples indicated the presence of seed. The full extent of the bed was established via additional ground truthing, side scan sonar deployment and data processing. It appears that the bed is a significant find, 3 km in length and approximately 450 m maximum width, orientated on an almost North/ South axis.

Bed Coordinates (in Degrees, decimal minutes WGS 84):

Latitude	Longitude
52° 20.638' N	6° 14.952' W
52° 20.278' N	6° 14.939' W
52° 19.355' N	6° 15.173' W
52° 18.911' N	6° 15.538' W
52° 19.120' N	6° 15.642' W
52° 20.532' N	6° 15.322' W
52° 20.717' N	6° 15.207' W

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

The seed in the centre of the bed is in good condition and well settlement on a mixture of small gravel, shells, sand and byssus. The average size varies from 10 to 12 mm (Minimum 2 mm, maximum 20 mm) with most of the seed (62% of 300 mussels) between 10 and 14 mm. The average density is 2 kg/m² (established from grab data) over a 100 hectare area, which currently represents around 2000 tons of seed. The depth of the bed ranges from 22 to 28 meters.

The edges of the bed are already under heavy predation from starfish, a large number were found in the following tows: TR35, TR39, TR41, TR44 and TR57 (see map below). Although the centre of the bed is not free of starfish, quantities were small (6 to 10 individuals per tows).

In addition to the actual seed, it seems that a very recent settlement also occurred in the area. A lot of very small spat (<1 mm) was observed on stones and shells (see TR54 on the map).

Bottom type: small gravel, sand, old shells.

Nicolas Chopin
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Notes for the map:

TR stands for Tow Rosslare

GX stands for Grab Wexford

In the legend Dgd stands for Dredge

In the legend gb stands for grab

[illegible]

Nicolas Chopin -BIMAqua, Tech. Section - 1/07/2013