

**NWIFCA Technical, Science and Byelaw
Committee**

6th of February 2023: 10:00 a.m.

Agenda Item

6

**SURVEY AND INSPECTION REPORT
7TH OF NOVEMBER – 6TH OF FEBRUARY 2024**

Purpose: To report on cockle and mussel surveys and inspections in the last quarter, and update members on the mussel and cockle fisheries in the district.

Recommendation:

- a) Receive the report and related survey and inspection notes.

BACKGROUND

Every year NWIFCA officers undertake extensive surveys and inspections of the cockle and mussel beds across the NWIFCA District. The aim of the surveys is to conduct stock assessments on each bed, and the aim of the inspections is to gather information in areas that either; a) do not have enough stock to warrant survey, and/or b) conditions of the bed preclude surveying – for example, large channels or short exposure times which limit the time officers can safely access. Inspections may also take place to see if a full stock assessment is needed.

Surveys and inspections this quarter

Fewer surveys and inspections are typically undertaken by officers at this time of year. Therefore, this report provides updates on the outstanding reports from the previous quarter, and an update on recent inspections.

1. MUSSELS

At the previous TSB on the 7th of November, the most recent update on the Fleetwood mussel bed was provided to Members, however the associated inspection report for undertaken on the 3rd of October was still in draft. Therefore, the report of this inspection is provided in Annex 1 of this report.

No additional mussel bed inspections or surveys have been conducted this quarter.

2. COCKLES

An inspection of Pilling cockle bed took place on the 18th of January to assess the condition of the bed post winter.

No surveys have been conducted.

19th of January

Annex 1

Mussel Inspections and surveys:

Fleetwood Mussel Inspection 03-10-23

Officers: AP, MC

LW: 08:59 2.0m (Liverpool Tides)

Fleetwood

Officers accessed Fleetwood mussel beds on the 3rd of October 2023 to inspect the seed mussel and condition of the bed post the dredge fishery. It was not possible to walk the channel side (East) of Perch Scar as the mussel mud was too soft and being slightly restricted from the tide height.

Black Scar

Black Scar was open to seed dredge fishing in August. On inspection, officers observed the top layer of mussels within the area had been removed, with discernable tracks from the dredge over very thick mud (Fig 2 and 3). The mud present over the main extent of the bed where dredging was permitted is still very deep with large numbers of mud hillocks, preventing any access beyond the perimeter.

Any remaining mussel is approximately 30mm in size. The coverage has reduced to around 30% due to fishing and significant scour (Fig 6,7, 8, 9, 10, 12, 13 and 14). A strip of undersize mussel along the channel edge of the permitted dredge area has been left (Fig 4, 5, 11 and 15). Beyond this strip, along the channel edge is a length of exposed cobble and boulder (Figure 8).

The mussel that has remained outside of the permitted area towards the lower region of the bed is on a thin mud and sand veneer (Fig 16 and 18) is approximately 25 mm in size and is sparsely distributed. The strip of cobble along the seaward edge is still present, and cobble was exposed along the bottom part of the bed (Fig.17). There were a number of oyster catchers and gulls observed on the bed.

The bed area is approximately 7 hectares.

Perch Scar

Perch Scar was also open to dredge fishing this summer. There was little obvious evidence of the dredge activities in this area, though much evidence of scour. The bottom part of the bed and the centre was inaccessible due to the presence of thick mud with a sand veneer which had washed over the top. There was still considerable mud hillocks present. Access was limited along the channel edge due to the tide, however, mussel that was present was still on thick mud and had grown to approximately 30 mm. on the opposite edge of the bed closer to the shore, there was thick mud mixed with sand and little mussel present.

The bed area is approximately 10 hectares.

