

Natural Carbon SOLUTIONS

BY JOANNA RICHARDS

We face a climate emergency. Extreme weather events are on the increase and the impacts of a warming climate are becoming evident on our beloved wildlife, with some UK species being pushed to the furthest limits of their natural ranges. To tackle a crisis of this scale, it is imperative every tool in the box is used, and this includes the natural solutions offered by our planet. Over half of all carbon emissions released into the atmosphere by humans are re-absorbed by the Earth's natural systems. And yet, many of these systems are broken, the habitats providing them damaged and degraded. Restoring these systems would allow even more carbon to be absorbed – and The Wildlife Trusts are playing a leading role in helping this happen.

At sea, the Trusts fought for the Marine Act 2009: properly implemented it restores our most important carbon absorber and the wildlife that lives within it, including kelp and phytoplankton. On land, 9% of the UK's surface is a huge carbon store with carbon locked up in wet peat. Carbon is also stored in organic rich soils, especially those under grasslands and woodlands. For decades, The Wildlife Trusts have pioneered peatland restoration and sustainably managed woodlands and grassland meadows. This work continues, thanks to our supporters, helping in the fight against climate change.

Saltmarsh

Like peatlands and grasslands, intertidal saltmarsh provides an important carbon store in its soils. Saltmarshes also act as a buffer against coastal erosion – although this and rising sea levels is leading to the loss of this habitat, with only 15% of its historic range remaining.

Peatland

Peatlands cover just 3% of the earth's surface, but store more carbon than any other habitat on land (more than twice the carbon of all the world's forests put together). But when damaged, as in the UK, they release carbon, contributing to climate change – so restoration is essential.

Woodland

As they grow, trees absorb carbon from the atmosphere, storing it in their trunk, boughs and roots and as organic matter in woodland soils. So, new woodland creation – through natural regeneration for example – helps to combat climate change.

Seagrass meadows

These aquatic flowering plants are responsible for around 10% of all carbon buried in the ocean, despite covering less than 0.2% of the ocean floor. They store carbon 35 times faster than rainforests, but estimates suggest that globally we are losing an area of seagrass the size of two football pitches every hour.

Grassland

Healthy grassland soaks up and stores carbon in its roots and the soil. Grasslands that are undisturbed by arable agriculture and protected from soil erosion through sustainable management are important stores. Yet in the UK, we've lost 97% of our semi-natural grassland and they continue to be at risk.

Urban

Urban greenspaces help make cities better in a world that's getting hotter. Young street trees take up carbon dioxide and urban woodlands help control the local climate by providing shade and reducing the street temperature. Pleasant greenspaces can also encourage people to walk and cycle rather than jump in a car!

Seaweed and kelp forests

Kelp grows incredibly quickly, sucking up carbon as it does. These underwater forests provide critical short-term carbon stores. When they die, bits of kelp sink into the deep sea, where they remain for a long time.

Marine sediments

Phytoplankton – miniscule marine algae – absorb carbon as they grow. When they die, some of the carbon they've taken up sinks to the ocean floor, where it can remain for thousands of years.

