

**NWIFCA Technical, Science and Byelaw
Committee**

4th February 2020: 10:00 a.m.

**AGENDA
ITEM NO.
10**

SCIENCE REPORT
13TH OCTOBER 2019 - 3RD JANUARY 2020

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

Recommendation: That Members approve the report that is provided for information only.

This quarter saw the departure of Tom Brook from the team leaving the task of recruiting a new officer.

1. NWIFCA RESEARCH PROJECTS

a) Razor Clam collaborative research

(i) Work continues on conducting a full HRA on the EMFF funded research project using electro dredge equipment working in partnership with Bangor University's Shellfish Centre. An application is being submitted to the MMO for dispensation to use the electro gear now full details are known.

(ii) Officers approached Liverpool University to ascertain what joint research potential there was for the intertidal razor clam stock on the north Wirral foreshore. A student has been identified to carry out her MRes research project around the razor clam issues, combining a literature/existing data-based project looking into the dependency of seabirds/waders on razor clams, and a field-based project focused around spatial distribution of razor clam species on the Leasowe shore and how this varies over time [monthly surveys – March-June inclusive]. Officers will be working closely with them to progress this research which if possible will also include some assessment of other macrofauna (in particular bivalve species) on that beach.

b) Whelk Fisheries in the North West – samples obtained from industry have been processed in the lab, with flesh containing statoliths for aging frozen. Officers attended the labs at Lancaster University to train an undergraduate student there to carry out microscopy analysis of the statolith rings to free up officer time and provide a good working experience to the student.

c) Plastics in mussels - Cumbria University. Officers have worked with Dr Gill Notman to find a student for an undergraduate dissertation project into plastics in mussels in the District. Samples are being provided for laboratory analysis. Officers also facilitated linking the Cumbria University work to that of the Wyre Rivers Trust. There is a great deal of interest nationally and internationally in this subject at the present time.

2. TAG Meeting - London

Ms Knott continues in her role as Vice Chair of the national IFCA Technical Advisory Group liaising closely with TAG Chair to facilitate and service meetings and coordinating a monthly TAG bulletin. The October meeting saw discussion around:

- The amendment to the EU Technical Conservation Regulations
- A presentation from the Marine Stewardship Council, who kindly provide the room and refreshments free of charge, on their PUKFI projects. “Project UK Fisheries Improvements is identifying a pathway to deliver sustainable fisheries. It is a collaborative stakeholder partnership project working towards an environmentally sustainable future for UK fisheries, using MSC FIP tools and facilitated by MSC. The project uses the MSC pre-assessment process as a gap analysis to determine a fishery’s current status in relation to the MSC standard so that areas of improvement can be identified, and Action Plans developed to deliver those improvements” (<https://www.seafish.org/article/project-uk-fisheries-improvements>)
- An update on AIFCA MPA Project Year 2 and revised AIFCA website
- MMO Under 10s Catch Reporting Scheme (under vessel licence conditions) and MMO/Defra advice on duplication with reportings in IFCA byelaws. An article on the practicalities of using the new Under 10s Reporting App is reproduced from Fishing News and provided as Annex A, giving some insight into the difficulties faced by fishers when required to use only technological means of catch reporting
- Water extraction for nuclear power stations and fish entrainment and mortality
- Statutory consultee response process to marine licensing and marine planning

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

Environment Minister Rebecca Pow delivered a keynote speech at the 2020 Coastal Futures conference in London, at which she congratulated the IFCAs on their work in managing fisheries within MPAs. She also announced that this year Government will be developing and publishing a comprehensive Seabird Conservation Strategy for England, to help in understanding the biggest impacts on our seabirds and how to protect them more effectively. A consultation will occur later this year.

<https://www.gov.uk/government/speeches/minister-pow-committed-to-deliver-seabird-conservation-strategy>

a) **Defra MPA Management Advisory Group**

The new Defra MPA MAG group met in January following the closure of the previous Fisheries Management Action Group. It is finalising its Terms of Reference and plans for NGO and other stakeholder engagement in future.

b) **Marine Conservation Zones**

Science Officers met with Natural England for assistance on drafting the Allonby Bay MCZ Conservation Advice package.

c) **Highly Protected Marine Areas (HPMA) - Review**

Defra has provided a brief update on the HPMA review. The review was paused during the election period, but the Minister has now confirmed that it should continue. The HPMA panel is reinstating in January and a report is due in late spring, although timings may vary. A ‘round table’ with stakeholders is upcoming.

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

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

e) 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.

f) Inshore Fisheries Working Group - phone conference

Officers dialed in to the latest of these multi-agency virtual meetings. With the departure of Mike Quigley from Natural England who was instrumental in directing this group it is unclear what form these meetings will take in the future, although the formation of the Defra MPA Management Advisory Group (see above) may provide some steer to this.

