



# UK Coastal Research Conference

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## RESTORING RESILIENT AND PRODUCTIVE COASTAL ECOSYSTEMS FOR THE 21ST CENTURY

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Much of the U.K. coastline and near inshore waters are in a poor ecological state. Habitat losses, over-exploitation, and poor water quality limits the ability of these habitats to provide valuable ecosystem services. It is known that an inter-connected mosaic of habitats (a "seascape") can promote resistance and resilience to environmental pressures. A healthy seascape should provide better carbon storage, sea defence, fisheries and water quality for human society to enjoy. Often conservation efforts focus on restoring habitats back to historical reference conditions, but the impact of climate change, shifts in species distributions, and the presence of new and non-native species challenges these efforts. The UK Government and devolved administrations have recognised that seascape scale restoration is desirable, and natural capital approaches are being promoted. This presentation will focus on some of the science gaps that need to be addressed to meet these aims.

### About Graham

Graham is Professor of Marine and Freshwater Biology in the School of Life Sciences at the University of Essex. He has worked on estuarine ecology, biogeochemistry and microbial ecology for over 35 years. His research interests range from microbial diversity and function, primary production and organic carbon fluxes, through to whole catchment functioning, ecosystem services, natural capital and approaches to coastal seascape restoration. Graham currently Chairs the U.K. Blue Carbon Evidence Partnership, is a co-Chair of the Estuarine Coastal Shelf Association – Environment Agency Special Interest Group on coastal connectivity (ConnECTOR), and is a NERC Knowledge Exchange Fellow (2022-2025), on a project called "Delivering Multifunctional Natural Capital Approaches for Future Coasts".