Ecosystem engineers

Seagrasses

Improves water quality
Seagrasses are natural filters – filtering, cycling and storing nutrients and pollutants out of water. One study estimated the economic value of seagrass impact on water quality to be £25,000/ha/yr.

Carbon storage
Seagrasses occupy less than 0.1% of the seafloor yet are responsible for 10-18% of the organic carbon buried in the ocean. Global analysis indicates that seagrass meadows can absorb carbon at rates of up to 35 times that of tropical rainforests.

Supports biodiversity
Healthy seagrass habitat can house up to 30 times more animals than bare sediment, including seahorses and shellfish.

Reduces wave energy
Seagrasses help prevent coastal erosion, protecting coastal towns from flooding and storm damage.

Provides a nursery habitat
Seagrasses provides nursery habitat for nine UK commercial fish species.

Disease control
Seagrasses help prevent diseases for people and sea creatures by reducing pathogenic marine bacteria by up to 50%.

Cultural value
Seagrasses have long provided cultural benefits – from weaving to roof thatching – however, today knowledge of their full potential for use has declined.

Nutrition
Globally, seagrass meadows help provide vital nutrition for close to 3 billion people through being a nursery habitat for fish.

Native Oysters

Improves water quality
A single native oyster can filter more than 200 litres every day. It removes pollutants, chemicals, and particulate matter to improve water quality. This can benefit the recovery of seagrass and other coastal ecosystems.

Carbon storage
Current research shows that native oyster reefs store carbon. Further research is underway to establish the scale of this potential.

Supports biodiversity
The complex structure of native oyster reefs provides a sanctuary for a vast array of marine life including fish, crabs, sea snails and sponges.

Reduces nitrogen levels
Native oysters remove excess nutrients from water, particularly nitrogen, which can be detrimental to our marine ecosystems, promoting harmful algal blooms, depleting oxygen and causing fish mortality.

Provides a nursery habitat
Native oyster reefs can provide nursery grounds and a source of food for juvenile fish and shellfish.

Stabilises the seabed
Native oyster reefs stabilise the seabed, improving water clarity.

Cultural value
Native oyster fishing and cultivation have been at the heart of coastal communities in the UK for centuries.

Nutrition
Native oysters provide a low carbon, low impact food source.