



Bord Iascaigh Mhara  
Irish Sea Fisheries Board

## Seed Mussel Survey Report for the Wicklow Area- 7/07/2016 to 21/07/2016

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

**Equipment:** 400 kHz side scan sonar, 1 meter dredge, 0.1 m<sup>2</sup> Day Grab.

**Area surveyed:** South of Wicklow Head from the Horseshoe Bank to Brittas Bay and extended 3 Nautical Miles East from the shore.

### Survey summary:

Throughout July, an extensive survey around Wicklow was carried out. The first location to be checked was last year's seed settlement located southeast of Wicklow Head.

Although the area was fished last year, it seems that whatever remained developed in two small half grown mussel areas. The precise borders were difficult to establish on the side scan sonar data due to other similar features in the same area. Nevertheless, several successful tows and grabs were taken from those areas (see Half Grown Mussel Survey Map).

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

Latitude	Longitude
52° 56.044' N	5° 57.389' W
52° 55.845' N	5° 56.585' W
52° 55.597' N	5° 56.853' W
52° 55.820' N	5° 57.445' W

52° 55.393' N	5° 57.181' W
52° 55.517' N	5° 56.838' W
52° 55.289' N	5° 56.715' W
52° 54.731' N	5° 57.279' W
52° 54.827' N	5° 57.444' W

NOTE: The areas displayed on the attached maps 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.

There is a lot of waste in both areas (between 30 and 50 %), mainly composed of seabed material and empty shells. Only a small amount of starfish were found in the samples, but dogwhelk seems to be the cause of most of the damage.

Otherwise the mussels seemed in good condition with most of the population from the samples (53% over 200 individuals) comprised between 30 and 34 mm (a bit over 400 pieces per Kilograms). Some new settlement is developing in the northern part but only in small quantities and mixed with the half grown.

The northern area represents a little over 29 hectares while the southern one is approximately 35 hectares. The average density on the two zones is around 1.5 kg/m<sup>2</sup> but grab results showed a large variation within the two areas, from 20 grams to 420 grams per grabs (200 g to 4.2 kg/m<sup>2</sup>). Therefore the estimated tonnage across both areas is around 700 to 900 tonnes of mixed half grown mussel and new seed.

More areas were surveyed during this period but no other seed mussel or half grown mussel location was found (see Wicklow Survey map).

#### **Bottom type:**

As mentioned above, there is a lot of seabed material, mainly coarse sand and stones.

#### **Recommendations:**

There is no direct pressure from predation on these settlements and they only represent a small tonnage with a lot of waste.

