THE MECHANISTIC LINK FROM PREDICTABLE PHYSICAL ENVIRONMENT TO DIVING SEABIRD DISTRIBUTION VIA THEIR MARINE PREY

ECOWind

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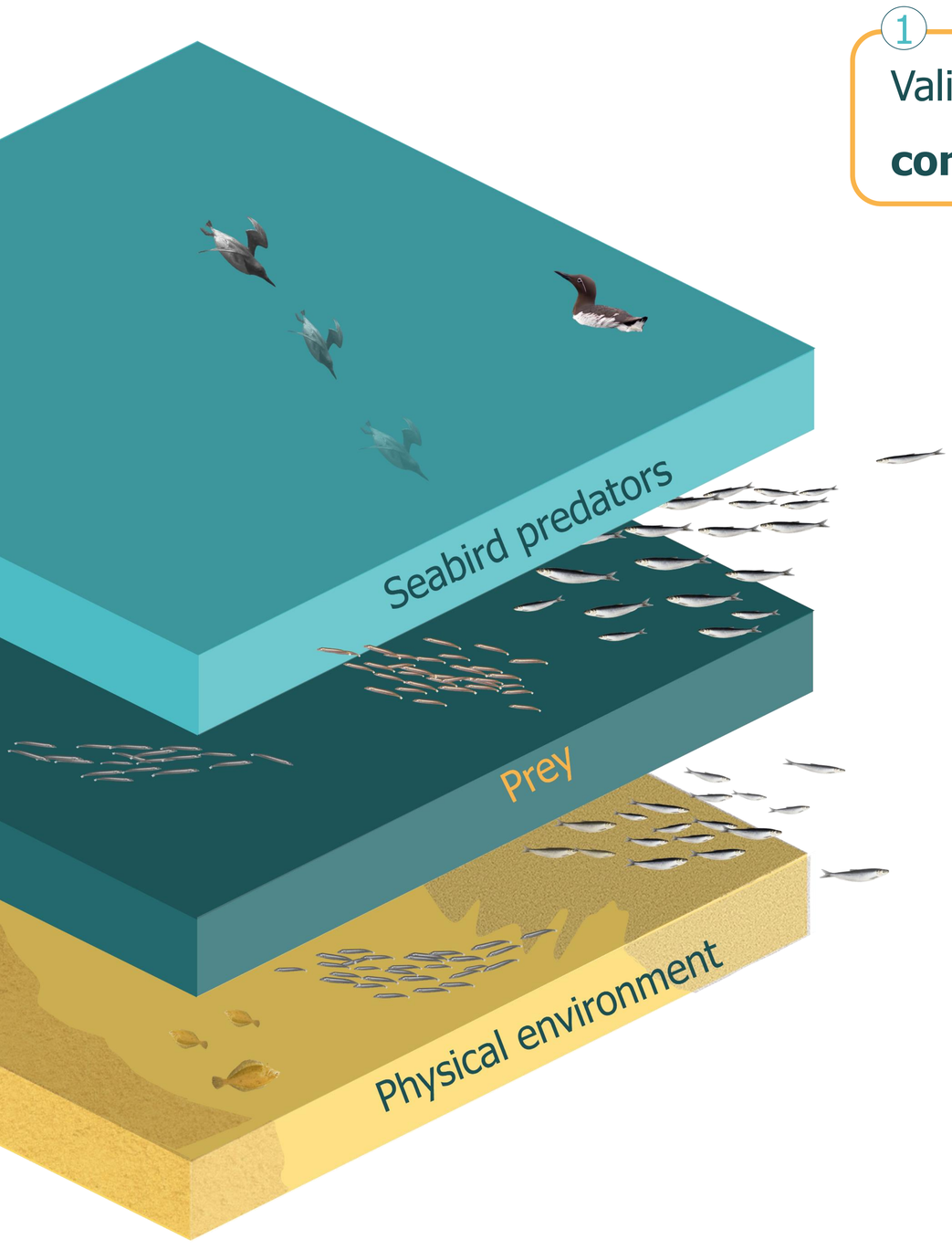
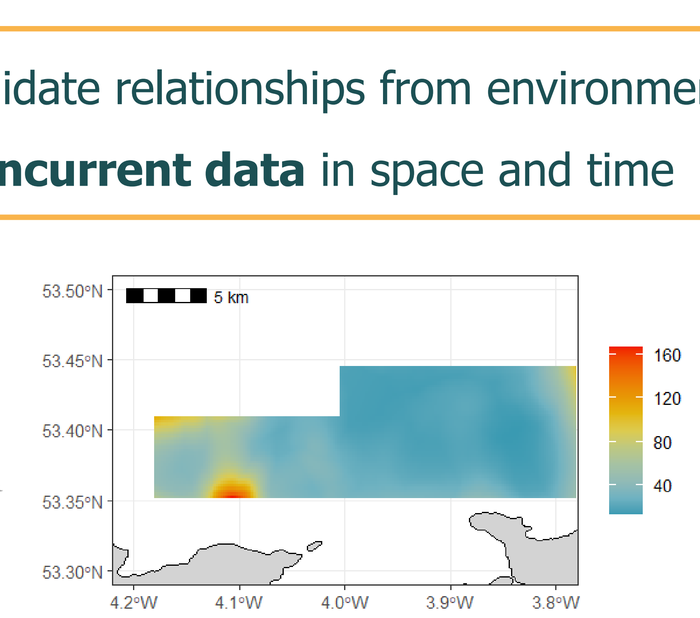
Problem

