

CLIMATE CHANGE

What is climate change, how does it effect the ocean and how can we help reduce it.



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THE
WAVE**

**MARINE
CONSERVATION
SOCIETY**



cadwch keep
gymru'n wales
daclus tidy



Lesson Objectives

- Identify how the ocean helps to reduce the effects of climate change
- Explain how climate change is affecting the ocean
- Discuss ideas to help reduce the effects of climate change on the ocean





HOW DOES CLIMATE CHANGE EFFECT THE OCEAN

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Do you know of any ways that
climate change is affecting the
ocean?



SEA LEVEL RISE



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CHANGING HABITATS



CORAL BLEACHING



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INCREASED STORMS



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OCEAN ACIDIFICATION





OCEAN ACIDIFICATION

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A photograph of a sandy beach with numerous seashells scattered across the foreground. The ocean is visible in the background under a clear sky. The text is overlaid on the middle of the image.

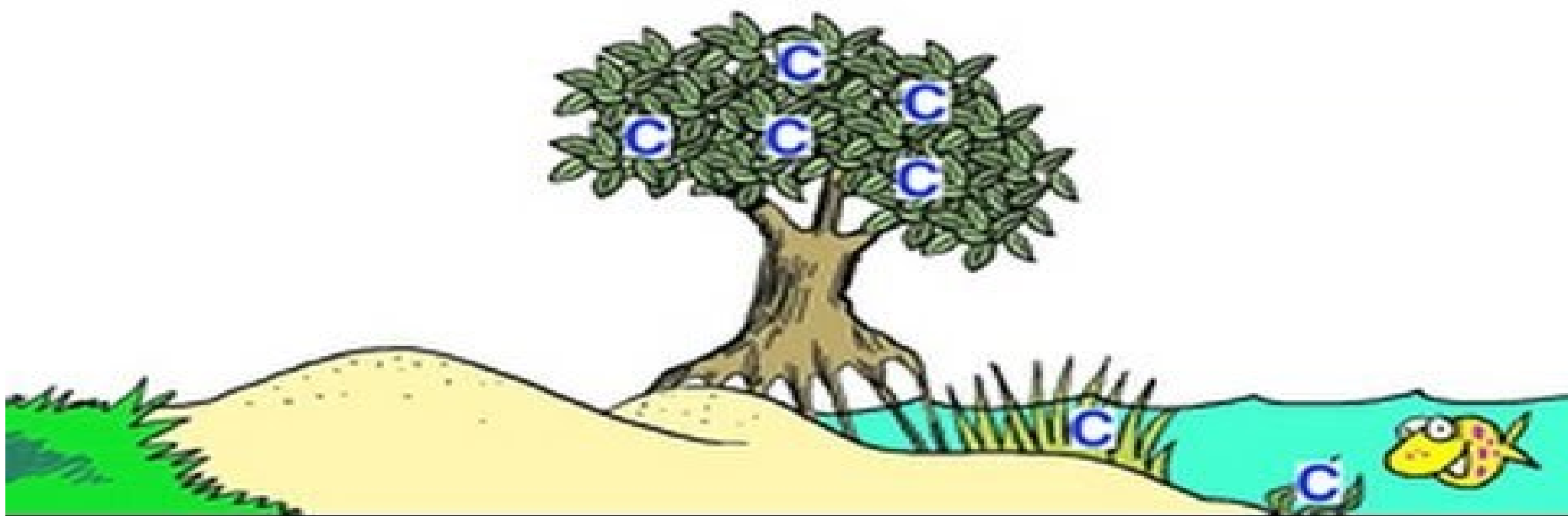
Ocean Acidification

with Dynamic Earth & the Marine Conservation Society



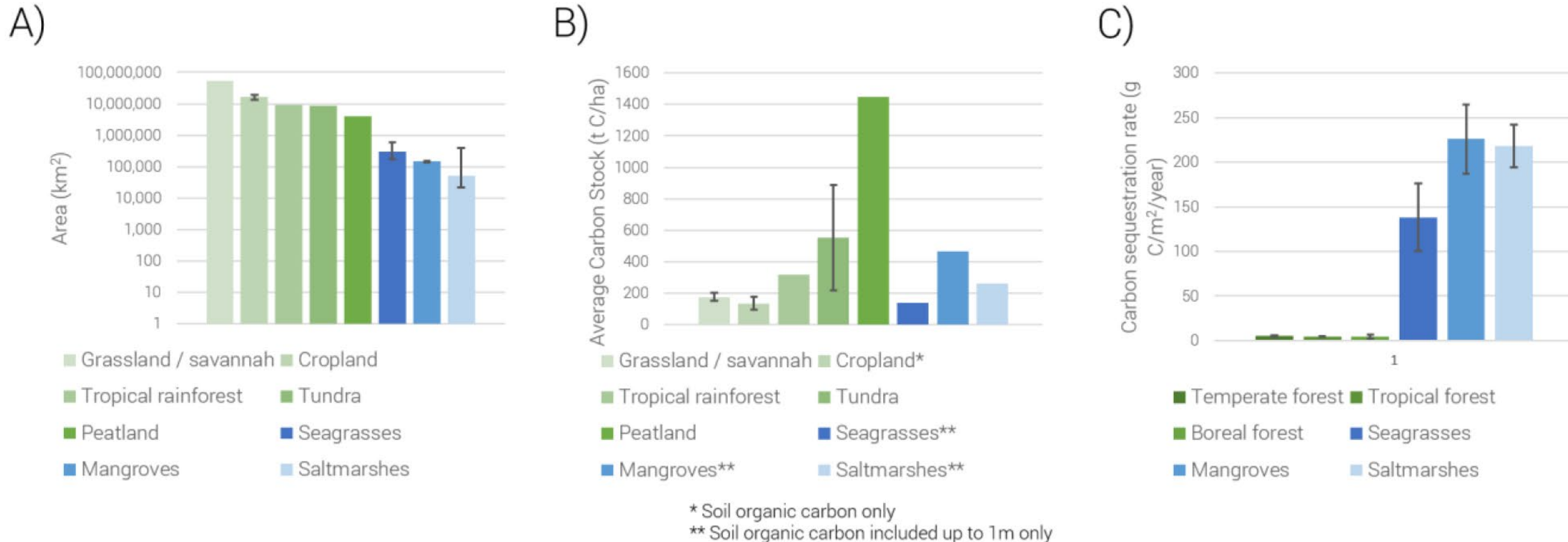
BLUE CARBON HABITATS

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Blue Carbon Variation between ecosystems

Figure 2: Variation among selected ecosystems important for terrestrial or blue carbon in: estimated total global area (A - note logarithmic scale); average carbon storage per area (B); and carbon sequestration rates (C). Error bars represent the range of estimates for A and B, and standard error for C. Sources: Eppe et al 2016 for A and B; Mcleod et al 2011 for C