Nicolas Chopin  
BIM Inshore Survey Officer  
Aquaculture Technical Section

#### Notes for the maps:

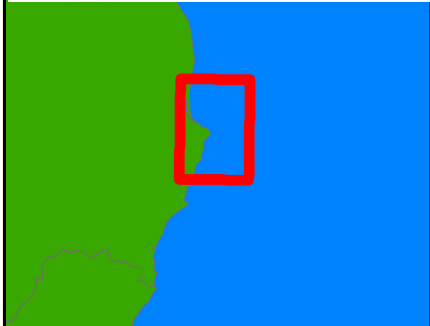
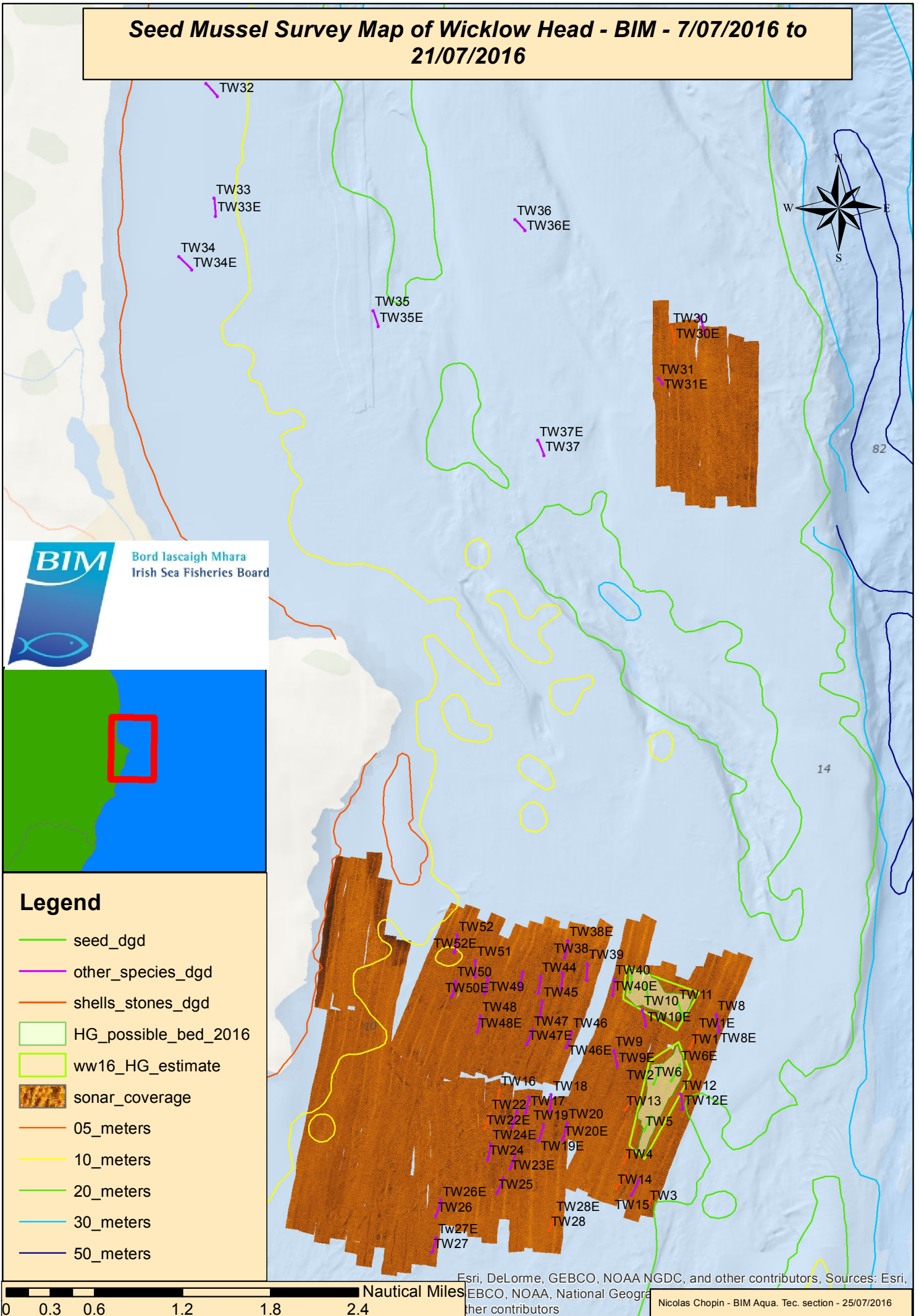
TW stands for Tow Wicklow

GB stands for Grab

In the legend : dgd stands for Dredge, gb stands for grab

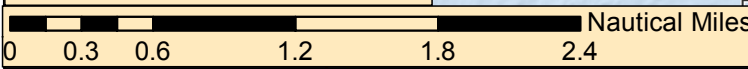
Wt per gb in g stands for Weight per grabs in grams

# Seed Mussel Survey Map of Wicklow Head - BIM - 7/07/2016 to 21/07/2016

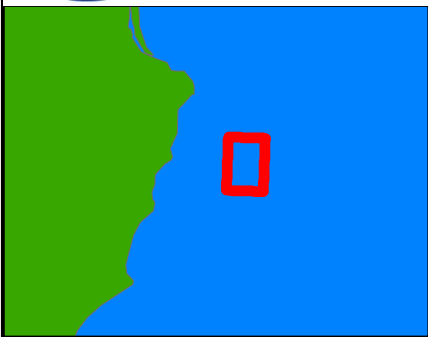


## Legend

- seed\_dgd
- other\_species\_dgd
- shells\_stones\_dgd
- HG\_possible\_bed\_2016
- ww16\_HG\_estimate
- sonar\_coverage
- 05\_meters
- 10\_meters
- 20\_meters
- 30\_meters
- 50\_meters



# Survey Map of Half Grown Mussel Patches at Wicklow Head - BIM - 7/07/2016 to 21/07/2016



## Legend

seed\_gb

wt\_per\_gb in g

- 50
- 90
- 100
- 190
- 200
- 250
- 290
- 420
- signs\_gb
- other\_species\_gb
- shells\_stones\_gb
- seed\_dgd
- other\_species\_dgd
- shells\_stones\_dgd
- HG\_possible\_bed\_2016
- ww16\_HG\_estimate
- sonar\_coverage