4. Marine Plans affecting NWIFCA District

Marine Plans have been progressed around England and for Wales. They are prepared under the policy framework provided by the Marine Policy Statement, and conform to and take into account various other planning policies and directives. From this stage on all statutory bodies and developers must take account of the marine plans when considering any new developments, proposals and projects.

a) MMO Draft North West Marine Plan

MMO launched a 12 week consultation on draft marine plans for the North West, North East, South East and South West on 14th January. "Marine planning makes sure the right activities happen in the right place, at the right time and in the right way, placing sustainable development at the centre of all decisions. The draft Marine Plans have been prepared in accordance with the Marine and Coastal Access Act 2009. The drafts have been developed with stakeholders, providing robust and evidence-based plans that are tailored to the economic, environmental and social needs of each marine plan area". Although a fisheries specific section is included in the plan, of significant concern to the NWIFCA is the lack of reference to fisheries or sea fisheries resources in the overall vision statement which reads:

"The vision for the north west marine plan areas in 2041

The northwest marine plan areas are distinctive for the growth and variety of industries including energy generation, ports, aggregate extraction and tourism. The sustainable growth in marine infrastructure is facilitating access to the sea throughout the region. Sustainable coastal tourism is flourishing, with local centres such as Blackpool, the Lake District and Liverpool acting as catalysts for further regional development of recreation and tourism opportunities up and down the coast. The quality of the natural environment provides a safe haven for birds and other species located in the exceptional protected habitats across the plan areas. Effective environmental management between sectors provides the area with resilience to the impacts of climate change. Effective transboundary cooperation with partners across the Irish Sea, and more locally, has created marine plan areas which are benefitting from a wide variety of cross-border activities".

This omission is reflected in the vision statement within the northeast marine plan but not in those of the southeast and southwest. This is juxtaposed to the vision statements within both the Welsh and Scottish Marine Plans which put the ecosystem approach at the heart of the visions alongside principles of sustainable development.

The public consultation is the final stage in the planning process to comment before MMO complete drafting of the North West Inshore and Offshore Marine Plan and submit the plan to the Secretary of State for Environment, Food and Rural Affairs for approval to adopt and

publish. It is the last chance to make representations on the plan policies, to ensure they reflect local issues and that they are implementable. The consultation closes on 6th April.

<https://consult.defra.gov.uk/mmo/draft-north-west-inshore-and-offshore-marine-plans/>

Officers are also liaising with MMO Marine Planners over the accuracy and up-to-date data for their online mapping tool - 'Explore Marine Plans' which can be kept current as additional data becomes available: <https://explore-marine-plans.marineservices.org.uk/>

b) Welsh National Marine Plan

Welsh Government published and adopted the Welsh National Marine Plan on 12th November 2019. A series of supporting documents accompany the plan. There now follows a period of implementation involving awareness raising and training and the delivery of best practice, monitoring the plan's effectiveness and then the completion of an EMFF project titled 'Sustainable management of marine natural resources'. Further marine plan documents including a Monitoring and Reporting Framework and an Update to the Wales Marine Evidence Report that was produced in 2015 will be published in 2020.

<https://gov.wales/welsh-national-marine-plan-document> and an animated public engagement I You Tube here: <https://www.youtube.com/watch?v=rCmlnkXHwWs>

c) Scotland's National Marine Plan

Scotland's first statutory National Marine Plan was adopted and published in March 2015. The policies and objectives of the Plan set out how Scottish Ministers intend marine resources to be used and managed out to 200 nautical miles. Following the first three years a review was carried out in 2018, which looked to determine the success of Plan policies and identify policies for revision, barriers to successful implementation and Plan areas where change could be beneficial. Both are published online at:

<https://www.gov.scot/publications/scotlands-national-marine-plan/>

<https://www.gov.scot/publications/national-marine-plan-review-2018-three-year-report-implementation-scotlands/>

Scottish Ministers were reported to be considering the review and determining whether to replace or amend the Plan. It is understood that due to the insecurities about EU Exit and possible implications, that this may have been put on hold.

5. Defra Crab Science meeting - Fishmongers Hall London

The Senior Scientist attended a meeting of eighteen policy and regulatory stakeholders involved in managing brown crab fisheries in England, Wales and Jersey to discuss the current status of the fishery, areas of concern, and potential knowledge and regulatory gaps that could be acted on to improve the status of crab stocks. IFCA's were well represented, along with staff from Defra's Shellfish Policy Team, Cefas scientists, Welsh Government Marine and Fisheries Team and the NFFO (National Federation of Fishermen's Organisations). Outputs planned are a compilation of briefing notes on the UK's inshore crab fisheries with a summary document of actions from the meeting. These will be circulated to members and posted on the website when received. Defra will be looking at what achievable actions can be supported.

