Agenda Item B5

By:	KEIFCA Chief Fishery Officer
To:	Kent & Essex Inshore Fisheries and Conservation Authority – 17 September 2021
Subject:	**Marine Protected Area Update**
Classification	Unrestricted

Summary:

This paper will provide Members with an update on the progress of assessing the feature distribution and developing management options for the Goodwin Sands MCZ site, together with a summary of the process and progress of the designation of Highly Protected Marine Areas (HPMAs).

Recommendations:

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

Progress so far – Marine Conservation Zone (MCZ) management

KEIFCA is required to develop management for MCZs to further their conservation objectives under the Marine and Coastal Access Act (MACAA) 2009. As part of the role of IFCAs therein, KEIFCA is developing MCZ Fisheries Assessments for all MCZs in the district. MCZ fisheries assessments underpin the management recommendations through the identification of pressures on designated features which have conservation features that require recovery.

KEIFCA have nine MCZs in the district requiring MCZ Fisheries Assessments. To date, MCZ Fisheries Assessments have been prepared by KEIFCA and signed off by Natural England (NE) for four of the nine MCZs, namely, the: 1) Blackwater, Crouch, Roach and Colne MCZ, 2) Thanet Coast MCZ, and 3) Folkestone Pomerania MCZ which were designated during the first tranche (T1) of designations in 2013, and 4) Swanscombe MCZ, which was designated in the 2019 third tranche (T3). The further five outstanding MCZ assessments have all been prepared and submitted to NE for review, three of which are in the final stages before being signed off. Goodwin Sands is a T3 MCZ site which we share

with the Marine Management Organisation (MMO) as it straddles the 6 nm boundary of KEIFCA's district. KEIFCA are currently leading the development of the MCZ Fisheries Assessment with input from the MMO, who have currently provided the necessary information on the location and extent of activities carried out by both EU and UK boats in the 6 to 12 nm portion of the site. The draft will be submitted for review by the MMO, NE and other conservation groups such as the local Wildlife Trust, before it is formally submitted.

Management for Goodwin Sands MCZ

While the MCZ assessment has not yet been completed, KEIFCA has taken a pro-active approach to develop management, by engaging with stakeholders, identifying and assimilating data for conservation features in Goodwin Sands MCZ.

Key stakeholders with whom KEIFCA have started early talks include NE, the MMO and The Goodwin Sands Conservation Trust, and representatives from Thanet Fishermen Association to make the process as inclusive as possible.

The two conservation features of the site which have conservation objectives to recover are: 1) *Sabellaria* reefs and 2) circalittoral reefs. Critical information which informs the spatial planning around management decisions is the geographical distribution of the designated features, in particular the ones requiring recovery. This spatial information (habitat and feature GIS maps) about the designated features is contained in the national Marine Evidence data set which a critical compilation from various data sources and surveys and distributed by NE. While this evidence typically underpins management based on the whereabouts of designated features, information on *Sabellaria* in the Goodwin Sands MCZ was last updated in 2014. Sabellaria is an ephemeral feature, meaning that its distributions can change somewhat between years, and therefore requires more frequent monitoring, or maps that capture the temporal aspect of their movements.

In an effort to provide maps that are more comprehensive and improves on point locality data alone, JNCC is to develop a species distribution model of *Sabellaria* reefs throughout the UK's waters. The use of such a model would be beneficial for basing management upon, provided that the model is accurate. To date, no ground truthing of this model has been carried out. Consequently, KEIFCA launched a survey to validate the spatial distribution of *Sabellaria* reefs prior to basing management upon it. This project has financial support from NE and was approved by the Authority during the previous meeting in May 2021.

Sabellaria survey progress

To date, survey planning, training in survey methods, site exploration, practice surveys and all side-scan sonar surveys have been completed. Side-scan sonar survey data has been processed and is currently being evaluated to determine sites for further investigation using an Adaptive Resolution Imaging Sonar (ARIS) and Remotely Operated Vehicle (ROV) survey work to follow over the next few months.

Survey planning

A survey plan was designed to ensure that high and low probability areas of occurrence of *Sabellaria* reefs were sampled across all habitat types, in deep and shallow water (in combination referred to as strata), whilst avoiding collision with the +- 200 shipwrecks and sandbanks. Transect lines also had to be aligned with bathymetric gradients and current direction.

