

**NWIFCA Technical, Science and Byelaw  
Committee**

**5th February 2019: 10:00 a.m.**

**AGENDA  
ITEM NO.**

**5**

**SCIENCE REPORT**  
**13<sup>TH</sup> OCTOBER 2018 - 12<sup>TH</sup> JANUARY 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.

Much of the quarter has been taken up with cockle surveys and work to inform the management of the proposed cockle fisheries in Morecambe Bay.

**1. MARINE PROTECTED AREAS IN THE NWIFCA DISTRICT:**

The Senior Scientist continues to attend the monthly national Inshore Fisheries Working Group (previously Marine Protected Area Management Group) tele-conferences facilitated by national Natural England, to keep up-to-date with developments and feed in NWIFCA MPA work.

**a) Marine Conservation Zones**

i. West of Walney MCZ

There has been no further update on the signing off of the MMO byelaw to prohibit bottom towed gear within the whole MCZ.

ii. Defra consultation on Tranche 3 MCZ sites

There has been no further direct communications on the results of the Defra consultation on the proposed T3 MCZs within the NWIFCA District. Online a statement from Defra was found stating that over 48,500 responses to the consultation were received. Defra intend to announce site designations by June 7th 2019. At this time they will also publish a full government response to the consultation, outlining the evidence received and explaining the decisions taken on each site.

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

i. Work is on-going to analyse two years' worth of IFCO sightings data and responses to our bait collection questionnaire so that assessments of bait collection activity within the District's MPAs can be carried out.

ii. The AIFCA's National MPA project is having a launch of the publication and website in the House of Commons on 12<sup>th</sup> February 2019, hosted by Scot Mann MP. There is a possibility of Ministerial attendance and an introduction to the publication, with a fall back of Neil Hornby (Defra Marine Director) if this is not possible. The Chair of the Authority, Chair of TSB, CEO and Senior Scientist have been invited to attend on behalf of NWIFCA.

iii. Defra have recently published a report titled 'Marine Protected Areas Network Report 2012 - 2018' which provides an update on the current state of the Marine Protected Area network established under the Marine and Coastal Access Act. It sets out the progress in establishing the network since 2012 and future plans.

This report was laid in parliament on 17<sup>th</sup> December 2018, pursuant to Section 124 of the Marine and Coastal Access Act 2009.

Members' attention should be drawn to Section 3 of the report where Defra states their 'commitment to a "Whole Site Approach" set out in the 25-year environment plan and we will explore further the scope for Highly Protected Marine Areas (HPMAs)'.

There has been some correspondence from the Marine Conservation Society's Jean-Luc Solandt relating to 'Whole Site Approach' which criticises management of some fisheries in some Districts. This raises concerns over whether Defra will require further assessment and management under the "Revised Approach" despite the fact that these assessments have been signed off by Natural England. An example of such a report from the Economist can be found: <https://theecologist.org/2018/nov/08/weak-regulation-jeopardises-marine-life>

NWIFCA had not been aware that this report was in production and it has not been discussed as part of the monthly Inshore Fisheries Working Group calls as far as officers are aware.

The report can be accessed through:

<https://www.gov.uk/government/publications/marine-protected-areas-network-report-2012-to-2018>

#### **c) NWIFCA MPA Monitoring and Control Plan**

The NWIFCA MPA M&C Plan is intended as a working document, whereby assessments of fishing activities within MPAs are continually under review. Not all sites were reviewed in 2018 as originally intended due to work priorities, and this may prove to be too ambitious a target. However the NWIFCA can remain confident in the management of fisheries as there is an in-built mechanism for triggering a review if concerns are raised. No concerns were raised by Natural England or any other parties over risks to the sites. The rolling programme of review is underway for 2019. It may prove more realistic in achieving a review of all sites over a two year cycle rather than one.

#### **d) St Bees Head - Cumbria Coast MCZ - Netting Voluntary Code of Practice**

IFCO Erik Thinessen has reported to science team that large numbers of guillemot have already been observed on the cliffs at St Bees during a vessel patrol. Natural England and RSPB colleagues have been contacted for their view on the birds' behaviour and whether there is a need for NWIFCA to act early to implement the voluntary Code of Conduct for netting this year. There is the possibility that the birds are gathering but will move offshore again should the weather turn colder. Further evidence is being gathered to assist a decision. Should action be required before the next TSB the Senior Scientist will contact TSB via email for approval.

### **2. NWIFCA RESEARCH PROJECTS**

a) Bass populations and tagging study – Cefas project. No further work during this quarter other than the circulation of a poster highlighting the tagging and providing details of where to return any found tags to (Annex A).

- b) Razor Clam collaborative research – please see separate report.
- c) Whelk Fisheries in the North West – still awaiting first samples from industry. Alternative sources are being investigated so that the study can begin without further delay.
- d) BLUEcoast - meeting - Researchers from the National Oceanography Centre (NOC) attended the Carnforth office to discuss the BLUEcoast research currently being conducted in Morecambe Bay with the Senior Scientist and Science Officer Dr Hartley.

