



Agenda item B7

From: Lead Scientific and Conservation Officer

To: Kent and Essex Inshore Fisheries and Conservation Authority – 22 November 2022

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

Classification: **Unrestricted**

Summary:

Members will be provided with details of the surveys carried out to detect and map the presence of Sabellaria surveys in the Goodwin Sands MCZ carried in 2022 as part of developing site management, as well as the work that is required to ground truth the side-scan sonar data.

Recommendation(s):

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

- (a) KEIFCA to collect grab samples at selected sites to confirm the presence of Sabellaria where information from the side-scan sonar suggests presence of Sabellaria reefs; and
- (b) Develop management for the MCZ using the evidence collected during the Sabellaria survey.

1. Sabellaria surveys in the Goodwin Sands MCZ 2022

KEIFCA completed its second year of Sabellaria surveys on the Goodwin Sands MCZ using side-scan sonar with the aim to improve evidence on the location of Sabellaria reefs to better guide management decisions for the MCZ. We are grateful to Natural England who financially contributed to supporting this project for a second year.

Following on from the 2021 survey which found evidence suggesting the presence of large inshore Sabellaria reef, the 2022 survey was carried out with the following three specific objectives:

- to map out the full extent of the inshore reef discovered in 2021;
- establish core sites where Sabellaria reefs persisted over time (many are short-lived); and
- improve survey data through technique modification for deeper sites where it was not possible to collect good quality data in 2021.