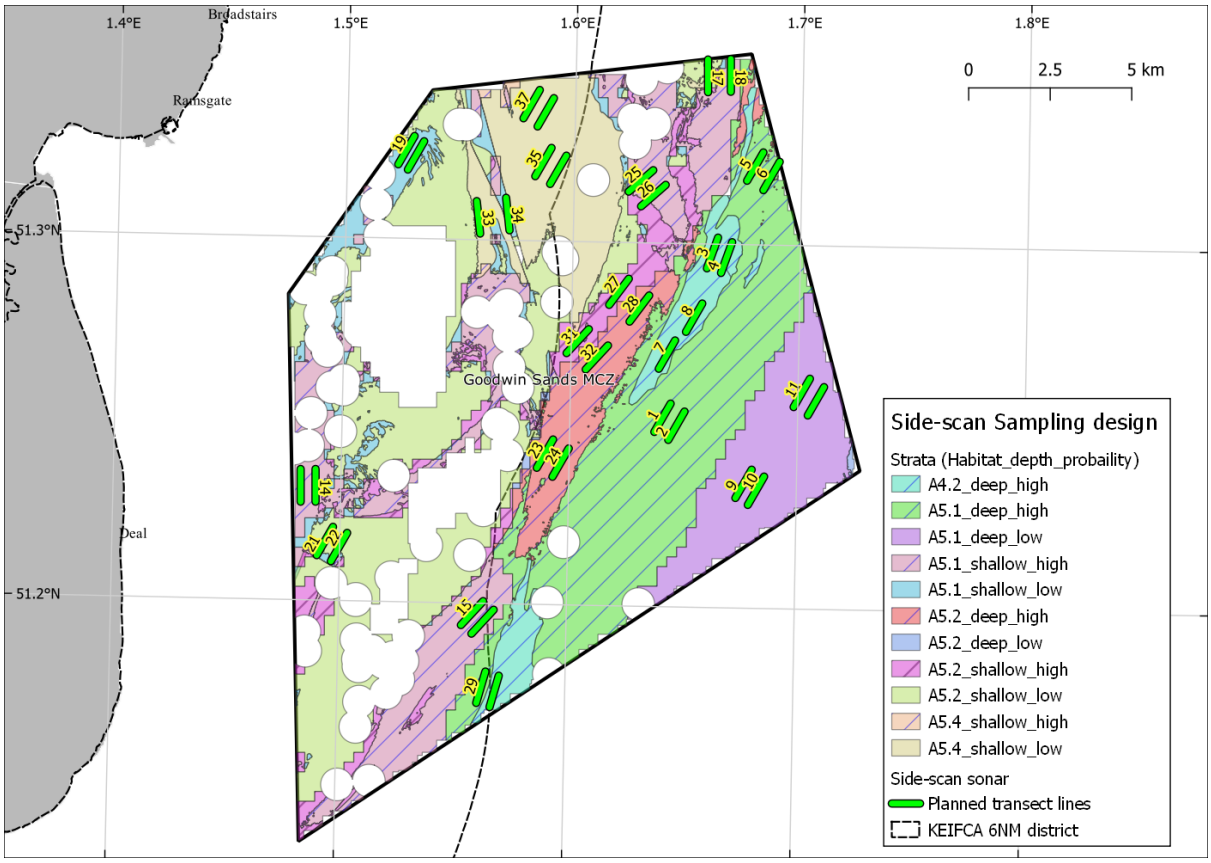

Figure 1. Map of transects for which side-scan sonar data has been collected in Goodwin Sands MCZ off the Kent coastline. Green lines show the 38 planned transects in the 11 strata. Blank areas on the map were removed because they were too shallow or within 500 m from a shipwreck.

Training

The Lead Scientific and Conservation Officer (Phil Haupt) attended a side-scan sonar survey at Eastern IFCA to train in using the equipment and transfer the knowledge to other staff at KEIFCA. Phil and the Scientific and Conservation Officer (Anna Plumeridge) attended training in assembling and deploying ARIS sound camera at Eastern IFCA, and KEIFCA benefitted from their experience in using the equipment for *Sabellaria* surveys.

Site exploration

The site was explored to determine the reliability of admiralty charts in the area, with respect to moving sand bars and depth of certain wrecks to ensure safe navigation prior to surveys starting.

Equipment tests

Both EdgeTech side-scan sonar and the ARIS sound image camera were tested on deck and then at sea to ensure good working order and successful data capture prior to surveys.

