

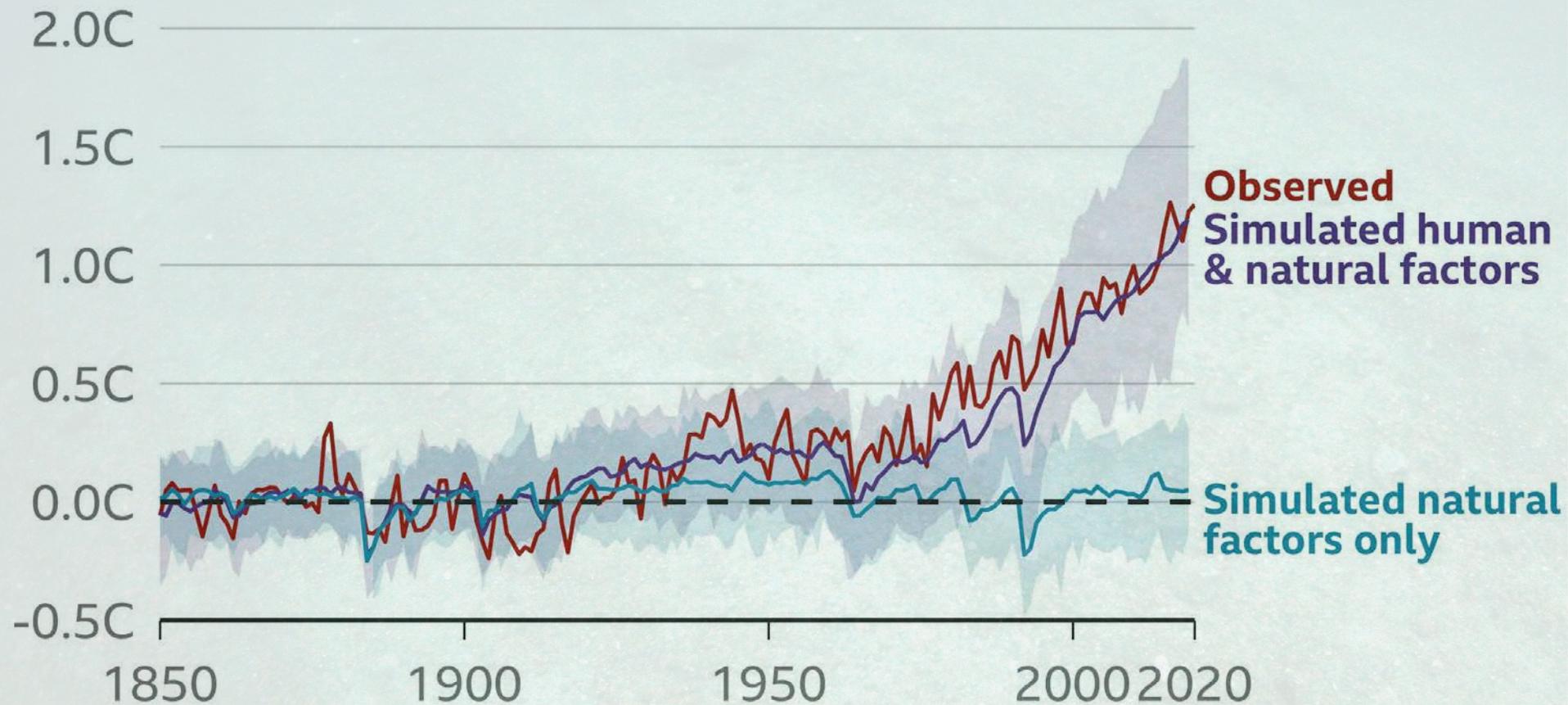
OUT OF THE BLUE

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'Instead of acting as they have for millennia, as carbon sinks, many of our close inshore areas and sea-lochs are, due to disturbance associated with using mobile dredge and trawl gears, likely to be some of Scotland's most significant sources of carbon release!'

Human influence has warmed the climate

Change in average global temperature relative to 1850-1900, showing observed temperatures and computer simulations



