# Plymouth ecologist reveals five surprising lessons from 40 years of marine research



For four decades, I have dedicated my career to marine ecology, with my journey particularly anchored in Plymouth, Devon—a renowned centre for coastal and marine research. Reflecting on the monumental shifts in our understanding of marine life throughout these years, I have distilled my experiences into five key lessons that encapsulate the challenges and opportunities we face in safeguarding our oceans.

**1. Start with the basics**

The ocean, despite its vastness, often remains a mysterious void for many. The popular 1970s song by America described the ocean as “a desert,” which remains a fitting metaphor. A 2014 survey revealed a startling disconnect between people's perceptions and the reality of marine life in the UK; colourful organisms were often misperceived as absent from local waters. Data showed that most individuals lacked awareness about the diversity that thrives beneath the grey-blue surface. While engaging productions like *Blue Planet* have elevated global interest in marine ecosystems, they can inadvertently reinforce the belief that beauty and vibrancy exist only in faraway waters. This calls for a concerted effort to educate the public about the dynamic wonders of the marine environment right on their doorstep.

**2. Inspire deep connection**

Research consistently underscores the profound restorative benefits of interacting with the sea. Engaging in simple activities—from building sandcastles to rockpooling—can forge a meaningful connection to the marine world, even for those unable to visit coastal areas physically. Initiatives spearheaded by organisations like Plymouth’s Ocean Conservation Trust aim to provide young people with transformative experiences by the sea, fostering long-term appreciation. Moreover, innovative approaches such as virtual reality can bridge the gap for those who cannot access the ocean, while efforts to establish Plymouth Sound as the UK’s inaugural national marine park aim to further cultivate public engagement with the coastline.

**3. Take the pressure off**

The narrative that the ocean can recover if given a chance is increasingly backed by evidence. Observations from cases such as the resurgence of bluefin tuna and humpback whales indicate that reductions in harvesting pressures can lead to remarkable recoveries. In Lyme Bay, for instance, the introduction of fishing bans on certain practices has led to a swift revival of local marine ecosystems. However, the broader landscape remains concerning; a significant investigation by Oceana revealed that a staggering 97% of the UK’s offshore Marine Protected Areas (MPAs) were subjected to destructive fishing practices like bottom trawling as recently as 2019. This stark statistic highlights an urgent need for stricter enforcement to ensure that protected zones serve their intended purpose of conserving crucial marine habitats.

**4. Plastic is a distraction**

While the need to combat plastic pollution is undeniably critical, the current emphasis on this issue may obscure more complex, damaging practices like industrial overfishing. Bans on single-use plastics can create the illusion of progress, yet often fail to address the root problems facing our oceans. For example, despite significant public concern over industrial fishing practices, actions such as the recent ban on sandeel fishing—the first of its kind to protect seabird food supplies—underscore the necessity of focus on broader ecological issues. Proposing a prohibition on towed fishing gear within three miles of the coast could establish fully protected marine reserves, allowing ecosystems to flourish and simultaneously benefiting coastal communities.

**5. Add a dose of ocean optimism**

As eco-anxiety grows, particularly among younger generations, fostering a sense of optimism about our oceans is imperative. The ocean's role in absorbing carbon and producing oxygen is crucial for planetary health, making its preservation vital. By highlighting success stories of marine recoveries—such as flourishing ecosystems where industrial damage has ceased—we create a blueprint for hope and a roadmap for future actions. Initiatives that celebrate areas thriving post-conservation, alongside the re-emergence of species once thought lost, can galvanise further action and inspire a collective commitment to nurturing a healthier, bluer future.

In conclusion, as we strive to deepen our connection with the ocean and address its myriad challenges, a multifaceted approach that embraces education, proactive measures, and optimism will be essential in ensuring the vitality of our marine environments for generations to come.

