

NWIFCA Technical, Science and Byelaw Committee

6th August 2019: 10:00 a.m.

AGENDA
ITEM NO.

9

SCIENCE REPORT 13TH APRIL - 19TH JULY 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 recruitment and interview for a new officer to fill the seat left vacant since April. The successful candidate will be joining the team mid-August.

1. MARINE PROTECTED AREAS IN THE NWIFCA DISTRICT:

a) Marine Conservation Zones

- i. West of Walney MCZ

The MMO MCZ Byelaw prohibiting bottom-towed gear throughout this site came in on 4th July 2019.

- ii. Defra consultation on Tranche 3 MCZ sites

Three T3 MCZ sites were designated in the NWIFCA District in June: Solway Firth, Lune and Wyre Estuary and the Ribble Estuary. All three sites are designated for smelt with a recover management objective. It is not anticipated that fisheries activities will require any management. An extension was made to the T1 Cumbria Coast MCZ to include razorbill and extend the site boundary. This will not affect the closed area used for the NWIFCA Voluntary Code of Practice.

b) Highly Protected Marine Areas (HPMA) - Review

Defra announced that they are carrying out a review into possible Highly Protected Marine Areas and are seeking the public's views. An online portal can be found:

<https://www.gov.uk/government/publications/highly-protected-marine-areas-hpmas-review-2019>

The experts making up the Review panel has just been announced

(<https://www.gov.uk/government/news/highly-protected-marine-areas-review-panel-confirmed>) and includes:

- Richard Benyon, MP (Chair)
- Joan Edwards (Wildlife Trusts)
- Callum Roberts (University of York)
- Michel Kaiser (Herriot Watt University)
- Nathan de Rozarieux (Inshore fisherman and fisheries consultant)
- Susan Owens (University of Cambridge)
- Peter Barham (Seabed User and Developers Group)
- Benj Sykes (Ørsted)

The panel was due to have its first meeting week of 22nd July and will:

- Review whether and how to introduce HPMAs
- Possibly recommend some pilot sites
- Consider types of activity that could continue without causing harm, including navigation through these areas

c) Assessment of Fishing Activities in Marine Protected Areas

- i. 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.

e) St Bees Head - Cumbria Coast MCZ - Netting Voluntary Code of Practice

The Voluntary Code of Practice for 2019 began on March 18th around St Bees headland. Natural England and RSPB were consulted on any need to extend the closure which is flexible depending on weather and bird behaviour. No need was identified and the proposed date for lifting the closure of 22nd July was upheld.

IFCOs provided regular reports from clifftop and boat patrols in the area. These included fishing activity sightings along with information on what was observed from the birds on and around the cliffs, which are all logged. Reports indicate 100% compliance and the science team extend gratitude to both licensed and unlicensed fishing co-operation.

2. NWIFCA RESEARCH PROJECTS

a) Bass populations and tagging study – Cefas project. A meeting was held in London with colleagues from Cefas and Isle of Man fisheries to discuss proposals for inclusion in a “north west bass plan”. Cefas scientists planned to carry out further bass tagging with electronic data storage tags (DST) in NWIFCA District in July, but the trip was cancelled due to a lack of >50cm bass around for tagging.

b) Razor Clam collaborative research – NWIFCA scientists approached MMO over the required dispensation for use of electro-dredge gear, and began a draft HRA. Officers await full information from industry and Bangor scientist following adaptation of the gear to progress the project further.

c) Whelk Fisheries in the North West – samples obtained from industry are being processed in the lab. Flesh containing statoliths for aging are frozen. Due to the time it takes to process and analyse these an approach has been made to Lancaster University for assistance through a student project.

3. NATIONAL IFCA TAG MEETING and WHELK WORKING GROUP

The SS now has the position of TAG Vice Chair and co-ordinates and provides the secretariat for TAG. TAG Chair is Colin Trundle from Cornwall IFCA. Monthly bulletins are circulated with contributions from TAG members. July saw a meeting in London well attended with a packed agenda and a note of the meeting can be provided to Members of TSB on request.

The Whelk Working Group held a Skype meeting in May and an update on the work to date provided to TAG.

TAG and WWG both use online portal facilities as a means to store and disseminate information to group members.

4. HALITE GAS STORAGE AND BRINE DISCHARGE

No further news on this development.

