

## Seed Mussel Survey Report for Long Bank (west and east) – 8/07/2025 to 10/07/2025

**Methodology:** Acoustic data collection using 400 kHz side scan sonar, data processing on SonarWiz 6 and ground truthing of acoustic targets with 1 metre seed mussel dredge .

**Area surveyed:** Between the Long Bank and the Lucifer Bank, south of the cardinal north on the west side of the Long Bank and north of the Wexford Harbour Bar Buoy (see map).

### Survey details:

Following reports from the local industry and fishers, an extensive sonar survey was carried out in the channel between the Long Bank and the Lucifer Bank, where seed mussel beds were found as recently as 2022 and 2019. Multiple relevant sonar features were marked and investigated using the dredge. Thirty four tows were carried out in the area: half contained from a quarter bag to a full bag of seed, eight had under a quarter of a bag and two only had traces of seed (TR20 and TR 24 on the map). Combining the sonar imagery and the ground truthing, it was possible to establish that a significant seed mussel bed is present between the banks. The settlement stretches over 4 km long from north to south and 500 m east to west on an area covering approximately 260 hectares (see coordinates in Table 1).

Table 1: Areas coordinates (in Degrees, Decimal minutes and WGS84 projection)

| Latitude  | Longitude |
|-----------|-----------|
| 52 21.817 | 6 15.341  |
| 52 21.823 | 6 14.850  |
| 52 20.605 | 6 14.906  |
| 52 19.204 | 6 15.359  |
| 52 19.197 | 6 16.013  |



**Note:** The seed bed displayed on the attached map has been established following verification by ground-truthing of the side-scan sonar data. These coordinates represent the corners of a simplified polygon of the area of the possible settlement identified.



Fig. 1: example of seed mussels found between the banks during the survey

Further survey efforts were carried out on the west side of the Long Bank and north of the Bar Buoy using the sonar. No seed was found north of the Bar Buoy. Although no new seed was found along the west side of the Long Bank, some scattered large mussels (probably 2 years old or more) were found mixed with old oyster shells (see location of the patch on the map).



Fig. 2: example of seed mussels found on the west side of the Long Bank during the survey

### Biometrics:

The new seed mussels average size was 21.78 mm (min: 5.74 mm, max: 34.27 mm). The sample (N=300) presented one main dominating size range: 52% of the seed were between 22 and 30 mm (see Fig. 3). Smaller seed was also present in the sample with seed mussel ranging from 8 to 16 mm representing 24% of the population. This size range could be explained by multiple settlement happening at different time.

The large mussel found on the west side of the Long Bank had an average size of 66.58 mm (min: 50.98 mm, max: 78.02 mm). Mussels ranging from 64 to 70 mm represented the dominating population of the sample (N=65, see Fig. 4) A visual assessment of their flesh indicated that those mussels had spawned and were reconditioning.

