

Extended Seed Mussel Survey Report for the South Glassgorman and Rosslare / Wexford – 02 and 03/09/2024

Methodology:

Acoustic data collection using 400 kHz side scan sonar, data processing on SonarWiz 6 and ground truthing of acoustic targets with a standard seed mussel fishing dredge meter dredge (Van Lancker *et al.*, 2007; van Overmeeren *et al.*, 2009; BIM, 2016; Chopin, 2024). The spatial data (dredge and grabs) was recorded using ESRI Field Maps with the Arrow 100 GNSS receiver for submeter accuracy.

Area surveyed: East of Courtown (or South Glassgorman), and around the Long Bank outside Wexford Harbour.

Survey details:

South Glassgorman (see Map 1):

Acoustic data, using side scan sonar, was collected from three areas where seed mussel settlements were previously observed. 11 targets were logged and investigated using the dredge. A total of 8 tows were carried out. No seed was found, only mixed bryozoans and stones.

Extended survey around the Long Bank:

- *North side (Map 2):* In addition to a survey carried out in July, multiple tows were carried out on the 4/09/2024. TR22 was located near the Bar Buoy at the entry of the harbour, no seed was found. Four tows (TR23, 24, 25 and 26) were completed between the West Long Buoy and the North Long (Whistler), again no seed or spat was found in the area. Moving between the Long Bank and the Lucifer Bank (location of the 2022 seed mussel bed), two more tows were carried out (TR 31 and 32), no seed was found. Following report of spat fall on whelk pots ropes, three tows were done north of the North Long Buoy. Traces of spat (2 mm length) on



stones and bryozoans were found in TR33 and TR35, indicating that some larvae settlement occurred likely occurred at the end of July. Further tows (TB12, TB13, TR36, 37 and 38) were carried out along the shore within the Raven SPA to assess potential spat fall and adult mussel presence (BIM, 2023). No seed or mussel was found throughout those tows.

- *South side (Map3)*: 4 tows (TR27, 28, 29 and 30) were carried out outside Rosslare, starting north of the settlement area. Despite traces of spat found in the South Shear at the end of May, no seed was found in any of the 4 tows; indicating that the May spat did not survive.

Aquaculture Technical Section

Seafood Technology Services Business Unit

BIM

References:

BIM. 2016. Side Scan Sonar Features Catalogue.

BIM. 2023. Mussel Mortalities Survey Report – 26 and 27/10/2023.

<https://data.marine.ie/geonetwork/srv/eng/catalog.search#/metadata/ie.marine.data:dataset.4532>.

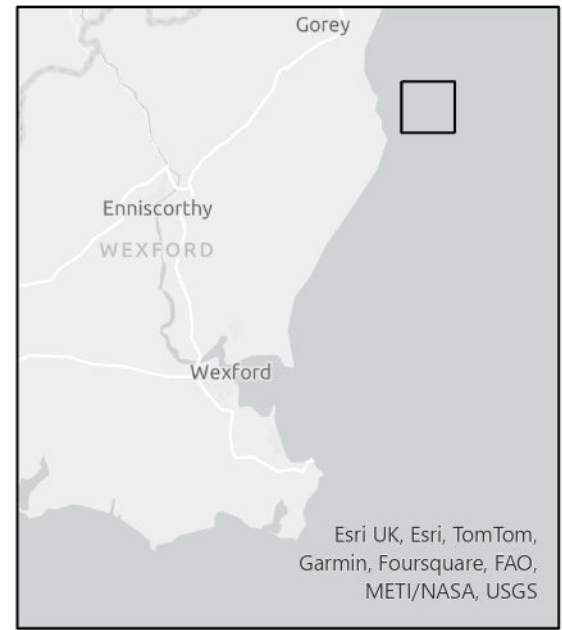
Chopin, N. 2024. Temporal and Spatial Settlement of Subtidal Seed Mussels on the Southeast coast of Ireland . Bangor University. 127 pp.

Van Lancker, V., Du Four, I., Papili, S., Verfaillie, E., Schelfout, K., Rabout, M., and Degraer, S. 2007. Habitat signature catalogue, Belgian Part of the North Sea.

van Overmeeren, R., Craeymeersch, J., van Dalssen, J., Fey, F., van Heteren, S., and Meesters, E. 2009. Acoustic habitat and shellfish mapping and monitoring in shallow coastal water - Sidescan sonar experiences in The Netherlands. *Estuarine, Coastal and Shelf Science*, 85: 437–448. Elsevier Ltd.



