

Appendix 2 to Agenda item B9

Summary of responses to Blackwater, Crouch, Roach, Colne MCZ
Oyster Fishery Questionnaire

PART 1: Fishing for oysters on the BCRC MCZ site prior to designation

1. Have you ever fished for native oysters within KEIFCA the district?

YES	NO
7	0

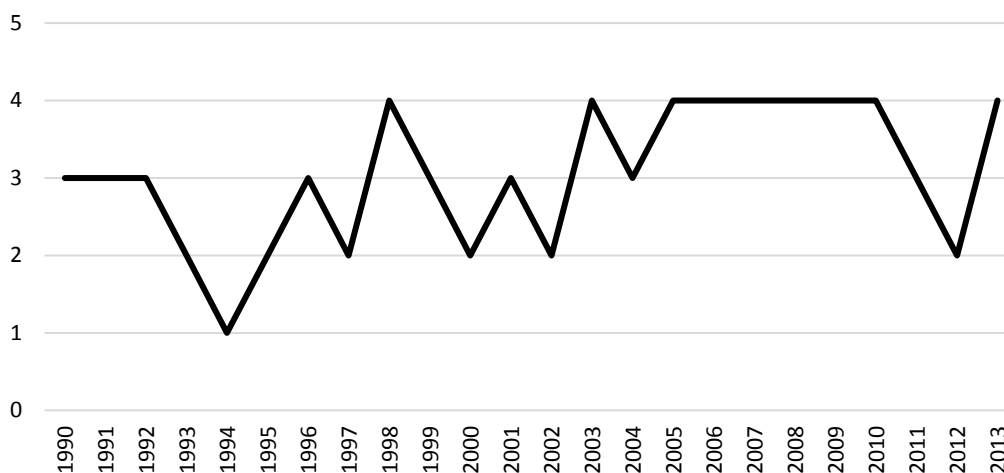
2. Have you ever fished for native oysters on the BCRC MCZ site?

YES	NO
7	0

3. Which years (circle the year/s)

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
3	3	3	2	1	2	3	2	4	3
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
2	3	2	4	3	4	4	4	4	4
2010	2011	2012	2013						
4	3	2	4						

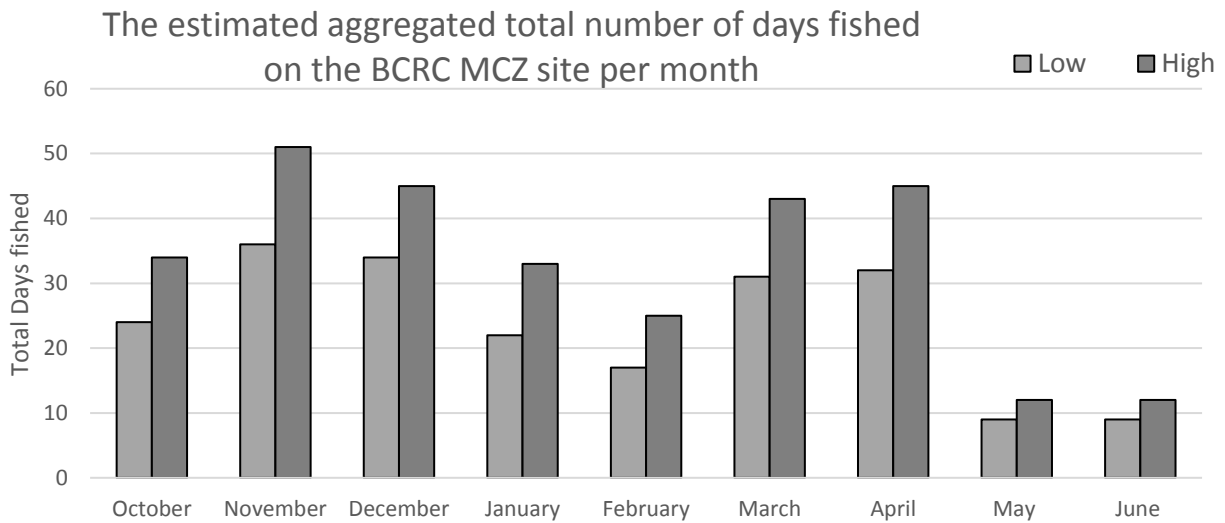
number of people who fished for native oysters on the BCRC MCZ site in each year