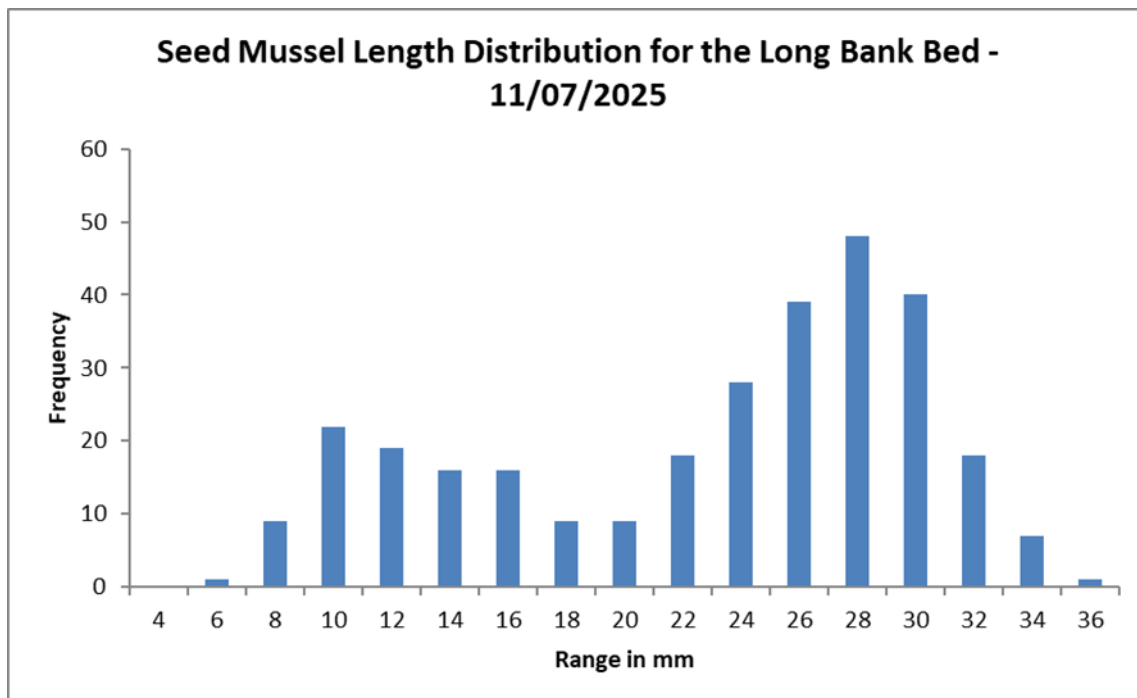


Fig. 3: Seed mussel length distribution in between the Long Bank and the Lucifer Bank

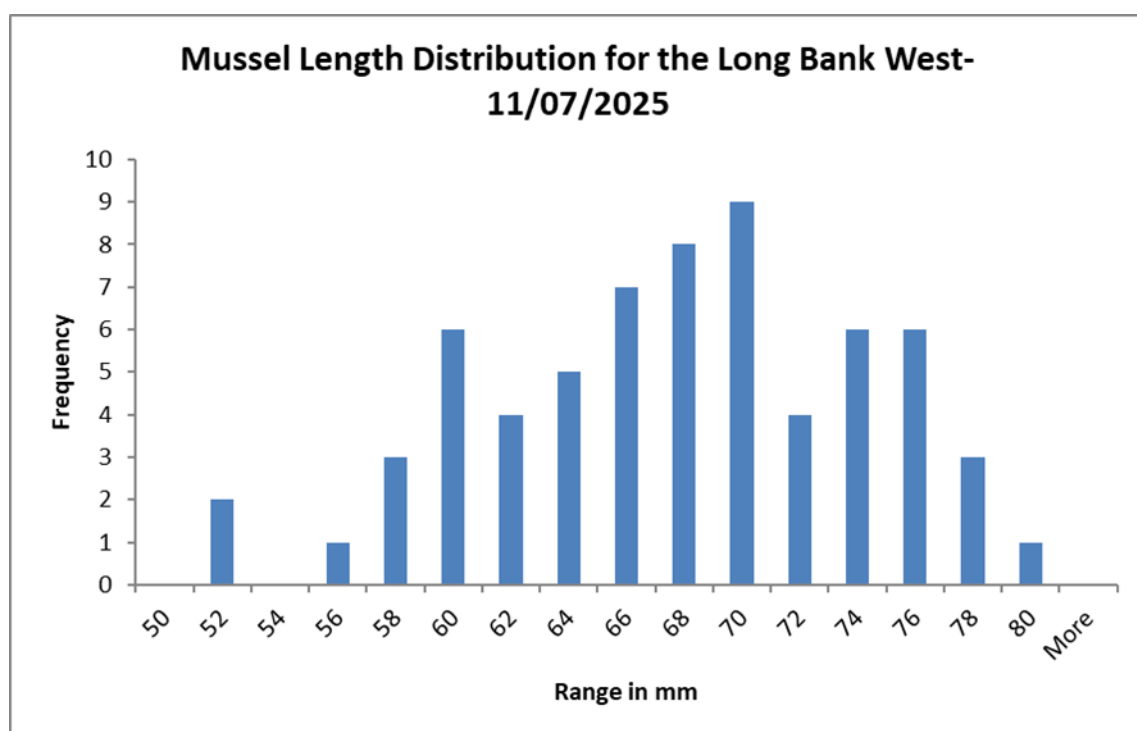


Fig. 4: Mussels length distribution in the west side of the Long Bank



## Summary:

The survey highlighted the presence of a **large settlement between the Lucifer Bank and the Long Bank (260 hectares)** similar to the ones found in 2019 and 2022. The seed mussel population is in good conditions with no signs of predation or presence of starfish. A comprehensive biomass survey will be carried at the end of July to allow the seed to spread and grow to a relevant size for a more accurate tonnage estimation. The extended survey indicated the presence of large mussels on the west side of the Long Bank, although no traces of seed were found through the sample.

