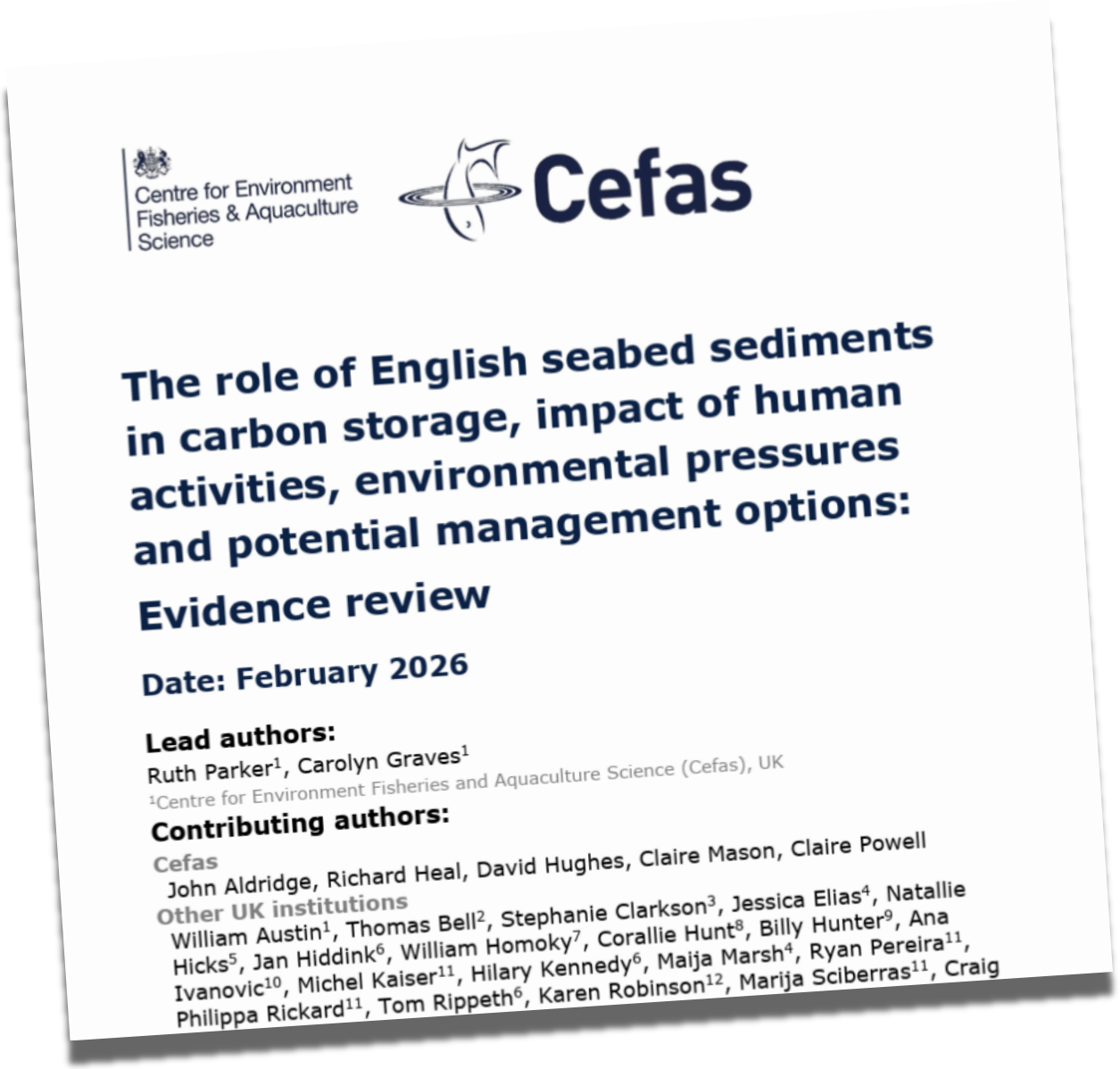
Centre for Environment Fisheries & Aquaculture Science

Cefas

The role of English seabed sediments in carbon storage, impact of human activities, environmental pressures and potential management options:

