

Sussex's Forgotten Kelp Forest to Help Tackle Climate Change

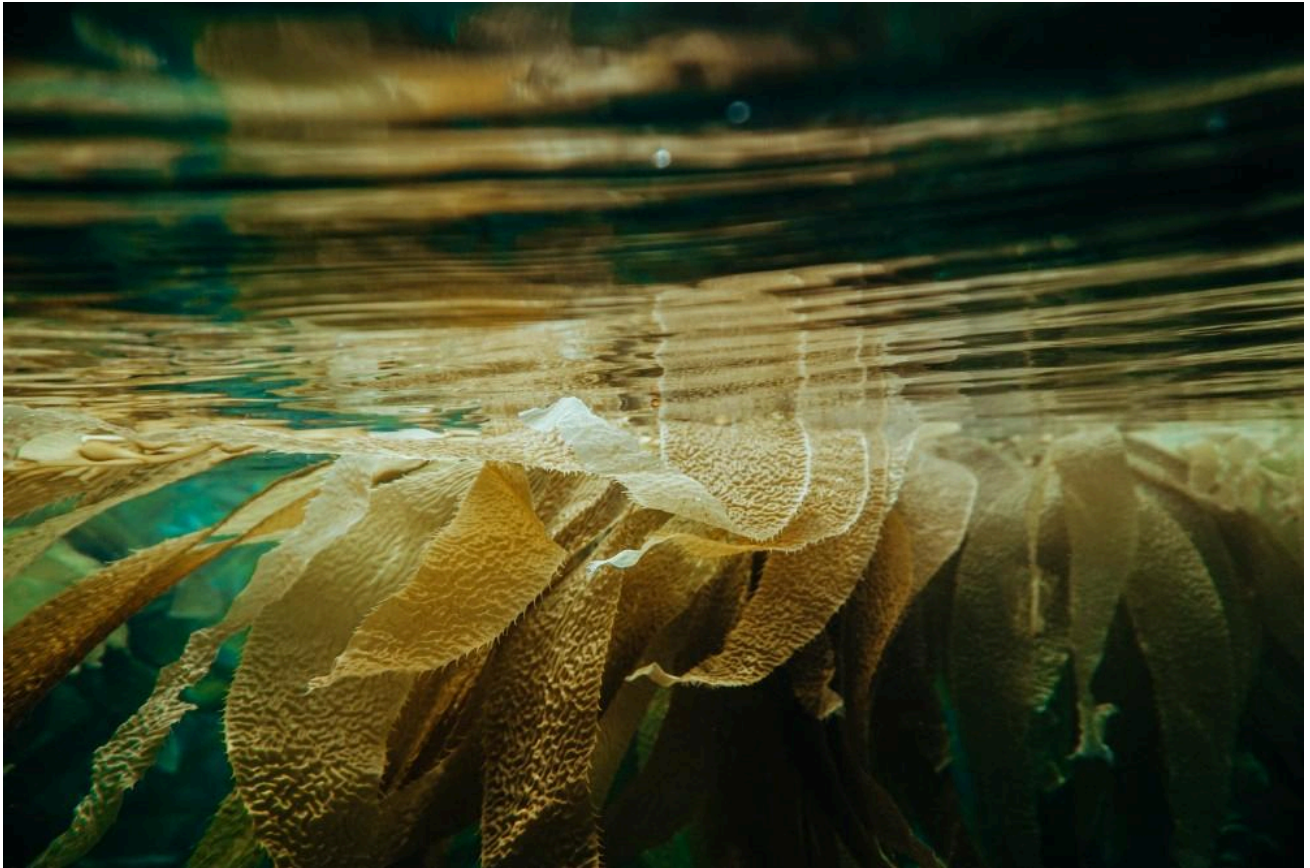


Photo by [Shane Stagner](#) on [Unsplash](#)

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When it comes to tackling the global climate crisis, the humble kelp has been found to be a vital solution in protecting the environment.

[Kelp](#) is the name given to large brown algae seaweeds, which often accumulate into dense groups known as 'kelp forests'. These underwater habitats are said to range along [25% of the world's coastline](#), and are one of the most productive and biodiverse ecosystems on Earth. Although these forests are often neglected and overlooked, they help to [combat climate breakdown, purify water](#), and provide shelter and food to numerous marine wildlife. Some of these species include [seahorses](#), [cuttlefish](#), [seals](#), [crustaceans](#) and [dolphins](#). A study found that kelp forests in Southern California alone have helped to support over [200 species of algae, invertebrates, fishes and marine mammals](#). Moreover, the vast majority of these species are said to be [commercially important](#).