4. How many days on average would you fish on the site (tick the box)?

	Days fished						
	1-2	3-5	5-8	9-12	13-16	16-20	20+
October	1		1	2			
November	1	1	1	3			
December		1		2	1		
January		1	2	1			
February		1	1	1			
March	1	1	1	1	1		
April	2	1	1	1	1		
May				1			

June				1			
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5. What kind of quantities of native oyster on average did you fish?

	wash per day (17kg≈wash)						
Estimate of no. washes taken	1-2	3-5	6-8	9-12	13-16	17-20	20+
Estimated weight of oysters taken (kg)	17-34	51-85	102-136	153-204	221-272	289-340	340+
No. fishermen's replies	1	1	0	3	1	0	1

6. What percentage of the catch did you sell?

0-25%	1
26-50%	1
51-75%	3
76-100%	1

7. What percentage of the catch did you re-lay?

0-25%	3
26-50%	2
51-75%	1
76-100%	0

- 80s
- 90s
- 2009
- 2013
- 2004/2009
- don't know

8. Which year(s) was the best year for native oyster fishing over the last 20 years?

Was there a reason why?

- some spat fall
- more fishing activity in the area from local oyster boats working the ground. More reasonable/fair legislation
- because this (2013) was the only year I have been able to fish for them as it's been closed every other year I have been doing the job
- there was a very good spatfall in the Raysand Channel in 2003-4. Increased dredging activity by 4-5 vessels mainly using tooth dredges spread these oysters NE to Batchelor Spit, also bringing dead limpet and small shell to the surface of the sea bed increasing the available shell to receive further spatfalls in 2006-7
- Mersea shore had a big spatfall of Native Oyster ending up to 2004. The local Mersea boats were keeping to the 70mm ring size. Because of this stock were increasing and out-producing the dredging ability (oyster stock). Unfortunately, the level of stock was too high causing a high break of bonamia wiping out the oysters in two years.
- in 2004 started to dredge in the Raysand Channel finding good recruitment of spat with large spatfalls happening each year. In 2009 there was poor spat recruitment leading to lower future stocks. I believe a few people were taking the stock below 70mm ring size and even bulk fishing the oysters with the shell budget only taking short term view of the fishery.

PART 2: Fishing for oysters on the BCRC MCZ site in the future

9. The fishery would most likely be open for a limited period (1-2 weeks). What time of year do you think the fishery should be opened (circle the preferred month)?

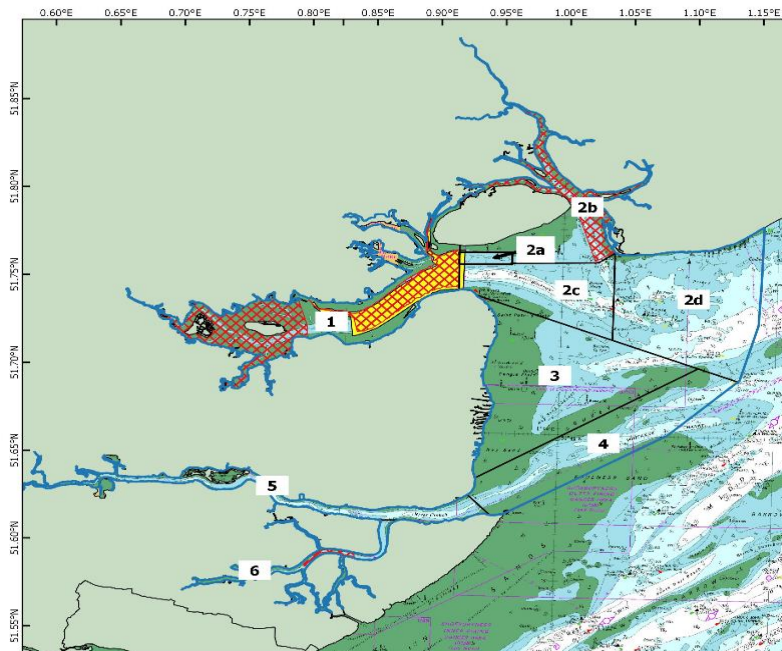
October	November	December	January	February	March	April
1	1	1			2	3

Is there a reason why?