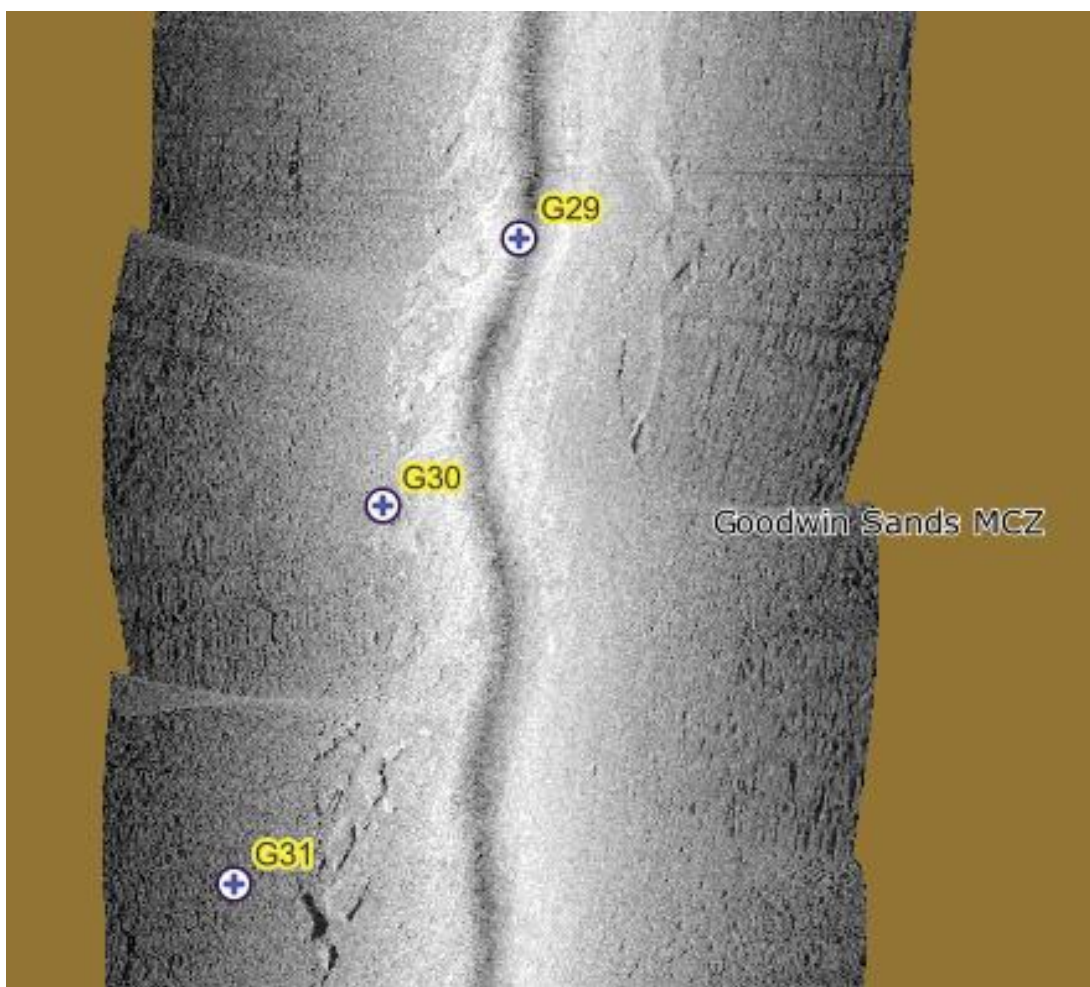


Figure 1. Biogenic reefs (potential Sabellaria reefs) inside the 6 NM KEIFCA district in 2021, as shown on the echogram (grey) image here. White dots with yellow labels show where some ground truthing data has already been collected in 2021 using ARIS equipment.

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 certain fishing activities (as per Conservation Advice by Natural England). KEIFCA evaluated available data for designated features and identified data gaps in our understanding of the spatial distribution of *Sabellaria* reefs. In 2021 KEIFCA completed the first round of Sabellaria surveys using side-scan sonar and ARIS camera work. All the 2021 data has been processed and potential Sabellaria reefs were identified and mapped out. The survey found part of a substantial inshore and separate offshore reefs. KEIFCA's 2021 survey data was regarded as a significant improvement on the former data sets by Natural England and would be included in NE and KEIFCA's spatial planning for the site. The data has been used as input for testing early models that guide where closure of areas to bottom towed gear in the MCZ should take place. Funding was then obtained to complete a second year's (2022) survey to fill essential data gaps on the back of this work.

