

By: Lead Scientific & Conservation Officer

To: Kent and Essex Inshore Fisheries and Conservation Authority – 29th November 2016

Subject: **Marine Protected Areas update**

Classification Unrestricted

Summary:

This report provides Members with an update on the work carried out to date for estimating native oyster stocks in the Blackwater, Crouch, Roach and Colne MCZ in addition to an update on fisheries impact assessments for Marine Protected Areas (MPA).

Recommendations:

This report is for **COMMENT** and **NOTING** only.

Background:

1. European Marine Sites

To bring fisheries in line with other activities, the Department for Environment, Food and Rural Affairs (Defra) announced on 14th August 2012 a new approach to manage licenced commercial fishing activities within European Marine Sites (EMS). This approach tasked IFCAs with assessing the impact of fishing activities on the features of EMS using a Habitat Regulations Assessment style process. The deadline for introducing management for high risk fishing activity and feature interactions was the end of 2013. The deadline for assessing the impact and, where necessary, introducing management for medium and lower risk interactions is the end of 2016. To date we have received advice from Natural England on the appropriate assessments we submitted and they have been formally approved. Copies of the appropriate assessments can be circulated upon request.

features. The date for designation of tranche three MCZs is yet to be confirmed by Defra.

All MCZs will require an HRA-style assessment of the impact of fishing activities to ensure compliance with the conservation objectives for the site. It is anticipated that officer time will need to be spent on this work stream in the next six months.

2.1 Native Oyster Stock Assessments in Blackwater, Crouch, Roach and Colne (BCRC) MCZ

KEIFCA began native oyster stock surveys in the BCRC MCZ in 2014, when a large scale survey was carried out, covering all public areas of the MCZ. In 2015 and 2016 further smaller scale surveys were carried out focussing on the areas where native oysters were found. We are in the process of developing the survey methodology and testing the best sampling strategies to estimate native oyster stock size in the MCZ for this relatively new survey. We are currently supporting a PhD student at the University of Essex to carry out research into native oyster stocks and it is expected that in the next couple of years as part of her project, an improved methodology will be developed that can be used for long term data collection and stock assessments. As a result, the data presented here should be treated as preliminary results and the actual values may vary in the future depending on the methods applied.

The annual KEIFCA native oyster stock assessment was carried out between 7th and 21st September in collaboration with our PhD student at the University of Essex. In total 102 dredge samples were taken from areas of the river Blackwater, Ray Sand channel, river Crouch and areas outside the mouths of the rivers Blackwater, Colne and Crouch following the methodology used in 2015.

Oyster dredging is not 100% efficient, therefore, in order to estimate the true abundance of native oysters over the distance of a dredge tow, an estimate of the efficiency of the dredge in harvesting the oysters is required. Following discussions with Natural England over the methods used to estimate native oyster dredge efficiency and reviewing the available literature, an efficiency value of 20% has been agreed on and this method will be applied for all previous and future datasets.

The method used for estimating the total stock and biomass over the entire MCZ is still under development by the LSCO and PhD student and as methods are improved it is likely that stock estimates will vary slightly. However, inter-annual trends in biomass have been examined by applying the same methodology to data collected in 2014, 2015 and 2016.

The average density (fig. 1), average weight (fig. 2) and estimated total biomass (fig. 3) were lower in 2016 than 2014 and 2015 with the highest abundance, density and biomass observed in 2015. The distribution of native oysters is patchy and this, along with the large survey area, mean that the sample resolution is low. There is fairly high variability within the data from each year and this is highlighted by large standard error bars on the charts below. A longer term dataset will be valuable in gaining a better estimate of the total stock in the MCZ.

Figure 1: Average density of native oysters per m² in the survey area in 2014, 2015 and 2016. Standard error bars are shown.