Kelp can grow at an extremely fast rate, [up to 2ft in a single day](#). Compared to land-based plants, seaweeds can grow [more than 30 times faster](#). As a result, kelp forests help to [lock up huge amounts of carbon as they grow](#). Research has found that per acre, kelp forests can intake up to [20 times more carbon dioxide](#) from the atmosphere, when compared to land-based forests. Globally,

these underwater forests have been estimated to absorb roughly [600 million tonnes of carbon per year, which is almost twice](#) the UK's annual carbon emissions. As carbon is being drawn into the kelp, this results in them [oxygenating the water](#), which ultimately allows for the formation of such flourishing environments to support a vast variety of creatures.

Historically, a spectacular kelp forest once stretched along [40km of the West Sussex coastline and 4km out to sea, all the way from Selsey to Brighton](#). In the [1980s, divers often recorded kelp as being 'abundant' or 'common'](#) in over 50% of dive sites (from Selsey to Eastbourne.) Additionally, in 1987, a Worthing Borough Council report revealed that [historic kelp beds covered 177km², with 10km² being described as 'very dense.'](#) Unfortunately, within the last few years, these kelp forests have almost completely disappeared, with only a few pockets remaining. By the late 2010s, these areas have now amounted to [an area of just 6.28km², a 96.4% decrease](#) since 1987. Factors including [changing fishing practices, the dumping of sediment](#) close to shore which blocks light and limits the kelp's ability to grow, are all said to be the reason for the diminishing habitat.

As [Sir David Attenborough states](#), "The loss of the Sussex kelp forests over the past 40 years is a tragedy. We've lost critical habitat that is key for nursery grounds, for water quality and for storing carbon."

Fortunately, a campaign to restore the kelp forests is in the works. The Sussex [Inshore Fisheries and Conservation Authority \(IFCA\) has proposed a new bylaw](#) restricting trawling along the Sussex coastline year-round. This decision was made after overwhelming support was demonstrated regarding the [Help Our Kelp campaign](#). Featuring a [documentary created by Big Wave Productions](#) and voiced by the one and only Sir David, the film showcases Sussex's kelp decline, and the importance of its conservation.

Led by [Sussex Wildlife Trust, Blue Marine Foundation](#) and the Marine Conservation Society, the [aim of the bylaw](#) is to give the kelp enough breathing space to recover. Since trawling vessels have repeatedly torn kelp from the sea bed, thus preventing its natural regeneration, taking off this major pressure is a [vital first step](#) towards the kelp re-wilding initiative.

[Dr Ian Hendy, Head of Science at Blue Marine Foundation](#) says, "There is still a chance to bring back the kelp forests. By re-wilding the kelp forests back to their natural habitat, the oceans will come alive with a diverse abundance of marine wildlife, impacts of climate will be reduced and local fisheries will improve."

Sarah Ward, Living Seas Officer at Sussex Wildlife Trust spoke to [The Telegraph](#) about this subject. "Kelp forests can absorb and lock up carbon just as effectively as woodland, if not more so, and we're able to create this habitat on a scale that simply couldn't be replicated on land. This will be a huge step forward in addressing the escalating climate crisis."

The Sussex campaign has come during a rise in global awareness of the value of seaweeds. [Findings have suggested the use of seaweed](#) in animal food could have the potential to decrease methane emissions from cattle. Seaweed is also getting increasingly popular as a choice for sustainable ingredients, from its use as [edible vegan pods](#), to being recognized as both a delicious and sustainable food source. Studies have documented how [they contain many essential nutrients](#), ranging from omega-3 fatty acids, amino acids, vitamins, minerals and bioactive compounds. Although challenges to incorporate seaweed wholesale into the general diet still remains.

With the bylaw being the [first of its kind](#) put into place to help cut greenhouse gas, this campaign is a major milestone to alleviate global warming. Charles Clover, executive director of the Blue Marine Foundation, [voiced his support](#), “This is an initiative that tackles climate change and overfishing impacts all at once, the first of its kind in the UK. This is exactly what we need to be doing in marine habitats all over the world.” Hopefully, other countries can take note of Sussex’s conservation efforts and also follow suit.