

Vision

The Eastern Inshore Fisheries and Conservation Authority will lead, champion, and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry



Briefing Note

The Wash Cockle Fishery 2020

Introduction

Eastern IFCA manages the shellfisheries (primarily cockles and mussels) in the Wash under the Wash Fishery Order 1992. The cockle fishery is of economic importance locally and was provisionally estimated to have been worth £2.5M in 2018.

Management of the fishery is both challenging and resource intensive because, by law, it must take account not only of the sustainability of stocks but also the impact of fishing activity upon the environment.

The Wash embayment is one of the most heavily designated Marine Protected Areas (MPA) in Europe. It is a Ramsar site, a Site of Special Scientific Interest, a Special Protection Area, and a Special Area of Conservation. Designated features of the site include subtidal and intertidal habitats as well as a range of over-wintering bird species. The Wash is described by the RSPB¹, as '...the UK's most important intertidal wetland site...' and as being '...internationally important for 16 species of birds: [pink-footed goose](#), [dark-bellied brent goose](#), [shelduck](#), [pintail](#), [oystercatcher](#), [ringed plover](#), [golden plover](#), [grey plover](#), [lapwing](#), [knot](#), [sanderling](#), [dunlin](#), [black-tailed godwit](#), [bar-tailed godwit](#), [curlew](#), and [redshank](#)'.

Management of the Fishery

In order to enable the annual Wash cockle fishery, Eastern IFCA must satisfy itself that the fishery will not have an adverse effect upon the conservation objectives of the MPA, and in doing so it takes advice from Natural England. This is done by undertaking a Habitats Regulations Assessment (HRA) each year, which is informed by annual surveys of both cockle and mussel stocks.

The annual surveys are a significant undertaking, but they provide a level of evidence which is not reflected in any other fishery within the district. They also provide an understanding of stock dynamics over time, which helps to inform management decisions.

A key element of the HRA involves an assessment of the biomass of adult cockle stocks to determine what the Total Allowable Catch (TAC) should be in any given year. An element of this is a bird food model, which identifies the quantity of shellfish required to sustain the significant bird population in The Wash. The biomass of both cockles and mussels are accounted for in the model, with mussels having twice the value of cockles by weight.

¹ <https://community.rspb.org.uk/ourwork/b/east/posts/wildlife-of-the-wash>

In simple terms, the annual TAC is calculated from the biomass of adult cockles (<14mm) with a third being allocated to the fishery, a third to the birds and a third to the cockles themselves for reproductive purposes.

The annual cockle surveys are normally undertaken during the spring of each year and the fishery usually opens in June and closes when the TAC has been expended. This is usually between October and December, although fishing effort tends to decline during the autumn months.

The size of the TAC varies and the average for the last ten years (2010 to 2019 inclusive) is 3,978 tonnes. During this period the highest TAC was 8609 (2016) and the lowest was 957 (2011). The TAC from 2015 to 2019 (inclusive) has been higher, with an average of 5,421 tonnes, whereas the average for 2010 to 2014 (inclusive) was 2,797 tonnes.

The fishery is hand-worked from vessels that 'dry out' on inter-tidal sands and a daily quota of 2 tonnes per vessel is applied.

2020 Cockle Fishery

The 2020 fishery was affected by two key factors: a notable decline in mussels stocks identified during the autumn 2019 survey and the onset of the COVID-19 pandemic with the country going into 'lockdown' just before the annual cockle surveys would ordinarily commence.

Cognisant of the impact of the decline in mussel stocks and the consequential impact upon the cockle TAC, the Authority closed the 2019 cockle fishery in November 2019 with the objective of preserving stocks for the 2020 fishery. At that time approximately 3,669 tonnes of the 4,327 TAC had been landed.

As it became clear that the COVID-19 'lockdown' would preclude the annual cockle surveys, and by default there would be no fishery, officers worked to develop an alternative methodology based upon analysis of previous years' cockle survey data to determine which beds were likely to suffer from die-off as a result of atypical mortality. The rationale was that, even in the absence of cockle stocks data, a fishery on these beds would not significantly risk impacting bird food availability or overall cockle stocks as the majority of the cockles would perish prior to being available as bird food.

A key conservation concern was being able to ensure sufficient food remained available to birds in the context of declining mussel stocks and no cockle survey. Fishery stakeholders were primarily concerned by the limited areas proposed to be open to the fishery in the context of anticipated die-off and what was perceived as large cockle stocks based on their experience from fishing in 2019. In addition, King's Lynn based fishermen felt at a disadvantage as most of the beds proposed as open were on the Boston side of the Wash which increased the likelihood of days lost due to poor weather affecting their ability to make passage from King's Lynn.