Side-scan surveys

Official survey work commenced on the 20 July 2021 and was completed by the 27 July 2021. Side scan data were recorded for 43 one kilometre transects, including the 38 from the survey plan, and additional transects to standardise transects for deeper sites.

Figure 2. EdgeTech 4200 side-scan sonar onboard FPV Nerissa ready for deployment in Goodwin Sands MCZ.

Figure 3. Officer Rob Watson controlling the whinch to let line out to control the depth of the side-scan sonar.

Figure 4. GPS track onboard FPV Nerissa being kept to course by skipper Ben Hermitage.

Figure 5. Staff (Officer Rob Watson and SCO Anna Plumeridge) recording and viewing the side-scan data onto laptops

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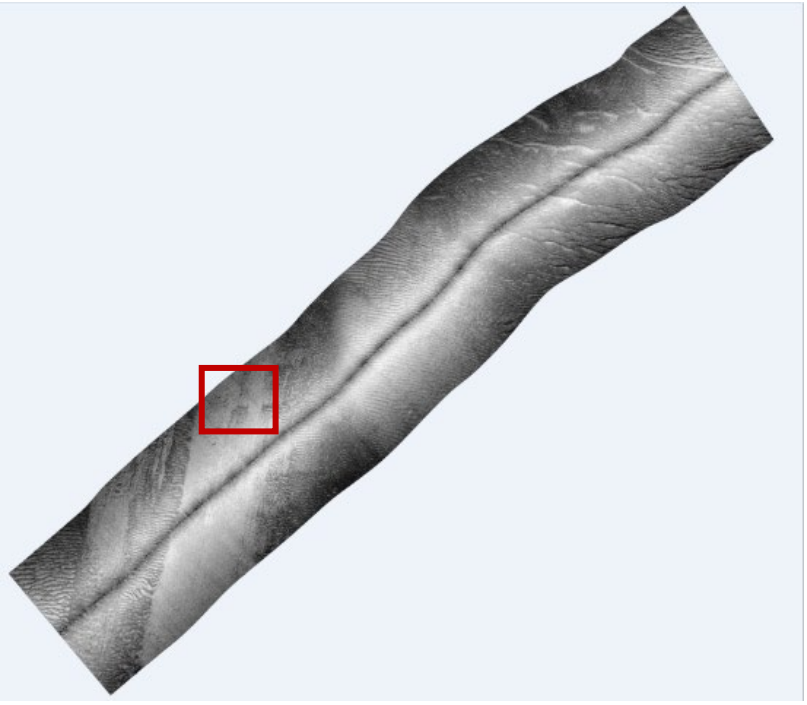


Figure 6. Processed low frequency side-scan sonar data (of transect line 25) showing sand riffles (dark striped patterns) with a homogenous lighter diagonal area of gravel cutting through the transect. The red area indicates a candidate area for follow up work.

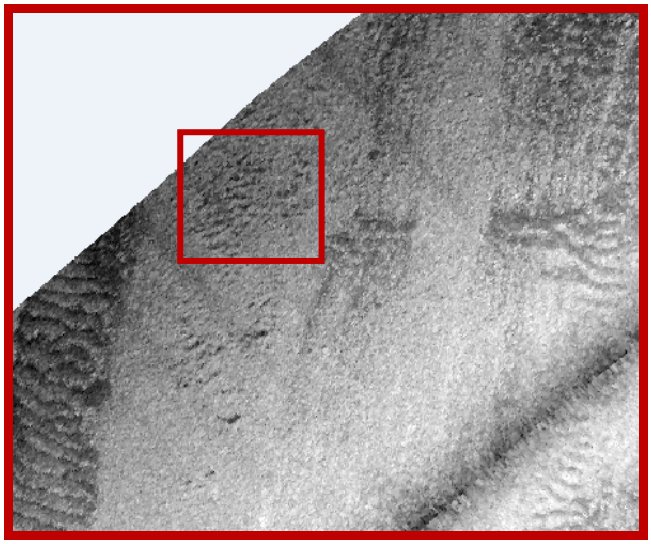


Figure 7. Zoomed in candidate (orange peel-like texture) Sabellaria *reefs being identified for ARIS follow up survey.*

Challenges

Technical issues to get the FPV Nerissa's GPS to overlay GPS data onto the side-scan data prior to the survey, a critical process to allow georeferencing the side-scan data, caused a delay of about 10 days.

