

**NWIFCA Authority meeting
23rd of June 2022: 11:00 a.m.**

Agenda Item

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**SCIENCE REPORT FOR INFORMATION
24TH MARCH –23RD JUNE 2022**

Purpose: To provide an update on the work of the Science Team in the quarter.

Recommendation: Report for information, Receive the report

This quarter, the main priorities of the science team have been to carry out the work resolved at the TSB meetings, begin our cockle and mussel survey schedule, prep for the introduction of the Potting Permit byelaw and complete ongoing work on management plans and consultation responses.

Key achievements since the previous meeting:

- 1) Whelk track records collated and prepared for review, letters submitted to applicants and appeals panel members assigned in preparation for Byelaw 4 introduction;
- 2) Four consultation requests and two dispensation requests responded to;
- 3) Survey schedule prepared and agreed; and
- 4) Surveys/inspections of nine sites completed with corresponding survey/inspection notes provided to TSB.

ONGOING WORK STREAM UPDATES:

1. POTTING PERMIT BYELAW

Byelaw 4 was sent to Secretary of State by the MMO on 15th Feb 2022 and received sign of on the 6th of June. Officers were briefed by SS on the new byelaw in preparation for its implementation. The next stages of work have involved preparations for reviewing applications, and implementation of the byelaw.

All commercial applicants were contacted by letter on the 4th of March 2022 to update them on the progress of the byelaw, confirm their applications, and where relevant, request for outstanding information. Updates for applicants and application forms for new commercial and recreational fishers were added to NWIFCA website on the 15th of March 2022.

Letters to all current recreational permit holders to inform them of the changes to the byelaw and the requirement to apply for a new permit were sent week beginning 4th April.

Information provided by applicants regarding the appeals process has undergone review. Applicants with outstanding information were contacted again on 4th of March.

Five members of the authority have volunteered to form the appeals panel which will be brought together shortly once outstanding information from applicants is received.

In the following days we will look to set a date for appeals, continue to process new applicants, and oversee the administration of tags and permit stickers in preparation for the byelaw coming into force.

2. COCKLE AND MUSSEL

The start of the survey season has begun, this has involved preparation of gear, determining a suitable survey schedule and beginning early inspections/surveys.

a) Mussels

Inspections and surveys completed since the last Authority meeting:

- 1) Foulney Dutch Wand survey (30-03-22)
- 2) Low Bottom Dutch Wand survey (20-04-22)
- 3) Heysham inspection x2 (16-05-22 and 27-05-22)
- 4) South America inspection (19-04-22)
- 5) Wyre End inspection (18-05-22)

Inspection and survey notes are provided on our website in the Annex to TSB reports. The following sections provide a summary of our findings and details of further relevant work.

A number of mussel surveys/inspections have been done early this year to attain a winter biomass for mussels once the overwintering birds have left and prior to new settlement. This is in order to obtain calculations on possible bird food requirements and survivability of stock through winter, to inform management and the development of a management plan.

Morecambe Bay mussel beds

1) *Foulney:*

Dutch wand surveys were conducted on Foulney on the 30th of March to gain percentage cover and the extent of the beds. No seed settlement was observed during the survey. The total mussel bed surveyed was 47.9 hectares. There was no separation made between the main Foulney bed and Foulney Island as the mussel had spread between the two and the channel had filled in. There is an estimated 1055 tonnes size mussel and 4201 tonnes undersize mussel on the bed.

2) *Low Bottom:*

On the 20th of April officers surveyed Low Bottom mussel bed to identify possible food source for birds as mitigation against fishing activities. The most abundant size class is the 10-25 mm which is present across most of the bed with areas of 25-45mm and greater than 45mm mussels mixed in. There was very minimal 2022 spat observed. Towards the south eastern edge of the bed, there were large patches of shell and cobble with minimal mussel present.

3) *Heysham:*

Officers accessed Heysham Flat mussel bed on the 16th and 27th of May. Dallam Dyke was not crossed due to water depth and tide. There is still a significant *Sabellaria alveolata* reef distributed across much of the skear, with large areas covered by reef. The extensive area of reef was present on the North and South of the Skear and extends across the skear from Conger Rock to Dallam Dyke.

Some mussel had persisted over the winter, with patches of 25-40mm mussel along the Northern edge of the skear and Dallam Dyke. Much of the live mussel was mixed in with the Sabellaria alveloata. The cleaner and more consistent mussel was found along Dallam Dyke, with some areas of 80-90% coverage. There were large areas of dense seed settlement, and seed mixed with larger but still undersized mussel.

4) South America:

Officers inspected South America on the 19th of April to assess if any mussel had persisted from 2021 and if there were signs of a 2022 settlement.

