



BLUE MARINE  
FOUNDATION

# **Solent Oyster Restoration Project**

## **Project Information**

**Location:** Solent

**Aim:** Create a healthy, self-sustaining population of native oysters in the Solent and demonstrate the benefits to both people and nature.

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### Project overview

Between 1972 and 2006, the Solent supported the largest native oyster fishery in Europe. In 1978, 450 vessels were involved in oyster fishing and 15 million oysters were removed in that year alone. However, since this peak, the oyster population has declined significantly and in 2013 the fishery collapsed. In the UK native oyster reefs have declined by 95 per cent as a result of overfishing, pollution, disease, habitat loss and other pressures. Native oysters are classified as a priority species in the UK's Biodiversity Action Plan and restoration is a high priority at the national, European and global level. Globally, an estimated 85 per cent of oyster beds and reef habitats have been lost, making oyster beds one of the world's most imperilled marine habitats.

Oysters are ecosystem engineers and provide a range of benefits to the environment and people. They improve water quality - a single oyster can filter 200 litres of water every day - provide habitat to other fish and marine life, and act as a natural defence to coastal erosion. Their value as a food source can be dated back to Roman times in the UK. Unfortunately, the loss of the native oyster has meant that much of these benefits have been lost in the Solent.

The Solent Oyster Restoration Project is restoring native oysters and the benefits they bring through four key interventions:

- Oyster nurseries: a network of oyster nurseries – adult oysters placed in high densities – have been suspended below the surface of the water from pontoons working in partnership with marinas.
- Oyster reefs: using shell and gravel (cultch) three hectares of oyster reef is being created in areas protected from fishing and restored with oysters to re-establish wild populations.
- Restoration hatchery: in collaboration with the University of Portsmouth, local adult oysters are creating the next generation of oysters. These will then be deployed on to the newly formed reefs, significantly scaling up our restoration work.
- Community outreach: through volunteer programmes and school visits, the project is raising awareness of the need for oyster restoration and its importance.