Availability of access to a specific computer and logistical constraints around transport to EIFCA delayed the start of side-scan data analysis by about ten days.

Early insights

Early indications suggest that the site does not have well developed *Sabellaria* reefs, based on a comparison of the side-scan sonar images collected in this survey compared to the reference images that Eastern IFCA have provided us with. However, validation is required because there is a high degree of variability in the signatures returned from *Sabellaria*.

Future work

The ARIS sound camera will be deployed at sites determined from the side-scan sonar data in areas where the sound signatures suggest a presence of Sabellaria reefs, whilst obtaining at least three samples from each stratum.

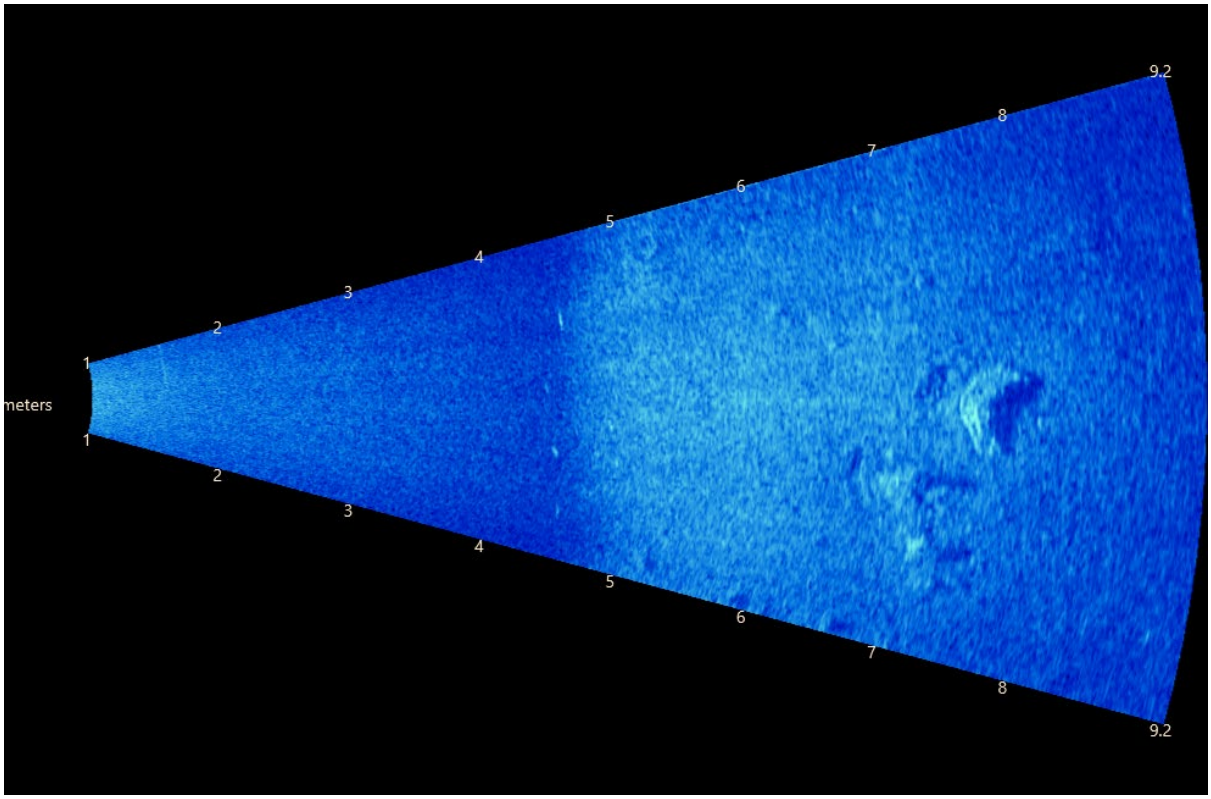


Figure 8. Sound image captured by ARIS camera in Ramsgate harbour off the back of FPV Nerissa during test deployment..

