



Agenda item B4

From: Lead Scientific and Conservation Officer

To: Kent and Essex Inshore Fisheries and Conservation Authority – 26 November 2021

Subject: MPA update/ Sabellaria survey and management for Goodwin Sands MCZ

Classification: **Unrestricted**

**Summary:**

This report provides an update on the status of the surveys carried out to inform the development of management for Goodwin Sands MCZ. This report provides a brief update since the previous Authority meeting on the 17<sup>th</sup> of September 2021 and is prepared alongside a PowerPoint presentation.

**Recommendation(s):**

The Authority is asked to **APPROVE** the following:

- (a) KEIFCAs continued *Sabellaria* reef survey and stakeholder engagement during 2022/2023 to facilitate the development of management measures.
- (b) Endorsement from the Authority to continue to engage stakeholders and identify the placed body to develop a management strategy for the Goodwin Sands MCZ.

**1. Sabellaria surveys in the Goodwin Sands MCZ**

*Background*

KEIFCA is in the process of developing management for the Goodwin Sands MCZ as part of its statutory duties under MACAA 2009. *Sabellaria* reefs are a "Designated Feature" of the MCZ with a "Conservation Objective" to "Recover" and has been classified as "Sensitive" to the "Pressures" arising from certain fishing "Activities"

(as per Conservation Advice by Natural England). Up to date KEIFCA has evaluated available data for designated features and identified data gaps in our understanding of the spatial distribution of *Sabellaria* reefs. KEIFCA has been privy to a recently developed (JNCC/DEFRA) spatial distribution model of *Sabellaria* reefs which could substantially improve our management strategy for the site. The distribution model has yet to be ground truthed, and consequently KEIFCA decided to carry out a survey to validate the accuracy of the model prior to using it when developing management for the MCZ. Funding for the survey work was obtained from Natural England.

### *Surveys*

Survey methods that use sound to observe the seabed, including side scan sonar and an ARIS camera, were used for *Sabellaria* reef surveys because of the very low levels of visibility in the water column and minimise contact with the seabed.

#### *Side scan sonar surveys*

Forty-three 1 km strips were recorded across the variety of habitats, depth zones and known probability of occurrence of *Sabellaria* reefs. The data collected were mosaiced into echograms, which were visually inspected to identify areas where the pattern in the echograms (signature) corresponds with ground truthed echograms of *Sabellaria* reef. Areas where this pattern corresponds are then treated as candidate areas where a sample of ground truthing data will be collected.

A key area inside the 6 nm district boundary with a biogenic reef (potentially *Sabellaria*) extending the full swath of the side scan data collected (0.2 km<sup>2</sup>) and numerous smaller patches in the 6 – 12 NM zone have been identified for ground truthing. (Refer the Authority paper 17<sup>th</sup> September 2021 for images and more details).

However, in other areas in the district many of the echograms, which overlap with records of *Sabellaria* from previous surveys, remain unclear because the mismatch in echogram signature to that of verified *Sabellaria* echograms.

#### *ARIS surveys*

The ARIS survey confirmed significant biological growth and three-dimensional structure of the key area inside the 6nm zone. KEIFCA will carry out the ARIS survey at remaining candidate sites in a maximum water depth of 30m over the next few months when seagoing conditions are sufficiently calm. Alternative survey methods are being explored for sites between 30 and 50 m depth which is beyond the reach of the ARIS camera.