## BIM Aquaculture Technical Section

15/07/2025

## REFERENCES

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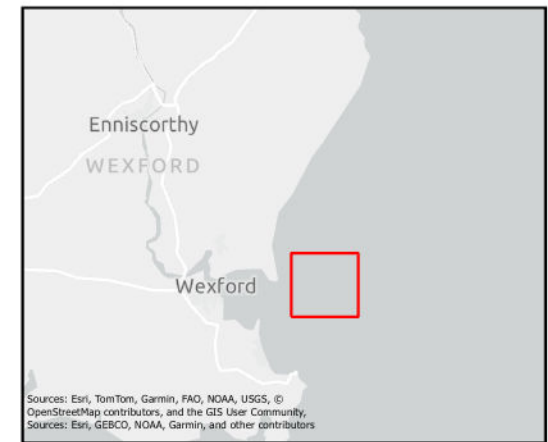
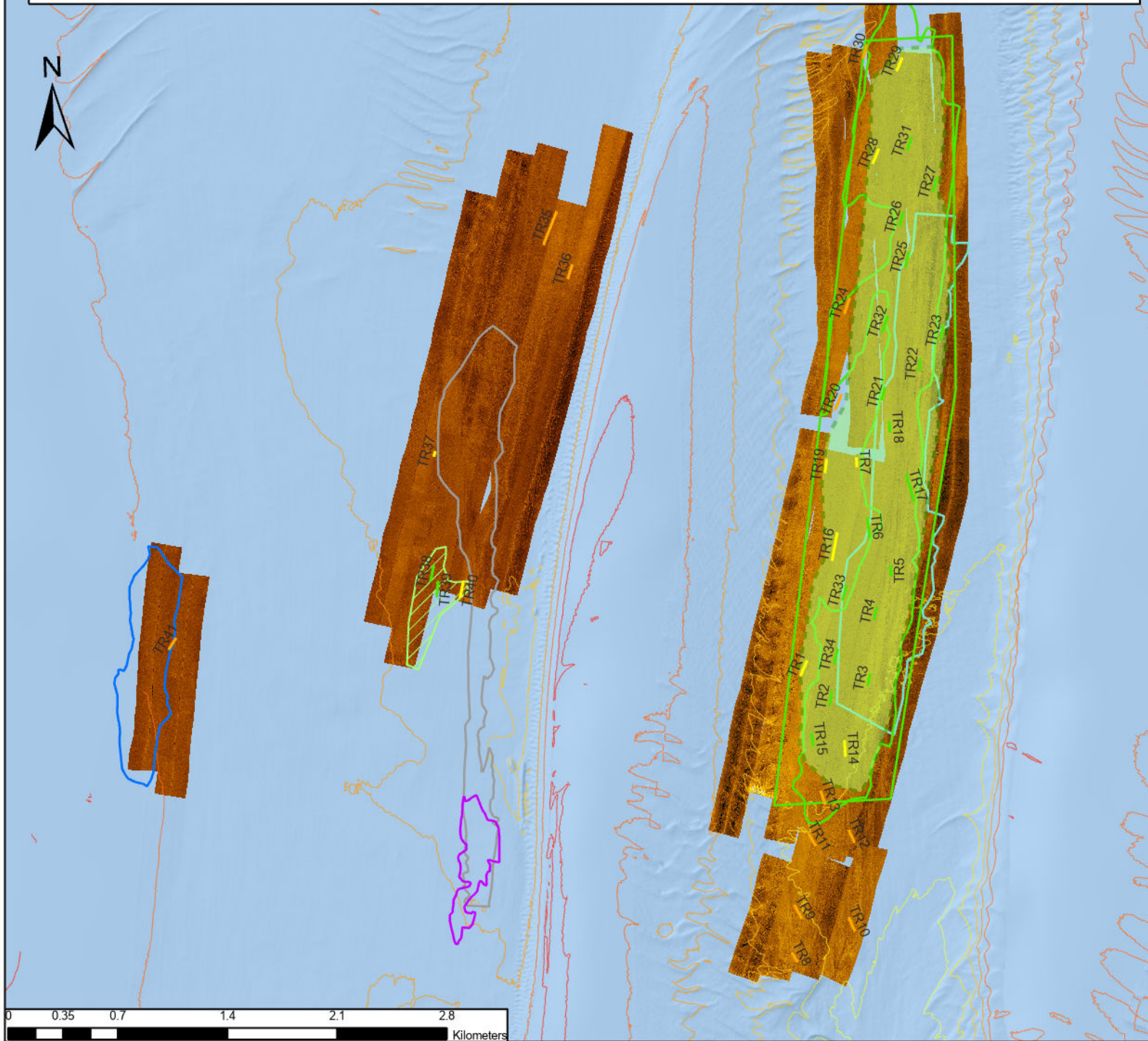
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Bord Iascaigh Mhara  
Irish Sea Fisheries Board

# Seed Mussel Survey Map of the Long Bank - July 2025



## Legend

### Tows

seed

other species

shells stones

signs

bed\_extent

possible\_beds

patches

Side scan sonar coverage

Do not use for navigation

Map prepared by: Nicolas Chopin, BIM

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Credit bathymetry: INFOMAR 2022