Alongside this initiative the NFFO organised a cross-industry working group looking at the shellfish sector - <https://nffo.org.uk/news/major-shellfish-policy-initiative-launched.html> They focused on "important challenges, including:

- Displacement of fishing effort from other sectors into the shellfish sector
- Fishing effort in the shellfisheries has been growing rapidly. There is a general feeling that additional fishing effort will push many shellfisheries into the downward slope of the effort/yield curve
- A dynamic but volatile market is driving major change within the industry, not least in the 12metre to 15 metre sector
- Rapid technological development is a major factor
- There is a need for coherent and evidence-based management
- Brexit may carry market implications and there are also implications for the future of the Western Waters effort regime and what may or may not replace it
- The conclusions of the inshore conference in October could be significant for the work of the group. It will be important to have cross-fertilisation but not duplication”.

6. NAEMO Mussel Research Conference - Oban

The Senior Scientist attended a workshop on mussel research held by NAEMO (North Atlantic and European Mussel Organisation) in Oban as a back-to-back session to the 2019 Association of Scottish Shellfish Growers conference. The workshop was attended by 44 participants from 9 countries. Different aspects of blue mussel research were presented (i.e. mussel population status in different geographical regions, factors affecting population development, recruitment processes, and the value of mussel beds). Knowledge gaps relating to management of blue mussels were identified followed by a more formal discussion about the specific objectives for NAEMO and how to proceed with the network. The workshop summary is provided as Annex B.

7. Eden Project North - Morecambe

Plans for Eden Project North in Morecambe are proceeding amongst positive noises from both government and business in the town and surrounding areas. The £85 million project has plans for the site that include “biomes” shaped like mussels and a focus on the marine environment. If all goes to plan, Eden Project North would submit a planning application later this year and open in 2022/23. The Science Team maintain contact with Eden Project North with the aim of ensuring elements of the project truly reflect current understanding of the fisheries resources of Morecambe Bay.

<https://www.lancasterguardian.co.uk/news/politics/eden-project-bosses-confident-big-year-morecambe-2020-1358782>

8. Mersey Sediment Group meeting

Dr Hartley attended the Mersey Sediment Management Stakeholder group meeting which meets twice annually to discuss dredge disposal activities of Peel Ports and any observed impacts on the Mersey Estuary. Peel Ports are looking at beneficial use for dredge disposal material and have developed a list of potential sites. Beneficial use can take various forms such as habitat creation and recharging eroding beaches and saltmarsh. Attendees agreed to review and contribute additional information to the site list.

Following two years of monthly walkover surveys of New Brighton foreshore showing no detrimental effects from the mid river dredge disposal site, attendees, the MMO and Cefas have agreed to remove the surveys from their Marine Licence conditions. Peel Ports will continue to survey twice a year as good practice, and are open to suggestions on how to re-frame that survey effort to collect much needed evidence on the Mersey. EA, NE and NWIFCA will confer prior to the next meeting scheduled for spring 2020.

9. National Angling Strategy

A new National Angling Strategy has been launched to encourage wider participation in the sport by focusing on new audiences and the health and well-being benefits that angling can bring. The National Angling Strategy (2019-2024) was launched in June by Environment Agency Chair Emma Howard Boyd, with members of the angling community at 'Get Hooked on Fishing's' venue in London. The strategy will be implemented by a new partnership body – the National Angling Strategy Partnership Board, coordinated by the Angling Trust with representatives from the Environment Agency, Canal and River Trust, Angling Trades Association and Get Hooked on Fishing. The board will be responsible for delivering the strategy as well as securing the additional funding needed to deliver on the strategy's aims and objectives. (<https://www.substance.net/feature-pages/nationalanglingstrategy/>)

The aims of the National Angling Strategy are to:

- Increase participation in angling.
- Increase the numbers of people getting active outdoors through angling.
- Improve the health and well-being of those that take part.
- Help people and communities develop with skills, education, volunteering and facilities.
- Connect more people to nature through angling for their well-being and to improve the environment.
- Increase the economic impact of angling and in particular deliver economic benefits in rural and coastal communities and revenue to clubs, fisheries and businesses.

Tim Dapling Chief Officer of Sussex IFCA is keeping a watching brief on the project on behalf of the IFCAs. The Delivery Plan is provided as Annex C.

10. Solway Firth Partnership Advisory Group meeting

Mr Haines attended the quarterly Advisory Group meeting of the Solway Firth Partnership. A presentation was given by Scottish Environmental Protection Agency (SEPA) on Scottish river basin plans. A Solway Firth Partnership report on current and upcoming projects in the Solway was provided, as well as an update from all members of the Advisory Group on topics relevant to the Solway. Some points of interest were:

- North West bathing waters for Cumbria and Lancashire had 100% compliance, meaning all bathing waters had the minimum standard of sufficient, with 32% excellent and 52% good;
- Natural England and Scottish Natural Heritage are re-writing the Solway Firth Conservation Advice Package;
- The Silloth dock gates are back on and operational which means the port is no longer tidal which had been causing issues.

