

Update on Seed Mussel Survey Report for the Wicklow Area-20 and 21/08/14

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

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

Area surveyed: From behind the Horseshoe reef to the Wolf Rock.

Survey summary:

Following earlier results from Wicklow, a second survey was carried out south of the Head where scattered signs were found in June. The side scan sonar was deployed to check if any seed mussel bed feature could be observed, and a few marks were taken and verified. It was only possible to collect partial dredge samples (Max 1/3 of the 1 m dredge) due to the very rough nature of the seabed (boulders, stones and rocks) which made fishing extremely difficult.

The seed looks in good condition and only a few starfish were found in the dredge. From the small sample collected the average seed size is around 22 mm (1150 pieces/kilo) with up to 20 % waste.

Following the poor results in the dredge, few transects were made with the underwater camera. The seed is very patchy on the seabed, there is little or no predation from starfish but the ground is very rough and not levelled.

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

Latitude	Longitude
52° 55.978' N	6° 0.614' W
52° 56.761' N	6° 0.415' W
52° 56.746' N	6° 0.256' W
52° 56.514' N	6° 0.127' W
52° 55.738' N	6° 0.283' W

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

A large area in the middle of the bed appears to be only bedrock (see map). The seed patches spread over approximately 43 hectares. The density is not constant with areas of little or no seed and high density patches (mainly where large stones are). No grab was deployed due to seabed type.

Bottom type: Bed rock, boulders and large stones.

Recommendations:

This is an encouraging sign of seabed recovery for Wicklow, but the seabed will make it extremely difficult to access the seed. The mussels have mainly settled on rocks and stones and only a very small amount is on "level" ground (smaller stones). This settlement is similar to 2012 but on a smaller area. No tonnage could be estimated (no grab sample taken). Depending on various factors such as winter storms, and predation, this bed if left undisturbed could potentially offer a good stock of half-grown mussels for fishing early next year, while also consolidating sand/gravel in this area to accelerate substrate recovery to pre 2011 conditions.

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

Updated Map of the Seed Mussel Survey of Wicklow Head - BIM - 21/08/14