Note: Shaded areas show possible range for simulated scenarios

Source: IPCC, 2021: Summary for Policymakers



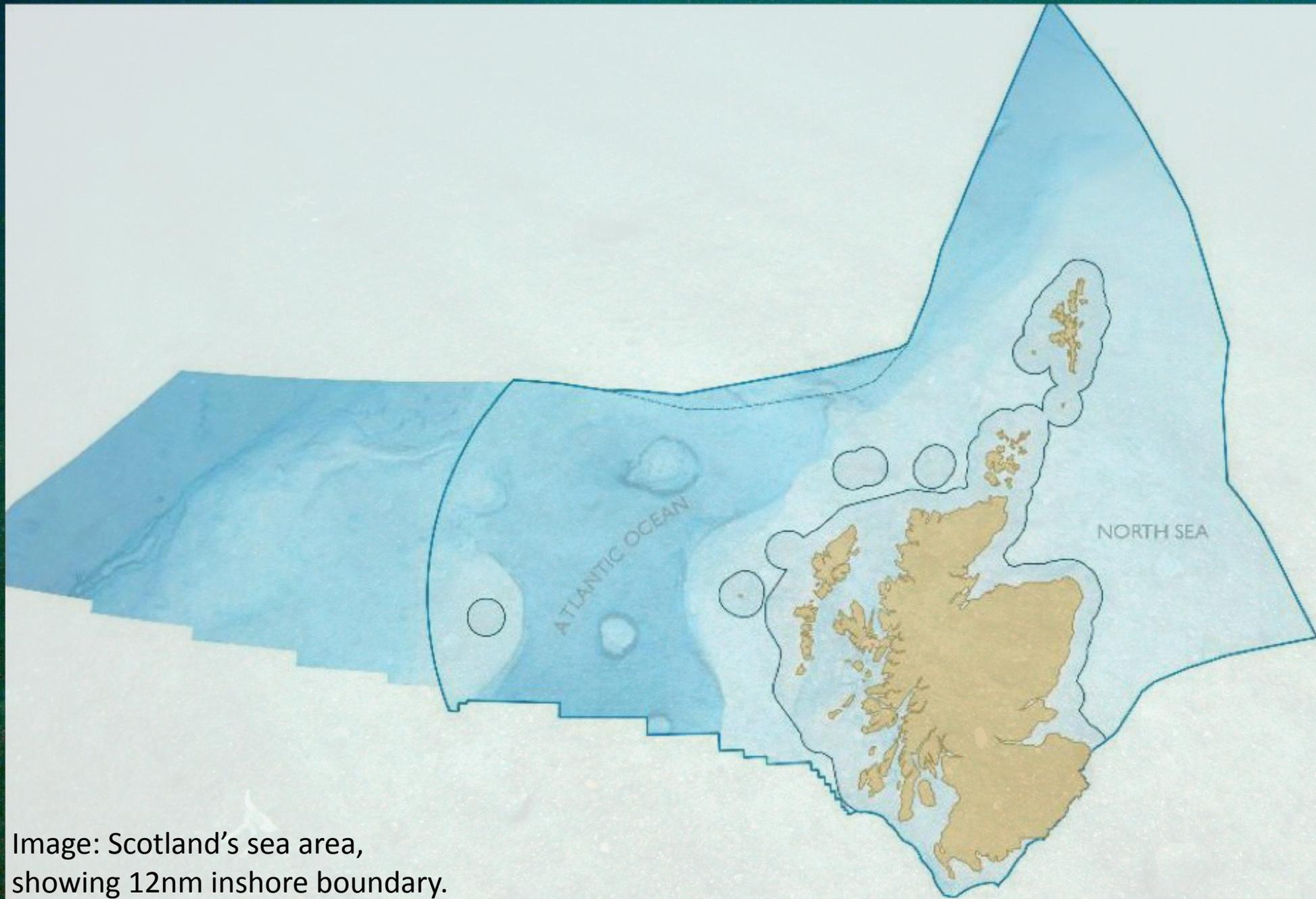


Image: Scotland's sea area, showing 12nm inshore boundary.

Seabed Sediment (Top 10cm)
5,555 Mt CO₂eq

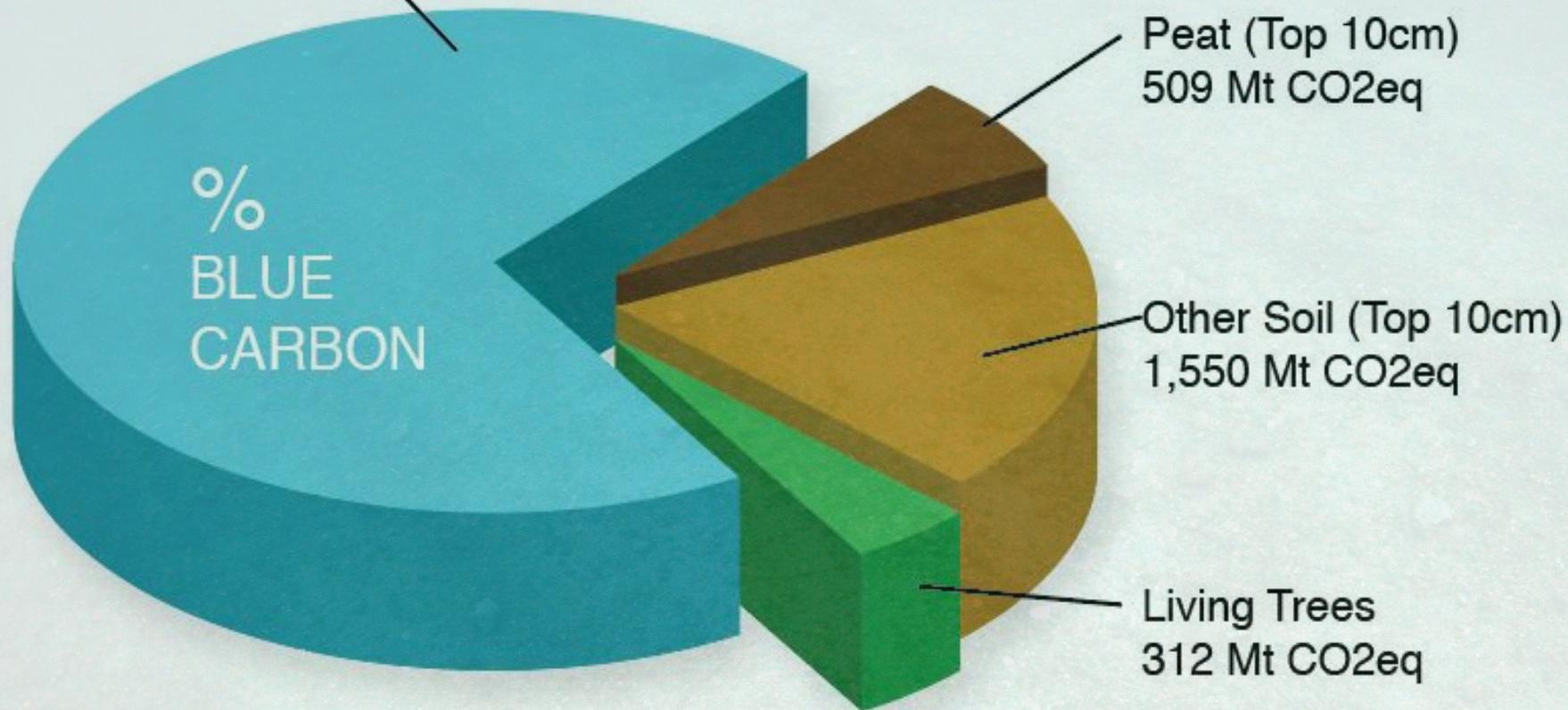


Image: Overall carbon stored, Scotland. Blue carbon is 70%.

