

KEIFCA  
Paragon House  
Albert Street  
Ramsgate  
Kent  
CT11 9HD  
18 October 2017

Dear Sirs,

**Ref: Blackwater, Crouch, Roach and Colne Estuaries Marine Conservation Zone – KEIFCA Native Oyster Permit Byelaw Consultation**

Founded in 1826, the Zoological Society of London (ZSL) is an international scientific, conservation and educational charity whose mission is to promote and achieve the worldwide conservation of animals and their habitats. This is realised through ground breaking science, our active conservation projects in more than 50 countries and our two zoos, ZSL London Zoo and ZSL Whipsnade Zoo. The ZSL Thames Conservation Programme was established 12 years ago to secure the future of the Greater Thames as a biodiversity-rich estuarine ecosystem that provides for wildlife and people. The goal of the programme is that, by 2026, the wildlife of the Greater Thames is more abundant as a result of improved water quality, restored migratory pathways, and the recovery of vital wildlife habitats such as native oyster beds. It also strives to create a greater connection between people and the aquatic environment.

ZSL welcomed the opportunity to take part in the development of a sustainable fishery of the native oyster in the Blackwater, Crouch, Roach and Colne Estuaries Marine Conservation Zone (BCRC MCZ). By this letter, please find ZSL's response to the consultation on the BCRC MCZ Native Oyster permit byelaw.

*Question 1 - What time of year should the fishery be opened?*

ZSL agrees with the principle of using stock composition and the stock data generated from the annual survey to determine the most suitable time of year to open the fishery. From a conservation perspective, to aid the recovery of native oyster populations we would encourage the mature oysters to remain within the system until they have spawned which is invariably in the summer months with the warmer waters. This does not preclude the oysters being harvested and then relayed within the MCZ or adjacent to it as long as the spat have opportunity to settle within the MCZ.

*Question 2 – Do you have any views how the site is divided up into harvest areas?*

The dividing of the MCZ into harvest areas is a logical approach to enable more fine scale management of the oyster stock. The harvest areas proposed appear to be sensible taking into account historic boundaries and the geography of the estuaries. We welcome the use of vessel tracking to develop the fine scale assessment of specific catch rates in specific areas.

*Question 3 - Managing harvest areas*

ZSL would expect to see precautionary principle being used throughout the management of the BCRC MCZ. The MCZ legislation should also be adhered to. With respect to which areas should be opened to oyster fishing, this should be decided upon using the trends in the annual stock assessment encompassing historic and most recent stock data from the annual surveys. The trend three years (minimum) should provide strong evidence that the stock has resilience (still to be defined) and can withstand some targeted harvesting.

The consultation refers to there being a significant increase before off take is allowed. Care must be taken in defining what is significant. For example, if stock levels are very low a doubling of stock may mean that the site has not achieved its stock potential and still be a long way from being resilient. There must be a degree of certainty that the stock has sufficient resilience to withstand harvest. This will become easier through using adaptive management measures, which should be built into the fishery management criteria.

As well as looking at stock total in the sub-areas, the state of the stock within the whole MCZ should be considered to ensure that the 'thriving populations' has recovered. Consideration should be given to connectivity between the sub-sites for reproductive success i.e. offtake should be limited if it is likely to impact recruitment success in other areas of the MCZ that perhaps have not recovered so well. There should be no assumption that if an area has been open one year that it will automatically be open again in subsequent years.

We would also like to see some 'no take' areas in the sub-areas to act as brood stock and contribute to the wider stock recovery.

*Question 4 – What should the minimum ring size be set at?*

We welcome the adaptive management approach using the most up to date data available to make decisions. Under the precautionary principle, ZSL would like the largest ring size (80mm) to be used to maximise reproduction capacity and aid the recovery of a mature breeding oyster stock. When the stocks have recovered, it is reasonable to have flexibility in the ring size to target different size oysters depending on stock population profiles. This will be determined annually.

*Question 5 – What should the permit fee be and why?*

ZSL consider it appropriate that a permit fee is applied to contribute to the management of the fishery from which there is the potential to gain financially.

*Question 6 – What should the controls be on maximum vessel size?*

ZSL would expect to see a small-scale low impact fishery within a Marine Conservation Zone whose conservation objective is to recover the targeted fishery. As such, we would want vessel size to be limited to under 10m.

*Question 7 – What should the controls be on gear size and dimensions?*

The precautionary principle should be used in all choice of dredging gear to minimise the impact of the fishing activity on the conservation feature. It must be ensured that before any fishing has occurred, the oyster population has recovered and is resilient. Consideration should also be made to the further nature conservation designations including the Essex Estuaries SAC, Ramsar, SSSI and SPA and there should be no detrimental impact to these other conservation features. Any proposed fishing technique should be subject to Habitat Regulation Assessment and be able to provide evidence on the non-detriment to the integrity of the marine site and conservation features including in-combination impacts.