5. DEE TIDAL CATCHMENT PARTNERSHIP - DEE COASTLINERS PROJECT

Science Officers engage with a number of estuary conservation and steering groups in the District including the Dee Tidal Catchment Partnership. Involvement is minimal in most cases unless specific issues occur that require an IFCA response or input. In a recent mail-out it was noted that the DTCP had obtained funding through the Lottery Heritage Fund for a project entitled the Dee Coastliners Project:

“The Dee Coastliners Project is a sense of place initiative designed to inspire coastal communities on the Wirral and in Flintshire and Denbighshire about the natural heritage of the Dee Estuary. In doing so we want to create a new community of stewardship on the estuary which will take action to address the needs of that heritage.

It is a cross-border project working on both the English and Welsh sides of the estuary. Although sharing a common nature, the area is politically and socially divided. We hope to unite the communities across the estuary by reconnecting them to a common estuarine heritage. Our legacy will be a community attachment to place that will create a more resilience landscape and protect the livelihoods of those who depend upon it”.

Officers noted that there was no mention of fisheries, fishing communities or the importance of fishing heritage, and so asked that consideration be made to include this aspect of coastal communities. Officers assisted in providing fishing / fisheries contacts who will engage directly with the project development.

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

A second workshop was held in Lancaster in May attended by SO Hartley. West of Walney MCZ is being used as a case study in developing a tool for MPA fisheries management.

7. SURVEY REPORT

Full details of surveys carried out this quarter are provided as Annex A and Annex B. Annex A was produced in June as an interim report provided to BMWG members. Annex B provides up to date survey and inspection information. Using the survey results further detail is given below on mussel and cockle fisheries.

8. MUSSELS

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

Following decisions at the May TSB and the June Authority meetings, the SS contacted the Association of IFCA's Stephen Bolt who agreed to discuss the issue of DAERA's approach to mussel exports from Morecambe Bay with SAGB (Shellfish Association of Great Britain)

officers. The SS also tabled the issue at TAG under an item concentrating on the impact of INNS on fisheries. Chinese Mitten Crab surveys continue quarterly with no sightings recorded. Reports continue to be distributed to all relevant parties.

b) Heysham Flat

i. Seed mussel fishery:

The fishery was authorised from Monday 22nd July as the mussel was ready and already scouring out in places. Posts marking out the exclusion zone had been positioned by IFCOs. Unfortunately due to the prohibition of import of seed mussel into Northern Ireland the markets were limited. This was compounded when the main buyer reported that due to Brexit and risk of No Deal the aquaculture businesses he sold to in Southern Ireland were reluctant to purchase any seed this year. Subsequently no fishing has occurred to date (24th July).

ii. Natural England and Eden Project North:

The Senior Scientist accompanied a group of fourteen national Natural England IFCA representatives and three staff from the proposed Eden Project North to be based at Morecambe on to the skear and attended a post-inspection meeting to discuss matters. It was an excellent opportunity to show others how unusual and unique the seed mussel stock can be in the Bay, as a large swathe of the skear was carpeted in dense mussel which was starting to put down mud and to clump up. It was also an opportunity for them to observe the thriving colony of honeycomb worms that have moved to the north of the skear and off the main area of mussel, and to hear how these two species compete. Natural England reps were appreciative of the NWIFCA management of this fishery.

Eden Project North is an exciting development with which NWIFCA scientists intend to fully engage. The intention is to create an educational and entertaining attraction that showcases the wonders of the Bay, including the importance of fishery resources and their heritage, the actual dynamics of the channels and sandbanks, and the protected features particularly the importance of the area for over-wintering waders. They intend to have a research facility within the project and Lancaster University have been stakeholders in the project development to date. The proposed design of the 'domes' will take the form of mussels. NWIFCA and NE have made representation to Eden Project staff that incursion of any construction into the intertidal areas should be avoided. The project has entered the planning stages and more detail can be found here:

<https://www.edenproject.com/media/2019/06/eden-project-north-planning-process-begins>

c) Foulney / Walney Channel Size Mussel

Unusually for this area the mussel stock has grown though to size and is being gathered by a low level of Byelaw 3 permit holders. There has been no spat settlement this year. It is not known why this has occurred when in most years the area receives a substantial recruitment. It will be interesting to monitor this next year.

