

Update on Mussel Fisheries – TSB 24th August 2022.

Purpose: To inform members of the results of the August 2022 mussel surveys

Recommendation:

- To open a portion of Heysham Flat as a Byelaw 3 hand gathered seed mussel fishery.
- To open a portion of South America as a permitted mussel dredge fishery.
- To open a portion of Perch Scar as a permitted seed mussel dredge fishery.

Information

Heysham Flat mussel bed

As of the most recent inspection on the 12th of August, the area on the higher shore to conger rock consisted of mussel 20-25mm with some up to 35mm mixed in ~ 80-90% coverage. The mussel was predominantly loose with some hard in and scoured areas present.

The area from conger rock to Dallam dyke has larger mussel present from 35-45mm. Areas further down the skear were very mixed, with size mussel making up approximately 40-50% of overall weight. The underlying substrate is a mix of sand and mud and is firm unlike the usual mussel mud present on Heysham. Visible presence of *Sabellaria alveolata* was found, with a band present across much of the skear to the West of conger rock (Figure 1). *Sabellaria* was also still present on the North and South of the skear away from the main mussel bed. Both sides of Dallam Dyke were scoured in large areas.

In previous years, Heysham has been considered for a hand gathered seed fishery on the proviso that it has relatively uniform first year undersize mussel that has the high likelihood of being washed off over winter. This year, this appears to be the case for the section of bed between Conger Rock and the foreshore. However, the highly mixed size stock beyond Conger indicates some stock has survived the winter. In addition, the bed is currently unclassified; and the Food Law Code of Practice (Chapter 7.1.15) states that they '*do not permit the movement of adult or partially developed LBMs from an unclassified area for further short-term growth before marketing.*' Therefore, our recommendation for mussel fisheries on Heysham flat is as follows:

Recommendation: This year, due to the presence of size mussel lower down the bed, Heysham Flat will aim to be re-classified, and assessed as a hand gathered size mussel fishery if classification is obtained. The **upper end of the bed from the shore to Conger Rock is proposed as a hand gathered seed fishery.**

The area of bed proposed for fishing is highlighted in red in the Figure 1 below. The area is out with the area of *Sabellaria alveolata* indicated in orange.