Evidence review

Date: February 2026

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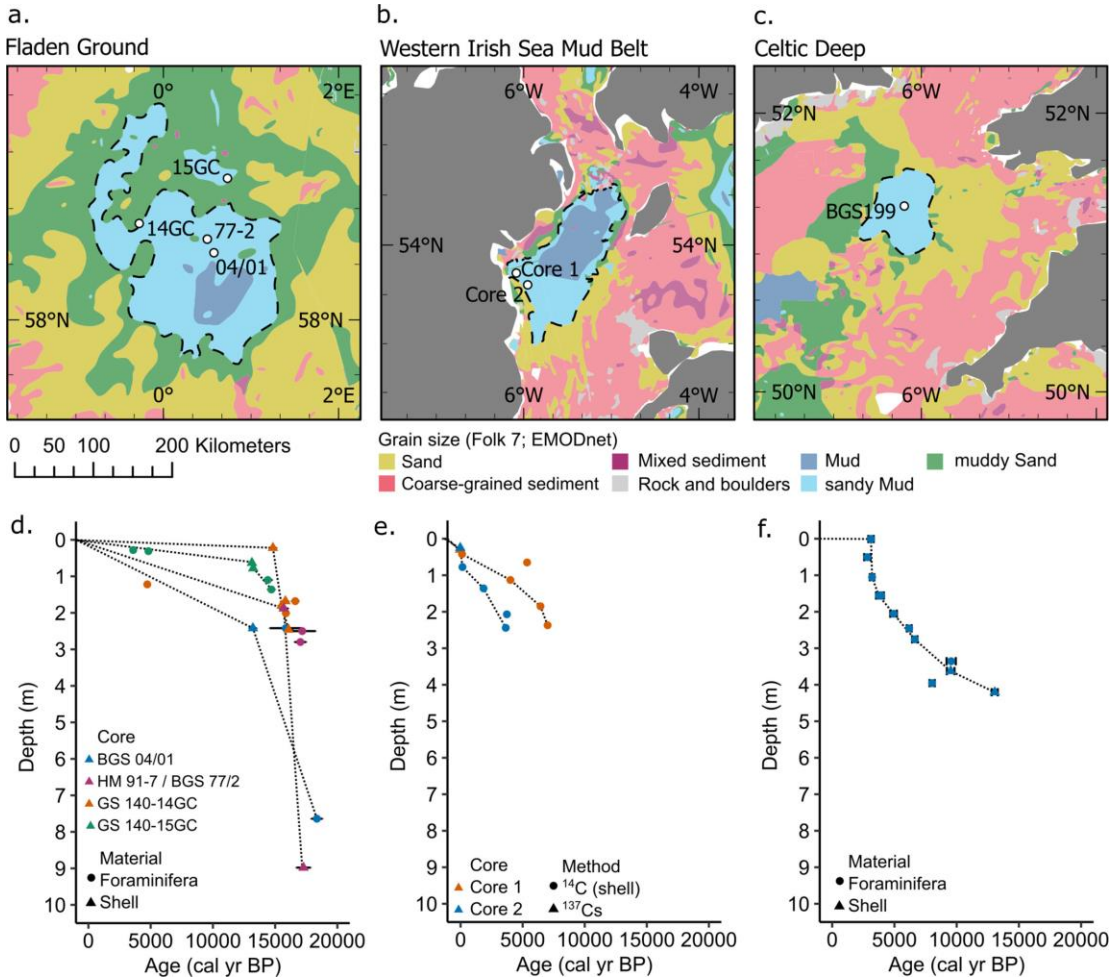
UK Government Blue Carbon Evidence Partnership (co-ordinated by CEFAS).

Key Knowledge Gaps:

- Where seabed carbon sits around the UK.
- How carbon changes and degrades in response to different human activities and environmental factors.
- Predictive models to assess management scenarios and their trade-offs for carbon but also biodiversity and fishing or energy sectors.

Where is the carbon buried?