The area consisted of exposed hard substrate (mix of pebbles and small cobbles), sand and shell debris. There was the very occasional live mussel in the areas of shell debris. The mussel was 30-35mm in length. The area which dried out was walked but no 2022 mussel settlement was observed.

5) Wyre End:

Observations of mussel and substrate were made across the skear and channel edge areas. There has been a 2022 settlement of seed mussel, varying in density across the main skear, with the northern edge of the bed having received no settlement. A large area of raised cobble/pebble was observed running along the Eastern section of the surveyed area, which was predominantly bare, with some small patches of mussel and seed. The Northern section of the surveyed area had no mussel present and contained remnant Sabellaria sp. reef.

Towards the South of the bed a large area of 20-35mm mussel was present. This mussel had a coverage of 50-60% with dense seed cover and occasional size mussel mixed in. An area of >45mm mussel present on the north eastern side of the skear in 2021 was no longer present.

b) Mussel Minimum Landing Size

At the Technical Science and Byelaw meeting held on the 10th of May 2022, the Authority was asked to consider a reduction to the current minimum landing size (MLS) of mussels in the District from 45 mm to 40 mm. At the meeting, it was resolved that an informal consultation of permit holders will be undertaken to determine the wider view of industry on this matter. A first draft of the consultation questionnaire has been drafted and sent to officers for comment. It will be sent to TSB for agreement before being sent out to stakeholders for consultation.

c) Cockles

Inspections and surveys completed since the last report:

- 1) Southport inspection x 2 (08-04-22 and 23-03-22)
- 2) Southport Survey (30-05-22)
- 3) Foulness inspection (24-03-22)
- 4) Pilling Survey (4-05-22)

Ribble cockle beds

1) Southport (inspection and survey):

Officers inspected Southport cockle beds on the 23rd of March, and returned on the 8th of April to assess further potential areas and identify the full extent of the bed. Areas where historically there have been cockle beds were inspected to see if there was significant cockle to require a full survey. North Penfold, South Penfold and South Gut were inspected as well as

surrounding areas. A large proportion of the area inspected had high density patches of undersize cockle present, particularly in a band running from the North East of the bed to the area of South Gut on the South West of the bed. Very few size cockle were found.

A survey grid was drawn up, and the local Environmental Health authorities of West Lancs and Liverpool contacted to inform them of the potential fishery and the need to prepare for bed classification.

A full survey was carried out by officers on the 30th of May. There was very little size cockle present on the bed. There is a band of undersize cockle running through South Penfold toward the river Ribble, approximately 3km long and between 0.5 and 1km wide. The cockle has grown since the last inspection with the majority of the cockle between 18-22mm in length. An area to the North of the survey grid which previously had high densities of cockle was not surveyed due to the ground being too soft to safely access. Approx. 50-60 tonne of size cockle is present, and 1400-1600 tonne of undersized.

2) Foulhase:

On the 24th of March officers inspected Foulhase cockle beds after industry reports from autumn 2021 showed it had received a dense cockle settlement. Four byelaw 3 permit holders that had provided information of the settlement were present for the inspection. The inspection aimed to assess what cockle had survived the winter, the extent of the bed and identify whether a future survey was required. It was found that very little cockle had persisted through the winter, with only the occasional cockle being present. Unless there is a significant change, from the area inspected there is no prospect of a commercial fishery on Foulhase in 2022.

Morecambe Bay cockle beds

3) Pilling Sands:

On the 4th of May officers surveyed Pilling Sands cockle bed. There was a relatively low density of size cockle across much of the bed with an area of slightly higher density size cockle (max 36) in the center of the bed. There were low densities of undersize cockle across the majority of the center of the bed, and areas without undersize cockle in the North-West and South-East sections of the surveyed area. There were no signs of a 2022 cockle spat which is likely due to the timing of the survey.

3. NWIFCA RESEARCH PROJECTS

a) Razor Clam Collaborative Research

The main project lead is leaving post and a new researcher has been assigned to the role. Further updates on the progress of this will be provided once we have received confirmation from Bangor as to the status of this project.

b) Whelk Fisheries in the North West

Analysis of the 2019 data is currently underway. Once the analysis has been completed a report will be provided to members at a future meeting. Current plans to extend the scope of whelk research are underway. Given the introduction of Byelaw 4, there is now a good opportunity to assess the fishery, identify key fishing grounds, and establish a sampling schedule for determining the size-at-maturity in the NWIFCA district. Next steps will be to identify permit holders willing to provide samples from respective areas. The aim of the project will look to determine an appropriate MLS based on size-at-maturity of the district whelks.

c) Bird Food Models

Future work looking into bird food models and the interaction of bird food requirements and the cockle and mussel fisheries in Morecambe Bay area has been discussed with NE. The aim is to gain further information to more accurately inform management.