d) Solway Mussels

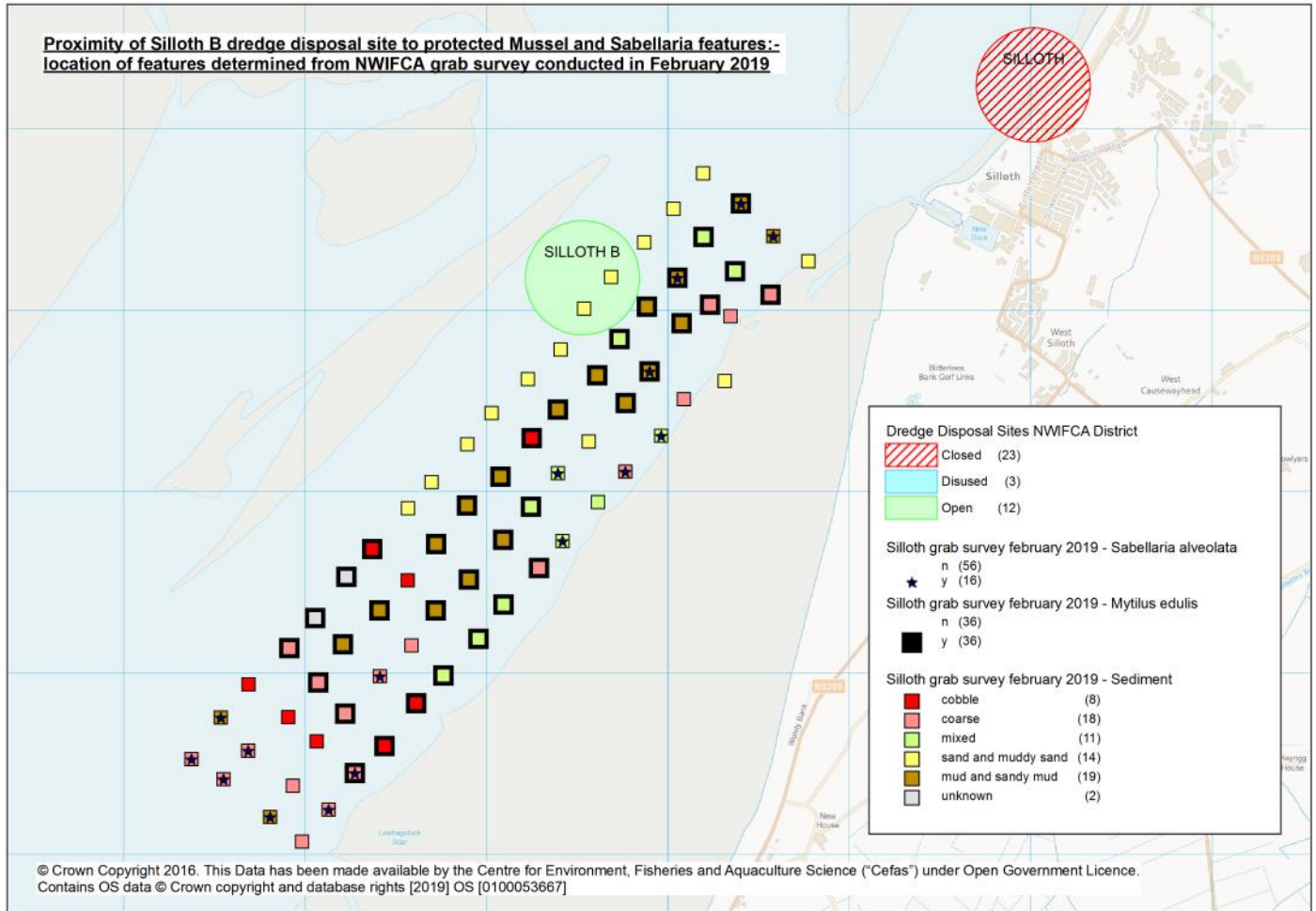
i. Subtidal Survey:

Officers continue to work to progress the capacity for survey of subtidal mussel and protected reef feature in the Solway. Admittedly and frustratingly progress is slow. The side scan sonar has been repaired and dates for survey are being scheduled in with assistance from Cornwall IFCA's scientist Colin Trundle in the hope that finally the equipment can be fully deployed and meaningful data obtained. Dates are also being scheduled in for training in the use and

analysis of ground-discriminating Olex equipment. Apparatus to extend the A-frame for use of grab from the stern of North Western Protector is being fabricated.

ii. Port of Silloth Dredge Disposal

An issue was raised by IFCO Erik Thinnesen over his observations from the shore of the disposal of dredge from Silloth harbour. The vessel appeared to be dumping spoil over the area of mussel and protected reef. Some mapping work was carried out to investigate further and a conversation is on-going between NWIFCA, Natural England and the port authority over the position and extent of the licensed disposal site.



