



# **Horseshoe Point Eelgrass Assessment**

## **Survey Report 2016**

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## **1.0 Summary**

On the 21<sup>st</sup> July 2016, two Eastern IFCA officers conducted a foot survey of the *Zostera noltii* bed in the Humber. This survey is completed annually and forms an important part of the Regulatory Notice review under the Protected Areas Byelaw. On this occasion no *Zostera noltii* was found to be present. It is well known that species of the *Zostera* genus are dynamic, and absence on one survey does not mean the meadow has been lost forever (the effect of this is particularly noticeable as the existing meadow is so small). Future surveys of the meadow should continue to detect whether this is just a temporary absence.

## **2.0 Introduction**

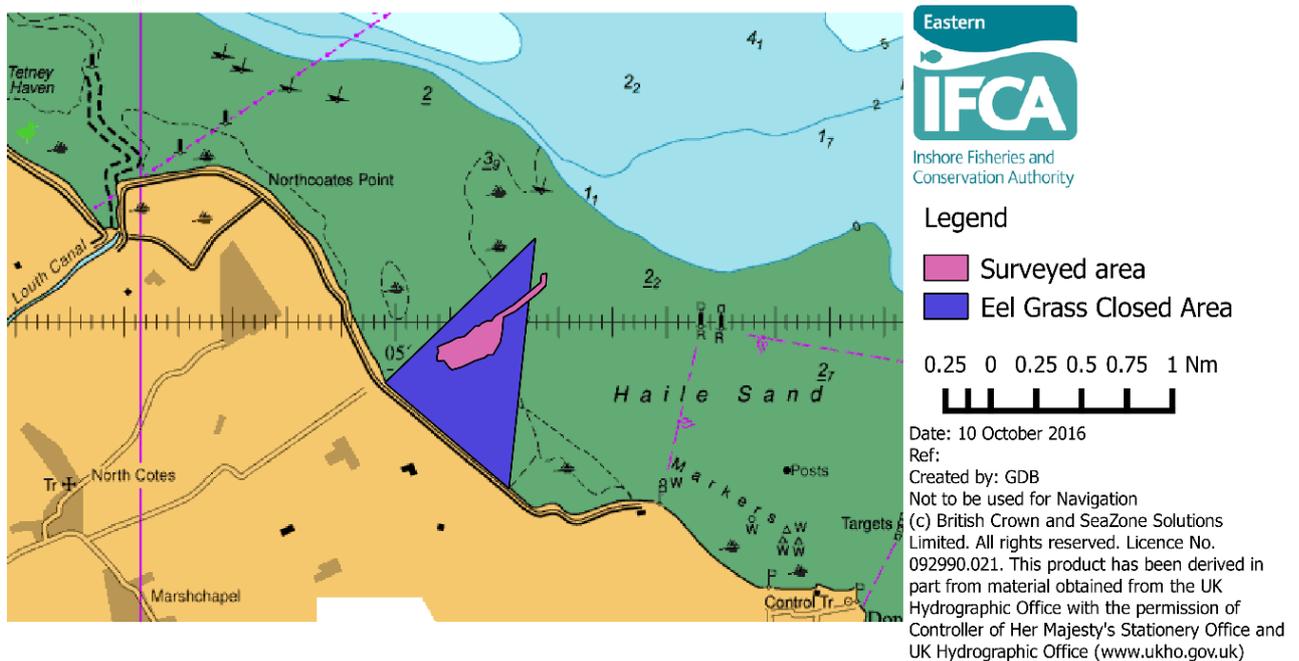
Eastern IFCA officers conduct an annual survey of seagrass in the Humber. This was completed on the 21<sup>st</sup> July 2016. It involved two officers conducting a foot survey (with three further officers conducting cockle surveys and one as safety cover). The aim of the survey was to record the current distribution of *Zostera noltii* at Horseshoe Point. This work forms an important part of the review of Regulatory Notice 4, under the Protected Areas Byelaw. The surveyed area is closed to fishing (bottom-towed gear, crab tiling, handworked fishing and bait digging) under the Protected Areas Byelaw Regulatory Notice 4, to protect the *Zostera noltii* bed from damage due to fishing activity.

## **3.0 Method**

Previous survey locations (see table below) were used to establish the detailed survey area. The areas around known coordinates (where *Zostera* was previously found) were subjected to a detailed search, by conducting short walking transects adjacent to the shore. Following this, officers conducted a much wider survey (larger gaps between transects) (McKenzie, Finkbeiner & Kirkman, 2001). This was to ensure that as wide an area as possible would be surveyed.

## **4.0 Results**

No presence of *Zostera noltii* was recorded during this survey. A 78-hectare area of the restricted area was surveyed and searched by officers in the duration of the day (Figure 1).



**Figure 1.** The area covered in the foot survey at Horseshoe Point (pink), compared to the area restricted to fishing activity under Regulatory Notice 4 (blue).

## 5.0 Discussion

The survey showed no presence of *Zostera* within the surveyed area. The bed has been surveyed annually since 2013, with presence recorded in 2013, 2014 and 2015. Prior to this, various reports of *Zostera* in the area are noted from county biodiversity records. In other recent surveys, it was reported that the meadow is extremely small, measuring less than 4m<sup>2</sup>. Beds of this size are more likely to be lost to natural physical processes, such as tidal currents and/or wave action. Furthermore, the small size of the bed previously reported would have been vulnerable to loss from just small-scale changes. *Zostera noltii* is a dynamic species (Kay, 1998), and does not always show presence in the same spatial area year on year, absence in this survey does not mean that the species has been lost from the area forever.

## 6.0 Recommendations for management

The closed area extends further up the intertidal than *Zostera* is likely to grow. It extends well into the saltmarsh area. Plants will not get submerged on every tide in this area, it is therefore extremely unlikely that *Zostera* will be present. With regard to management it may be worth decreasing the landward extent of the closed area, and possibly increase the width of the closure to compensate (i.e. protect a larger area of the estuary that could possibly support *Zostera* growth).

The review of the closed area should include consideration of whether the area is likely to support *Zostera* as a feature of the Humber Estuary Special Area of Conservation. This could be achieved through discussion with conservation advisors such as Natural England and local experts, and searches through literature relating to the development, regression and management of *Zostera* beds. The review should also

assess any wider social, economic and environmental impacts of retaining, varying or revoking the closure.

## **7.0 References**

KAY Q O., N. (1998). A review of the existing state of knowledge of the ecology and distribution of seagrass beds around the coast of Wales CCW, CCW Contract Survey FC 73-01-168.

MCKENZIE L., J., FINKBEINER, M., A. & KIRKMAN, H. (2001). Chapter 5: Methods for mapping seagrass distribution. Elsevier Science, Global Seagrass Research Methods.