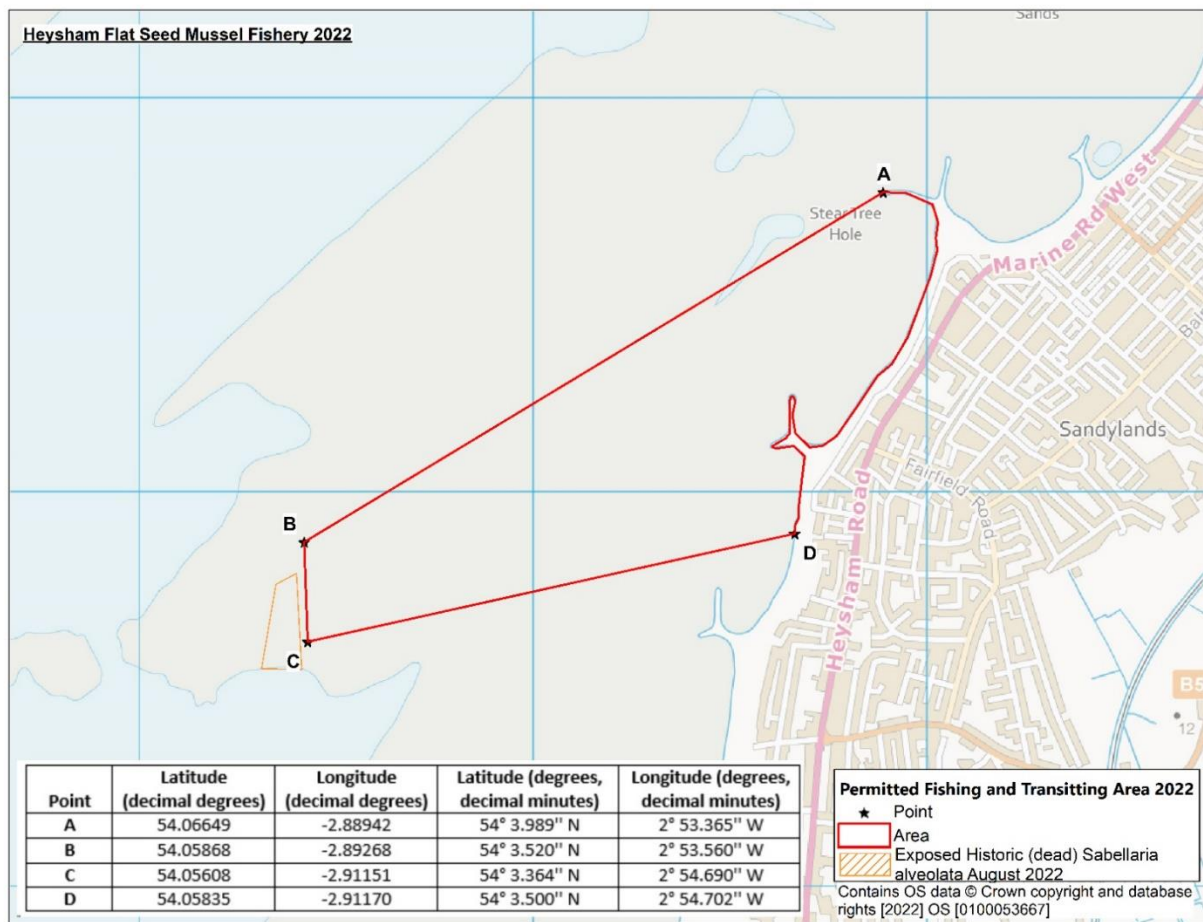


Figure 1. Map to show the approximate extent of the band of Sabellaria sp. present on Heysham Flat, and the area proposed for seed mussel hand gathering 12-08-22.

South America mussel bed

The most recent survey on the 13th of August identified the bed was significantly smaller in extent than previous years.

To the North of the mussel bed the mussel is patchy and on a thin layer of sediment, where there are bare areas the stony substrate is present. The mussel increased in density towards the middle of the bed. The mussel is a mix of 30-35mm mussel with size mixed in. The further South the less size mussel is present. Beyond the South extent of the area suitable for fishing the mussel become less dense, with little to no settlement present between the mussel and the stony substrate until no mussel is present.

On the eastern side of the bed, the mussel reduced in density moving south with the layer of sediment over the stony substrate reducing in depth until there was no mud/sand between the mussel and the stony substrate.

To the North East of mussel there is a large area of newly settled *Sabellaria alveolata* which has inhabited the stony substrate exposed early this year. The location of the most suitable area for seed fishing, and the location of *Sabellaria alveolata* is provided in figure 2.