As a consequence, a revised methodology was developed, which involved a smaller scale survey using 74 strategically selected sites, as opposed to the 1300 or more in a normal survey. Comparing the changes between the areas surveyed to the 2019

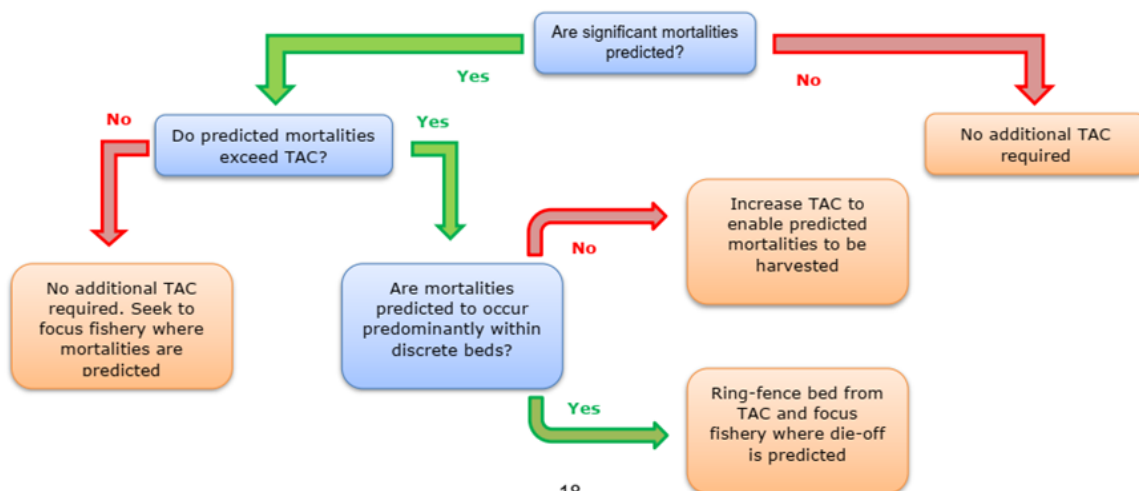
survey data enabled an estimated stock biomass to be extrapolated across all cockle beds in the Wash and for a TAC to be determined. This enabled a more flexible approach than the initial measures proposed with the effect of enabling the justification of opening additional areas to the fishery.

Natural England were satisfied by the evidence set out in the HRA and the fishery opened on Monday 22nd June 2020 with a TAC of 3,636 tonnes. The TAC was in line with what was expected had it been possible to undertake the full survey.

Only six beds were opened, which restricted fishing activity to a smaller area than would ordinarily be the case. However, the original proposal included an option to open further beds if cockle ‘die-off’ was observed and this was retained. This included cockles dying as a consequence of ‘ridging-out’ (a process whereby high density juvenile cockles force older cockles out of the sediment as they grow, and which are then lost to the fishery), which is not usually apparent until later in the season.

Sands at the Dills and Inner Westmark Knock (IWMK) were surveyed in June and July as they were considered to be at risk of potential die-off through ridging-out. The survey indicated that whilst the Dills was not at risk of significant die-off, the IWMK was at risk. An HRA had pre-emptively been submitted to Natural England with regard to opening these beds following a survey identifying them as at high risk. Therefore, the IWMK was opened as at 23:50 on the 26th July 2020. Feedback from fishery stakeholders included a request to consider providing additional TAC in the context of having identified further die-off. The premise for this was that in previous years, the Authority has increased the TAC (or set an unlimited TAC in certain areas) on the basis that cockle stocks would be lost in any case.

Allocating additional TAC is considered within Eastern IFCA’s cockle fisheries management plan. This plan includes measures that have been agreed with Natural England for adaptive management when high mortalities are anticipated. This includes the following flowchart:



The situation at the time of opening the IWMK did not meet the requirements of the plan to accommodate additional TAC because there was considered to be sufficient TAC remaining.

The fishery initially closed on 26th August 2020, when it was estimated that the TAC had been exhausted. Subsequent calculations identified that a small quantity remained and given that good prices were being paid for cockles, the fishery was re-opened for a further three days to enable the remaining TAC to be taken.

As a consequence of requests from the fishing industry for additional TAC to be allocated to the fishery, a further HRA was submitted to Natural England with a view to achieving this. Subsequent discussions with Natural England concluded that it was not possible to say that such an allocation would not have an adverse effect on the conservation objectives of the MPA and as such it was not possible to allocate any additional TAC.

In recognition of the uncertainty facing the fishing industry at the onset of the COVID-19 pandemic, the Authority agreed to delay implementation of the planned increase in Wash Fishery Order handwork licence fees by 12 months and to reintroduce the licence structure as it was pre-2019 for the financial year 2020/21. The effect of this was that a fee of £330 applied for a hand-work cockle licence.

Officers also facilitated engagement with the MMO and Defra on access to the Fisheries Response Fund², a £10 million fund to provide financial assistance for England's fishing and aquaculture businesses in response to Covid-19, which was announced by Defra and HM Treasury on 17th April 2020.

Conclusion

Eastern FCA's management model for the Wash shellfisheries has been in place for many years and is widely recognised as being good practice for managing fisheries in conservation areas. As such, changing the long-standing methodology at short notice to support an HRA that would enable Natural England to agree with a conclusion that the fishery would not have an adverse effect upon site integrity was a significant challenge that required considerable work and a degree of innovation.

The revised approach identified a TAC that, despite the significant reduction in mussel stocks, was not significantly below the average for the previous ten years although it was perhaps unsurprisingly notably below the average for the preceding five years.

The outcome has been that 52 different vessels have operated in the fishery (with an average of 46 vessels on a daily basis), landing on average 1936kg of cockle per trip with the value of catch (which varies with quality of cockle landed) reportedly being circa £0.60 per kilo. An estimated first sale value of the fishery this year was, therefore, £2.18 million, which compares favourably to the estimate of £2.5m for 2018 where there was a higher TAC of 5,074 tonnes.

² <https://www.gov.uk/government/publications/fisheries-response-fund-support-for-fishing-and-aquaculture-businesses>