OUT OF THE BLUE
‘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.
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
Image: Particulate Organic Carbon areal stocks, UK
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 3 nm (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
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.

- **PMFs in areas with restricted/banned bottom-towed fishing**
- **PMFs in areas without restricted/banned bottom-towed fishing**
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.
- More than **300** 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 compared to outside the area.

Based on published data 2019.
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?