

**NWIFCA Technical, Science and Byelaw  
Committee**

**5<sup>th</sup> November 2019: 10:00 a.m.**

**AGENDA  
ITEM NO.  
7**

**SCIENCE REPORT  
20<sup>TH</sup> JULY - 12<sup>TH</sup> OCTOBER 2019**

**Purpose:** To provide an update to members on the work of the Science Team in the last quarter

**Recommendation:** That Members approve the report.

This quarter saw the arrival of our new Fisheries and Conservation Advisor Tom Brook who has made an excellent start to his role within the team.

**1. NWIFCA RESEARCH PROJECTS**

a) Bass populations and tagging study – Cefas project. The proposed tagging work to be carried out by Cefas scientists was cancelled due to lack of >50cm size fish required for tagging with the Data Storage tags (DST). No further progress.

b) Razor Clam collaborative research – (i) officers have been working with the Bangor scientist to firm up survey methodology and area, and the electro dredge equipment has undergone some refinement. Officers await final details before submitting the application for an MMO dispensation for the use of the gear. Drafting of the HRA has begun.

(ii) Officers investigated the possibilities of stock survey of intertidal razors at Leasowe on 2<sup>nd</sup> August to provide more rounded data for the research. Due to location of razors close to the spring low water line and the limited time this gives, it was not possible to discern a practical methodology. Thinking on this continues.

c) Whelk Fisheries in the North West – samples obtained from industry are being processed in the lab. Flesh containing statoliths for aging are frozen. There is a high time demand on this work and so a Lancaster University under-graduate student has been identified to assist.

d) Nephrops Creels Project - Cumbria Wildlife Trust - following the approval to issue a derogation to Cumbria Wildlife Trust to trial the use of nephrops creel pots within the Cumbria inshore waters, they were deployed from North Western Protector by NWIFCA crew over a number of tides and in different locations. NWIFCA scientists attended along with Dr Baxter to the hauling and measuring of the catch. The report from the trial is expected shortly.

e) Plastics in mussels - Cumbria University. Efforts are being made to develop a relationship with Cumbria University for future research potential following reading of an article on a study into plastics in mussels bought in supermarkets carried out by Cumbria University. Officers met with Dr Gillian Notman to discuss common areas of interest and to explore investigation into live mussel from the District for an undergraduate dissertation project. Officers have facilitated linking Cumbria University work in this realm with that of the Wyre Rivers Trust.

f) BlueCoast - a request was received from Southampton University for dispensation to use a plough as part of an investigation into buried invertebrates on Leven Sands in

Morecambe Bay. Officers explained that the Authority would be highly unlikely to agree to such an activity and that other consents would be required. Officers have been assisting the researcher requiring the sediment samples and have offered to obtain them providing courier transportation is arranged.

## **2. WHELK WORKING GROUP (WWG)**

The national Whelk Working Group held its second virtual meeting in early September where participants discussed the extensive workplan now live on an active group Google Drive. NWIFCA Officer Mr Brook has taken on the task of collating information on parasites, to feed into research at Herriot Watt University. This records which agencies during analyses of samples from size of maturity (SOM) dissections could detect parasites. There is some evidence that one species of trematode parasite has the capacity to 'castrate' whelks through infection and if this is happening could affect any SOM work / analysis.

There are a number of workstreams that could assist NWIFCA whelk management in the future, for example the possibility of Cefas scientists developing a methodology for stock assessment and Bangor University PhD research into the effects of temperature on metrics such as growth rates, maturity and maximum size.

## **3. BYELAWS - Minimum Conservation Reference Sizes**

Science officers have begun work on a literature review of current understanding of size at maturity for a number of key species in order to progress work with the byelaw review and possible Minimum Conservation Reference Size byelaw. A full report will be submitted to TSB at a future date.