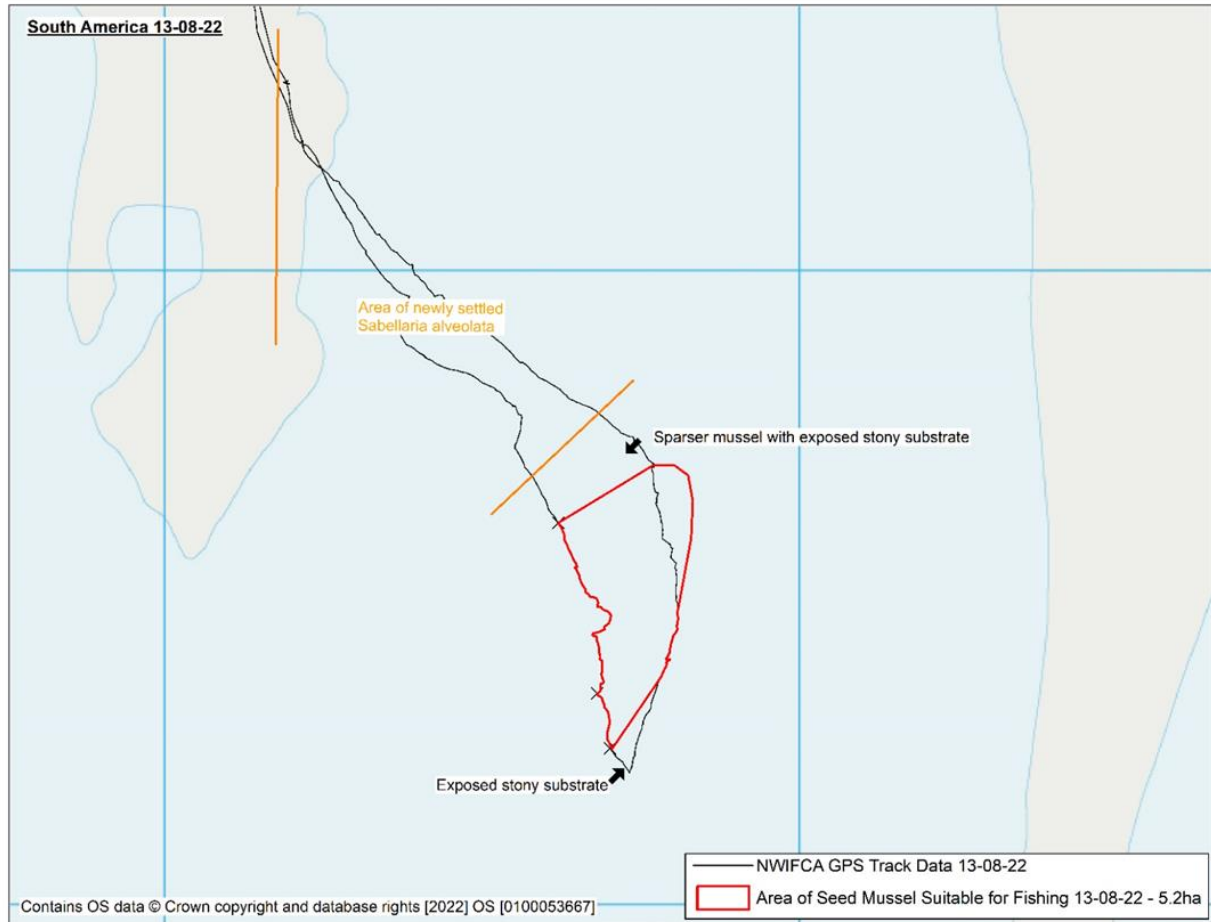


Figure 2. Map to show the approximate extent seed mussel suitable for fishing on South America and the location of *Sabellaria* 13-08-22.

Recommendation: This year, due to the reduced extent of the bed, the location and extent of *Sabellaria* and small patch of seed over suitable substrate, South America is proposed for a **seed dredge mussel fishery in a restricted area (Figure 3)**.

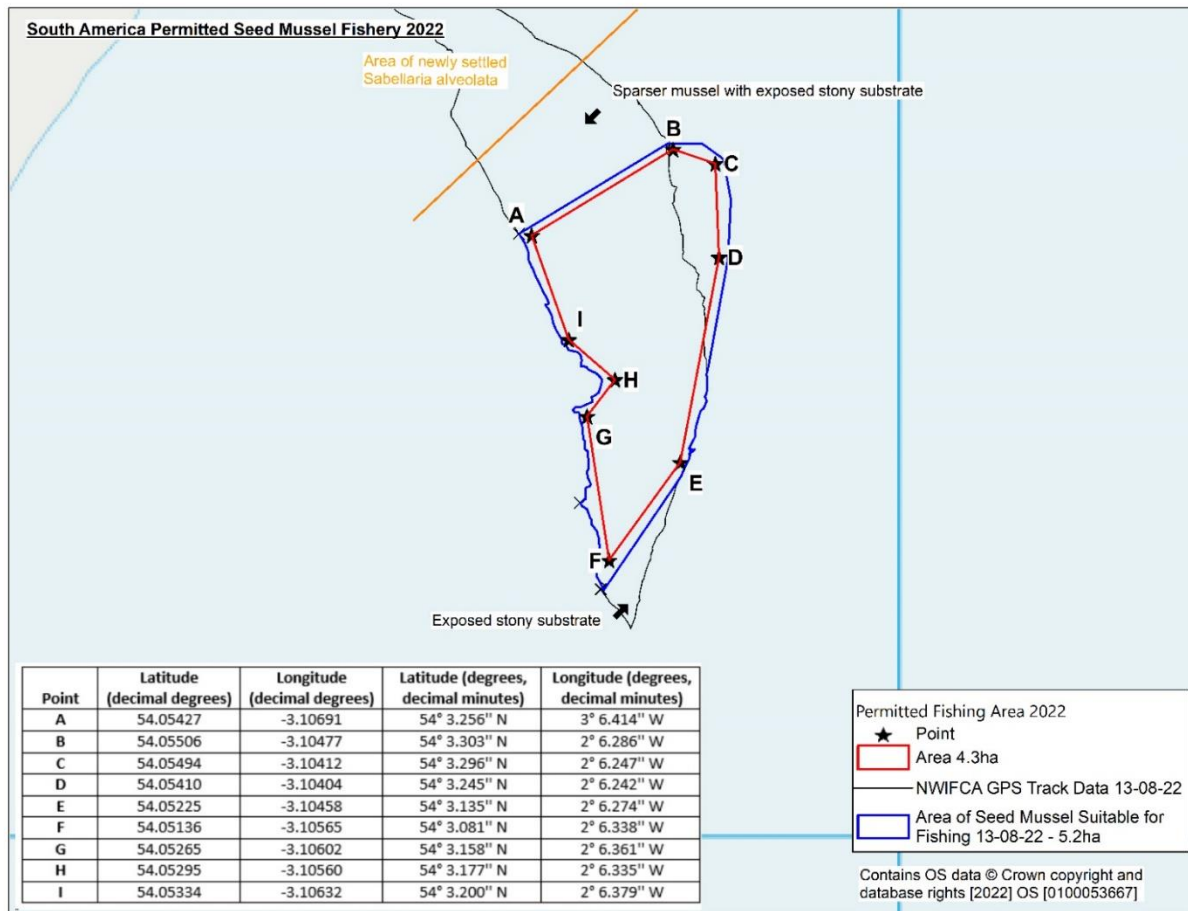


Figure 3. Map to show the approximate extent seed mussel suitable for fishing on South America and the proposed area to be open to seed fishing 13-08-22

To ensure dredge fishers remain within the restricted areas, NWIFCA officers will be present on board the vessel during operation.