CONVEX Seascape Survey

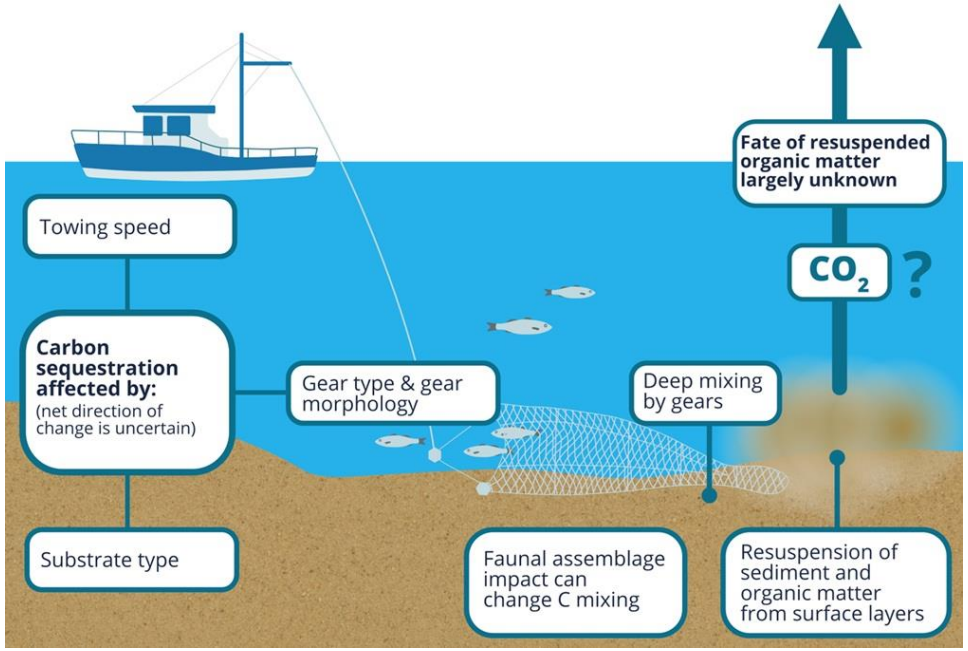
Ward et al., 2025, https://doi.org/10.1029/2024JC022092

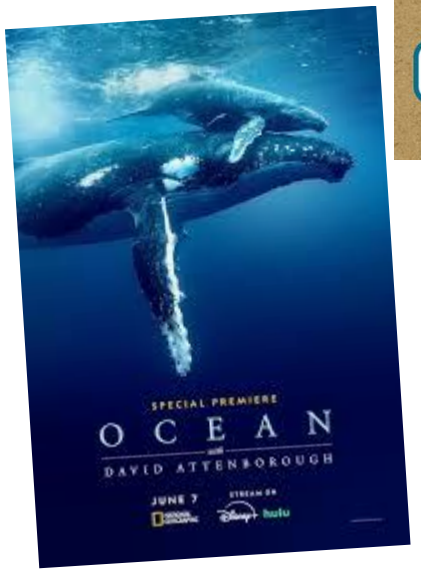
AI applications for the study of the impact of climate change and in particular heat waves on sediment blue carbon accumulation and storage.

UKRI Fellowship Application submitted last week.

UKRI Innovate UK

Human Activities - *Trawling*





Matters arising

Quantifying the carbon benefits of ending bottom trawling

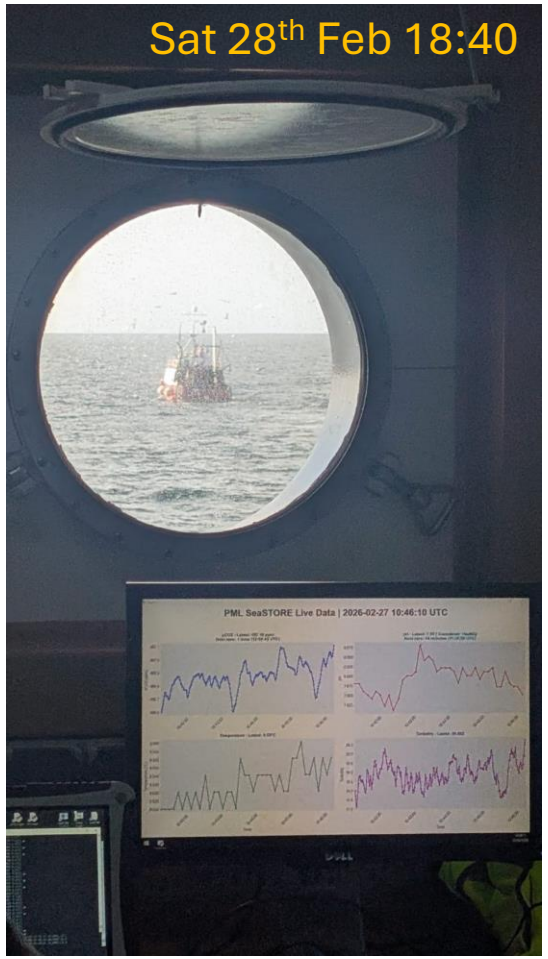
https://doi.org/10.1038/s41586-023-06014-7
Received: 29 April 2021
Accepted: 6 February 2023
Published online: 10 May 2023
Check for updates

Jan Geert Hiddink[1✉], Sebastiaan J. van de Velde[2,3], Robert A. McConnaughey[4], Emil De Borger[5], Justin Tiano[5,6,7], Michel J. Kaiser[8], Andrew K. Sweetman[9] & Marija Sciberras[8]

ARISING FROM E. Sala et al. *Nature* https://doi.org/10.1038/s41586-021-03371-z (2021)

Bottom trawling disrupts natural carbon flows in seabed ecosystems owing to sediment mixing, resuspension and changes in the biological mineralization in marine sediments (Fig. 1 shows typical *k* values relative to sediment depth for a range of North Sea sediments).