- Protect new spat, adaptive management, important to prepare ground for spat by dredging

- October for Christmas sales, March/April for relaying and cleaning the ground for possible spat fall
- Oyster ground most favourable at this time (Nov) and good market for oysters
- It depends on factors, the best time may be in the summer depending on weather, oysters, meat quality, the ground and conditions of blue oysters
- April would be a good month to relay natives in the Mersea creeks, increasing the meat quality by September achieving a higher price than "straight off the ground" oysters. On a limited quota this would maximise they viability of the permit.
- The fishery needs to be flexible with active management so will need options of when there is an opening. December sell direct to Christmas market, higher value. March/April possible sale to market or re-lay

10. The byelaw would divide the MCZ into a number of different fishing areas.



Do you have any thoughts on these areas? Do you have any opinion as to their boundary lines?

- Interesting?
- None other than stagger the fishing times
- They could be made smaller as to have more control over where the boats are fishing and better information from the catch data
- The boundary lines are good way manage a fishery allowing parts of the area being opening different times of the year
- Area 5 is near private beds, area 6 the same

11. There would be a fee charged for a permit, what fee do you think should be charged?

£100	£200	£300	£400	£500	Other
2	1	1			£0

Is there a reason why?

- Permit fee according to stock level
- Fee should be relative to the nature of the catcher i.e. fisherman just catching or fisherman with relaying intentions. It would also validate intentions.
- I think there could be better ways of protecting the fishery such as paying blue boats (?) to improve the ground/oyster beds and earning the right to a permit. This would deter boats from just taking the best of it.
- I think this (£300) would be a fair price to cover the administration and not too high to encourage boats to take up a permit
- First year charge a lower fee (£100) but as the fishery becomes established increase fees to match stock levels / time managing opening periods of the fishery
- £100 would need a turnover of £550 to be a profit after crew, fuel and outgoings

12. The adult size would be controlled by ring size. What ring size do you think should be used and why?

- Adaptive management
- 65mm minimum unless for relaying
- 70mm, there is no issue with ring size
- 70mm/80mm so you are leaving the small oysters to grow on
- 70mm ring size. Since its introduction in the 1990s it seems to have worked satisfactorily
- Yes a ring size is a good way to manage the stock in the fishery at 70mm ring size

13. Would a maximum and minimum ring size work?

- Adaptive management
- Yes, large oysters can live for a lot of years and may help sustainability of the fishery if they were to reproduce

- No because bigger oysters are likely to die or be reaching the end of their life span
- Possibly but not sure it would be necessary and wouldn't be very practicable to oyster dredging
- Possibly if stocks are high at the risk of bonamia, as an active management measure it could be needed to lower or even have 2 ring sizes for large or small oysters
- ?

14. Each permit holder would be required to complete a detailed landing declaration/catch return – what information do you think should be on the declaration? (Circle all that apply)

Vessel name	Vessel reg	Gear description	Number of 100m tows	Amount of undersized returned	Comments section
7	7	7	2	4	7
Date	Area of fishing	Amount landed	Fishing start /finish time	Port of landing/ area of relaying	
7	7	7	7	6	

Any specific thoughts on any additional information that should be recorded?

- Vessels will not always tow 100m, some areas require shorter or longer tows
- General comments on health of the area fished i.e. predators, competitors for nutrients, any silt on the ground. Also meat quality of the oysters as this can vary greatly in different areas and provides a clue to the health of the ground
- Just to keep it simple this would make it more accurate in assessing data of oyster stocks and future decisions
- It may be a good idea to have a number of hauls but measured 100m tows is impractical. Amount of undersized returned is not going to be feasible in a busy fishery

15. Vessels would be required to have vessel tracking whilst taking part in the fishery. Have you got any thoughts on this potential management measure?

