

**NWIFCA Authority Meeting**  
**27<sup>th</sup> June 2024: 10:00 a.m.**

**Agenda  
Item  
13**

**SCIENCE REPORT FOR INFORMATION**  
**21<sup>ST</sup> OF MARCH – 27<sup>TH</sup> OF JUNE 2024**

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

**Recommendation:**

- a) Receive the report

**UPDATE FOR THIS QUARTER**

This quarter, the main priorities of the science team have been to complete an early survey of the Morecambe Bay cockle stocks, complete drone training and requirements for use in surveys, liaise with partner organisations regarding the national fisheries management plans and ongoing marine natural capital work, preparatory work for the HPMA surveys, and undertake mussel inspection and surveys where necessary.

**Key achievements since the previous TSB meeting:**

- 1) Completed first in-the-field drone flight on South America inspection.
- 2) Finalized methodologies for new QGIS software use and transition from MapInfo.
- 3) Completed five cockle surveys, and five mussel inspections with associated reports, and presented the recommendation for the Morecambe Bay cockle fishery at the May TSB.
- 4) Progressed HPMA work with Natural England and Defra – completed the first run of the Allonby Bay HPMA potting study from North Western Protector.
- 5) Responded to five consultation requests and five dispensation requests.

**ONGOING WORK STREAM UPDATES:**

**1. POTTING PERMIT BYELAW**

**a) Permit database**

The science team have been working to set up a database for the suitable logging and analysis of returns data. Science officers are contributing to the returns section to improve recording returns and new ways of analysing the data to help management. Officers are also leading on the roll-out of the returns database to the Byelaw 4 permit holders, initiating a trial-run period and informative materials to help fishers with the transition to the new system.

**2. COCKLES AND MUSSELS**

**a) Survey drone procurement**

Officers completed all the relevant requirements for taking the drone out for survey work in North Morecambe Bay and undertook their first flight out on South America. Work has begun to develop survey methodology for 2024 mussel surveys using the drone and associated analytical software.



Image shows officer's first inspection flight with the science drone.

### **b) Morecambe Bay bird food model**

Natural England have contracted Professor Richard Stillman from the University of Bournemouth to develop a bird food model for Morecambe Bay. NWIFCA have been providing data from their longstanding cockle and mussel survey datasets. The aim of the work is to develop a baseline biomass of cockle and mussel required by the protected bird species in the area. This work is anticipated to be completed by June 2024.

### **c) April/July 2024 cockle surveys**

At the extraordinary TSB meeting on March 6th, the results of the consultation held with industry over the 2024/25 cockle open season dates were presented by officers to Authority Members. Members subsequently voted to open the cockle fishery from the 1st July, subject to satisfactory survey results in accordance with the methodology laid out in the report to TSB on 6th February 2024.

NWIFCA officers undertook a full survey of Morecambe Bay in April/July this year. The results of these surveys are provided in the Survey and Inspection Report presented to TSB in May 2024.

In summary, the total biomass of cockle across the Bay has decreased since 2023. The total biomass of all individual beds has also decreased. Flookburgh and Pilling cockle beds have increased in size biomass since July 2023, though there numbers

are still relatively low. The 15-20mm cockle size class identified in 2023 has survived the winter and grown on to contribute to a more significant 20-25mm size class. This class will likely grow to size during the summer months. There is a highly mixed composition of size and undersize cockle across all beds with few discrete patches of predominantly size cockle.

Officers presented these results to industry and opened up an online questionnaire for them to provide feedback on, prior to the TSB meeting. The result of the questionnaire were also presented at the meeting.

As a result, Officers recommended the fishery remain closed and re-surveyed in July (reverting to type), with the view to bringing a recommendation on a September fishery to the August TSB meeting as is typically done each year. A trial early July opening for the District cockle fisheries will be explored again for the 2025/26 fishery.

#### **d) Mussel surveys**

Between February 6th and July 24th, NWIFCA science officers carried out four mussel inspections, and three mussel surveys across NWIFCA District. Full inspection and inspection reports are provided in Annex 1 of the May 2024 TSB report.

Results from the Dutch Wand surveys demonstrate that the main mussel beds of Foulney, Low Bottom and Walney channel remain consistent with previous years.

This year, officers have been unable to access South America for seed/size inspections due to changes with channels in Morecambe Bay. Officers will be attempting to access the site by RIB in the next month.

### **3. NWIFCA RESEARCH PROJECTS**

#### **a) Whelk Fisheries in the North West**

A new sampling schedule for determining the size-at-maturity for whelks was developed for the summer of 2024. The aim is to identify the size-at-maturity for whelks in the NWIFCA District as previous work has not provided a consistent dataset and it was important to assess the appropriateness of the MLS stipulated in the flexible permit conditions. The results of this work were presented at the meeting on the 6<sup>th</sup> of February.