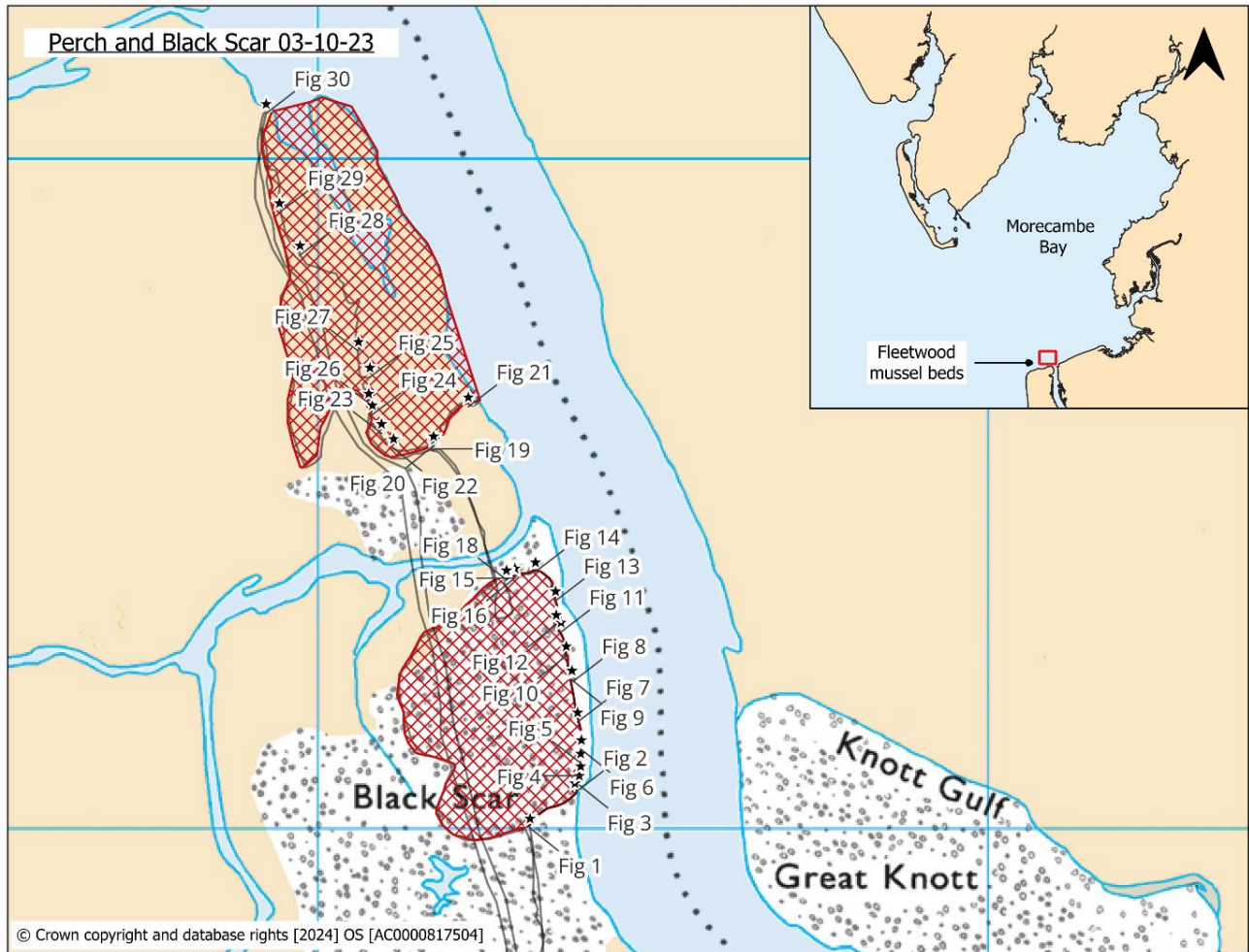


Figure 1. Location and extent of the Perch and Black Scar seed mussel and locations of figure numbers 03-10-23.