Source: [Marine Scotland](#)



A healthy diverse habitat stores organic carbon. Curled octopus amongst a Horse Mussel bed, surrounded by Brittlestars, Shetland. Photo: Richard Shucksmith



Scallop dredge teeth, designed to penetrate the seabed and rake out scallops



Image: Side scan sonar image showing seabed scarring caused by bottom towed gear, Howard Wood

POC (t/ha)

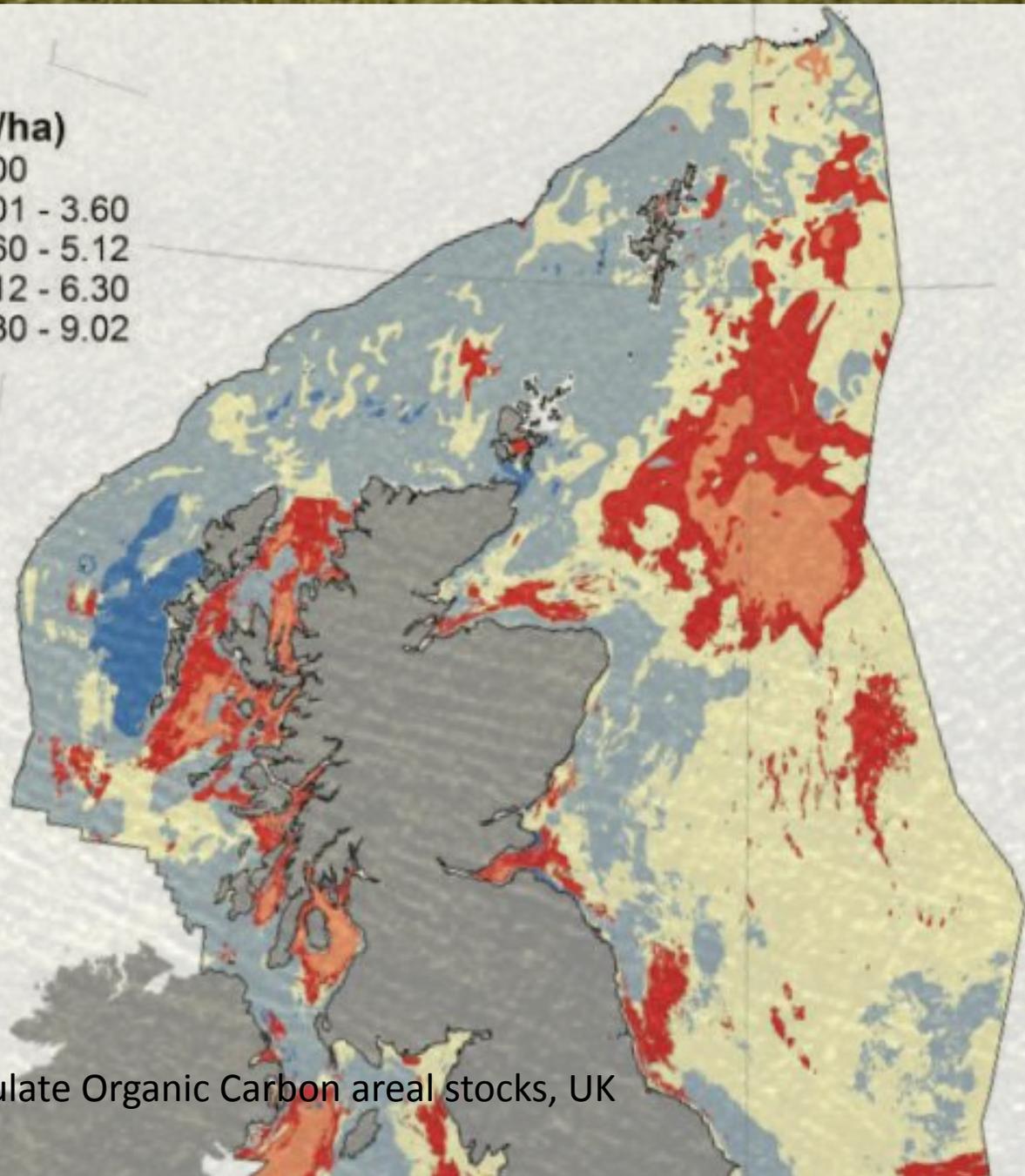


Image: Particulate Organic Carbon areal stocks, UK

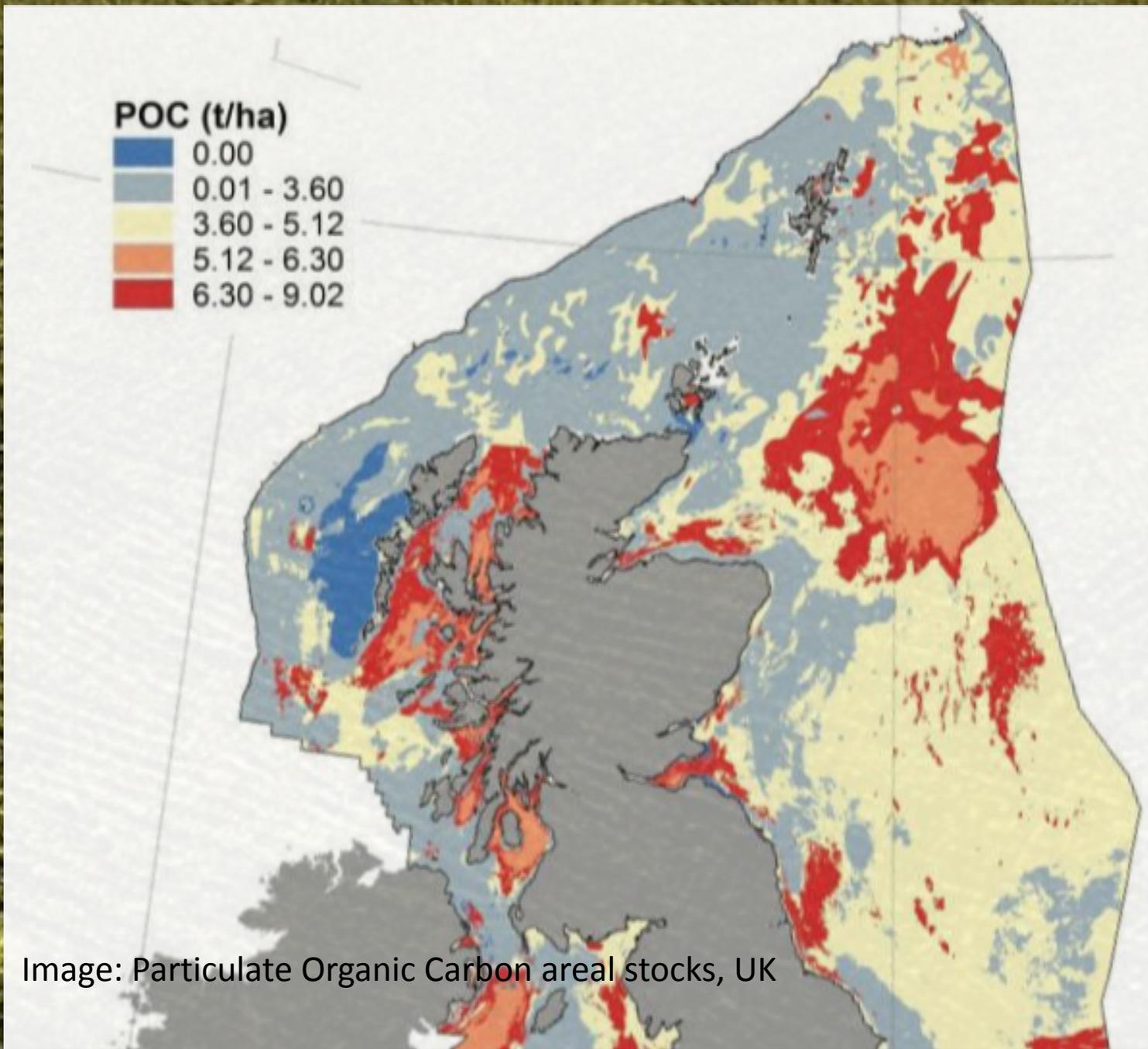


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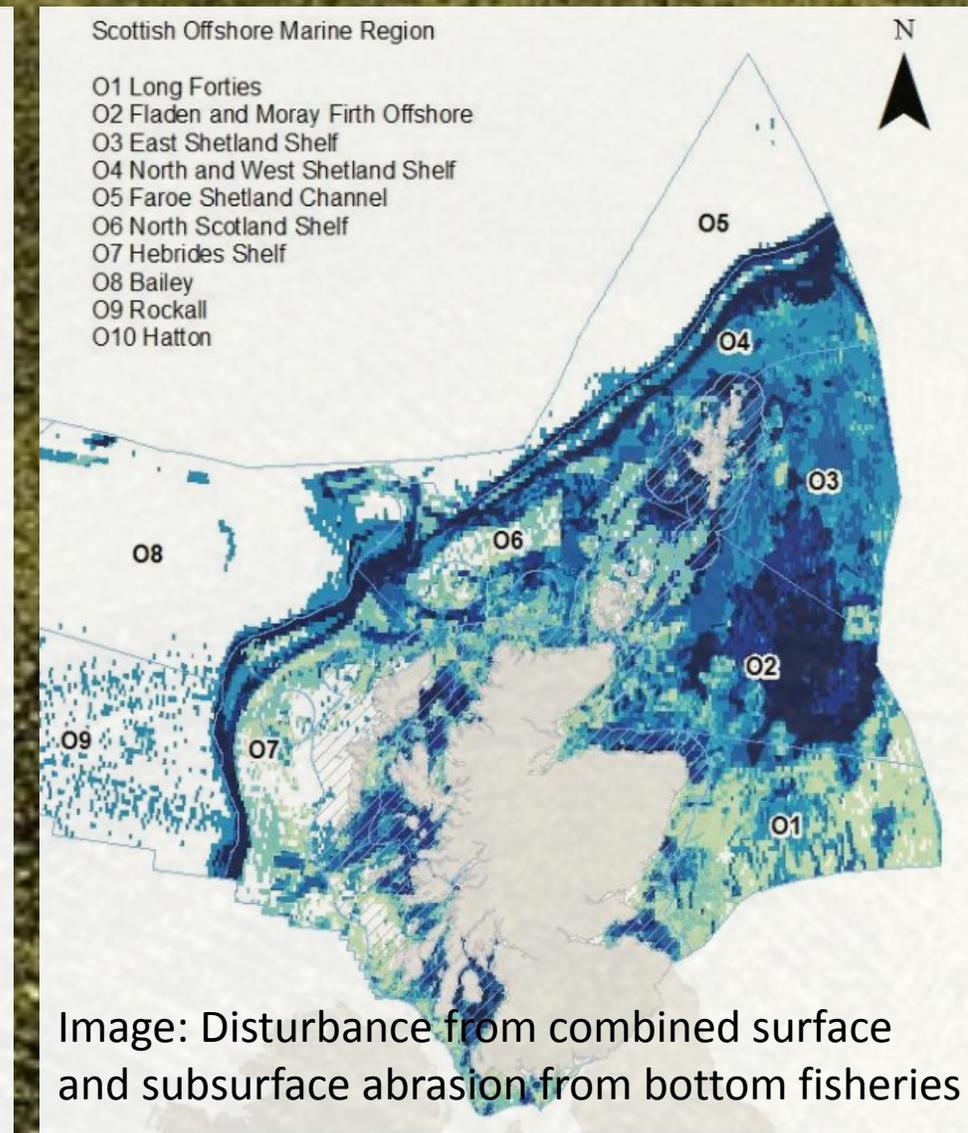
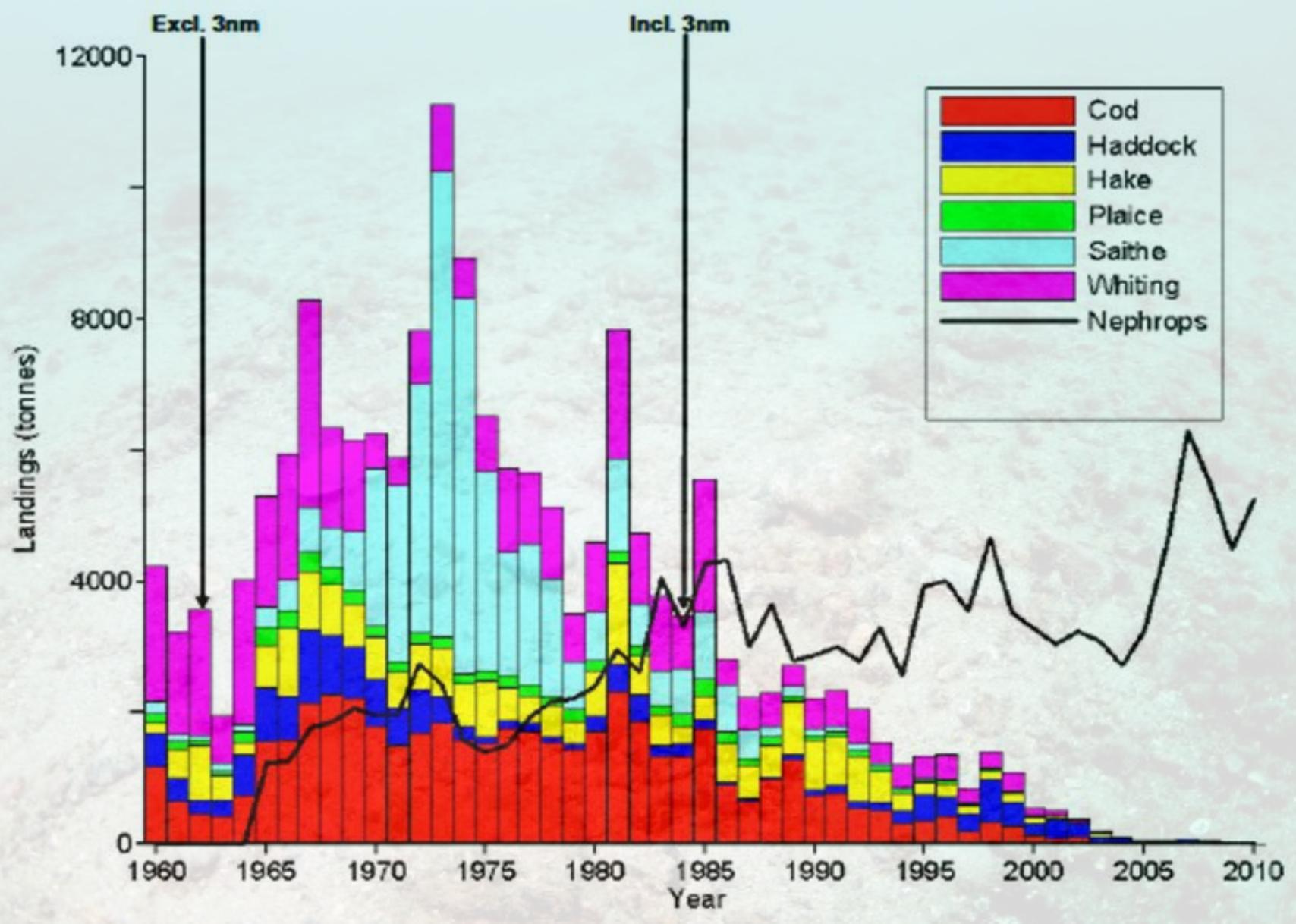