Map 1: Survey Map of the South Glassgorman Area - 03/09/2024

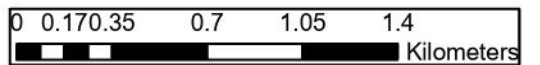


Esri UK, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS

Legend

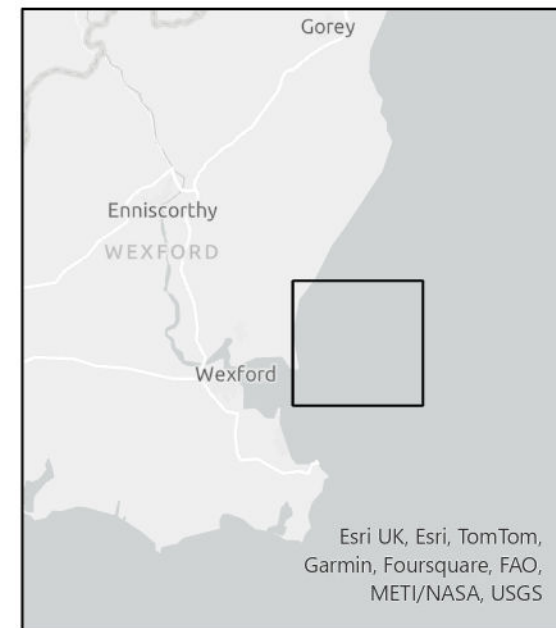
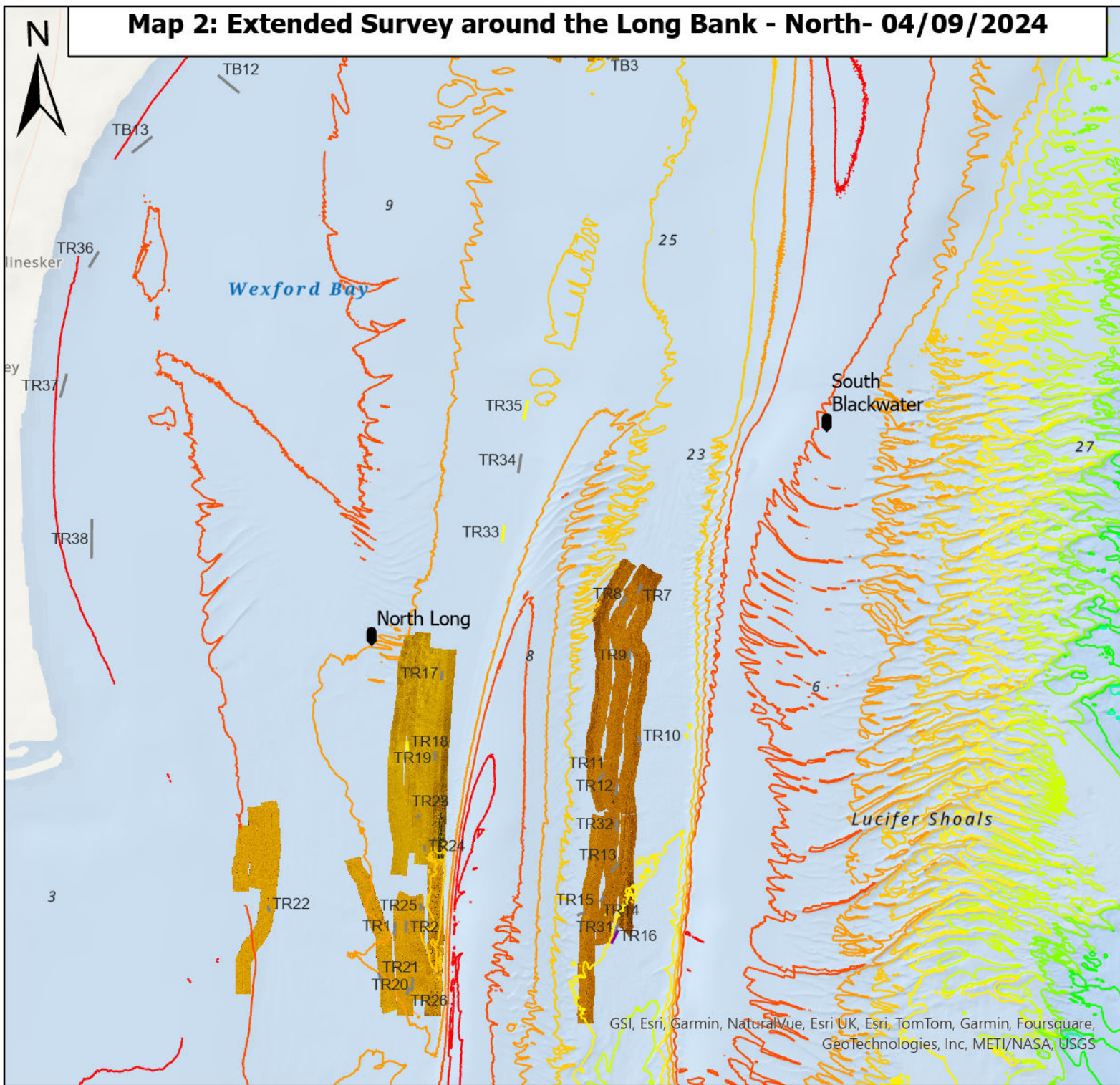
Tows	Bathymetric lines in meters
— seed	— -5
— other species	— -10
— shells stones	— -15
— signs	— -20
☒ rocks_outcrop	— -25
■ sonar tracks	— -30
● targets_0309	— -35
	— -40
	— -45
	— -50
	— -55
	— -60