Highly Protected Marine Areas (HPMAs) update

Background

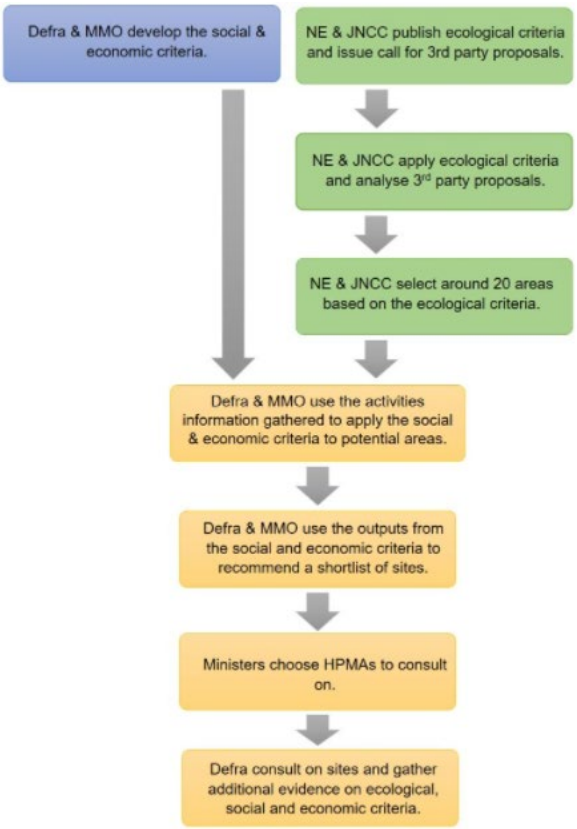
HPMAs are areas of the sea designated for the protection and recovery of marine ecosystems. They prohibit extractive, destructive, and depositional uses, allowing only non-damaging levels of other activities to the extent permitted by international law.

By setting aside some areas of sea with high levels of protection, HPMAs will allow nature to recover to a more natural state, allowing ecosystems to thrive. Their key purpose is biodiversity recovery. Central Government recently responded to the recommendations of the Benyon Review and committed to designate a number of pilot HPMAs in 2022 in English waters. Powers under the Marine and Coastal Access Act (2009) will be used to bring forward these pilot HPMAs. During this pilot phase we will aim to improve our understanding of:

- how the marine ecosystem will recover in the absence of direct human pressures;
- how best to monitor and manage HPMAs;
- the suitability of the Marine and Coastal Access Act (2009) for the designation of HPMAs; and
- the effects of HPMAs on sea users and coastal communities. This will include understanding any displacement of fishing effort at a site level and how we can best improve our understanding of this in the future.

How DEFRA will identify pilot HPMAs

Central Government will identify pilot HPMAs based on ecological, social and economic criteria, to select sites that provide the maximum biodiversity benefits while seeking to also maximise associated benefits and minimise impacts to sea users.



Pilot HPMAs may be inside or outside of the existing MPA network, in inshore and offshore areas, recognising that HPMAs must be in the locations best able to deliver protection and recovery.

Defra has asked JNCC and Natural England (NE), working with Cefas, the Marine Management Organisation (MMO), the Association of Inshore Fisheries and Conservation Authorities, and the Environment Agency, to identify potential locations for pilot HPMAs. Third parties may also propose locations for

consideration as pilot HPMAs to JNCC and NE based on ecological criteria.

KEIFCA working through the Association of IFCAs

The AIFCA has been awarded a grant from Defra to support the IFCAs' engagement in that process and is supporting the development of socio-economic criteria to select pilot HPMAs.

- *Ecological Criteria.* JNCC and NE are currently in the process of identifying locations for potential HPMAs based on the ecological criteria as well as reviewing third party proposals. Once JNCC and NE have identified and ranked potential sites they will be providing Defra with advice on a list of sites that meet the ecological criteria.

- *Socio Economic Criteria.* The process for shortlisting HPMA pilot sites includes application and assessment of social and economic criteria. Drawing on recommendations from the Benyon Review, the AIFCA has worked with Defra and MMO to develop an initial list of social and economic criteria for shortlisting. The next step is to share this initial list with stakeholders and gather their feedback to assist us in developing and refining further. In particular, stakeholder input would be valuable in ensuring the full potential range of impacts is captured, appropriate measurement definitions and potential evidence sources.

- *Recreational Fishing and HPMA Buffer Zones.* Following the Government's response to the Benyon Review, and work undertaken to understand the impacts of Recreational Sea Angling (RSA) on Highly Protected Marine Areas (HPMAs) and vice versa, further work is now required to better understand the potential for spatial management strategies for managing RSA around HPMAs, i.e. zoning, in English waters. A literature review has been commissioned and views from regulators and members of the RSA community to discuss the feasibility of potential buffer option(s), highlight issues and the potential role of the RSA community in buffer zones.

RECOMMNEDATIONS

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