- It's a good idea but how are you going to stop some people from taking all the small oysters away from the fishery?
- More expense to fishermen if not mandatory MMO regulation
- This is an extreme management measure and not in any way fitting to this small scale local inshore fishery which up until now was built on the trust and a good relationship with each other. There is also issues regarding cost of VMS which will in no way help the question of commercial viability of the entire fishery

- It should be supplied by the Authority if it isn't mandatory for the industry outside the MCZ
- Probably a good measure, making sure vessels are working in the designated areas
- As a potential management measure VMS needs to be active on the boat all year as it will be tempting to dredge within the MCZ area for natives
- How much would this cost as VMS run at about 5 to 1 expenses to pay for cost

16. How do you think oysters in the restoration box should be managed?

- ENORI is a good management group; good balance of people with good skills all working together
- Year on year
- A joint effort between industry and the Authority
- As it's a new project and a relative unknown a year by year assessment, based on data from surveys by KEIFCA survey boat. This area has had bonamia since 2004 and this needs to be taken into consideration in decision making.
- Managed by Essex NORI advisory group, NGOs, regulators and the oyster industry. But outside the restoration box by KEIFCA and oyster industry as a fishery
- More fishing and ground cleaning to perfect ground for spawning farmed and cultivated

17. How do you think the native oyster population outside the BCRC MCZ should be managed?

- The IFCA is at an early stage of oyster management. I am sure that over time they will refine their techniques
- Left alone
- It should be left as it currently is. Interference in oyster populations in other parts of the district will result in the loss of young future stock, similar to what we are currently seeing inside the BCRC MCZ. This is a direct result of ground being closed and left dormant to silt over.
- Private, should be left out of everything
- I think the current regulations on 70mm ring size and 4m dredge width are sufficient
- Never
- It seems ok and should be left as it is now. There is no need to waste public money as we have been told by IFCA. BCRC MCZ site remains the same as before restrictions costing jobs

18. At what point do you think the population in the site would have recovered to allow the fishery to open?

- A difficult balance; how do you protect the stock but work the ground to encourage it?
- Never! Too many adverse factors i.e. Marina dredging, agricultural run-off plus diseases
- The fishery will not recover unless it **IS** opened
- No one knows without looking
- When the population of oysters consists of many year classes, with a healthy stock of adult oysters capable of providing a good spat fall given the right natural conditions, maybe then restricted quantities of oysters could be dredged.
- When population of oysters are good size distribution of year class and economically viable
- If there is no change through the ground not being cultivated it looks like you may have started to destroy a fishery and loss of shore jobs as well 10 to 1 fishermen are employed ashore

19. What indicators/ factors should be used to assess this?

Stock estimate	Spawning estimate	Estimate of adult/ harvestable oysters	Other
4	3	4	<ul style="list-style-type: none"> • State of ground, bonamia • Physical evidence • Economically viable • Correct surveys should be done

Any specific thoughts on assessing recovery?

- Learn the lessons from the people who have tried before you
- Surveys
- Recovery should be assessed by the number of oysters in a particular area regardless of size. Also the amount of mud present and the amount of clean potential cultch.
- You need to use the advice of those people who have been doing this for a long time and listen to what they have to say and use the information they give you
- Not an easy thing to assess accurately. Maybe a cautious approach is required as in my experience the native oyster is not an exact science!
- Stock estimates need to be with the industry, survey work and management meetings
- Re-stock from deep water sites

20. If the BCRC MCZ area was open would you fish the site?

YES	NO
7	0

21. What vessel and gear would you use to fish for native oysters?

Length of vessel?	1 x 6.7m 4 x 8m 1 x 9m 2 x 10m 1 x 14m
Beam of vessel?	1 x 2.8m 3 x 3m 1 x 3.2m 1 x 3.5m 1 x 3.6m 1 x 4.5m 1 x 4.9m
Number of total dredges used?	1 response of 1 dredge 6 responses of 2 dredges 2 responses of 4 dredges
Width of dredges used?	2 responses of 1m 4 responses of 4ft (1.2m) 3 responses of 1.5m 1 response of 2m
Estimated weight of dredge?	30-40kgs 25-35kg each 80kg 2 responses of 50kg 2 responses of 100kg 58kg 150kg

Construction of dredge - rings, mesh etc – blade / ladder etc.