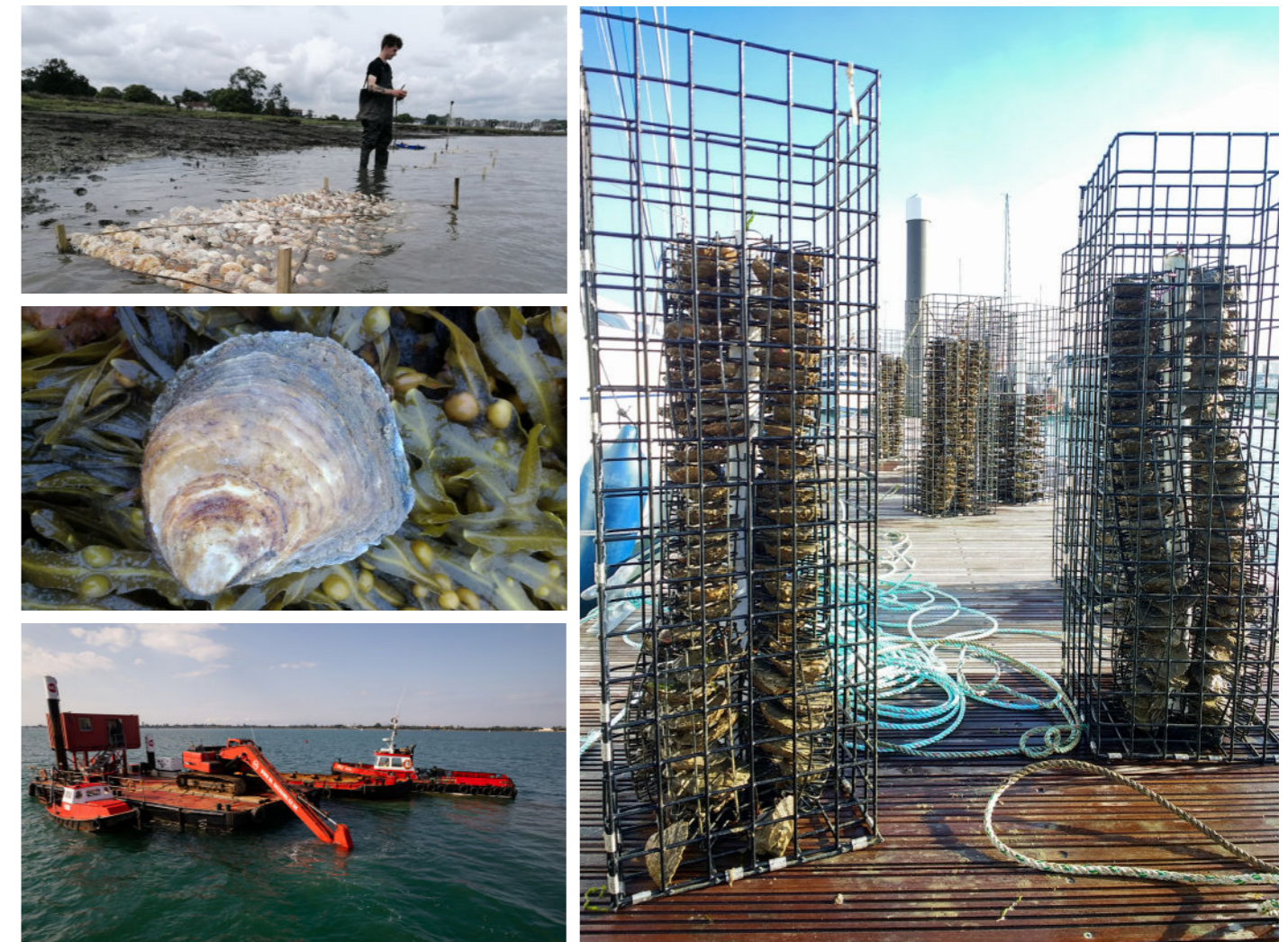
### Our impact to date

Since 2015, Blue Marine Foundation (BLUE) has restored almost 100,000 oysters using innovative nursery systems and creating oyster reefs. BLUE has developed a strong working group in the Solent, in partnership with the University of Plymouth, the University of Southampton, Environment Agency, Natural England, Southern IFCA, Cefas, Hampshire & Isle of Wight Wildlife Trust, Langstone Harbour Board, River Hamble Harbour Authority, MDL Marinas, 1851 Trust, the Solent Protection Society and local fishermen.

In 2021, the first oyster reef was created in Langstone Harbour and restored with 15,000 oysters.

### Highlights

- Over one billion larvae were released into the Solent from oyster nurseries in 2017 alone.
- 84,000 oysters restored into nurseries or onto the seabed.
- 130 species identified in the oyster nurseries, including European bass, critically endangered European eels and seahorses.
- 12 restoration sites across the Solent.
- Intertidal oyster ranching pilot sites established.
- One oyster reef in Langstone Harbour, 361m<sup>3</sup> of cultch across 2,000m<sup>2</sup> to date.



### Next steps

Oysters are not the only species that benefit the Solent. Seagrass and saltmarsh are vital blue carbon habitats, which draw down and sequester carbon. When combined with their roles in providing nursery habitats for other marine species, storm protection and prevention of coastal erosion, the high value of these habitats becomes clear. Unfortunately, over half the saltmarsh in the Solent has been lost, and all 317 hectares of seagrass beds are in poor condition.

Through partnership working, BLUE is developing a seascape scale approach to restore and reconnect fragmented oyster, saltmarsh and seagrass habitats collectively in the Solent. These benefits will be quantified and valued to showcase the importance of protecting the marine environment on a large scale.



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#### About BLUE

Blue Marine Foundation (BLUE) aims to restore the ocean to health by addressing overfishing, one of the world's biggest environmental problems. BLUE is dedicated to creating marine reserves, restoring vital habitats and establishing models of sustainable fishing. BLUE's mission is to see 30 per cent of the world's ocean under effective protection by 2030.

[www.bluemarinefoundation.com](http://www.bluemarinefoundation.com)