The BLUEcoast consortia is led by the NOC and aims to inform coastal management by reducing uncertainties in the prediction of medium-term (years) and long-term (decadal and longer) regional sediment budgets, morphological change and how the coast recovers after sequences of storms. To do this they have selected several representative coastal systems, one of which is Morecambe Bay.

The aim of this meeting to explore the potential for the work of BLUEcoast to contribute to further understanding the dynamics of fisheries in the Bay, and whether NWIFCA science surveys could contribute to this. Discussions included the use of LANDSAT imagery and how to access, details of the BLUEcoast data collection and potential benefits to NWIFCA questions.

Although discussion yielded that the BLUEcoast work would be unlikely to directly inform NWIFCA questions regarding sediment dynamics and cockles, it was agreed that collection of sediment cores alongside NWIFCA cockle surveys would provide data beneficial to both NOC and NWIFCA. These sediment samples will be analysed for particle size and organic matter content that, when analysed with cockle abundance data, may inform questions around sediment preferences of cockles in the Bay.

If funding permitted, this could continue beyond the lifetime of the BLUEcoast project, and build a long-term dataset for more robust interrogations of cockle sediment preferences. Thus far, Science officers have collected 23 sediment samples when surveying Flookburgh in November 2018; samples are awaiting analysis. Further sampling may be planned in with 2019 survey work.

- e) Members will recall projects carried out with Lancaster University students into the relationships between geomorphology and cockle movements in Morecambe Bay. The BSc dissertation produced by Sophie Bleasdale entitled 'An investigation into the temporal variations of Morecambe Bay's geomorphology in relation to known cockle bed settlements using integrated remote-sensing' received a First Class grade, and has now been published on our website under: <https://www.nw-ifca.gov.uk/policies-and-reports/scientific-reports-publications-archive/>

### **3. DEVELOPMENT OF SUBTIDAL SURVEY ABOARD NORTH WESTERN PROTECTOR**

Officers are working to commission all survey equipment on NWP. Due to the age of the survey equipment and the fact a lot of it has not been previously used, much of the time available for getting it working has been spent contacting suppliers to get updated software and bench testing to ensure all issues are resolved before trailing at sea. The side scan has had a successful sea trial with no issues. The data is still to be processed and assistance has been offered by Cornwall IFCA. Officers will continue with commissioning the offshore survey equipment as time and weather allows.

#### **4. NATIONAL IFCA TAG CONFERENCE**

NWIFCA is hosting the annual TAG Conference this year at the Lancaster Conference Centre. To be held from Tuesday 19<sup>th</sup> - Thursday 21<sup>st</sup> February, the conference will showcase the scientific and research work of each IFCA, along with presentations from fellow agencies such as Jersey States, Defra, Natural England, MMO, Cefas, the Environment Agency, the Zoological Society of London, Institute of Fisheries Management, Welsh Government, Isle of Man Government and Marine Scotland.

Day One will see the inaugural meeting of the Whelk Working Group whose purpose is:

“to facilitate communication between various IFCA and other organisations’ science teams that are studying or managing whelks in order to help teams monitor and manage whelk more effectively on both a local and national level. The aim of the first meeting will be to establish the basis of the group (Terms of Reference), who the members are, how often we will meet etc, and also identify the aims and objectives for the group going forward. The working group will explore ways of working to support communal and comparable data collection and have open discussions with Cefas and other organisations to grow our overall understanding of whelk”.

The Senior Scientist is keen to ensure NWIFCA involvement, collaboration and support for the work of TAG. However it is limited how much time commitment can be given and hosting the conference this year is an achievable contribution.

#### **5. CEFAS STOCK ASSESSMENT WORKSHOP**

Officer Haines attended a stock assessment workshop organised by Cefas attended by six IFCAs and Jersey States. The focus of the workshop was on stock assessment for data poor non-quota species in particular cephalopods, whelks and bivalves (razor clams, cockles, mussels and scallops). Each organisation presented on their current and planned work and areas where there are data gaps. There were productive discussions around the use of standardised operating procedures to ensure quality comparable data is collected. Where there were common themes in species and data requirements across organisations there were discussions on areas of collaborative work which would help to fill evidence gaps.

#### **6. EMFF WORKSHOP - Developing a participatory approach to the management of fishing activity in UK offshore Marine Protected Areas**

A European Maritime and Fisheries Funded project, led by the Joint Nature Conservation Committee includes partners from the MMO, Natural England, the NFFO and Bangor University. The aim of the 2 year project is to develop a participatory process establishing, evaluating and adapting fisheries management measures in MPAs that include sedimentary habitats as protected features.

The first workshop in November at DEFRA HQ brought together representatives from the fishing sector, regulators including NWIFCA, EIFCA and KEIFCA, NGOs, scientific advisors and academic researchers to explore the challenges of managing sedimentary habitats in MPAs. This national workshop introduced the project and enabled collective discussion on what the principles of a participatory approach to managing fishing in MPAs could look like.