Figure 1. Top end of Black Scar

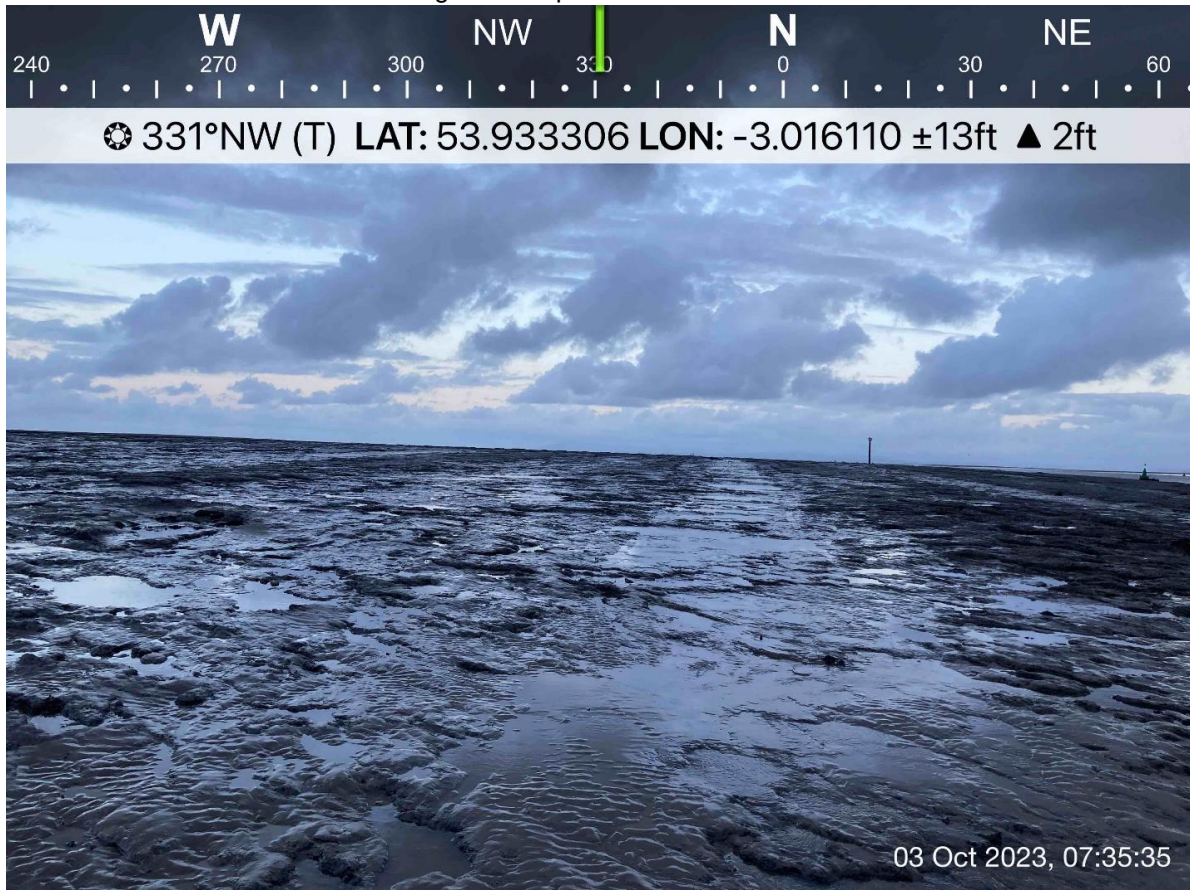


Figure 2. Evidence of dredge tracks across the mussel bed, mud beneath the tracks is deep.



Figure 3. Further evidence of dredge tracks over deep mud. The top layer of mussel removed.



Figure 4. The strip of undersize mussel present on the channel edge of Black Scar.



Figure 5. Undersize mussel in mud along channel edge strip.