#### **b) Shrimp research in the North West**

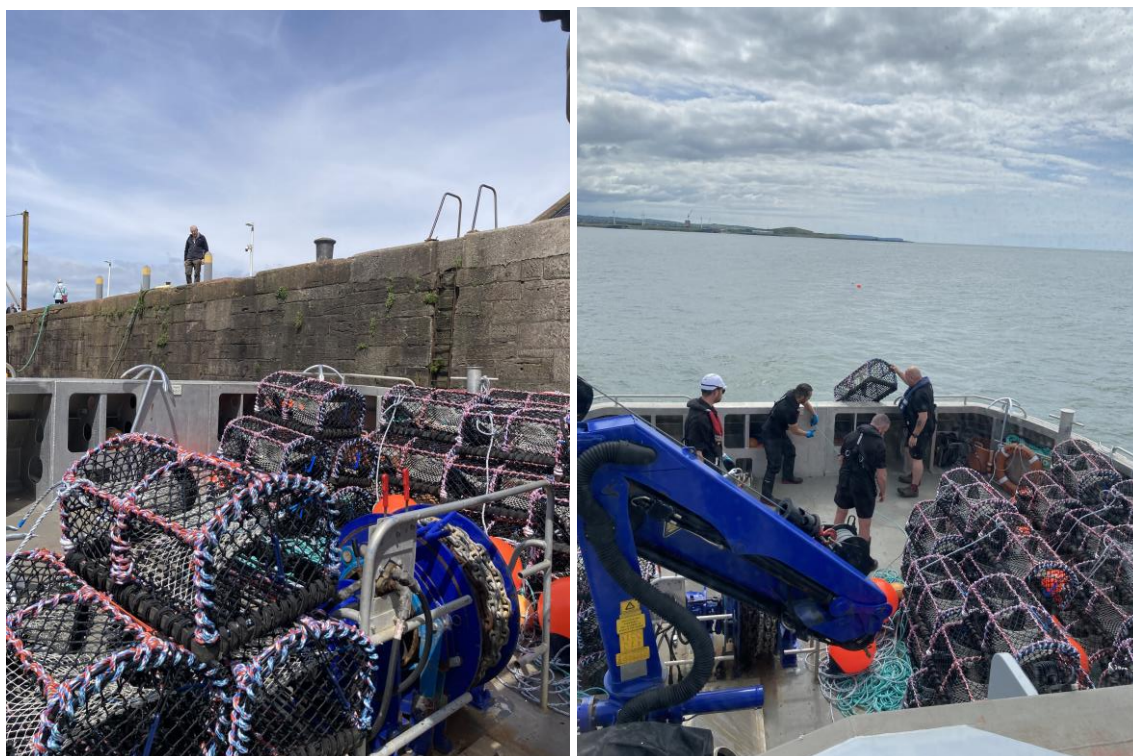
Our new science Officer, Lucy, will be leading on developing a summary report for the state of the NWIFCA shrimp fisheries. There is a need for the Authority to better understand the current and historical state of the fishery, in order to best focus future research efforts and projects. Historical declines in the number and size of shrimp caught has lead to concern among some stakeholders as to the condition of the fishery.

### **4. MARINE PROTECTED AREAS IN THE NWIFCA DISTRICT:**

#### **a) Highly Protected Marine Areas (HPMAs)**

NWIFCA have agreed a baseline monitoring program for assessing the changes in Allonby Bay HPMA with Natural England.

NWIFCA will lead in collecting data and undertaking potting surveys from North Western Protector to gain an understanding of the levels of crab and lobster in the HPMA. Officers will measure and tag lobsters as part of the project. The project will likely last for >3 years and aims to begin June 2024. The first survey ran from 11<sup>th</sup> to 15<sup>th</sup> of June.



Images show officers deploying pots off North Western Protector for the July HPMA surveys.

b) **Marine Natural Capital**

Morecambe Bay is the focus of marine Natural Capital study through the Association of IFCA's and Natural England. NWIFCA has provided information and historical data on the Bay to provide to the Association. The evidence collated will be combined with additional evidence on associated socio-economic value data to develop local placed-based natural capital assessments of fisheries and Morecambe Bay.

NWIFCA have been working with the Association of IFCA and Natural England to develop a project looking into the social values of stakeholders, and how this can be used in management decision making. As part of the project, NWIFCA is assisting NE in setting up interviews with local stakeholders, and Exeter University will be analyzing the interviews to identify social values. There will be further engagement with the Authority as this project progresses, to see how this type of data could be used to assist with cockle fishery management decision making.

5. **FISHERIES MANAGEMENT PLANS**

a) **National (excl. cockle)**

No further update

**b) Cockle fisheries management plan**

NWIFCA is working alongside the Association to contribute to the development of the national cockle management plan. The early stages have involved discussions around development and structure of a plan that must consider multiple different cockle fisheries (Thames cockle fishery, Morecambe Bay, The Wash fishery etc.) and develop clear objectives.

NWIFCA is developing it's own cockle fisheries management plan applicable to the District. Both projects will complement the other with the aim of developing a framework for future data collection and management, a decision-making framework, a research plan and management review. In time the Districts cockle management plan will be presented to the TSB for review.

**6. MMO MARINE LICENCE AND OTHER CONSULTATIONS FOR THE QUARTER**

**a) Morecambe Bay Offshore Wind**

No further update

**b) Mersey Tidal Power Project**

No further update

**Consultations this quarter:**

- HyNet carbon dioxide transportation and storage project - offshore
- Mostyn Energy Park Extension (April)
- Mersey Tidal Power Project - Baseline surveys
- MOD Eskmeals Artillery Trial Year 2-4
- A595 Grizebeck improvement scheme

**Dispensations this quarter:**

- CEFAS Clean Seas Monitoring Programme 2024
- Bangor University
- Westinghouse Springfields Fuels Limited
- Wyre Rivers Trust Bioblitz 2024
- CEFAS Irish Sea Beam Trawl Surveys 2024

**7. WORKING GROUPS AND EXTERNAL PARTNERSHIP WORK**

**a) Technical Advisory Group**

No further update

**b) Whelk Working Group**

No Further update

**12<sup>th</sup> of June 2024**