Do not use for navigation
 Map prepared by : Nicolas Chopin, BIM,
 09/09/2024
 Credits bathymetry data: INFOMAR 2023



GSI, Esri, Garmin, NaturalVue, Esri UK, Esri, TomTom, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

Map 2: Extended Survey around the Long Bank - North- 04/09/2024

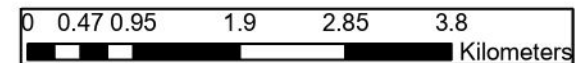


Esri UK, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS

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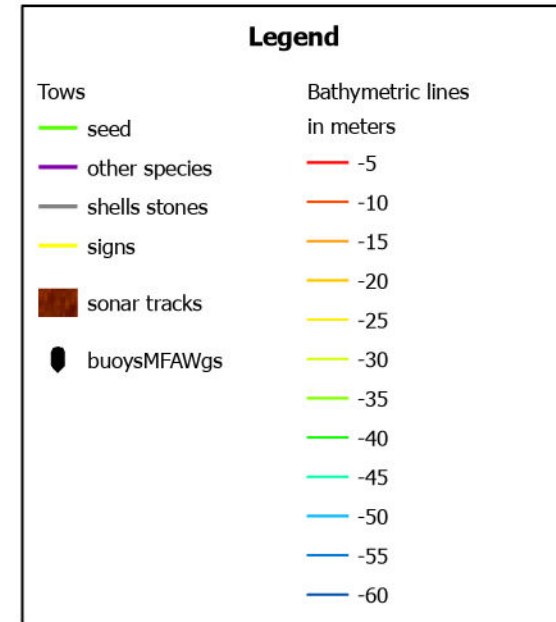