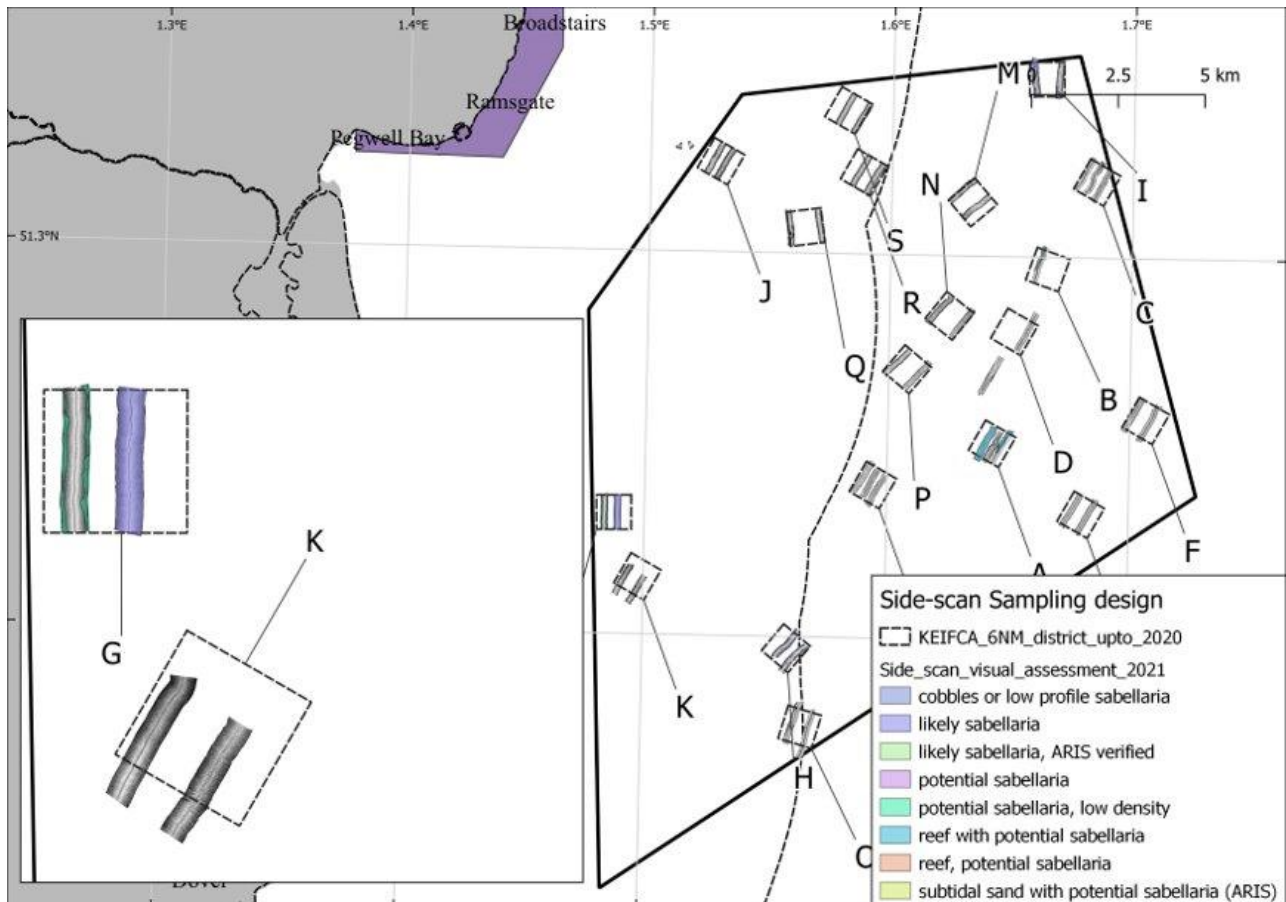


Figure 2. Distribution of Sabellaria reefs overlaid onto 2021 side-scan sonar echograms in the Goodwin Sands MCZ.

Side-scan sonar surveys 2022 - achievements

- 1) Five, five-km long (25 km total) transects were completed to map the extent of the inshore Sabellaria reef.
- 2) A further 39 one-km long transect were revisited to assess the persistence Sabellaria reefs at sites surveyed in 2021.
- 3) Data was successfully obtained from the deeper sites where it was not possible to obtain reliable data in 2021.

