

NWIFCA Technical, Science and Byelaw Sub-Committee

2nd May 2014: 10:00am

**REPORT
NUMBER**

10

SUMMARY REPORT

Dredging of size mussel in Foulney area, north Morecambe Bay

Consideration was given at the TSB meeting of February 2014, to a Byelaw 1 derogation for a limited scientific survey to Mr Robert Butler for the dredging of size mussel in an area not accessible to hand-gatherers. The Authority agreed to issue the derogation subject to Mr Butler working with the NWIFCA Science Team and providing details of the dredge to be used and the fishing vessel's licences. He would be authorised to recoup his costs by selling some of the catch.

The survey work would be used to obtain samples, to provide survey data on stock levels and distribution, and the quality of the mussels. If sufficient stock was determined then an assessment of how much could be removed within sustainable limits would be made, followed by preparation of an HRA (Habitats Regulations Assessment).

Only once the above had been completed would the TSB then be asked to further consider a derogation to Mr Butler to enable him (and possibly others) to fish the mussel commercially.

Regretfully no practical progress has been made by Mr Butler. Therefore it is recommended that no further action is taken until the required information is supplied.

Surveys and Inspections of Intertidal Shellfish Fisheries

Generally many of the intertidal areas around the District have been affected by the severe storms of the winter, as reported on previously in regards to the Foulney and West Kirby mussel beds. The following surveys and inspections have been made during this latest reporting period.

Duddon Estuary Mussel Fishery

On 4th March Science Officers and IFCOs surveyed the Duddon Estuary mussel bed. The bed itself consists of 3 main islands located in the middle of the channel, surrounded by water. Mussel was found in the water of the channel itself. Officers walked around and mapped the perimeter of the entire bed (including submerged parts of the bed), and collected 11 samples at random from all over the main bed island using a 10.3 cm diameter core sampler. The mean weight (wet weight, shell and meat) of the samples taken from the main island was 162.94g and mean shell length 35.64mm. The total area of mussel bed was estimated at 30 hectares (Fig. 1). There are areas of size mussel which could be fished once the hygiene classification has been completed (due mid April) as long as the mussel is riddled on the bed, and undersize left. Most of the bed was densely covered with mussels with a couple of scoured areas. Much of the mussel was very loose and un-embossed on very soft mud. The bed biomass was estimated to be around 4693 tonnes. Oystercatchers were seen feeding on mussels on the bed. Science Officers have worked with the Enforcement Team to facilitate this fishery at the earliest opportunity, providing provision is made for ensuring measures are taken to protect the Natterjack Toad population at Sandscale Haws Nature Reserve from disturbance. This may entail specific tides being avoided as the toads emerge from winter hibernations.