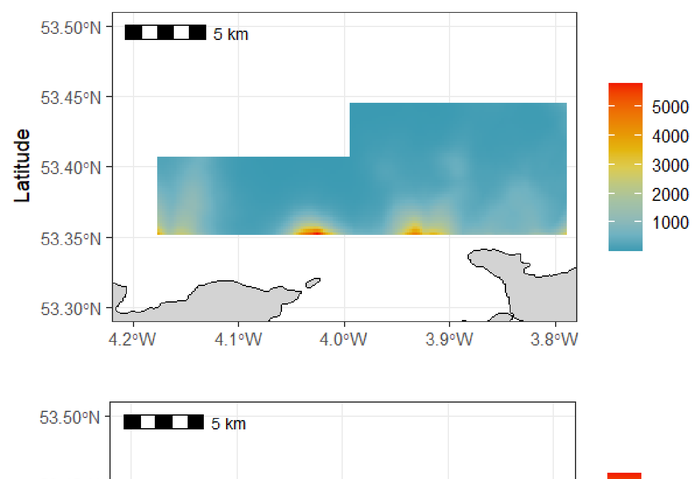
Seabed characteristics influence the wider marine ecosystem, as they drive predictable prey concentrations. Many studies measure such physical environments in relation to predators but neglect the link between prey and habitat. This is important in understanding the impact of offshore wind farms which will change the nature of the seabed.



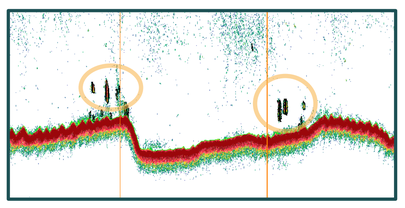
1 Validate relationships from environment to prey to predator with **concurrent data** in space and time