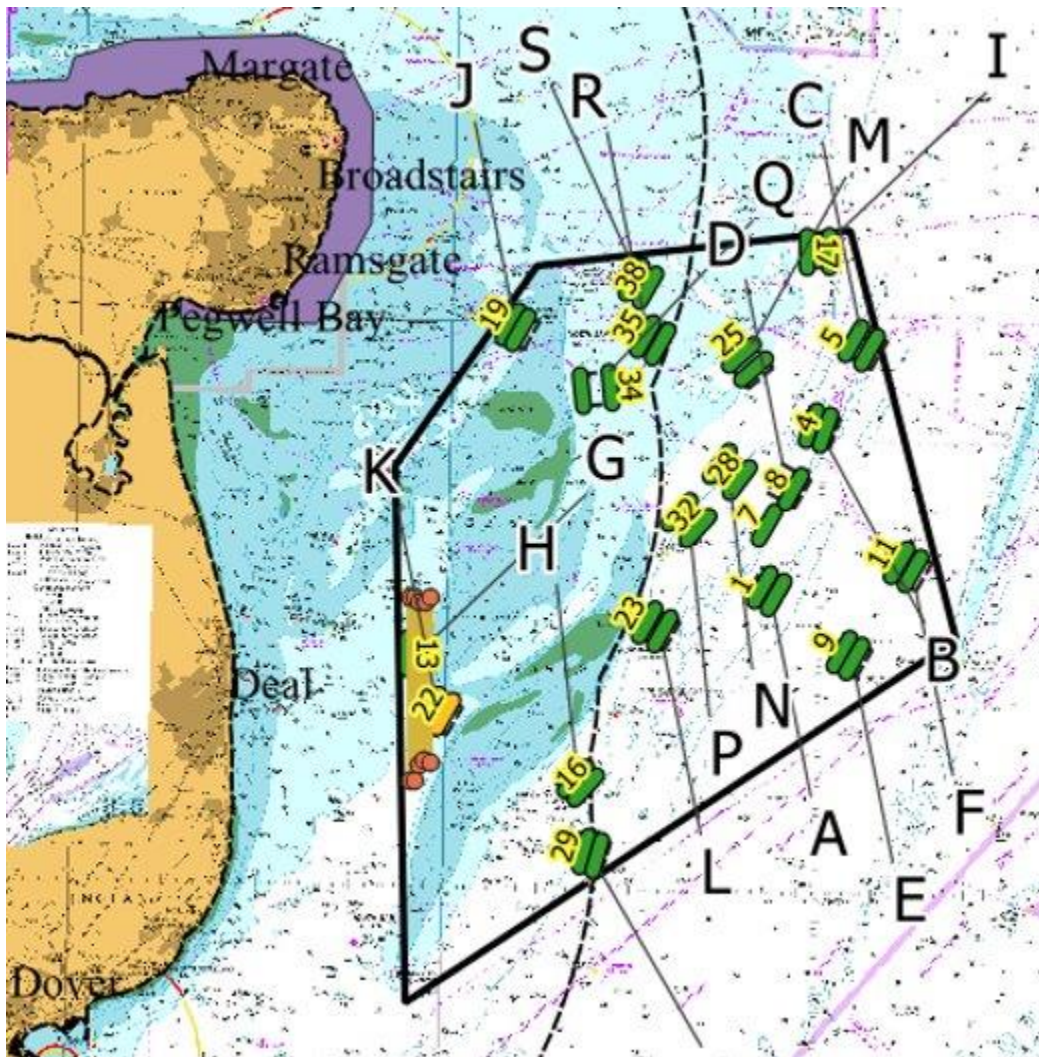


Figure 3. Map showing the 25 kilometre transects on the inshore (western side) of the map as yellow with red dots on northern and southern ends, and the 39 one kilometre transects (green lines) from which data were collected in 2022, overlaid onto map of the Goodwin Sands area.

Communication and stakeholder engagement

KEIFCA have actively communicated and engaged and kept relevant stakeholders up to date with the Sabellaria surveys. Key stakeholders to date have been Goodwin Sands Conservation Trust (GSCT), Natural England (NE), and the MMO.

Natural England have strongly supported KEIFCA's approach in developing management and obtain data for the site. The GSCT have continued to be a strong stakeholder who are supportive of the IFCA's work and role in developing management for the site. Following completion of the mapping work, fishermen will be engaged as part of the official process to develop management at a site level.

Co-management with MMO

The Goodwin Sands MCZ straddles the 6 NM boundary, and consequently requires management from both the MMO and KEIFCA. KEIFCA proposed a joint working group to ensure that management outcomes were harmonized between the inshore and offshore. However, the MMO have taken the approach to prioritise the development of management measures for all their recover features (e.g. features like Sabellaria reefs) across the whole 6-12nm English offshore area and then revisit the each site and update management for the remaining features. This is in contrast with the approach that KEIFCA are taking, which is a holistic plan which simultaneously considers the geographical location of all features that will require protection. Consequently, KEIFCA will provide an update to the management which will hopefully result in an update that joins the inshore and offshore management up. This approach has both NE and MMO's support.

Follow up work 2022/2023

1. Side-scan sonar data from 2022 needs to be processed (requiring use of super-computer and software at Eastern IFCA), followed by visual analysis to identify areas with Sabellaria reefs, which answer the specific objectives of this project (i.e., the location of the inshore reef, persistent reefs, and presence of reefs in deeper sites which could not previously be accessed).
2. There is a need to collect grab samples to confirm that the echograms and ARIS data (collected 2021) are indeed Sabellaria reefs. Although our confidence is high owing to multiple sources of data supporting the idea that the echograms represent Sabellaria, it requires validation before developing management based thereon.
3. Feed data back to Natural England to form part of the evidence base. This information is then shared wider with partners like the MMO who must take

this information into account in developing site management including the offshore.

4. Increase engagement with fishermen, e.g., Thanet Fishermen's Association and other stakeholders
5. Develop site management, i.e., identify areas which would be efficient to simultaneously protect Sabellaria reefs and other designated features in the site using a transparent, scientifically justifiable, and repeatable method.

Conclusion

The evidence collected to date has been very useful to inform site management, and it is deemed that it would not be necessary to carry out this survey on an annual basis; every two to three years would be more appropriate because it would be better aligned with the temporal scales at which the reefs appear to be changing. However, the KEIFCA 2021 and 2022 survey data requires validation through collection of grab samples which will provide evidence whether the echograms that appear to be Sabellaria reefs are indeed that. Once the data has been ground truthed KEIFCA would look to initiate developing management for the site.

2022 Fishery Management Recommendations

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

- (a)** KEIFCA to collect grab samples at selected sites to confirm the presence of Sabellaria where information from the side-scan sonar suggests presence of Sabellaria reefs; and
- (b)** Develop management for the MCZ using the evidence collected during the Sabellaria survey.