ZSL would expect to see the lightest, least penetrable dredge, possibly on rails to minimise seabed disturbance. Advances in new technology to minimise impact should be welcomed and trialled.

#### *Question 8 – additional costs*

No comment.

#### *Question 9 – Tracking systems for permitted vessels fishing for native oysters on site*

ZSL would welcome the use of the vessel tracking system as a management tool within the oyster fishery. It would hopefully allow for fine scale management that is required in this complex environment.

#### *Question 10 – The fisheries management plan*

ZSL has welcomed the approach taken to developing a sustainable native oyster fishery. The allowed fishing of a conservation feature is quite radical and so it must be ensured that every opportunity is taken to minimise impact and maximise the long term sustainability of the native oyster populations. The management plan must allow for the continued closure of the fishery, if there is any chance that the population are not recovered nor resilient enough to deal with it and that it will not impact the integrity of the whole site not just the sub-area.

#### The detail of the proposed management plan

It is very hard at this stage to put detail in the management plan due to so much uncertainty in what a stable and resilient population looks like, what are the threat impacts etc. This will change over time with the input of the annual monitoring. However the process set out is robust and is considered good practice. It should allow for a sustainable fishery whilst supporting continued recovery. It also allows flexibility for further management measures to be introduced for example if it is decided there should be increased fishing effort to minimise impact of *Bonamia*.

#### Using 800 tonnes as the starting point

Whilst 800 tonnes is a substantial increase from the current 300 tonne of oyster stock, it would be interesting to know how this relates to historic stock levels in the MCZ and also how it relates to the stock levels in the private beds for similar substrate type. Having an idea of the carrying capacity of the MCZ would provide a benchmark of whether the 800 tonnes is the correct trigger level for a fishery to open.

We would expect to see a continued increase from this point with stable population structure and good recruitment over a minimum of three years.

#### The management plan process

The management plan process is considered good practice. We are keen to see details of the annual survey methodology and the development of a scientific monitoring plan that can run alongside the management plan and feed in to it to aid decision making.

#### The criteria used to reach decisions

We would expect the conservation criteria to be considered first before the stock management criteria. If it is deemed okay through the conservation objective criteria; then the stock management criteria should be considered.

As well as seeing an increase in population, we should be seeing an increase in area of oyster population. Annual surveys need to take into consideration looking for this increased area.

It is essential that population structure is included to ensure that we have strong and successful recruitment to enable a self-sustaining stock.

We look forward to the development of more detail about each of the criteria.

#### The make-up of the expert group

It would be good to see the make-up of the expert group. We would encourage the inclusion of shellfish fishery scientists, fishery management experts, nature conservation expertise, and oyster fishing experts as well as those with expert knowledge of potential threats such as *Bonamia* all to feed in to the adaptive management process.

#### Do you think anything else should be added?

Resilience to climate change should be built into the management plan. For example, ensuring there are deeper cooler waters that the oysters may settle in if the surface waters become too warm.

#### *Question 11 – the restoration box*

We welcome the establishment of the restoration box to enable an oyster bed to recover. We would like to see the location of this box be situated at the most likely place for successful recovery including building in long term resilience to climate change by including some deeper waters with the appropriate substrate type. Given the purpose of the box is to recover the conservation feature of a native oyster habitat with the associated other fauna and flora, we would not want to see any activity within the box that will disturb this and hinder recovery to this climax state. There will need to be some consideration for scientific

monitoring to aid further native restoration activities but this should be encouraged to be minimally disturbing as well.

We would expect there to be spill over from this box and so we see it as a benefit to the recovery of the oyster stock in the wider MCZ.

*Question 12 – Closure of the box to fishing gears that interact with the sea bed*

Any fishing that interferes with the sea bed in the restoration box is likely to cause damage to the conservation feature (native oyster bed) and as such we think it should be prohibited. It is understood that the restoration box is to support research to inform the management of the wider MCZ and as such there should be some scientific dispensation for this subject to the Habitat Regulations Assessment and the MCZ condition assessment.

*Question 13 – Smaller set asides*

We would welcome the inclusion of smaller set-asides in the wider MCZ. This is considered a good conservation measure to support the recovery of the native oyster bed and stock and will provide greater resilience.

*Question 14 – Location of set aside areas*

As previously stated, it would be good to have some set aside areas in deeper waters to provide resilience to climate change. The location of the set aside areas should also take into consideration the hydrodynamics of the MCZ to maximise reproductive output i.e. enable good dispersal of offspring. It would also be sensible to consider where the historic beds were and to look for suitable substrate type.

Yours sincerely,



Alison Debney  
Programme Manager, Estuaries and Wetlands Conservation Programme