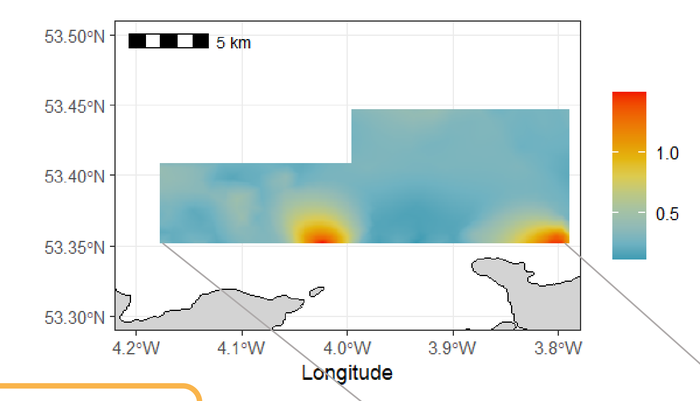


Bird density



Fish school density

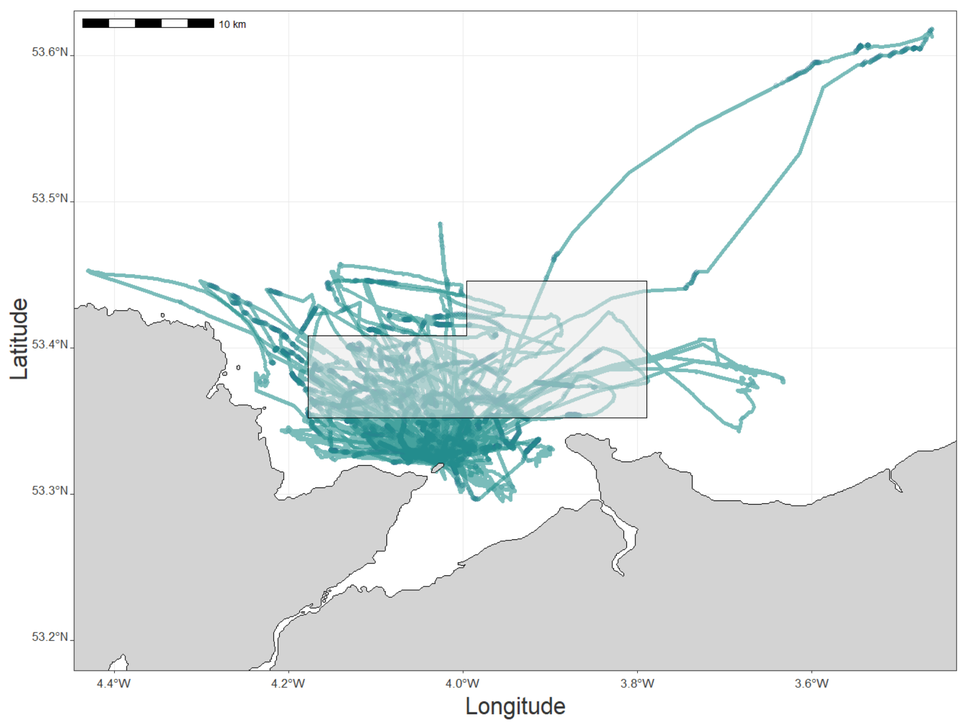




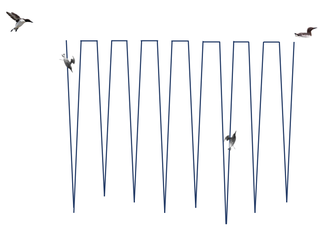
Seabed characteristics

Spatiotemporal overlap

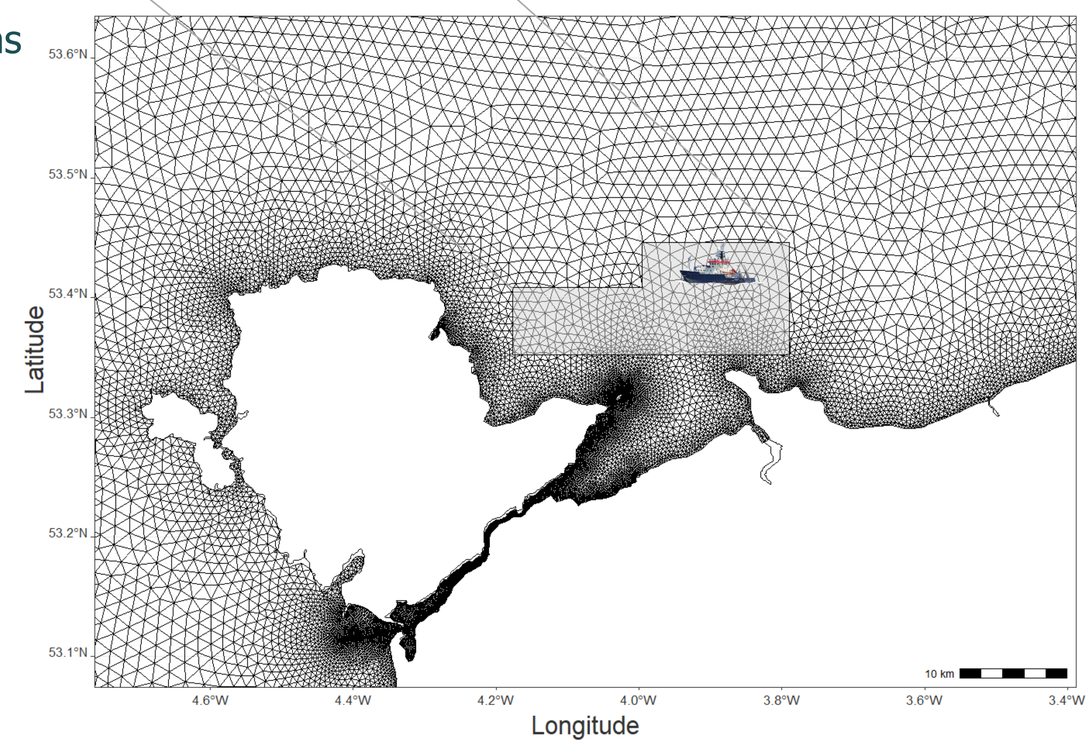
2 Understand **habitat quality** by modelling predator **energy gain**



Foraging locations



Energy gain and expenditure



Take home

We demonstrate how it is possible to quantify the mechanistic link from habitat to predator via their prey, to better predict the consequences of a changing physical environment on marine top predators.

Acknowledgements: Many thanks to Amelia Corvin-Czarnodolski, Freddie Mckendrick, Elayna Daniels, Emily Shepard, Emma-Louise Cole, Eve Merrall, Tom Cotterill, Robert Sarginson, Aled Owen, Pete Hughes, Berwyn Roberts

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