

# NWIFCA Technical, Science and Byelaw Sub-Committee

2<sup>nd</sup> February 2016: 10:00 a.m.

AGENDA  
ITEM NO.

8

## SCIENCE REPORT 25<sup>TH</sup> OCTOBER 2015 – 22<sup>ND</sup> JANUARY 2016

### General

As is usual at this time of year, the large spring tides fall during the hours of darkness and so opportunities for intertidal surveying are very restricted. The quarter has seen the new Science Team members attending mandatory training courses, and receiving in-house training from Ms Knott and Ms Temple. Mr Haines has been mainly tasked with carrying out HRAs with Ms Temple as part of the EMS Review and progress on this work has stepped up a pace. Having an additional member in Ms Carroll is proving extremely useful in that some of the work that previously dropped down the do-to list can now be tasked to her to look into. Both new Officers are very welcome and valuable additions to the NWIFCA.

### **Assessment of Fishing Activities in European Marine Sites**

Excellent progress has been made by the Science Team over the past three months in carrying out HRAs for fisheries occurring within EMS, in accordance with Defra's Revised Approach. The deadline of December 2016 – by which time management measures, if necessary, must have been introduced – is looming, and with the additional staff resources the team is confident of achieving the deadline. Mainly due to extremely low effort in addition to the highly dynamic nature of our coastal environment, the only fisheries that cause any potential concern are the cockle and mussel fisheries, and shrimp beam trawling (boat and tractor).

However, with the suite of measures already used by the NWIFCA to manage these fisheries, including those within the Management Plan agreed within the BMWG, it is not believed that additional regulation will be required. The final decision on this cannot be made until the HRAs have been conducted, and any continuing concerns will be brought to TSB.

The Science Team look forward to a time when this work has been completed as it consumes an inordinate amount time, and we can then focus on other issues around sustainability of our fisheries and areas of research we would like to develop.

### **MCZ – Tranche Two Designations**

The Minister announced the second tranche of MCZ designations on Sunday 17<sup>th</sup> January. For the NWIFCA two sites in Cumbria were designated:

- Allonby Bay - Members will recall the Authority provided protection to the *Sabellaria alveolata* reef there by extending Byelaw 6 outside of the EMS to cover the proposed MCZ. This site has a 'maintain' conservation objective;
- West of Walney co-located with the windfarm and a site that straddles the 6 – 12nm limit and so requires joint management with the MMO. This site has a 'recover' objective and was mainly designated for its muddy habitats and associated infaunal species.

Ms Knott has begun discussions through the monthly national MPA conference calls over what next steps need to be taken regarding West of Walney, and is awaiting further information.

All documentation relating to the new MCZs can be found on the Defra website: <https://www.gov.uk/government/collections/marine-conservation-zone-designations-in-england>

## **CEFAS Report - Inshore Fisheries Activity Data Layer**

Cefas (Centre Environment, Fisheries and Aquaculture Science) have received funding from Defra to carry out a project on inshore fisheries activity working with the IFCAs and our sightings data. The following information is taken from the CEFAS flier: MB0117: "Understanding the distribution and trends in inshore fishing activities and the link to coastal communities", which is available from the Science Team on request, along with the full report as a pdf.

This project aims to improve the evidence base on the location and intensity of inshore fishing activities and their link to the coastal fishing communities being sustained by the activity.

Knowledge about which human activities take place where, when, and how often, is essential for successful Marine Planning. It underpins the management of human activities, understanding how activities relate to one another and facilitates assessments required under Water Framework Directive and Marine Strategy Framework Directive. Whereas the location and footprint of most human activities is well known (e.g. aggregate extraction, windfarms, cables and pipelines), information on fishing activities remains patchy and in some instances is closely guarded. Increased knowledge on offshore fishing activities has become available through the introduction of satellite-based vessel monitoring systems (VMS) for vessels over 15m. Inside the 6 nautical mile limit the fishing activities are dominated by smaller vessels, often under 15 metres in length. In England and Wales, this part of the fleet makes up over 90% of registered fishing vessels, but little is known about their activities.