Perch Scar mussel beds

Perch Scar and Black Scar are normally considered to be commercially viable for seed dredge fisheries as they typically wash off each year, receive dense spat falls, and lay down mussel mud. However, this year very little mussel persists on Black Scar, most of the area is bare stony substrate and it is not suitable for dredge fishing.

On Perch scar. An area of 2022 seed was present 2.2ha in size, with 40 - 60% coverage. The mussel has put down a layer of mussel mud. The mussel is 20-25mm in length. The area of seed does not cover the full extent of the hard substrate with little to no seed present near the channel and on the Northern end of the bed. This is a change from previous years as it typically receives a dense settlement.



Figure 4. Area of seed mussel on Perch Scar 17-08-22

Recommendation: This year, due to the reduced extend of the bed, and small patch of seed over suitable substrate, Perch Scar is proposed for a **seed dredge mussel fishery in a restricted area (Figure 5)**.

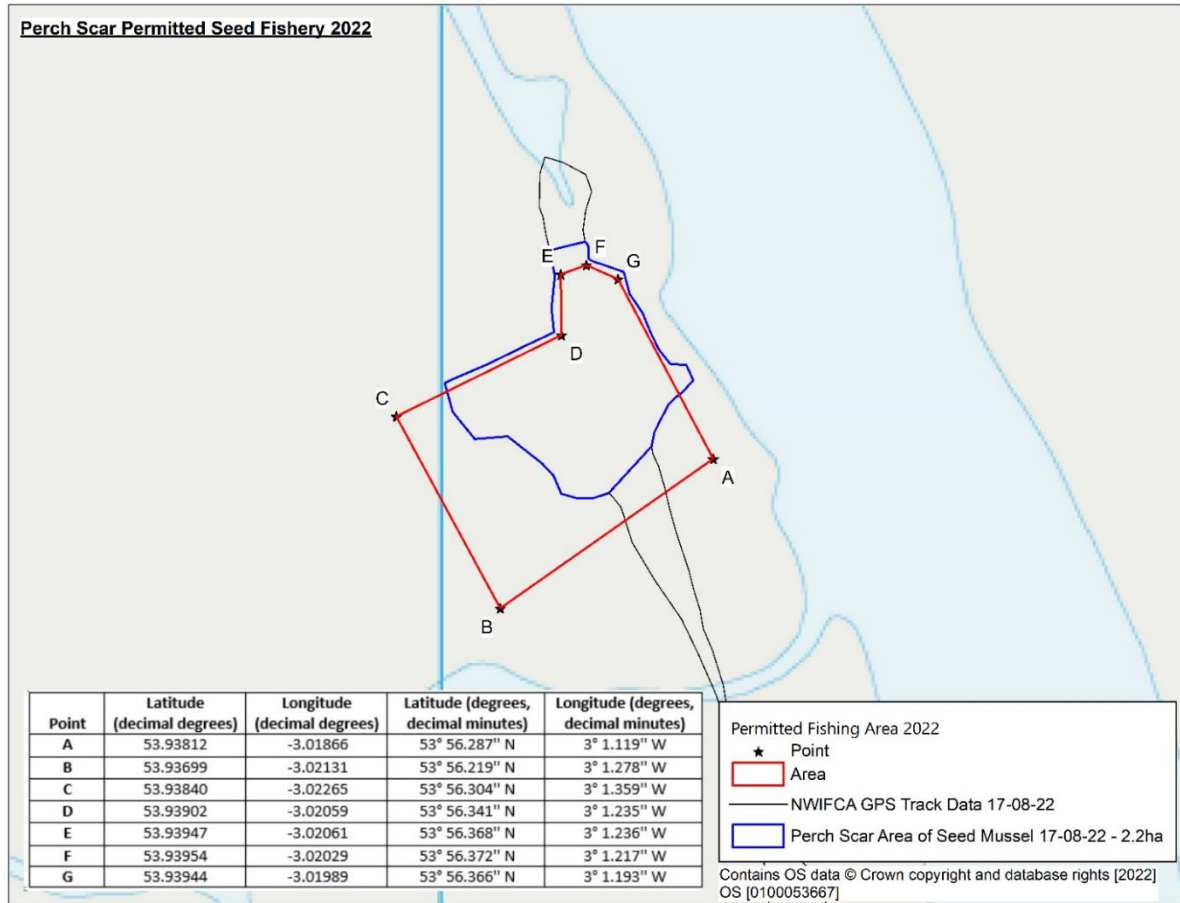


Figure 5. Restricted area of proposed seed mussel fishery on Perch Scar.