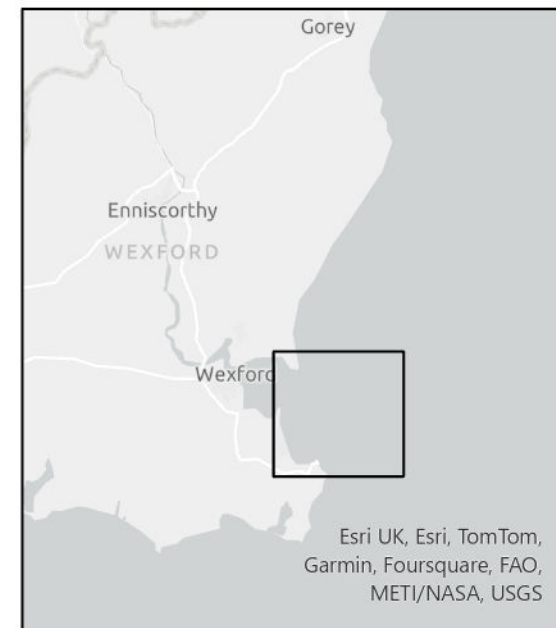
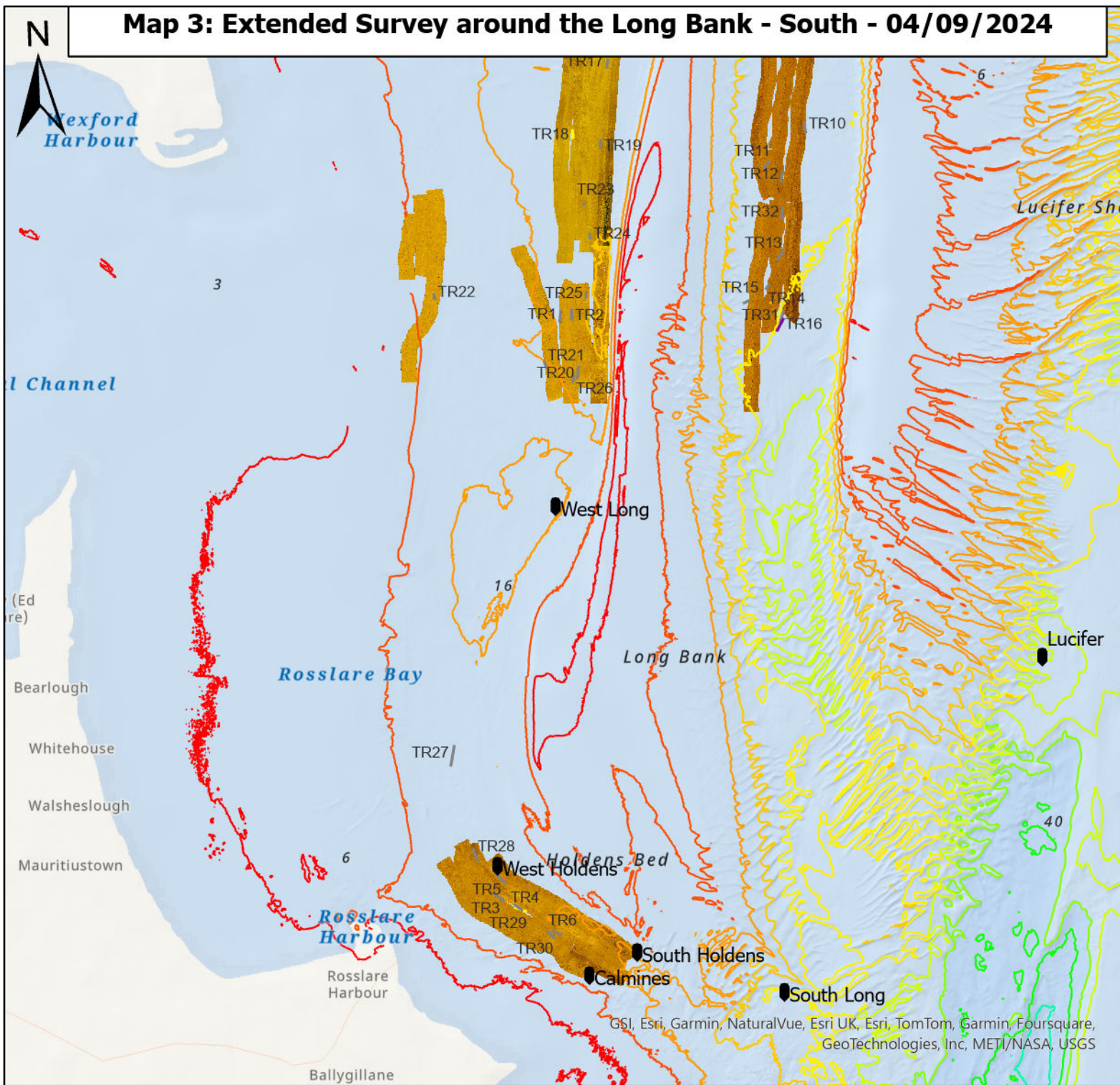
Tows	Bathymetric lines in meters
seed	-5
other species	-10
shells stones	-15
signs	-20
sonar tracks	-25
buoysMFAWgs	-30
	-35
	-40
	-45
	-50
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	-60

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Map 3: Extended Survey around the Long Bank - South - 04/09/2024



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