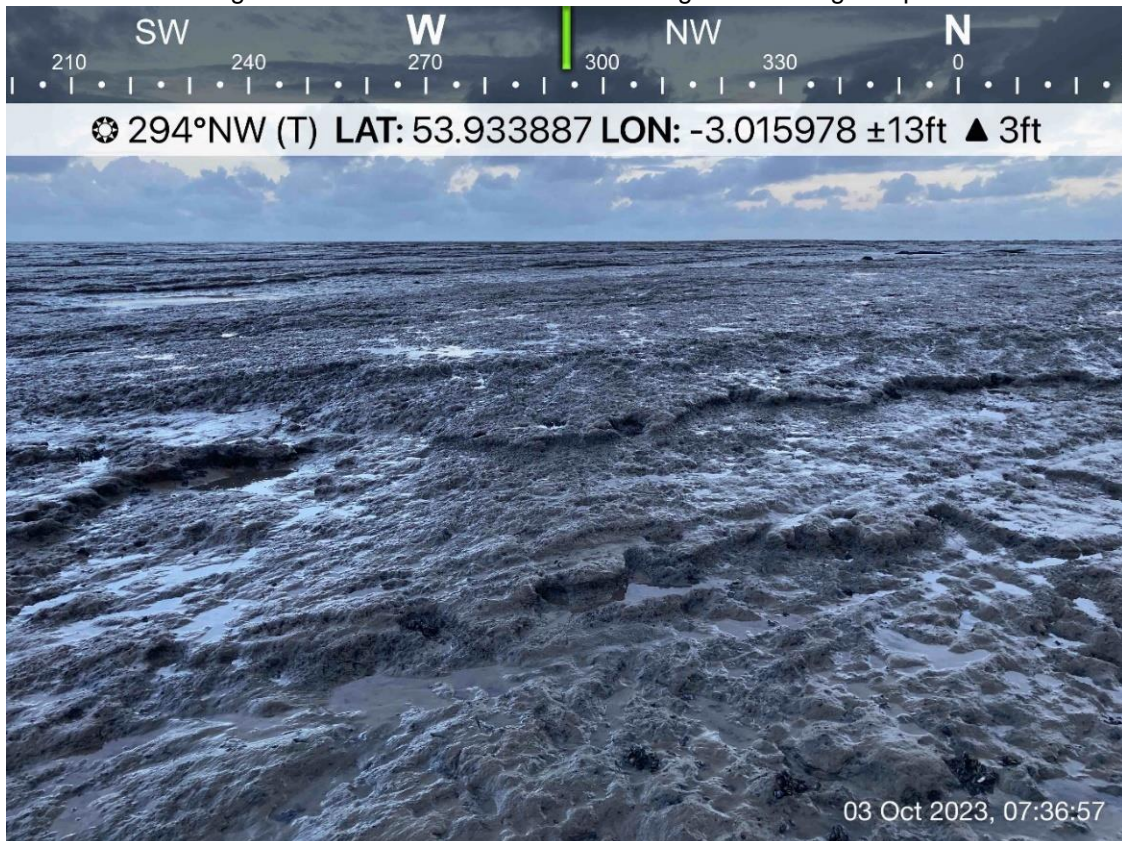


Figure 6. Evidence of significant scouring and loss of mussel



Figure 7. Evidence of significant scouring and loss of mussel



Figure 8. Cobble and boulder strip along the channel edge, alongside strip of undersize mussel.



Figure 9. Thick mud with no mussel.



Figure 10. Evidence of mud, scouring and dredge activity.



Figure 11. Strip of mussel along the channel edge beside the cobble boulder.



Figure 12. Evidence of scour and low mussel coverage over thick mud hillocks.



☉ 272°W (T) LAT: 53.935879 LON: -3.016613 ±13ft ▲ 4ft



Figure 13. Evidence of scour and low mussel coverage over thick mud hillocks.



☉ 177°S (T) LAT: 53.936264 LON: -3.017080 ±13ft ▲ 15ft



Figure 14. Scouring and thin mud over cobble and boulder.