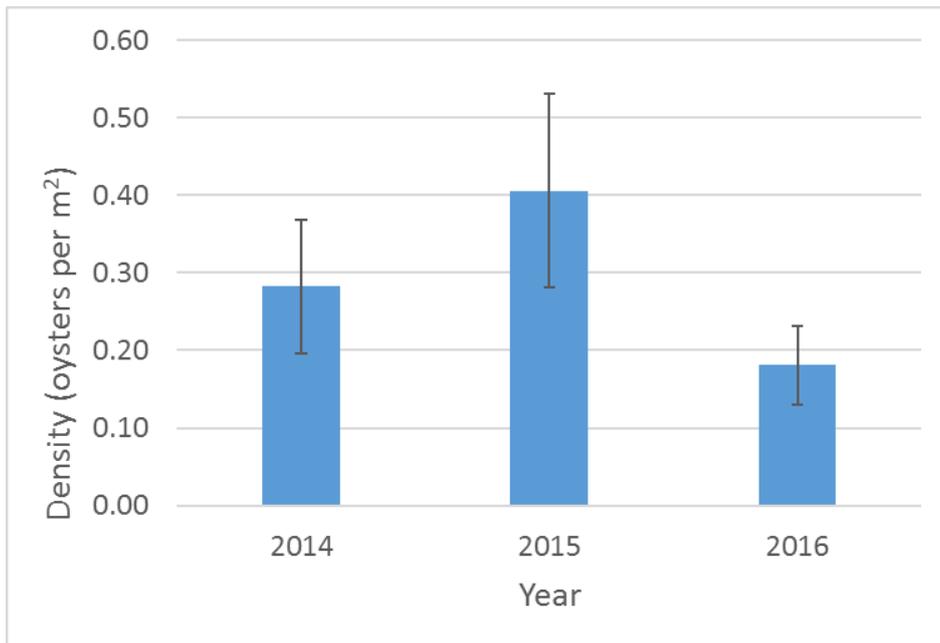


Figure 2: Average weight of native oysters per m² in the survey area in 2014, 2015 and 2016. Standard error bars are shown.

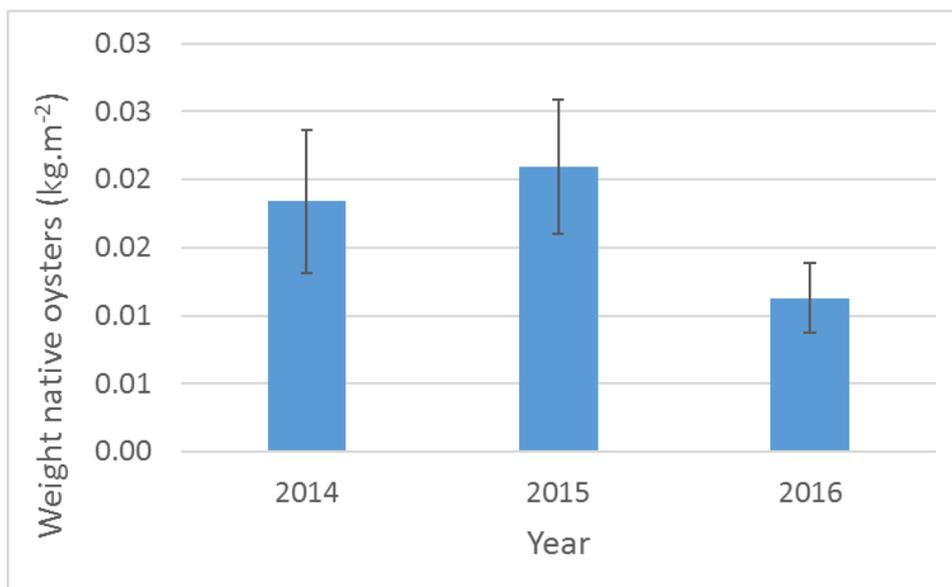
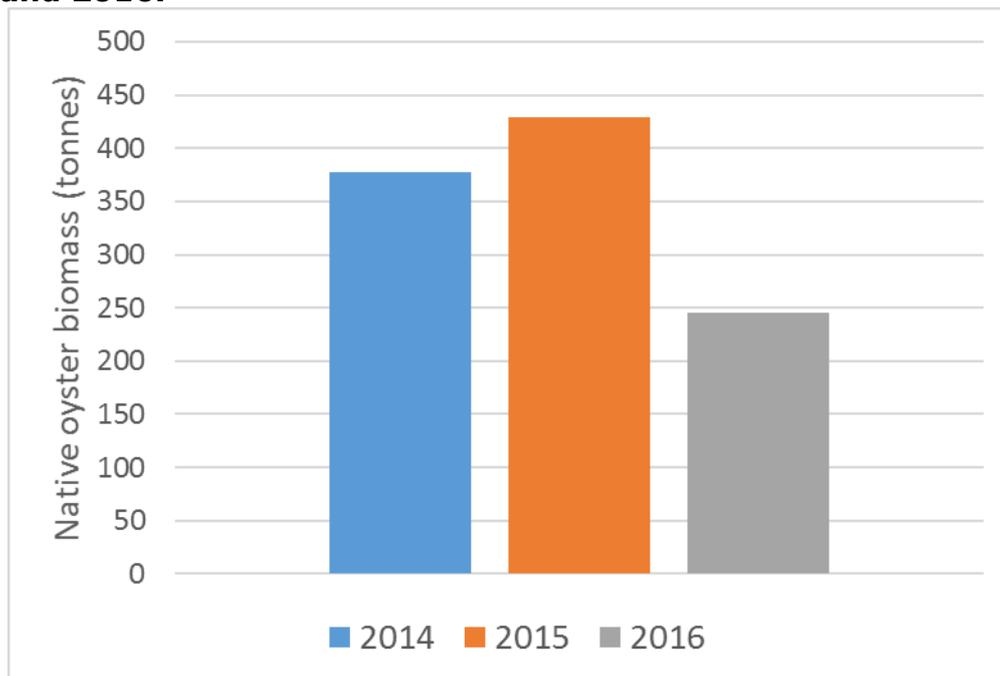