By developing a series of data layers illustrating the location and intensity of inshore fishing activities, this will allow local managers and planning experts to have a better understanding of the impact of policy changes on the local communities. In recent years access to fishing activity maps for offshore areas have significantly improved our understanding of those fisheries and has allowed to study behaviour changes in response to policy.

Cefas will explore how the inshore data layers developed by this project can be used to inform future inshore policies. They will achieve this by assessing temporal changes in fishing activity data in areas where access to fishing grounds has changed, for example, a marine protected area or renewable energy site. By developing the 'Zone of Influence' for each fishing port around England and Wales, they will be able to make the link between coastal communities and their fishing grounds.

The main output from this project will be the provision of a number of key data layers on inshore fishing activities. Key users will be Defra and the Statutory Nature Conservation Bodies as part of the MCZ process, Defra to inform the sustainable development of inshore fisheries, the Marine Management Organisation to inform the Marine Planning process and the Inshore Fisheries and Conservation Authorities to fulfil their role under the Marine and Coastal Access Act.

All information generated will be made widely available.

## **European Maritime and Fisheries Fund (EMFF) and iVMS (Inshore Vessel Monitoring System)**

A combined total of €243.1 million has been allocated to the UK under the latest EMFF. Details can be found on the following EU and MMO websites respectively:

[http://ec.europa.eu/fisheries/cfp/emff/index\\_en.htm](http://ec.europa.eu/fisheries/cfp/emff/index_en.htm)

<https://www.gov.uk/guidance/european-maritime-and-fisheries-fund-emff-uk-managing-authority-ukma>

Sectors are encouraged to evaluate fully the opportunities for funding, and Officers will scrutinise the fund to ensure any funding that may be available to the NWIFCA to further sustainable fisheries is accessed. The MMO who administer EMFF for England will announce strategic calls for applications for funding for particular rounds at specific times.

The MMO reported on developments and potential funding opportunities for iVMS at the recent quarterly MPA conference call. Many IFCA's are waiting on the introduction of a fit-for-purpose system for <12m inshore vessels to improve activity data gathering, monitoring and enforcement, particularly in relation to MPAs. The MMO plan a forthcoming round to fund iVMS and Officers will keep a close watch on how this develops.

### **NORTH WEST COAST CONNECTIONS - NATIONAL GRID work on routing options for 400KV cables from Moorside nuclear power station**

Due to the flooding in Cumbria meetings planned for the last quarter were cancelled. The Senior Scientist is attending a meeting on 27<sup>th</sup> January and will provide a verbal update.

### **Moorside Power Station**

The Senior Scientist attends the quarterly meetings of the relevant (marine) EIA meetings with Environment Agency, MMO and Natural England colleagues, and helps to facilitate dialogue with fishermen. The main issue of concern at the present time for fisheries interests is the Marine Offshore Loading Facility (MOLF) which is basically a pier to allow the landing off construction materials for the new nuclear power station to be brought in by sea. No firm designs have been produced on this as yet.

### **Cumbria Wildlife Trust Marine Trainees Partnership**

Work has been on-going in the Partnership project with Cumbria Wildlife Trust. A new Marine Training Programme Manager has been appointed at CWT and meetings have taken place to plan the year's work. The Senior Scientist has received first drafts of two reports – the annual *Sabellaria alveolata* condition monitoring report from Heysham Flat, and a pilot study into Bird Disturbance from Hand gathering Activity – again at Heysham Flat. Final versions once approved will be published on both agencies' websites.

It has been agreed between the NWIFCA, Natural England and CWT not to continue the Heysham Flat *Sabellaria alveolata* condition monitoring for the foreseeable future. Five years' worth of surveying and reports have shown how highly variable and ephemeral the worm reef is there, and how constantly in competition the worms are with the mussels. The Senior Scientist has given an undertaking to continually monitor the situation during mussel surveys and inspections, and should the situation appear to have changed significantly to re-instate the condition monitoring. Focus will now switch if possible to the *Sabellaria alveolata* within the Cumbria Coast MCZ.