HOW CAN WE REDUCE CLIMATE CHANGE

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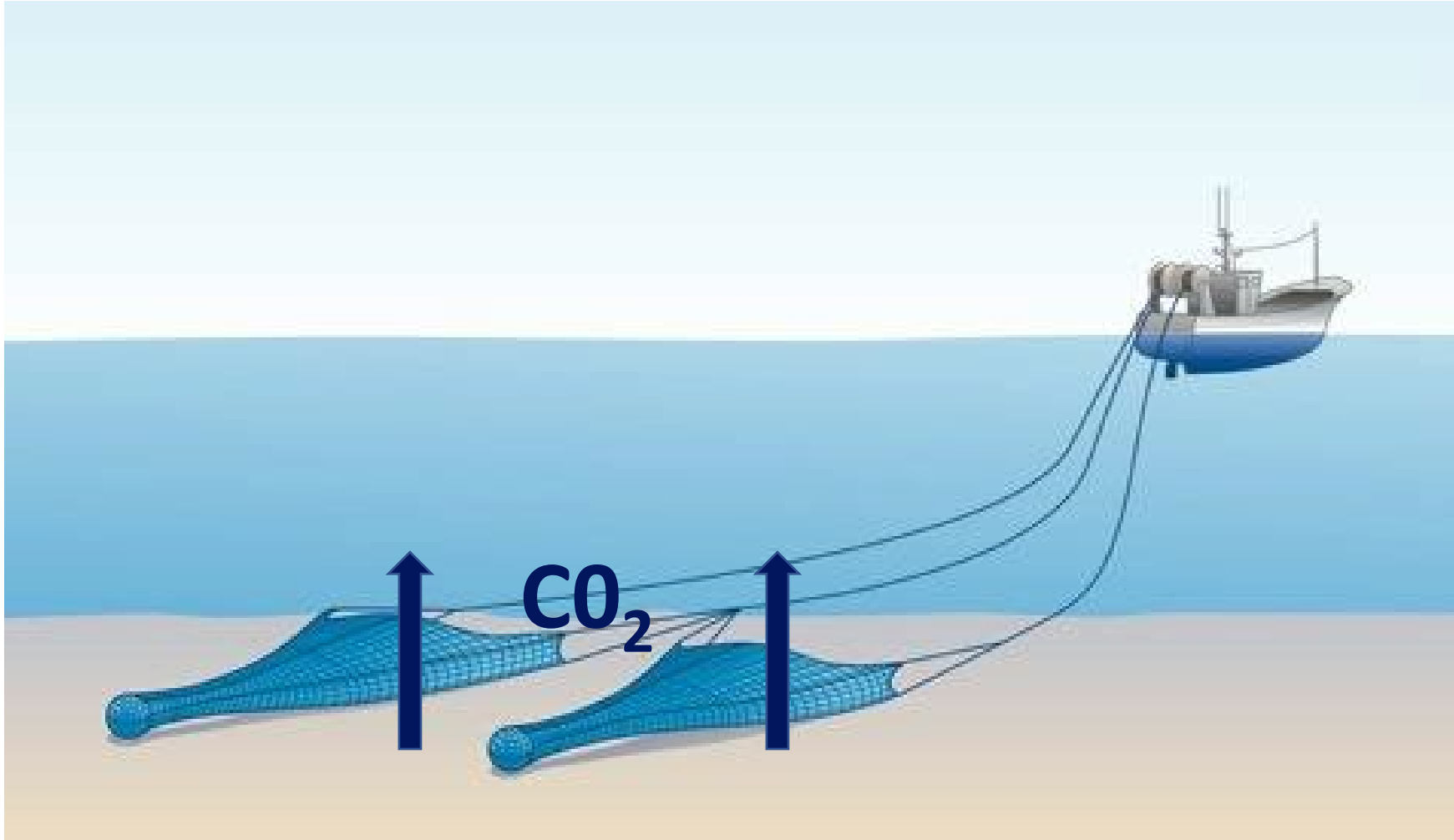
RENEWABLE ENERGY



REDUCE EMISSION FROM OCEAN TRANSPORT



REDUCE UNSUSTAINABLE FISHING



REDUCE DEVELOPMENT



PROTECT BLUE CARBON HABITATS



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SCHOOL

- Improve ocean literacy within your school by introducing ocean topics into PSHE, geography, science, history, art, design technology, English and drama.
- Does your school have a green/eco club? It is a great way to help students learn more about our incredible natural environment including diversity within your school grounds and further afield. Your group could dedicate a term to explore the underwater world in Wales.
- If your school is near the coast why not take your students out for a day trip to the beach. It could be linked to the curriculum or as part of an experience day. If you want a helping hand the Marine Conservation Society offer free seashore safaris for school groups.





INDIVIDUAL

- Inspire your friends and family by sharing with them what you've learnt about the incredible diversity of habitats and species in coastal waters around Wales.
- The sea and coastline around Wales is fantastic. The best way to learn more about it and to stay inspired is to get out there and enjoy it.
- If you live near the coast there's several citizen science projects you can get involved with, to help record the diversity on the coast contributing to important science.
 - Record seaweed diversity on the shore to help us understand how this is changing overtime: www.mcsuk.org/what-you-can-do/volunteering/big-seaweed-search/
 - Report any sightings of jellyfish and turtles: www.mcsuk.org/sightings/
 - Record quantity and variety of shark egg cases: www.sharktrust.org/great-eggcase-hunt