Image: Disturbance from combined surface and subsurface abrasion from bottom fisheries



A dredge scarred seabed with little life remaining and little to attract new inhabitants.
Photo: Howard Wood/Arran COAST.



Summary of landings of demersal fish species from the Clyde Sea. Years when the Clyde opened to trawling, excluding the area within 3 nm from the coast (1962), and including within 3nm (1984) are highlighted



Flame shells are reef forming –hundreds of nests can combine to form a dense bed, which raises and stabilises the seabed and makes it more attractive to many other creatures. Photo: Graham Saunders



A healthy Serpulid Worm reef supporting diverse species.
Photo: Graham Saunders



A Blue Mussel bed stabilises the seabed and begins to provide a secure habitat for other creatures.



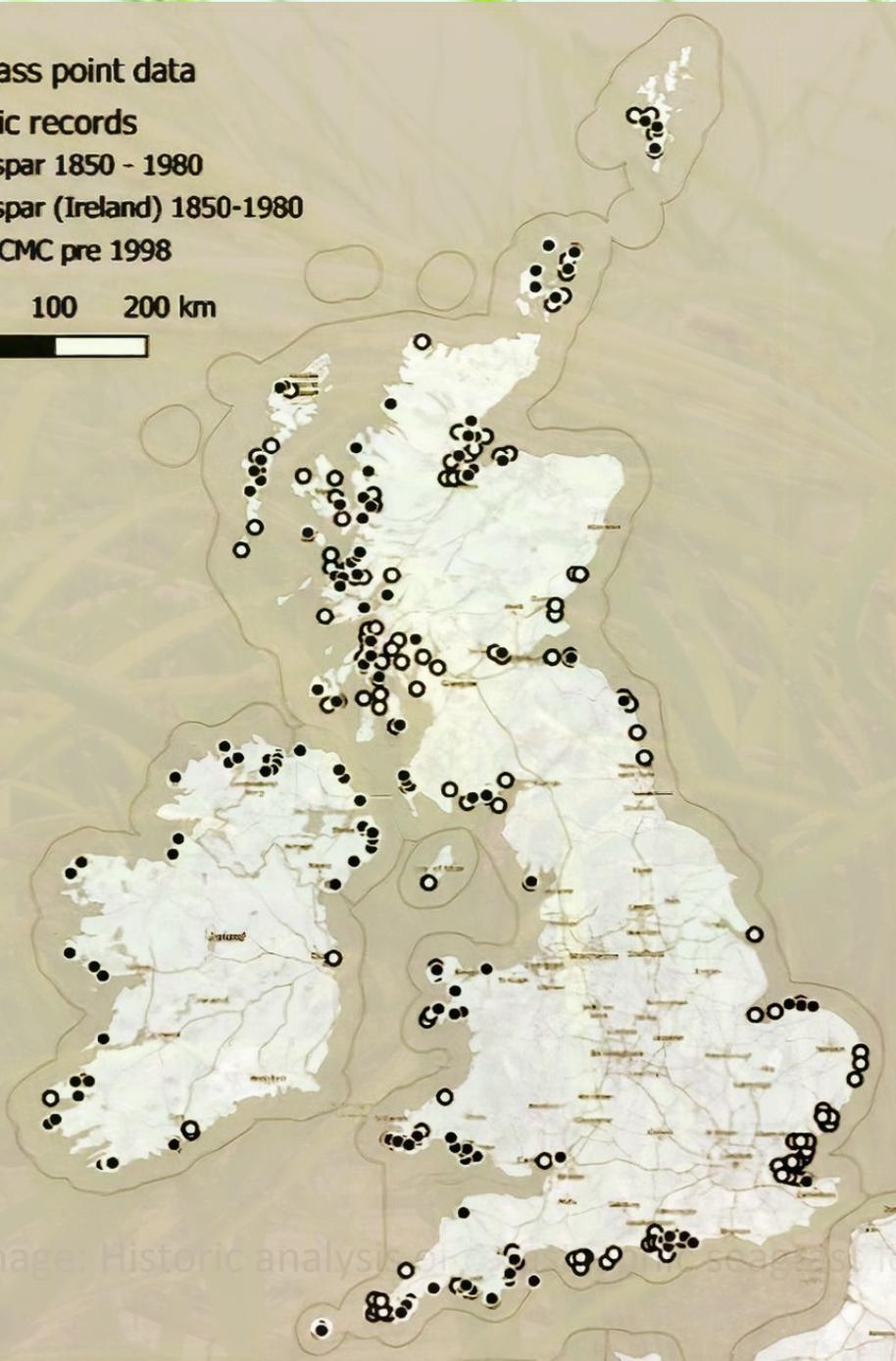
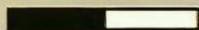
Seagrass has excellent carbon sequestration properties it provides food, nursery and spawning habitat for a plethora of species