NE provided training resources regarding the development of bird food models which NWIFCA have been progressing with this quarter with the aim of building it into a cockle and mussel management plan for the following year's fishery. Early surveys of the mussel stocks in the bay have also been undertaken by officers in order to provide post-winter biomass estimates.

d) EA Small fish surveys

NWIFCA met with the EA on the 12th of April to discuss joint work regarding small fish surveys as part of a continuation of the water framework directive and an extension of this work into natural capital. Possible surveys are being planned in the Wyre Estuary and looking to use fyke and seine netting to survey juvenile fish species.

2. MARINE PROTECTED AREAS IN THE NWIFCA DISTRICT:

a) Highly Protected Marine Areas (HPMAs)

No further updates

b) Marine Natural Capital in the Solway

No further updates

3. FISHERIES MANAGEMENT

a) Future Inshore Strategic Hand Gathering Implementation Group (FISHGIG)

No further update

b) Fisheries Management Plans

The purpose of the fisheries management plans is to define the fisheries, assess and account for their possible socio-economic and environmental effects and give a framework for their sustainable management. Currently the second draft of the whelk fisheries management plan has been developed and will utilise the data collected during the research project to inform on sustainable management.

Bird food models and new information available from proposed NE surveys will help provide information for cockle and mussel fisheries management plans which will look to be reviewed in the coming months.

NWIFCA have also been asked to provide information on cockle and mussel stocks to NE to identify information gaps for future surveys of Morecambe Bay. The potential surveys will look to fill the knowledge gaps that will assist in the development of a cockle and mussel management plan. NWIFCA are currently collating the information.

4. MMO MARINE LICENCE AND OTHER CONSULTATIONS FOR THE QUARTER

a) Offshore Wind Leasing Round 4

There have been six proposed new offshore wind projects in the latest round of offshore wind leasing. Three of these areas are within the Irish Sea. All of the proposed areas are outside of the district. Crown Estate are currently undertaking a Plan-Level Habitats Regulations Assessment (HRA) to assess potential impacts to European Marine Sites prior to awarding seabed rights. Further information can be found on the Crown Estate website with links to the process and maps of the proposed areas: <https://www.thecrownestate.co.uk/en-gb/media-and-insights/news/2021-offshore-wind-leasing-round-4-signals-major-vote-of-confidence-in-the-uk-s-green-economy/>. It is expected that the HRA will have been completed spring 2022

b) Mersey Tidal Power Project

The sixth online environmental workshop for the Mersey Estuary Tidal Barrage project ran in April and was attended by NWIFCA. The workshop was again attended by representatives from wide ranging environmental agencies both statutory and non-statutory with knowledge and expertise in the area of potential influence from the proposed barrage.

The potential location of the proposed barrage was presented, with discussions over the potential impact of each option. The workshop discussed changes in sediment and channel movements in the Mersey, the constraints of the project, and the key concerns of environmental agencies. Currently, the project is still in the initial scoping stage. In terms of fish/ fisheries, they are looking at carrying out multi-year duration surveys. A survey schedule will be made available in 2022.

Developers will be holding meetings with NWIFCA on week beginning 13th of June to discuss the works.

Consultations this quarter:

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| - Central Rhyl Ground Investigation Works | NRW |
| - Little Buspharm to Bispharm & Gynn Square to Cocker Square Coast Protection Scheme | MMO |
| - Cumbria Country Council Development at JJC Hire Ltd, Barrow-in Furness | CCC |
| - Bare Beck Outfall Extension | MMO |

Dispensations this quarter:

- Lake District Coast Aquarium Lobster Hatchery
- Cefas beam trawl, Irish Sea surveys

5. WORKING GROUPS AND MEETINGS

a) Technical Advisory Group

NWIFCA continue to attend the technical advisory group (TAG) meetings which offer the opportunity for all 10 IFCA member authorities to discuss similar work schemes and share knowledge. This quarter, TAG was held on the 2nd of March and members discussed updates in HPMA's and fisheries management plans which are national projects each IFCA is involved in.

b) Whelk Working Group

NWIFCA attend, and contribute to, the biannual Whelk working group (WWG). The group brings together members of all IFCA's, NE, relevant stakeholders, researchers and government bodies (Welsh government, cefas etc.) from across the UK to share research and current management strategies in order to learn from one another.

6. NWIFCA BIOSECURITY PLAN 2021-2024

A second draft of an updated NWIFCA biosecurity plan is currently in progress. The final version will be sent back to NE before it is made available on our website.

Drafted 08th June 2022