Using 2 case studies, West of Walney MCZ and North Norfolk Sandbanks and Saturn Reef SAC, the project aims to deliver:

- A governance framework integrating stakeholders in management review.
- Develop an existing model to predict ecological outcomes of management.
- Develop a toolkit for management of MPA's.

A wide range of topics were discussed including existing experiences of a successful participatory approach, where the development of NWIFCA Byelaw 6 for the Lune Deep SAC was highlighted as a positive example. These discussions will form the basis for regional workshops to be held early 2019, to develop the participatory approach with a wider stakeholder group, culminating in another national workshop and development of the deliverables before March 2020.

## **7. RECREATIONAL ANGLERS ENGAGEMENT**

Officer Huw James has continued actively engaging with anglers in the District as part of the NWIFCA Recreational Angling Strategy. Alongside the Communications Officer, they are working on producing a RA section for the website, to inform recreational anglers on the role of the NWIFCA and to answer some commonly asked questions. He also continues to visit fishing marks in the District to engage with anglers.

Officers have continued to promote the bait collection questionnaire throughout the District. As expected, some collectors have been hesitant to provide data but to date, a total of 39 responses have been recorded.

## **8. NORTH WEST MARINE PLAN – MMO**

The Senior Scientist dialled in to a half day workshop on 'Essential Fish Habitats' (EFH) run by MMO and Cefas. EFH have been defined as "those habitats that are necessary to the species for spawning, breeding, feeding, or growth to maturity. Some can be especially important ecologically or particularly vulnerable to degradation." The MMO commissioned project MMO113 Sites Important to Fish, in order to acquire improved maps of EFHs from modeling for their new spatial plan for England and Wales. This workshop was part of this project and aims to validate results based on experts' opinion and local knowledge. They will use feedback to improve the developed draft models and decrease the uncertainty of the resulting maps. MMO will be using these maps for spatial planning and licensing of developments.

Ms Knott is also registered to attend a further MMO workshop in Carlisle in February on iteration 3 of the NW Marine Plan - Policy Development and will report back accordingly.

## **9. COCKLES**

### **Morecambe Bay fisheries**

Officers provided survey reports, input to discussion, and facilitated a BMWG meeting in December on the state of the cockle stocks in Morecambe Bay. Following in principal approval by TSB, Science Officer Haines carried out a Habitats Regulations Assessment for the lifting of the NWSFC Byelaw 13a closure on the eastern part of the bed at Pilling, and for authorisations for craam only fisheries at Flookburgh / Leven Sands, and Newbiggin.

## **10. MUSSELS**

### **a) Southern Ireland - BIM Risk Assessment for Chinese mitten Crab mussel from Foulney**

The Senior Scientist was asked for input to BIM's draft risk assessment for movements of size mussel from Foulney to Eire for relaying in relation to perceived risk of transference of Chinese Mitten Crab. This will be presented to BIM's working group on alien species and aquaculture

on 23<sup>rd</sup> January. It is hoped that movements might begin again soon depending on the outcome of the meeting.

**b) Solway Mussels**

As previously discussed industry have enquired about the possibility of opening a subtidal mussel fishery in the Solway and officers have highlighted the difficulties around collecting the data required to inform a HRA. Officers have been working on developing a survey, which has involved the commission of the side scan unit and discussions with Natural England and those with expertise in side scan equipment and Olex systems. The survey is limited due to requirement of certain tides and completing the side scan tows in daylight hours. There have been a number of survey days planned which had to be cancelled by bad weather. Officers will continue to plan suitable days to survey. It is important to highlight that even if a survey is completed it might not be able to provide the data required but will help in building on knowledge of the distribution of habitats and information on the mussel.

**c) Mussel Spawning Work**

Following an invitation from Authority member Kelsey Thompson, work has been initiated with Morecambe Bay Oysters to identify time of year and size that mussels from Foulney achieve spawning condition. Monthly mussel samples of various sizes are collected by IFCOs from Foulney and delivered to Morecambe Bay Oysters where their spawning condition has been assessed. The project will continue until late 2019. Members of the Science Team also attended a guided demonstration for the assessment of spawning condition in mussels and oysters at the hatchery on Walney Island in December.

**11. SOLWAY FIRTH PARTNERSHIP ANNUAL CONFERENCE AND WORKING GROUP**

Officers continue to attend the quarterly SFP working group meetings. In November Science Officers attended the SFP Annual Conference, presenting alongside Alastair McNeill from the West Coast Regional Inshore Fisheries Group, on the subject of the Solway Firth fisheries. The talk included an overview of the NWIFCA, including its main responsibilities, the fishing activities and species that are targeted in the Solway, and the future work that the NWIFCA hopes to complete in this region.

**12. STAFF APPRAISALS**

The Senior Scientist conducted individual staff appraisals with all three of the team. In general officers enjoy the challenges and variety involved in the role in the IFCA. A number of useful comments and suggestions were raised which have been relayed to the CEO.

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