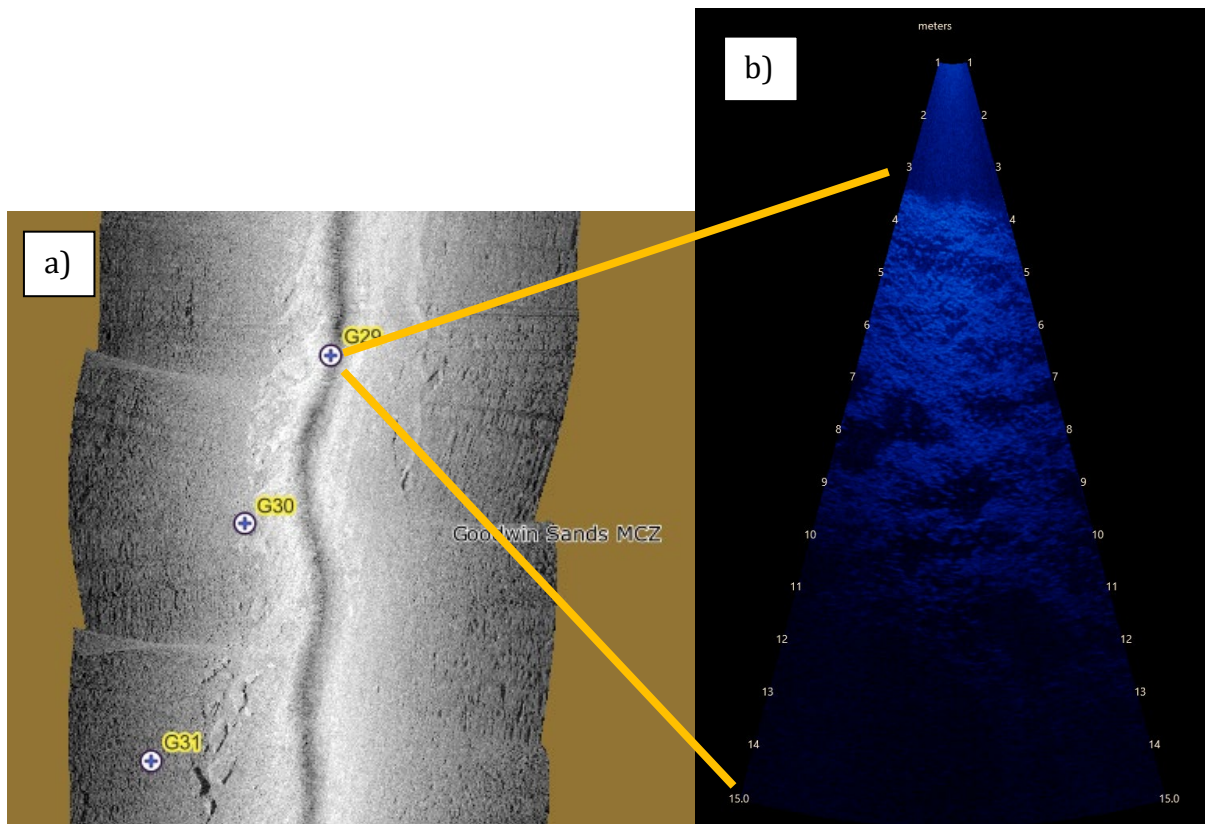


Figure 1. Biogenic reefs (potential *Sabellaria* reefs) inside the 6 NM KEIFCA district, showing the a) side-scan echogram on the left and the b) a section of reef recorded on the ARIS sound image on the right.

### Conclusion

It is challenging to determine the spatial distribution of *Sabellaria* reefs from the few surveys carried out to date because of the large size of the Goodwin Sands MCZ (277km<sup>2</sup>), combined with the dynamic nature of a mobile sand bank features that dominated site and the ephemeral nature of *Sabellaria* reefs themselves. The mismatch between echogram signatures between this study and reference images provided by Eastern IFCA increased uncertainty about the interpretation of our results. However, further research into echogram signatures collected for laying the nemo link cable has provided a second set of reference images which correspond well with that found during the side scan sonar survey. Consequently, our confidence that the site has *Sabellaria* reefs has increased. This was strongly supported by the subsequent results from the ARIS survey, confirming biogenic reef in a candidate area.

### Recommendation

We propose repeating and extending the side scan surveys, coupled with collecting ground truthing from ROV or grab samples, in 2022 to address the spatial and

temporal challenges presented by an ephemeral feature in a large site. Given the high return on investment in terms of research output per KEIFCA resource investment that we have attained through training staff, solving of logistical challenges and understanding of the site (and its dangers), it would be sensible to capitalise on the opportunity to continue survey effort to obtain the critical data needed for effective management of the site. We propose to seek funding to repeat the surveys and embed the work in KEIFCA's annual work plan for 2022/2023.

## 2. Stakeholder engagement

Key stakeholders have been engaged from an early stage in the process, including Thanet Fishermen's Association, Goodwin Sands Conservation Trust (GSCT), Natural England (NE), and the MMO.

The GSCT has been a very active stakeholder, engaging with the IFCA on numerous subjects related to the management of the Goodwin Sands MCZ, including the MCZ Fisheries Assessment, expressed keen interest in survey results, and disseminate information about the IFCA's work in their newsletters, website, and community engagement.

### *Shared management responsibilities*

The MMO and NE are being engaged in developing management for the site. The Goodwin Sands straddles the 6nm district boundary and being roughly of equal size inside and outside the district requires collaboration with the MMO in developing management for the site. KEIFCA has taken the lead in the development of the MCZ Fisheries Assessment for the site. The MMO have been asked to provide data and information about the fishing activities outside the 6nm to contribute to the Fisheries Assessment. The outcome of the Fisheries Assessment and the findings of the ongoing survey will be used to inform whether the MMO or KEIFCA take the lead in developing management measures for the site. Follow up meetings have been arranged with the MMO and NE to evaluate the outcomes up to date.

## 2022 Fishery Management Recommendations

The Authority is asked to **APPROVE** the following decisions:

- (a) KEIFCA's continued *Sabellaria* reef survey and stakeholder engagement during 2022 to facilitate the development of management measures.
- (b) Endorsement from the Authority to continue to engage stakeholders and identify the placed body to develop a management strategy for the Goodwin Sands MCZ.