Mapping of the position of the licensed dredge disposal site in relation to NWIFCA grab sample data (2019) of protected mussel and *Sabellaria alveolata* in the Solway.

9. COCKLES

a) Morecambe Bay

Cockle surveys have been carried out on all the Morecambe Bay beds and results are shown in survey reports at Annex A and B. Table 1 below shows estimations of cockle stock across the Bay. There is a significant amount of cockle estimated (4435 tonne size and 11690 tonne undersize) spread across a very wide area, and although individual square metre densities are relatively low the stock could allow for low levels of fishing across some beds following the Seasonal Closure on 1st September.

Cockle Bed	Area (ha)	Size Cockle (tonnes)¹	Undersize Cockle (tonnes)
Flookburgh	2610	~1700	~4900
Leven Sands	1067	~500	~1500
Pilling Sands	1323	~1000-1200	~1300-1500
Middleton Sands	461	~300-350	~80-100
Warton Sands Dense Area	152.5	<10	~2300
Aldingham and Newbiggin	1092	~800	~1500
Totals	6705.5	~4435	11690

Considering the overall volume of size and undersize cockle the following suggestion for management will be taken to BMWG for discussion. A recommendation will subsequently be relayed to TSB via email for approval in tie for the 1st September.

The suggestion is that:

- i. Middleton and Aldingham - are subject to a NWSFC Byelaw 16 closure - 'where any bed or part of a bed ... is so severely depleted as to require temporary closure to ensure recovery':
- ii. Warton Sands and the west side of Pilling - are subject to a NWSFC Byelaw 16 closure - 'where any bed or part of a bed ...contains mainly immature shellfish which in the interests of protection and development of the fishery ought not to be disturbed for the time being';
- iii. Newbiggin, Leven Sands, Flookburgh, and the east side of Pilling are open for size cockle fishing to Byelaw 3 permit holders.

There is no suggestion that fishing methods should be limited to use of a craam as in previous fisheries.

This suggestion leaves undisturbed cockle areas for bird feeding. The stock at Warton is being monitored monthly as there is a large muddy swathe holding densely aggregated small cockle. Should this persist and grow through to size, an assessment would be made on opening this fishery, whereby one or more of the other beds may need to be closed to ensure sufficient undisturbed feeding areas for over-wintering birds.

b) Leasowe - Wirral

The survey results show that the stock levels are not as high as had been anticipated with around 320 tonnes of size and 400 tonnes of undersize cockle remaining. Industry were informed of this via the interim survey report sent to BMWG in June and invited to visit the cockle bed with officers to assess whether they could see interest in a fishery there. There were no responses to that invitation. A further survey is scheduled for the first week in August to assess current size stock as it is known cockle on this bed can grow extremely fast. A full HRA would need to be carried out prior to the NWIFCA permitting a fishery to go ahead.

Allowance must be made for bird feeding requirements throughout the winter, and as there is no mussel resource on the English side of the Dee the cockle resource becomes more of an issue.

It is suggested that following the August survey that a discussion is held with BMWG to assess whether or not there is interest in a limited fishery, with a restricted TAC, possibly only running to a few days here.

10. Defra Consultation on Management measures for widely spread Invasive Alien Species (IAS) in England and Wales

Defra are currently carrying out an online consultation on proposed management of specified invasive non-native species, most of which are terrestrial or freshwater but including Chinese Mitten Crab. The SS has responded but Members are also encouraged to complete the survey:

<https://consult.defra.gov.uk/wildlife-management/invasive-alien-species-management-measures/>

11. Meetings / Conferences / Training attended

Crown Estate webinar - 9th May
Defra Review of IFCA's meeting
Liverpool Barrage conference call
Staff meeting
First Aid renewal

**Mandy Knott
Senior Scientist
25th July 2019**