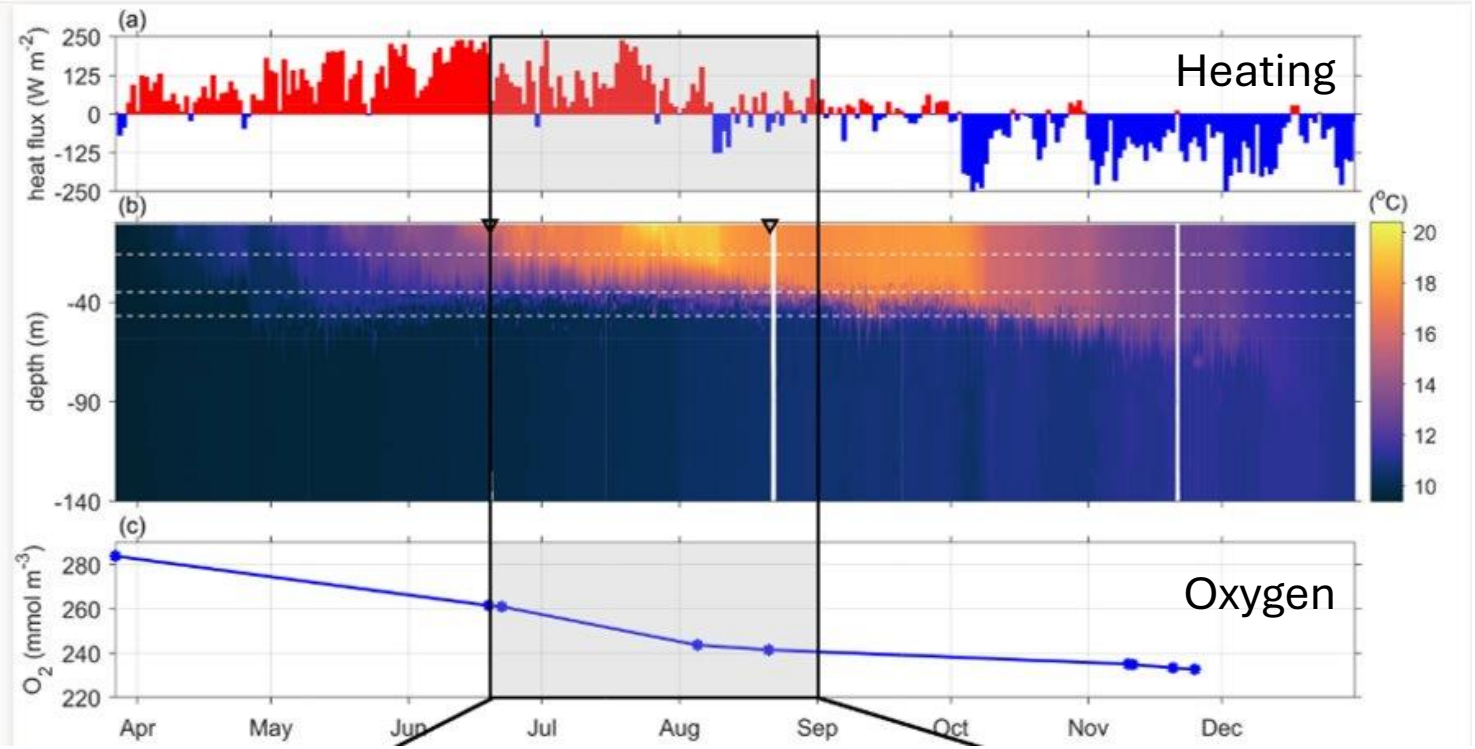
Current *SeaStore* Cruise



Natural Environment Research Council

Seasonal Stratification and *FLOW*

Celtic Sea



Rippeth et al (2024). *https://www.nature.com/articles/s41467-024-47548-2*