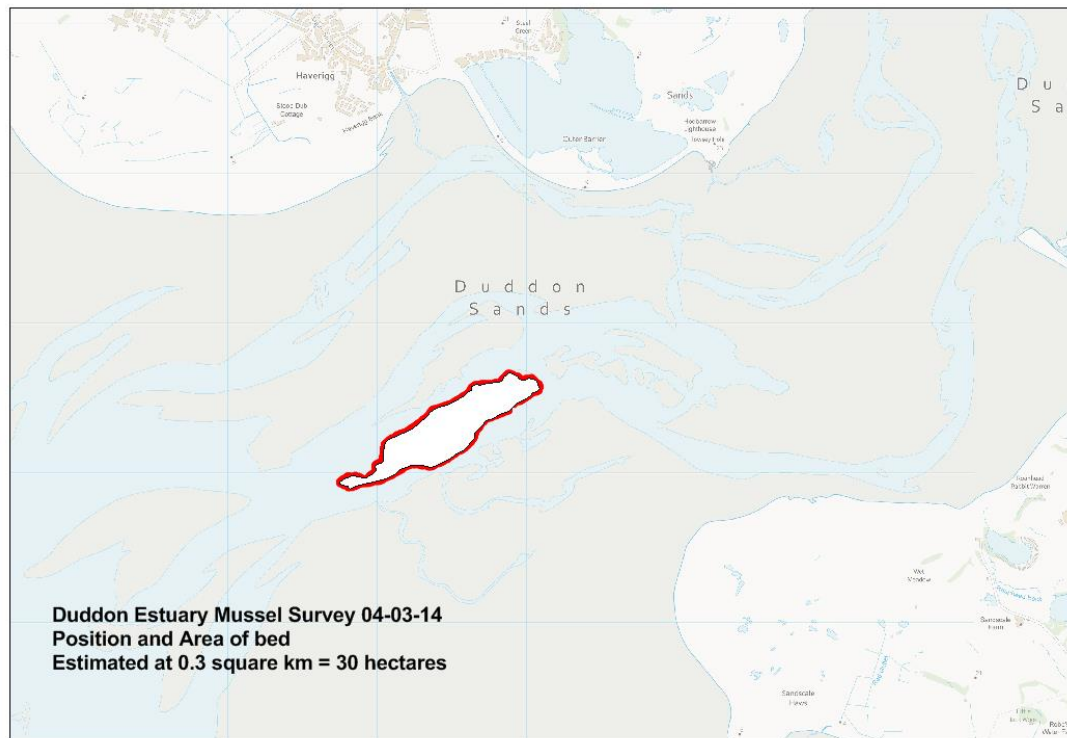


Fig.1. Duddon Estuary mussel bed. Surveyed on 04-03-14. The red perimeter shows the position and extent of the bed made up of three main islands lying in the channel. Mussel was found under the water in the channel itself.

South America Seed Mussel

A helicopter fly over inspection was carried out on 1st April 2014 financed by individuals from the industry. This revealed a similar area ready to receive a mussel settlement as in 2013 – ie. the northern part of South America skear is mainly sanded over, while the pebble and cobble ground to the south of this has been stripped of mussel mud down to bare substrate. The south-west fringes of the skear were amass with starfish in plague proportions, devouring any mussel remaining from last year. Further surveys and inspections are planned once signs of major settlement are seen in the southern region of the Bay to inform HRA. Officers are due to meet to discuss specific management of the dredge fishery this year.

Heysham Flat Seed Mussel

Science Officers carried out a foot inspection of Heysham Flat skear at the end of February to provide a visual assessment of how the storms had affected the fishery grounds and *Sabellaria alveolata*. In general the seed mussel and deep mussel mud seen on the skear in the autumn had been washed away to reveal the cobbles and pebbles underneath. At the lower end of the skear (before Dallam dyke) the substantial *Sabellaria alveolata* colonies remained but were eroded. This was also true for the *Sabellaria* that has grown around the channel to the south of the skear, and provides further evidence of the effects of natural processes on this reef building worm species.

Dallam Dyke has continued to become sanded in, and it is now possible to cross by foot. However, it is still fast moving and the window of time available to cross and return is limited to very close (i.e. 30 mins) around low water. Across this channel the next two skears have been uncovered.

There is no evidence of a 2014 mussel settlement as yet. Considerable bird activity was observed, although it was not clear what they were feeding on (remaining mussel or other organisms such as worms). Science Officers also tested out the Dutch Wand methodology used by other IFCA's for surveying mussels and assessing biomass.

Fleetwood Mussel Beds

A report on these beds has been received from IFCO Brown following his inspection in April. The skears are showing a very minor and early mussel spat settlement, though nothing of any significance yet. Marine Beach and North Wharf are pretty much devoid of cockles. The area at King Scar is changing considerably with a recent mound extending considerably to the South East and a secondary stone mound accumulating at the western end of the feature.

The first batch of Limestone has arrived on the beach for the Rossall sea defence work it will be interesting to see if the Rossall Scar mussels are affected in any way this year.

Leasowe Cockles

On 6th March, Science Officers and IFCOs conducted a survey on the Leasowe cockle bed on the North Wirral coast. The survey covered the entire area that had previously been fished in 2010/2011, with 46 stations (Fig. 2). Cockles were found at 17 of these stations. Generally the bed had very little cockle stock. The mean density of adults was 6m², with a mean of size cockle of 1m², and a mean of undersize cockles 5m². There was no sign of any cockle spat, although it is rather early in the year to expect a spatfall.