Initial findings from the Bird Disturbance pilot study suggest that the hand-gathering of seed mussel at Heysham Flat does not cause any significant disturbance to the oystercatchers feeding there. It is hoped to develop this project further in the coming year, building on the experiences of this pilot.

Science Officers have been invited to assist with grey seal surveys at South Walney nature reserve, and a report will be produced by CWT in the coming month. This is useful for NWIFCA Officers to gain a better understanding of the seal population on the island.

Other project work suggested for the new cohort of Trainees starting in May includes:

- a study into whether oystercatchers are predominantly feeding on mussel on the skears, as proposed by Byelaw 3 permit holders;

- stakeholder engagement project of seals interaction with fishing gear in Morecambe Bay;
- biodiversity of the *Sabellaria alveolata* reef at Allonby Bay – protected under Byelaw 6 and within the proposed new MCZ.

### **Technical Advisory group - TAG**

Ms Knott and Ms Temple attended the annual TAG conference in Poole during January, where a wide range of topics were presented. As ever TAG proves to be a vital forum for knowledge and ideas exchange and assist a more consolidated approach nationally within IFCAs. Once notes are written up if Members would like to know more about TAG and / or the conference please contact the Senior Scientist.

### **Wader Bird Training**

Science Officers received some initial wader bird training through the RSPB following a request to NWIFCA Member Callum Booth. The intention was to improve Officers ID skills and understanding of their behaviour and feeding requirements to assist Officers in carrying out HRAs for the fisheries. RSPB Officer Gavin Thomas joined Officers at Red Bank, next to Heysham Power Station which is a key roost area at high water. Unfortunately the weather put paid to the utilisation of this area on this particular day – gale force winds and torrential rain provided the backdrop to the training.

The need has been identified to improve Officers skills in this area and discussions are on-going with CWT and with Natural England to take any joint training opportunities to benefit all agencies.

### **North West Angling Trust Fisheries Consultative Council (NWATFCC)**

Ms Carroll attended a meeting of NWATFCC on 13th January on behalf of NWIFCA. Mr David Lees a former policeman and angler, gave a short talk on the Voluntary Bailiff Scheme (VBS) that is being rolled out in the northwest. This is a three phase project, with the first phase being education and intelligence focused assisting the EA officers, ending at phase 3 where the volunteer will have powers of enforcement in conjunction with the EA.

Recent flooding of the rivers caused high levels of fish mortalities with thousands of small fish found on river banks as flood waters subsided. Many members helped rescue fish.

A discussion developed about undersea cables and the need for research on the impact on migratory fish and their navigation ability. Sea lice (in relation to salmonids) were also discussed, and the need for more research and management was highlighted.

The group was unhappy with the outcome of the 'Salmon Summit' and questioned the EA's 5 point plan. Calls were made for more robust monitoring and data to set conservation limits, and it was agreed there was a need for action. The next meeting of the group will be held on 27th April in Caton.

NWIFCA will keep in contact with the group and attend meetings when necessary.

### **Cockle and Mussel Fisheries in the NWIFCA District**

Work has continued with the Bivalve Mollusc Working Group (BMWG) on agreeing measures and the drafting of a Mussel Management Plan for Morecambe Bay and the Duddon Estuary which has been tabled for approval of TSB under a separate agenda item. A draft plan for cockles in the Bay has been started. It is the intention that these will then be used as templates for the other fisheries in the District.

## **SURVEY AND FISHERIES WORK**

As stated above, conditions at this time of year restrict survey work. Information is provided on the following beds:

### **Mussel Beds**

#### **Ribble Estuary**

Seafield Road – following HRA authorisations were issued for the harvesting of undersize mussel in a limited area at the bottom of the bed as reported to TSB in November. The Science Team also assisted the local authority, FSA and Cefas in mapping this new area for hygiene classification purposes to allow the removal and sale of size mussel. The fishery was originally authorised from 15th October until 18th December with NWIFCA monitoring the fishery. 23 authorisations were issued in total.