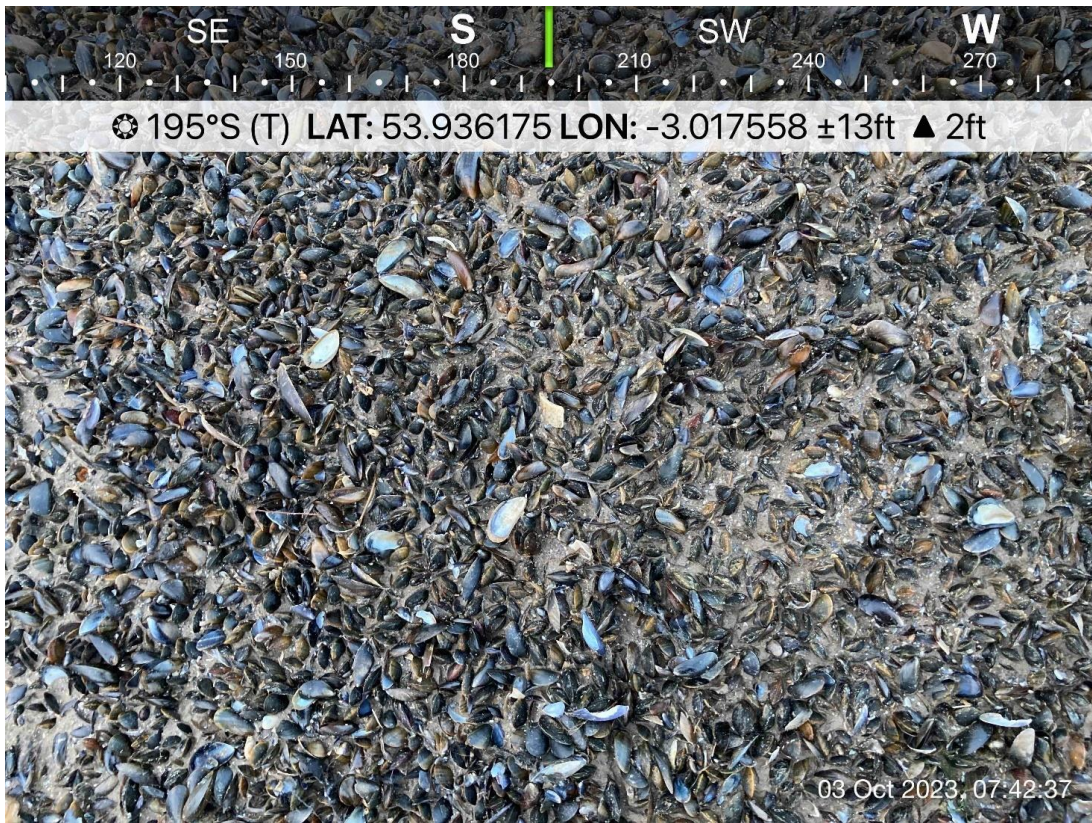


Figure 15. Mussel present on the channel edge strip.



Figure 16. Lower end of Black Scar, with mussel on a thin veneer of sand over cobble and boulder.



Figure 17. Exposed cobble and boulder



Figure 18. Lower end of Black Scar, with mussel on a thin veneer of sand over cobble and boulder.



Figure 19. Top end of Perch Scar showing mussel over sandy mud.



Figure 20. Hillocks of mussel and mud with sand.



Figure 21. Large mud hillocks and evidence of scour on Perch Scar.



Figure 22. Patches of remaining mussel on mud.



Figure 23. Mussel on mud with sand.



Figure 24. Large areas of scouring and encroachment of sand.



Figure 25. Thick mud scour.



Figure 26. Mud, sand and scour, little mussel coverage.



Figure 27. Towards the end of the bed the mud was covered by a veneer of sand.



Figure 28. Very thin mussel left and the far seaward edge of the bed.



Figure 29. Towards the end of the bed the mud was covered by a veneer of sand.



Figure 30. End of the Perch Scar