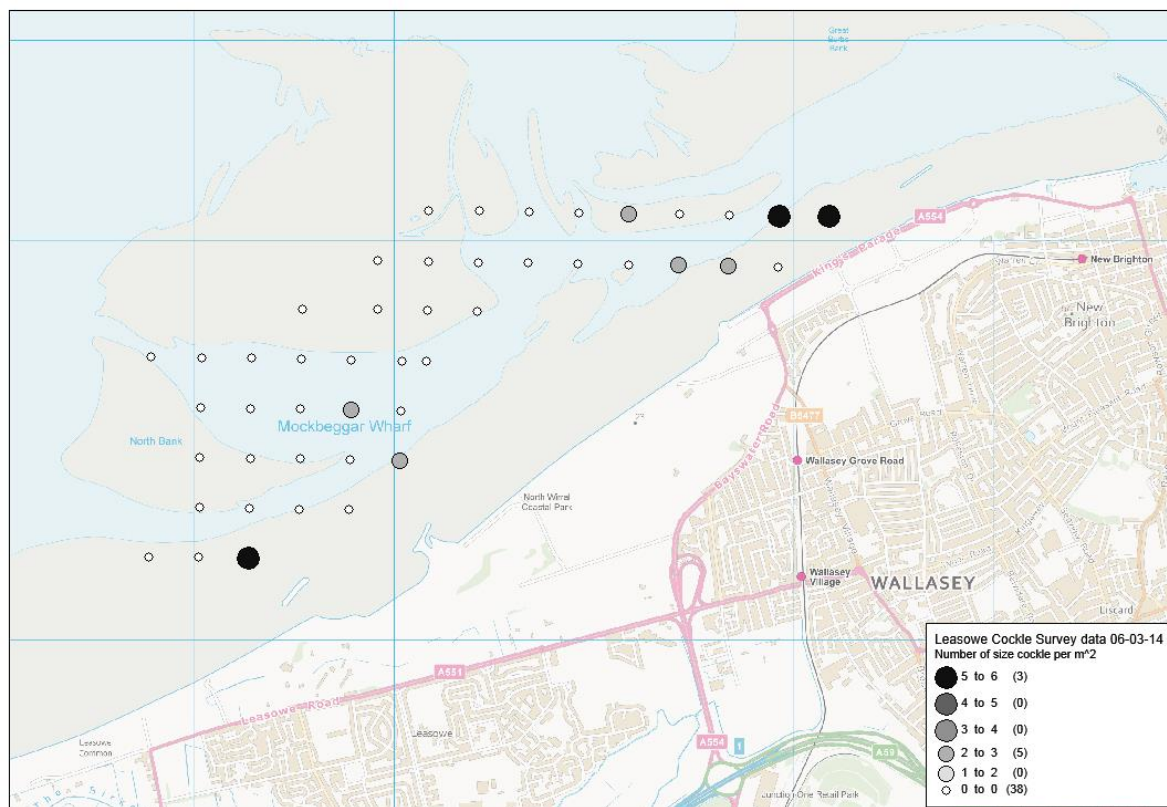


Fig. 2. Leasowe Cockle Survey 06-03-14. Cockles were found at 17 of 46 stations surveyed, with mean density of size cockle at 1m², and a mean of undersize cockles at 5m².

Hilbre Island Mussels

On 2nd April Science Officers and the local IFCO responded to interest from the industry in the mussels at Hilbre Island by carrying out a close inspection of the mussel bed on the northwest of the islands. Hilbre Island had been an MCZ put forward for designation in the first Tranche in 2013, but removed from the list as it was agreed that with a 'recover' aim there was enough protection for listed conservation features (blue mussel bed on rocky reef, and peat and clay exposures) under existing conservation designations. The islands are situated within the Dee Estuary SAC and SPA, and Ramsar site, the Dee Estuary SSSI and Hilbre Island Local Nature Reserve. Officers intended to take a close look at the macro-community (ie. visible by eye) associated with the mussel bed and consider implications of a hand-gathering fishery on this site.

Officers were surprised that there had been any industry interest in these mussels. The mussel bed comprised of a narrow strip, estimated from mapping as 60m wide at its widest point, below the vegetated cliffs leading down to a shallow channel which bordered the sandbanks of the estuary. The overall area was estimated as 0.5 km² and lies entirely within the Local Nature Reserve boundaries (Fig. 3).