Figure 3: Estimates of total native oyster biomass in the MCZ in 2014, 2015 and 2016.



2.2 ENORI

The Essex Native Oyster Restoration Initiative (ENORI) working group met on 4th October and was attended by the LSCO. Natural England presented a draft management plan for the restoration of native oysters in the Blackwater, Crouch, Roach and Colne MCZ. It is understood that active methods for the cultivation and restoration of native oysters would not be permitted in the majority of the MCZ as they could be in conflict with the conservation objectives for the co-located SAC. An exception to this would be an area off the Mersea shore, in the mouth of the river Blackwater, where research projects could be focussed to investigate the effects and impacts of native oyster restoration methods. It is expected that other members of ENORI would lead on restoration projects and KEIFCA would lead on the fishery management of native oysters in areas of the MCZ outside the 'restoration box'.

A two day workshop focussing on native oyster restoration held at the University of Essex on 7th and 8th November was attended by the LSCO, ENORI members, other researchers and fishermen. The purpose of the workshop was to discuss issues surrounding native oysters in the BCRC MCZ and potential future restoration projects. The outputs of this workshop will help to inform the management plan for the MCZ.

2.3 Native oyster permit byelaw

The draft management plan and associated advice from Natural England provides KEIFCA with a clear way forward to manage the native oyster fishery in public grounds of the MCZ when the conservation advice for the site has been issued by Natural England. On 15th September officers hosted a meeting in

London with representatives from Natural England, Defra/Cefas and other IFCA's to discuss management options for native oysters in Essex. The purpose of this meeting was to consult with other regulators that currently manage native oyster fisheries and to gain expert opinions on the legality and practicality of a permit byelaw for native oysters. All attendees felt this was a good option for future management of the fishery, however there are many details to be discussed and decided upon. After the Margate and Long Sands SCI byelaw has been finalised, work can begin on developing a permit byelaw in consultation with stakeholders.

Recommendations:

Members are asked to **NOTE** this report and **COMMENT** on it.