For the month of October 13.2 tonnes was harvested over 23 fishing days. The fishery was badly affected by the extreme high rainfall that the northwest experienced. Due to a high E.coli reading from the shellfish hygiene classification sample taken on 9th November, the Food Standards Agency and Local Authority decided to close the bed. Samples came back at Class C results again in December and the fishery was re-opened. However many days had been lost. A further 3-4 tonnes was fished during December.

There were no breaches of the regulations or conditions, and fishing effort was limited to a maximum of 10 fishers at any one time.

Inspections of the bed by NWIFCA showed that there is still an amount of loose large mussel remaining below the demarcation line. Much of the smaller mussel above the line has been washed out – considering the loose nature of the estuarine mud those mussels were positioned on, the gales, torrential and persistent rain and flooding during December this is not unsurprising.

Officers considered it appropriate to extend the time the fishery is open and following revised HRA and discussions with Natural England, reissued authorisations to begin again on 4th January until 29th February 2016, under the same conditions.

The issue of run-off from the river catchments containing high levels of faecal coliform which affect the District's shellfish beds is one of great concern to Officers, particularly in view of the predicted increase in rainfall in future years. It will be significant what measures are introduced as part of the Water Framework Directive to improve this situation, although there has always been the counter argument that mussel stocks in particular diminished following the improvement of sewage treatment works and discharges to the sea.

#### **North Morecambe Bay**

A very low level of effort of hand-gathering of size mussel has been carried out throughout the last quarter. Reports are that Foulney has suffered from erosion from the storms and Officers intend to inspect the area on the first opportunity, along with the Falklands bed to assess whether the size mussel has persisted there. Should any fishing activity be carried out these beds will be subject to HRA to ensure that there is no risk to the integrity of the EMS. The fisheries will remain open unless during the course of the HRA it is considered necessary for management measures to be introduced. This is in accordance with all other fisheries that are under-going HRA within the District.

## **Cockle Beds**

As previously reported the majority of the cockle beds within the southern part of the District were subject to significant recruitment during the autumn. A programme of surveys is being scheduled in for spring to assess remaining stock across all beds, including the Solway. There is some concern that the high rainfall and influx of fresh water and lowering of salinity on the beds may have caused cockle mortalities. It is frustrating not being able to survey the beds for another few weeks due to constraints.

## **Morecambe Bay**

Members will recall that the Leven Island cockle bed in north Morecambe Bay was surveyed three times by Officers last year, following direct observations by Ms Knott and Officer Dixon of large amounts of cockles. However all three surveys failed to show substantial stocks. Industry has requested that the bed be open, and therefore a further survey will be carried out in the coming days. Fortunately this bed can be accessed on smaller tides, although time will be very limited. A verbal report will be given to Members of the survey findings and any subsequent work.

## **Crab Tiling and Mussel Beds**

Following reports by Mr Benson at recent meetings concerning crab tiles located on mussel beds (possibly breaching byelaw 12) IFCO Dixon inspected the area in question on 17<sup>th</sup> November and found no crab tiles to be in /on any mussel bed. The mussel beds in that area are very sparse and are not like the beds at Foulney or Hardacre, it is basically scar ground and loose pieces of slag from the nearby slag banks, with areas of soft mud. Most of the mussels are attached to the large rocks in the channel. All the tiles he observed were either roofing ridge tiles or cast iron guttering sections. Most were laid on the mud and not stuck in to it, the weight of the tile holding it in place. There were about 150 tiles in total. IFCO Dixon suspects that all the tiles belong to one person, and there were no signs of recent activity. The area where the tiles are located is directly in front of the access to the channel at Cocken Tunnel (roughly 600 metres north of Kingfisher's premises). A photo taken during the inspection is shown below.



**Science Officers**  
**25<sup>th</sup> January 2016**