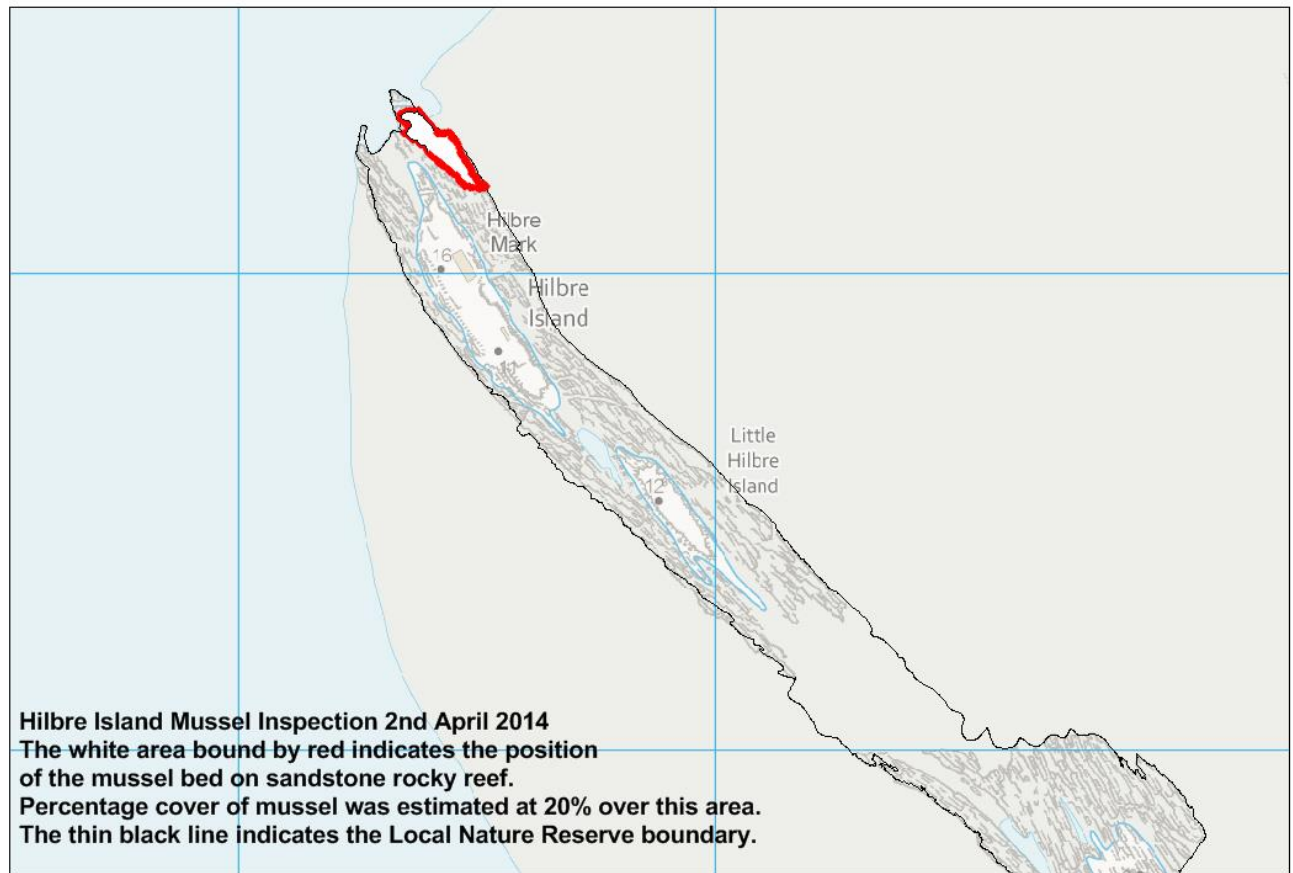


Fig. 3. Hilbre Island Mussel Inspection 2nd April 2014. The mussel bed lies entirely within the LNR boundary.

The mussels present were low density and patchy, mainly size but with undersize mixed in, and old and barnacled (Fig. 4). It was estimated there was around 50 tonnes of mussel of mixed sizes, with around 20% coverage across the bed. Small clumps of *Sabellaria alveolata* were also present around the bed (NB. the main areas of *Sabellaria alveolata* **reef** are to the north and west of the mussel bed and would not be impacted by a fishery).

The habitat was unusual for the NWIFCA district in that it comprised of sandstone and rock layers, with lots of small pools and crevices in the upper shore. Species present included: periwinkles, free-living polychaete worm eggs, *Flustra foliacea* (Hornwrack), *Ulva lactuca* (sea lettuce), whelk eggs, *Fucus* spp, anemones, sand mason worms, starfish and hydroids. Iron stone was found. A very small volume of mussel spat was seen in small pools on the upper shore. Oystercatchers and turnstone were seen. Volunteers at the Hilbre bird observatory had recorded chiff chaffs and willow warblers on the island. Seals were also seen hauled out on the sand bank to the western side of the island.



Fig. 4. Hilbre Island Mussel Inspection 2nd April 2014. One of the densest areas of mussel across the narrow bed, showing old barnacled mussel mixed with small amounts of undersize mussel.

Both Enforcement and Science Officers were of the opinion that should hand-gathering occur it would remove all the remaining mussel and would therefore not be of a sustainable nature. There would be enforcement issues over the minimum size, and if mussels were riddled out to remove undersize from the catch these would be lost during the next tide – unlike beds where a layer of mussel mud had built up beneath the size mussel allowing riddled out mussel to quickly dig back into the mud and thus be protected from wash out, these mussels would fall on to bare rock and have no such protection. Officers were also concerned of the impact on the bed and rocky habitat from trampling from quad bikes and fishers.