## **4. FISHERIES MANAGEMENT PLANS - LONGER TERM PLANNING**

The Senior Scientist has agreed with CEO to instigate longer term planning for the District's fisheries through individual fishery's management plans. The intention is to draw up a list of key commercial species in the District, explore existing knowledge and data gaps in order to plan what research is required to gain the understanding needed for long term sustainable management. Any work carried out will be brought to TSB for approval at each stage.

The obvious starting point will be to finalise the cockle and mussel management plans for Morecambe Bay, and to role this approach out to the other fisheries in the District. A substantial amount of work was carried out on these through the Bivalve Mollusc Working Group, but this hit a stumbling block over the issue of bird food resource and on setting figures of biomass that should be available for the birds. The Science Team worked with colleagues from Natural England and the RSPB on finding a way forwards and although the Senior Scientist considers the current approach to managing the fisheries v bird feeding resource is pragmatic and appropriate it has not been formally agreed and signed off.

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

### **a) Marine Conservation Zones**

There are no developments to report on designated MCZs within the District.

### **b) Highly Protected Marine Areas (HPMA) - Review**

Further to the appointment of the panel carrying out the review, Defra announced a four week 'Call for Evidence' for stakeholder input to the process of deciding on how to take forward the proposals for Highly Protected Marine Areas. Due to the restricted time limit on the

consultation the Senior Scientist submitted an online response, Members were notified via email and information was posted on the website.

**c) Assessment of Fishing Activities in Marine Protected Areas**

Work continues to assess bait collection and hand-gathering activity within the District's MPAs.

**d) NWIFCA MPA Monitoring and Control Plan**

The rolling programme of review of HRAs for all activities in all sites continues to ensure if any significant change occurs the HRAs are still fit for purpose and management is appropriate.

**6. HALITE GAS STORAGE AND BRINE DISCHARGE**

No further news on this development. Officers declined an invitation to be interviewed for a BBC One programme 'Inside Out North West'. It was suggested to the programme researcher that as NWIFCA is part of the wider Marine Monitoring Group led by EA it would be more appropriate for them to approach the Environment Agency. The programme was screened on 30<sup>th</sup> September, with this item aired as the start of the programme:

<https://www.bbc.co.uk/iplayer/episode/m00090rn/inside-out-north-west-30092019>

**7. Central Dredging Association - Dredging and Sustainability in NW England Conference**

Dr Melanie Hartley attended the Central Dredging Association conference on Dredging and Sustainability in North West England. The day began with a site visit to Liverpool 2 container dock at Peel Ports where attendees were shown operations and received a talk on its construction and planned expansion. Afternoon topics covered Peel Ports Biosecurity planning Water Injection Dredging, beneficial use of dredge-won material and remote sensing of the near shore. The informative event had attendees from Natural England, Environment Agency, Natural Resources Wales, National Oceanography Centre as well as a range of consultancy firms.

**8. SURVEY and FISHERY REPORTS**

The detailed survey report is attached as Annex A.

**i. MUSSELS**

**a) Perch Scar / Black Scar - Fleetwood**

Industry contacted the office requesting authorisation to dredge a limited area of mussel from Perch Scar, Fleetwood. Large spring tides at the beginning of September allowed officers to walk out and inspect the condition of the resource on both Black and Perch Scars. It was clear there was an area of around 10ha with around 40-50% seed mussel sitting on mud that was scouring out. The Senior Scientist contacted TSB via email for approval to authorise this fishery which was given. The administration was instigated; however industry did not submit an application and therefore this fishery was not prosecuted.

**b) Exports of Mussel to Northern Ireland from Morecambe Bay for Relaying**

Following previous reporting to Members around Morecambe Bay mussel exports for relaying to Northern Ireland and perceived risk of transference of the INNS Chinese Mitten Crab, the Senior Scientist had correspondence with Defra officials. Through this it was established that with the current state of affairs politically there was little that Defra could do to assist, and that there appeared to be no possibility of influencing the approach taken by DAERA.