Seagrass point data

Historic records

- Ospar 1850 - 1980
- Ospar (Ireland) 1850-1980
- WCMC pre 1998

0 100 200 km



Seagrass point data

Contemporary records

- Ospar 1998-2018
- WCMC 1998-2003

0 100 200 km

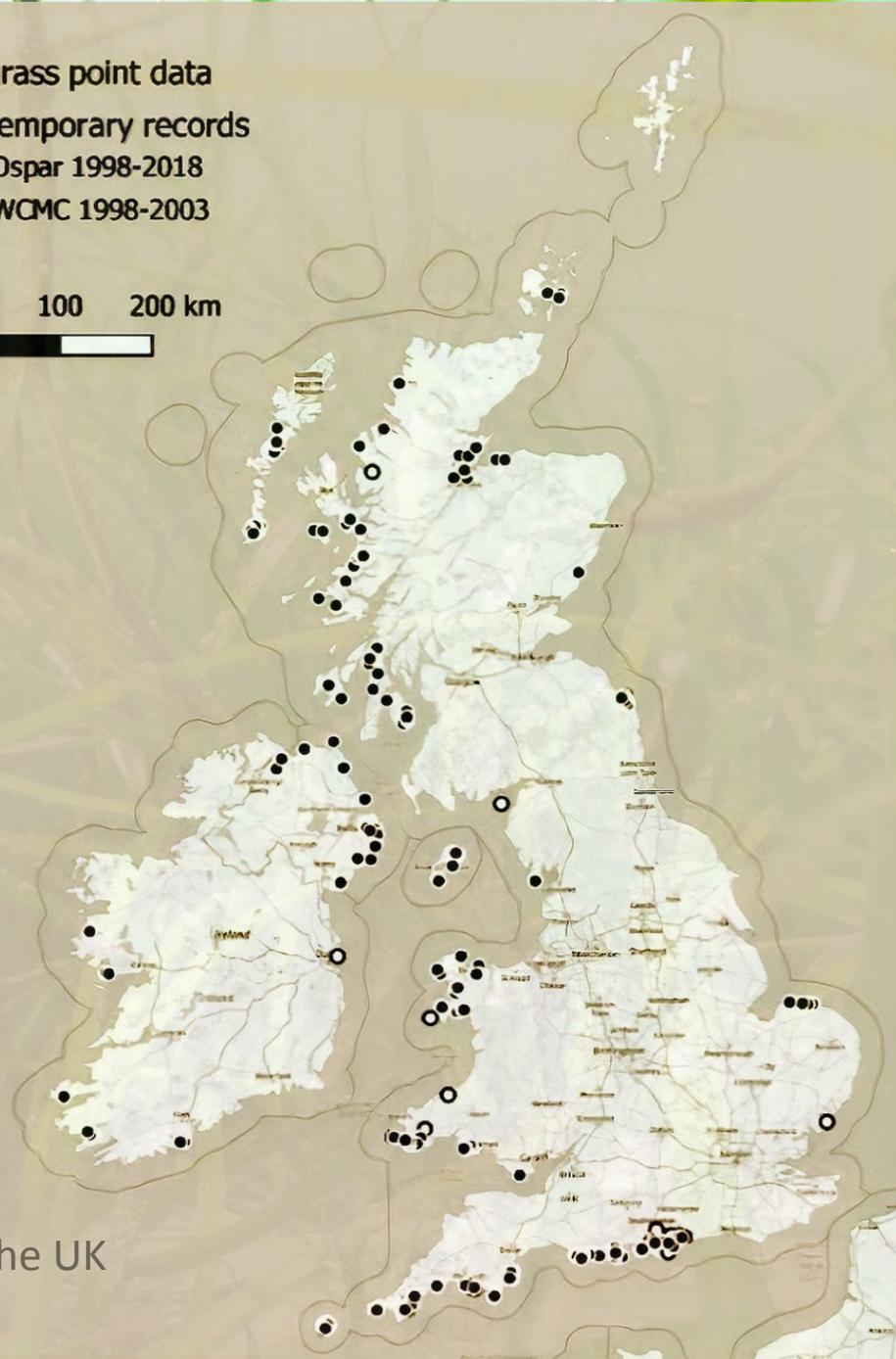
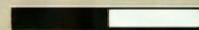
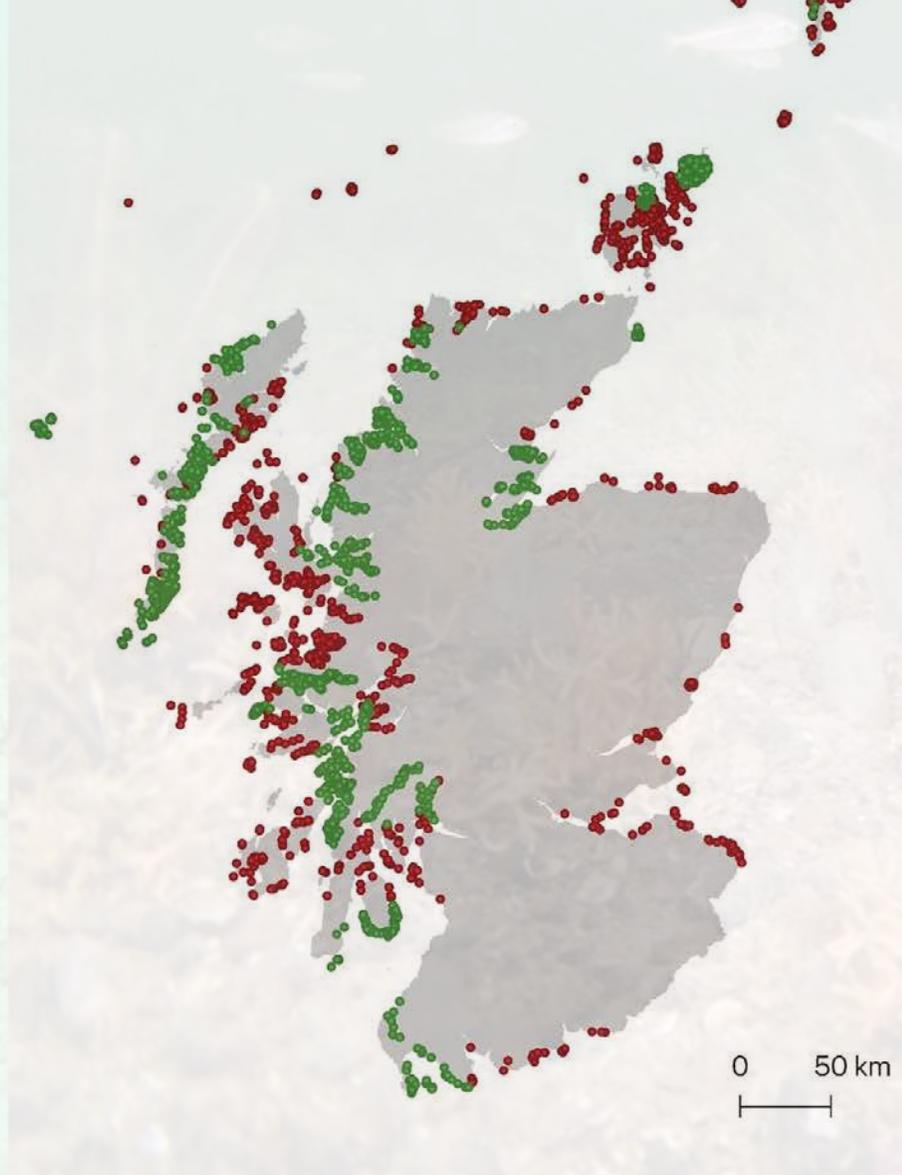
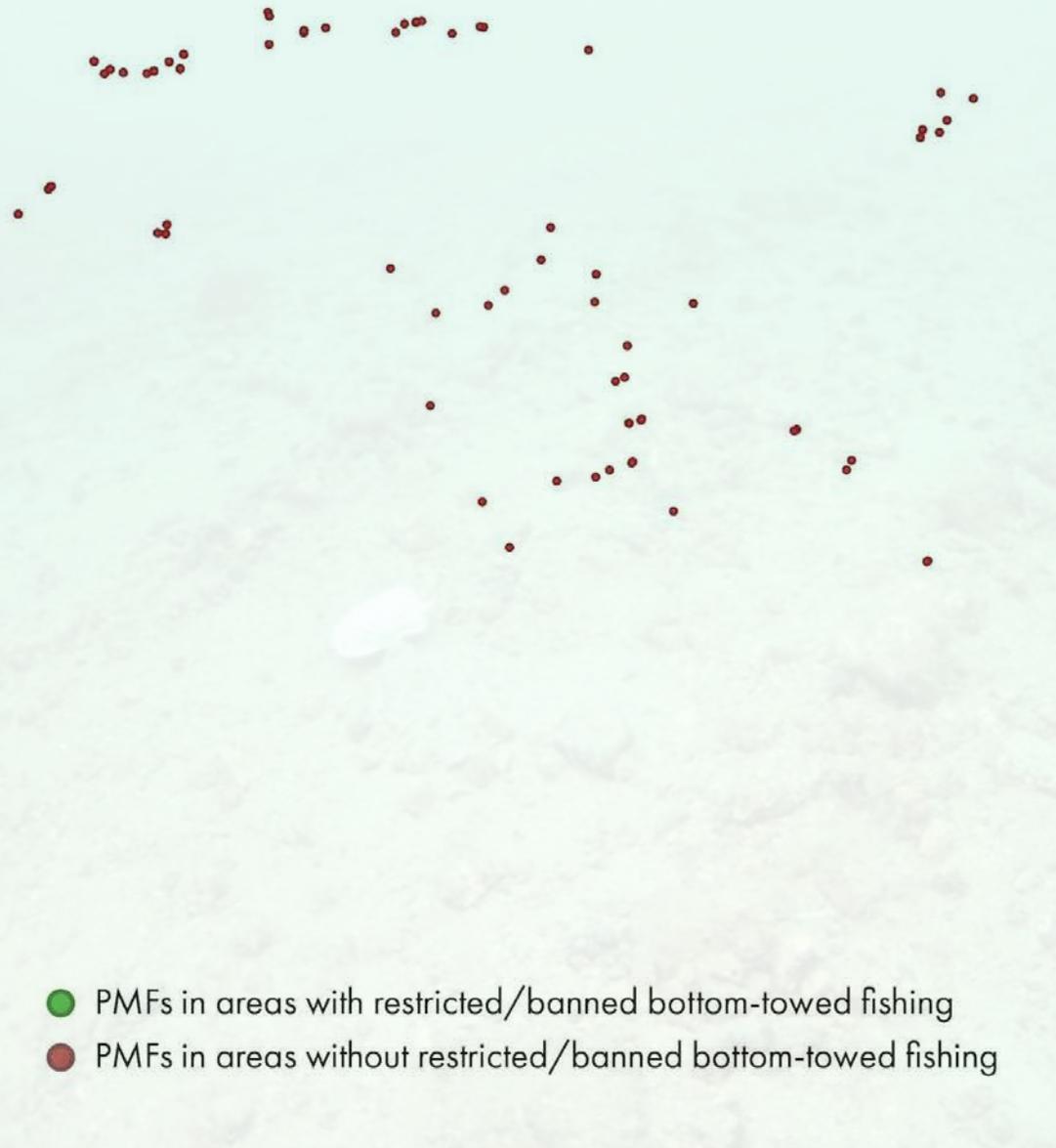