11. Solway Coast AONB Management Plan 2020-25 Draft - Consultation

Officers have responded to the Solway Coast Area of Outstanding Natural Beauty Management Plan 2020-25 Draft to ensure all references to fishery interests are up to date and accurate. Details of the consultation and draft plan can be found here: <https://mailchi.mp/7f2810159cc8/solway-coast-aonb-2020-25-management-plan-637189>

12. University of Cumbria

Dr Hartley delivered a lecture on Conservation and Fisheries Management to Cumbria University's students studying BSc in Marine and Freshwater Conservation. Dr Hartley covered all aspects of NWIFCA's work and conservation legislation to an engaged group of students. The invitation was extended to deliver similar in 2020.

13. SURVEY and FISHERY REPORTS

A detailed survey report is provided as Annex D.

i. MUSSELS

a) Solway Subtidal Mussels

Work continues to better understand the nature of the subtidal mussel ground in the Solway to provide evidence to the Authority and Natural England in relation to 'risk' from a dredge fishery on the protected features of the Solway Firth SAC and SPA.

In November science officers and crew of North Western Protector carried out a scientific dredge survey of the area. A full survey report is provided. The nature of this type of survey does not allow for full quantification of biomass but it does provide evidence of the presence / absence of mussel and other macrofauna, the condition of the mussel, and an indication of the area in which mussel is present. Mussel sampled was shown to be mainly size mussel, unembysed, loose and clean. Samples of *Sabellaria* spp. were collected in the dredge, taken to the lab for microscopic analysis and confirmed as *Sabellaria alveolata*, not *S. spinulosa* which is regarded as rarer in its reef building form. This is an important confirmation as there had been doubt raised in the past over whether *S. spinulosa* was present, and the Senior Scientist believes there had been some misidentifications in the past.

Full SOPs (Standard Operating Procedures) have been drawn up on the use of the NWIFCA's side scan sonar, along with the processing of the acquired data. A detailed report into the investigations of the use of the side scan sonar in this work is provided as Annex E. Work to date has now confirmed that the side scan imagery is of good quality, but the time lapse between this and when the grab sampling occurred is too long for NWIFCA to be confident of the resulting assignment of ground types to the side scan data.

Efforts will be concentrated on returning to the Solway in 2020 to carry out quarterly side scan and grab surveys to build on the work to date. Investigations are underway into hiring a Hamon grab for this work. In the meantime discussions continue with Natural England in an effort to find a pragmatic way forward in balancing the socio-economic interests of the fishery with the duty to protect conservation features in the site.

b) Morecambe Bay Mussels

Size mussel at Foulney has continued to be prosecuted by a small number of Byelaw 3 permit holders, with reports that the meat yield has been very good this year. The mussel has continued to grow which is fairly unusual for this area where mussel is known to 'stunt' and stop growing once it reaches around 43mm. In most years the skewer at Foulney receives a good spat recruitment but this did not occur in 2019. Whether or not that has influenced the growth of the mussels is unclear, and it is not possible to determine what has caused these changes. The area will be monitored and surveyed with increased interest in 2020.

c) Dee Mussels inspection

On probably the last available large spring tide in daylight in 2019, officers carried out a foot inspection of the mussels at West Kirby in the Dee Estuary. On the previous inspection no mussel had been found. However in November there was a significant area of mussel remaining suggesting that it had been obscured by a layer of mud on the previous inspection. This gives increased confidence in relation to the cockle fishery on Leasowe to which the Authority applied a TAC to ensure sufficient bird food resource to over-wintering waders in that area, which adjoins the Dee. The TAC had been calculated on the information that there was little alternative food resource in the form of mussels in the Dee. The cockle fishery (see below) does not look like it will reach the TAC.

ii. COCKLES

a) Morecambe Bay - Warton Sands

Warton Sands cockles are being sampled for classification purposes and this gives officers an opportunity to monitor the area regularly. Officers also carried out a more detailed inspection at the beginning of November and a note of this inspection is provided. Large areas of dense cockle were still present but with the majority still undersize. Monitoring of the stock will continue into the New Year.

b) Wirral - Leasowe

Landings from the fishery at Leasowe have been monitored weekly by science officers to ensure fishing ceases before exceeding the TAC set on the fishery. To the end of December 136 of the 400 tonnes TAC has been reported as harvested.

**Mandy Knott
Senior Scientist
23rd January 2020**