- Rings or mesh depending on ground (horses for courses). I have used and pioneered all sorts of dredges but probably a ladder dredge would be the less damaging as long as the dive plate is retained. If you take the dive plate away you only end up paying out more warp and bulldozing.
- Ladder dredge with no teeth. With rings or mesh depending on the ground and what works at the time.
- Ladder dredge with rings on the bottom, mesh on top. Tooth dredge with rings on the bottom, mesh on the top.
- Conventional 'A' frame dredge. Ring mat belly. Mesh back. Round bar as a blade.
- Mesh bar blade
- Ladder dredge with spacing of 2"/3" for ladder part (gigas dredge spacing closer). Rigging rings top and bottom 65mm internal size (gigas dredge rings are smaller). Dredges are especially made for only dredging native oysters. If fishing for gigas I have another set of dredges. As the fishery has not been open for some time a lot of people have only gigas dredges. You will need to be aware of this when assessing dredges.
- Tooth bar ladder, mesh, or a recommended dredge for native oysters for this area only

22. What percentage of the catch do you think you would sell directly?

- **Adaptive management**
- **Depends on the quality and quantity**
- **25%**
- **60% of legal size**
- **Unable to answer as sizes not known, would like to think 50%**
- **If I am able to sell direct to market at a good price I will**

23. What percentage of the catch do you think you would re-lay?

- **Adaptive management**
- **Depends on the quality and quantity**
- **75%**
- **40% of legal size**
- **Unable to answer as sizes not known, would like to think 50%**
- **Only relay if opening time is late in native oyster season and unable to sell to market**

24. What size oysters would you ideally harvest? Why this size?

- Think about what the fishery needs to thrive. Take into account the problems of the designation of the MCZ
- 75mm plus as these are big enough to re-lay or sell directly
- 70mm+ (80g+). If relayed this size could increase to 100g+ making the net value of the oysters a higher price per kg, hence increasing the value of the allocated quota.
- Legal size
- 70mm-90mm and 90mm-110mm – ideal market size, also smalls to re-lay
- Harvest size for market 70mm 70gram or about 70mm 50gram oysters for re-laying. For re-laying the oyster must be a size that can be sold in the autumn as if any stock left on my private oyster beds for the next year may die or carry over bonamia to next year's oyster restocking infecting them

25. Any other comments?

- A lot of these questions are very variable and depend on other factors outside the control of any one.
- I question 4, no provision was made for May and June. These months were often dredged by boats like myself with relaying areas. All oysters caught in these months I relayed to be sold from September onwards. In my opinion this had a dual purpose of catching oysters and cleaning the oyster beds by the dredging action ready for a potential spat fall in July/August. Any dredging in winter months would not achieve this as the beds would silt up by July/ August.
- Too much regulation and delay will finish this already neglected fishery. We need to take action to begin to revive the young stocks. As has been mentioned many times before, everyday ground remains untouched and this is causing irreversible damage to it. It is the job of the IFCA to make NE and other pro-conservation groups aware of this and act upon it. Our ancestors have worked these grounds for centuries and stocks always flourished despite intensity of fishing. More attention needs to be paid to the industry on management advice if the genuine aim is to recover native oyster stocks. We have famously seen before in other fisheries how consultations with local fishermen has had very little/ if any influence on final management decisions. This is particularly worrying in such a fragile case.
- Areas of the fisheries need to be open so you can compare. This will help increase the biomass to protect the future native oyster as fishing increase spawning.
- In the meeting the question was asked "what was a healthy fishery – oyster beds healthy fishery?" Stock levels below a ring size are higher than the oysters taken in an open season. Oyster predators and diseases are kept to a low level maintaining and

enhancing the fishery. Within the fishery there will be healthy, resilient and thriving communities complimenting the native oyster fishery beds. Kent & Essex IFCA Officers have received in the past my database of dredging records, catch and miles dredged, photos etc.

- The areas indicated have for 2,000 years been an established area for these shellfish, an ideal growing area, the perfect requirement re beds and was so until 1963 winter. TBT marina development, millions of gallons of sewerage waste water mixed with detergents and numerous chemicals, these with bonamia, have conspired to create an environment that the native cannot in my opinion recoup from. In the event of a spat fall without clean cultch in the rivers then again we have adverse conditions. One other point, my family always removed the starfish and whelk tingle from the beds, again not PC today but relevant.