As agreed it is important to carry on work to provide a longer term evidence base and so Officers continue to carry out quarterly monitoring and surveillance surveys for Chinese Mitten Crab following established protocols on both Foulney / Walney Channel and Heysham Flat mussel beds. There has been no further evidence of this non-native species since the unconfirmed report in the Walney Channel in May 2018. The monitoring reports are circulated to relevant regulators and interested parties and the latest one is attached as Annex B.

**c) Solway Mussels**

i. Subtidal Survey:

NWIFCA is grateful to scientist Colin Trundle from Cornwall IFCA who gave up three days to travel to Whitehaven and train science officers on board North Western Protector in the deployment, processing and analysis of the side scan sonar equipment. The intention had been to carry out this training over the mussel area in the Solway to gain some usable data, but the weather was not fit, so tows were carried out on hard ground outside of Whitehaven marina instead. This established that the jets from the vessel are causing interference with the signals of the side scan and an alternative means of deploying the survey equipment was needed in the shallow waters where the surveys are needed. Lowering the side scan sonar from the bow of the vessel has subsequently proven to achieve good quality data. Work continues to return to the Solway to carry out a full survey which can be ground-truthed with grab data. Standard Operating Procedures for NWIFCA side-scan and Olex are being drawn up.

ii. Port of Silloth Dredge Disposal

Members will recall the concerns raised in the summer over the position of the disposal of dredge material from the maintenance dredging at Silloth port and its proximity to the protected mussel feature in the Solway. Natural England and MMO Marine Licensing have taken our concerns forward.

**ii. COCKLES**

**a) Morecambe Bay - Warton Sands**

Survey report provided in Annex A. A dense stock of cockle persists but has not yet reached size. There is some evidence of wash out as the channels shift around. Discussions with local authority, Cefas and Food Standards Agency have begun over sampling for classification purposes and the stock is being regularly monitored.

**b) Morecambe Bay - Pilling Sands**

Survey report provided in Annex A. The fishery on the east side of the bed was opened on 1<sup>st</sup> September with a closure to protect juvenile stock implemented on the western side. No fishing activity to date. The stock is currently under a seasonal classification of C, which will improve to a B on 1<sup>st</sup> November. This may be influencing fishing activity along with the fact other beds in the District are also open.

**c) Wirral - Leasowe**

Survey report provided in Annex A. The fishery was authorized for Byelaw 3 permit holders from 30<sup>th</sup> September with fishing permitted for three days a week (Monday to Wednesday) and a Total Allowable Catch of 400 tonnes set in order to ensure sufficient bird food resource

throughout the winter. Managing the TAC is important and subsequently there is a requirement for weekly catch returns to be submitted.

**d) Solway - Middlebank**

Middlebank is a drying bank / cockle bed that lies in the middle of the Solway and is not accessible from the shore; hence surveying it has proved logistically impossible unless using industry vessels and cockle suction dredge. Cumbria Sea Fisheries Committee has historically permitted cockle suction dredge fisheries there. However in today's climate where fisheries management is legally bound to ensure compliance with Habitats Regulations there is a need for full stock assessments to be carried out to inform HRA, mitigation and management.

There has long been the intention with the increased capability of NWP to dry her out over low water and crane quad bikes and officers on to the sandbank to carry out stock survey. NWP Master and crew have trialed drying her out on an inshore area which proved to be very successful. A date was set but unfortunately again the weather scuppered plans. As the daylight on suitable tides has now been lost, his work will be prioritised for the earliest opportunity next year.

**8. Meetings / Conferences / Training attended**

Solway Firth Partnership Advisory Group

Whelk Working Group Skype meeting

Shellfish Liaison Group NW

Peel Ports - Invasive Non-Native Species and Biosecurity Plans Workshop

RSPB and IFCA's Marine Planning and Marine Licensing Skype meeting

Defra EU Exit - fish and shellfish trade with EU Workshop - Fleetwood

Peel Ports - dredge workshop

Cumbria University - meeting with Dr Gillian Nottman

**Mandy Knott  
Senior Scientist  
15th October 2019**