# Preliminary Seed Mussel Survey Report for the Rusk Channel – 12/05 to 14/05/2021

**Equipment:** 400 kHz side scan sonar, 1 meter dredge

**Area surveyed:** The Rusk Channel including the area designated as seed mussel bed in 2020

**Survey summary:**

Following the survey carried out in October 2020, a post fishery report was issued in January 2021 (BIM – Aquaculture), this highlighted the possibility of biomass remaining on the seabed in the Rusk Channel. This biomass could potentially play a role in providing a larvae source for the 2021 settlement. However, it was also highlighted that survivability of this biomass could also be an issue. According to a study carried out in 2005 on intertidal seed mussel beds, unfished seed mussel beds have shown important biomass depletion over winter due to predation (Steenbergen et al. 2005).

Following the deployment of the side scan sonar, 23 targets were selected for further investigation. A total of 26 exploratory tows were carried out, both on those targets and in the 2020 seed mussel bed established boundaries. No surviving or new mussel seed was observed. However, an extensive quantity of starfish, *Asteria rubens*, was observed in the area, as well as empty seed mussel shells averaging 30 mm (max: 38 mm, min: 17 mm). This average size corresponds to the sizes recorded in October during the post fishery survey, indicating that mortality most likely occurred in the weeks following the survey.

The tows contained mainly mix coarse sediment and small stones, as well as starfish, various bryozoan, and hydroids.

**Recommendations:**

No 2020 seed mussel has survived in the Rusk Channel. Because of general temperatures (air and water) currently being slightly below normal average levels, it is not expected to see any settlement for another month or so. Further survey work will take place at the location at a later stage.

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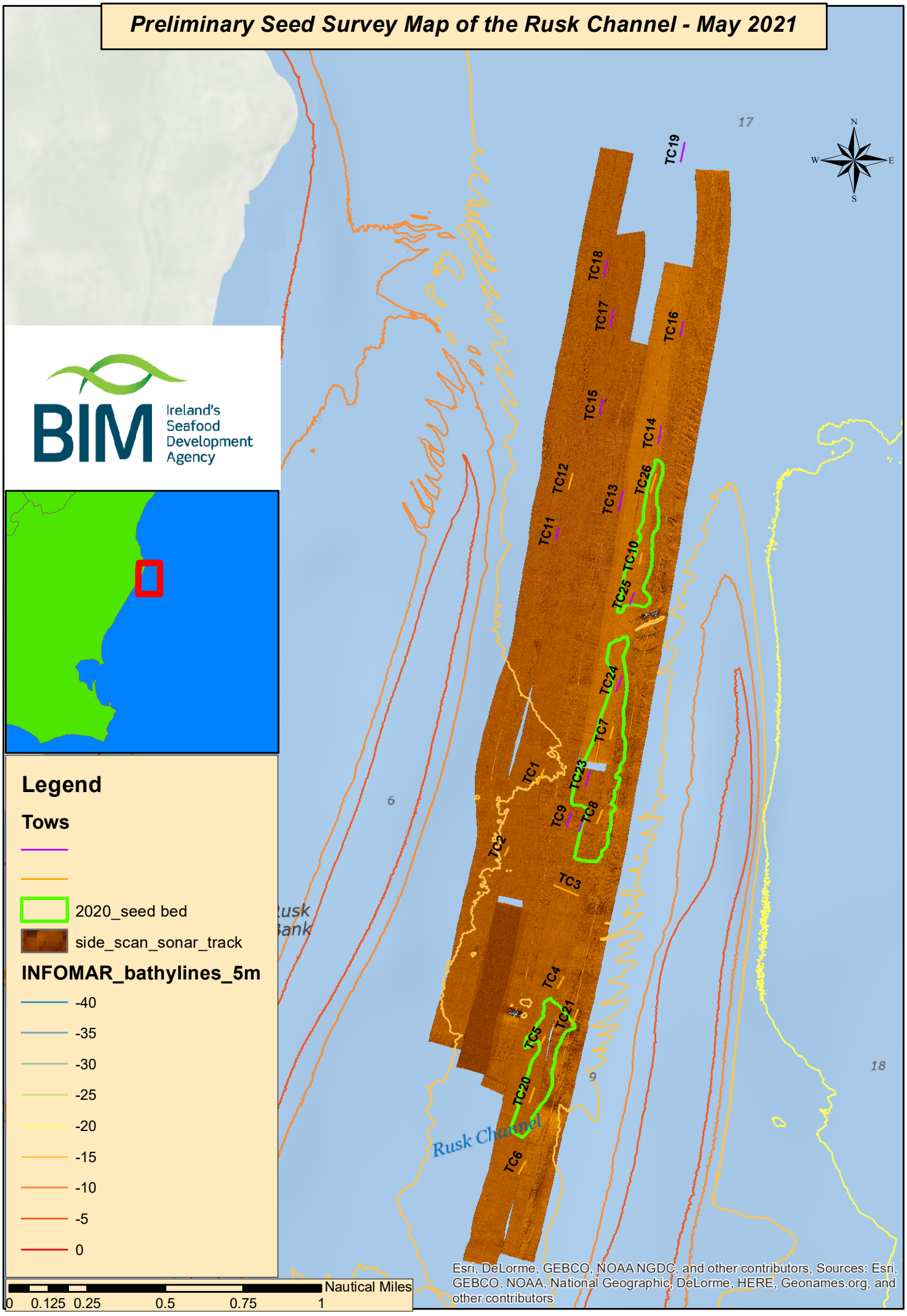
**References:**

*Steenbergen, J, J M D D Baars, M R Van Stralen, and J A Craeymeersch. 2005. "Winter Survival of Mussel Beds in the Intertidal Part of the Dutch Wadden Sea." Monitoring and Assessment in the Wadden Sea. Proceedings from the 11. Scientific Wad- den Sea Symposium NERI Techn(January): 107–12.*

*https://bim.ie/publications/aquaculture/*

# Preliminary Seed Survey Map of the Rusk Channel - May 2021

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