Efforts were subsequently made to ascertain what management measures were already in place for the protection of the mussel bed under existing legislation. Wirral Borough Council will be enforcing their Local Nature Reserve byelaws, which prohibit the 'Taking, molesting or intentionally disturbing, injuring or killing any living creature', 'Intentionally removing any material from any area of the Reserve' and also 'Driving, riding, propelling or leaving any mechanically propelled vehicle (including hovercraft)'.

TAG and 'Champions'

The Senior Scientist attended the national IFCA Technical Advisory Group (TAG) meeting in London on 21st March, where the EMS Review and amber risk assessments was the main topic of discussion. The ten IFCAs are attempting to co-ordinate some of the work across the country and thus avoid duplication between IFCAs of the background work required for each assessment. Past proposals on how to tackle this included specific fishing activity / features working groups. However concern had been raised by Officers and Chiefs over the time that would be required by TAG reps to service these groups.

An alternative suggestion has been made, and it was agreed to try the approach of having specific issue 'Champions' for each priority activity who would collate information on on-going and past research and data, act as a first point of contact and sign-post others to appropriate data sources, place this information on the Huddle (an internet portal used by all involved to share information) and to facilitate occasional catch-up telecons. The priority amber fishing activities with 'Champions' are:

- Potting
- Netting
- Cockle and Mussel Intertidal Hand-gathering
- Dredging and towed gear
- Bait digging
- Clam dredging

The NWIFCA Senior Scientist has taken on the Cockle and Mussel Intertidal Hand-gathering Champion, partially because collating this data is a necessity for our review work anyway, and it makes sense to share what we find as well as benefitting from being fed information on what other IFCA's are doing.

If any Members would like more detail about TAG please let Ms Knott know.

Bio-Security Plan

Science Officer Sarah Temple has made good progress on drafting the NWIFCA District-wide Bio-security Plan, a copy of which has been sent out with the papers for this meeting. Although it is a very drafty first draft, it gives the basis on which to develop the final plan. It would be useful to Officers at this stage to receive some feedback from Members on the content and format of the draft, and whether there are any omissions that can be corrected at this stage.

Project Inshore – draft Stage 3 report

Matt Watson from the Marine Stewardship Council made a presentation to TAG on the responses from the IFCA's to the Project Inshore draft Stage Three (final stage) reports. These are produced for each individual IFCA focusing on the major fisheries in their Districts.

There were many common concerns raised by the IFCA's mainly in relation to raising public expectations while not explaining fully our resource limitations, technical errors and flawed data, lacking bespoke management recommendations and basically saying nothing new.

Matt reported that Natural England, Seafish and MSC had also commented on the draft Stage 3 reports and there is a lot of commonality in these responses. The Senior Scientist has asked to see these responses, although these have not been sent through as yet.

The next part of the process is that all of the IFCA's' comments will be tracked by PI team, and amendments will be made should the consultants (Acoura) be in agreement. If not they will justify why they do not agree. There was an assurance that they will come up with some bespoke measures and suggestions for potential remedial work to improve fishery's management for each IFCA; and the suggestion was made that stakeholders share the burden for sustainable fisheries, whether this be fishers, retailers and the supply chain sharing responsibility.

The Final draft will be produced and the IFCA's will be given time to comment, one of the major criticisms the NWIFCA has had of the process. There is a follow up time of 18 months and assurances were given that the PI team are committed to getting these final reports right and will take this time if it is needed. There is no expectation of IFCA's having any future engagement with the project once the final reports have been produced.

Fracking

After discussion on this topic at the 7th February TSB meeting, Lesley Talbot from the Environment Agency passed on the following website link which includes a range of documents with information about fracking and the planning and consenting process. Of particular interest to Members may be the fact-sheet entitled "Fracking UK shale: water".

<https://www.gov.uk/government/policies/providing-regulation-and-licensing-of-energy-industries-and-infrastructure/supporting-pages/developing-shale-gas-and-oil-in-the-uk>

Active involvement with the consenting process for fracking at this stage is outside of the IFCA's core remit. Officers will continue to liaise with the Environment Agency and other relevant organisations when appropriate and will pass on any information regarding possible impacts on the marine environment and fisheries to Members. However, we do not have specialist expertise on fracking. If members have particular questions or concerns, these should be referred to the Environment Agency who have primary responsibility for the sorts of impacts which may arise from fracking activity.

Mandy Knott

Senior Scientist and Morecambe Bay Fishery Order Officer

11th April 2014