Image: Historic analysis of seagrass loss in the UK

The red dots show completely unprotected Priority Marine Features. The green dots show protected or partially protected PMFs - though a significant number of these still allow towed gear through part of the year, making the partial protection largely futile.





Documents produced by the SCFF include the MISALLOCATION, MISMANAGEMENT and the 3 MILE LIMIT reports.



Lyme Bay

Fisheries and Conservation Reserve

Bringing together fishermen, conservationists, scientists and regulators to achieve a "win-win" model for fishing and conservation.

32

boats work together under a voluntary code to fish sustainably



206 km²

protected from bottom trawling

84%

increase in species

300

more than species found on Lyme Bay's reefs

4x

more flora and fauna

7x

more pink sea fans (the largest colony in the UK)

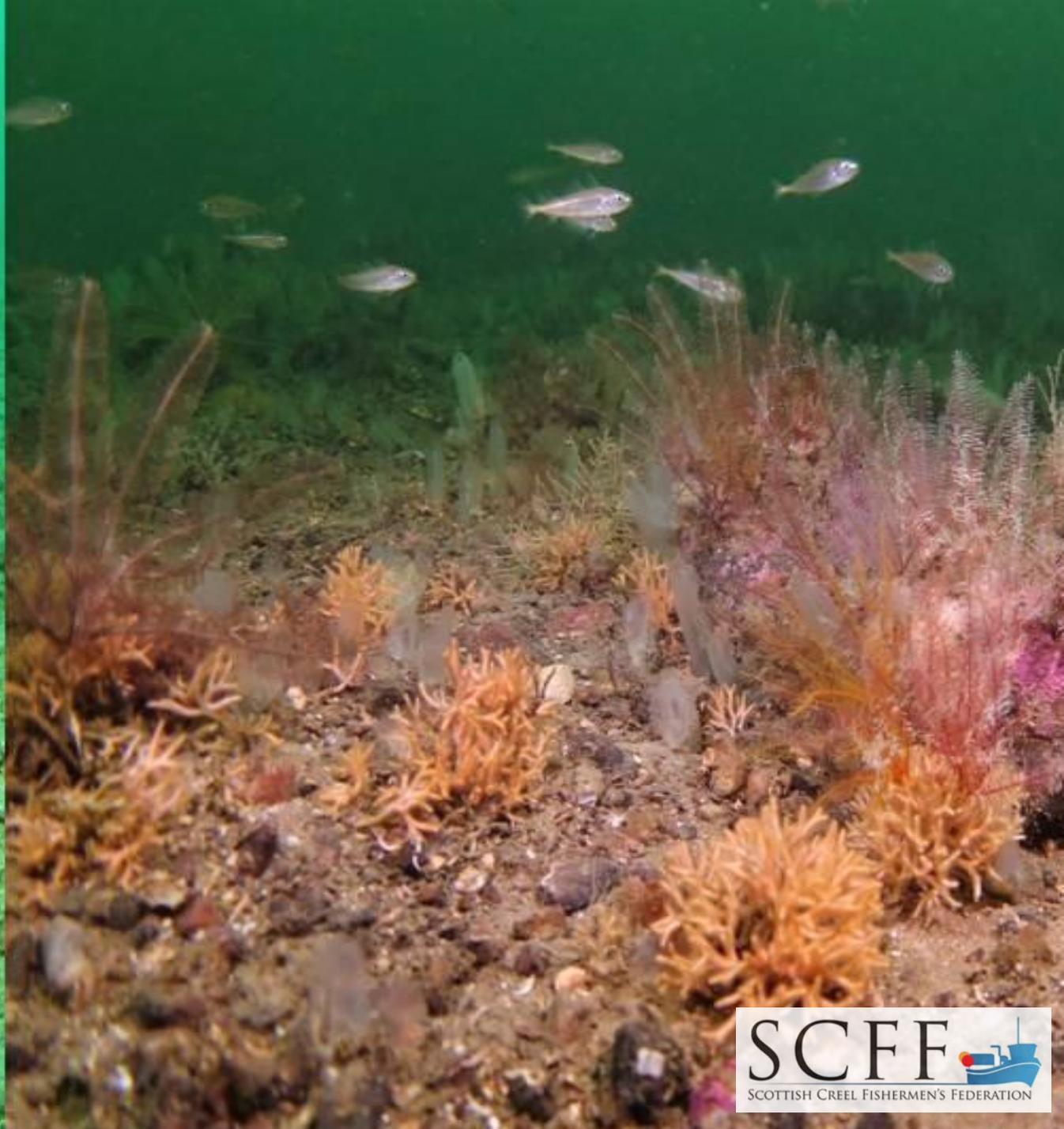
4.5x

more juvenile lobsters

7x

more scallops inside the Reserve area compare to outside the area

Based on published data 2014



Trawl damaged Serpulid Reef

Healthy reef supporting diverse life.

One of the biggest contributions that Scotland can make to meet the challenges of the biodiversity and climate crisis is to introduce, with urgency, a prohibition on bottom towed fishing gears in our inshore waters.

Are the Scottish Government ready to do what they committed to in 2010?