### 📌 Reference Map:

* Paragraph 1 – [[1]](https://eastangliabylines.co.uk/science/five-ways-to-inspire-ocean-connection-reflections-from-my-40-year-marine-ecology-career/), [[4]](https://www.theguardian.com/environment/2022/jun/20/five-highly-protected-marine-areas-set-up-in-english-waters-fishing-ban)
* Paragraph 2 – [[1]](https://eastangliabylines.co.uk/science/five-ways-to-inspire-ocean-connection-reflections-from-my-40-year-marine-ecology-career/), [[2]](https://www.theguardian.com/environment/2020/oct/09/revealed-97-of-uk-offshore-marine-parks-subject-to-destructive-fishing), [[5]](https://www.theguardian.com/environment/2022/feb/28/bottom-trawling-triples-in-key-marine-protected-area-despite-brexit-promise)
* Paragraph 3 – [[2]](https://www.theguardian.com/environment/2020/oct/09/revealed-97-of-uk-offshore-marine-parks-subject-to-destructive-fishing), [[3]](https://www.theguardian.com/environment/2022/may/31/fishing-industry-still-bulldozing-seabed-in-90-of-uk-marine-protected-areas)
* Paragraph 4 – [[2]](https://www.theguardian.com/environment/2020/oct/09/revealed-97-of-uk-offshore-marine-parks-subject-to-destructive-fishing), [[5]](https://www.theguardian.com/environment/2022/feb/28/bottom-trawling-triples-in-key-marine-protected-area-despite-brexit-promise), [[6]](https://www.theguardian.com/environment/2021/jun/09/uk-to-trial-highly-protected-marine-areas-in-win-for-ocean-campaigners)
* Paragraph 5 – [[1]](https://eastangliabylines.co.uk/science/five-ways-to-inspire-ocean-connection-reflections-from-my-40-year-marine-ecology-career/), [[6]](https://www.theguardian.com/environment/2021/jun/09/uk-to-trial-highly-protected-marine-areas-in-win-for-ocean-campaigners), [[7]](https://www.independent.co.uk/climate-change/news/uk-protected-marine-zones-sea-fishing-ban-ocean-biodiversity-defra-a9555281.html)

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## Bibliography

1. <https://eastangliabylines.co.uk/science/five-ways-to-inspire-ocean-connection-reflections-from-my-40-year-marine-ecology-career/> - Please view link - unable to able to access data
2. <https://www.theguardian.com/environment/2020/oct/09/revealed-97-of-uk-offshore-marine-parks-subject-to-destructive-fishing> - An investigation by Oceana, a conservation NGO, revealed that 97% of the UK's offshore Marine Protected Areas (MPAs) were subjected to bottom trawling and dredging in 2019. This extensive fishing activity undermines the effectiveness of these protected zones, which are intended to conserve marine ecosystems. The findings highlight the need for stricter enforcement and management to ensure the protection of vulnerable marine habitats within MPAs.
3. <https://www.theguardian.com/environment/2022/may/31/fishing-industry-still-bulldozing-seabed-in-90-of-uk-marine-protected-areas> - Despite the establishment of Marine Protected Areas (MPAs) in the UK, a significant portion remains vulnerable to destructive fishing practices. Analysis indicates that bottom trawling and dredging activities continue to impact 90% of these protected zones, raising concerns about the effectiveness of current conservation measures and the need for enhanced protection strategies.
4. <https://www.theguardian.com/environment/2022/jun/20/five-highly-protected-marine-areas-set-up-in-english-waters-fishing-ban> - The UK government has announced plans to establish five Highly Protected Marine Areas (HPMAs) in English waters. These zones aim to provide the highest level of protection for marine ecosystems by prohibiting extractive and damaging activities, including fishing. The initiative is part of a broader effort to safeguard vulnerable marine habitats and species, allowing them to recover and thrive.
5. <https://www.theguardian.com/environment/2022/feb/28/bottom-trawling-triples-in-key-marine-protected-area-despite-brexit-promise> - In the Dogger Bank Marine Protected Area, bottom trawling activities have increased threefold since the UK's departure from the EU. This surge in destructive fishing practices undermines conservation efforts and highlights the challenges in enforcing protection measures within MPAs, despite previous commitments to safeguard these areas.
6. <https://www.theguardian.com/environment/2021/jun/09/uk-to-trial-highly-protected-marine-areas-in-win-for-ocean-campaigners> - The UK government is set to trial five Highly Protected Marine Areas (HPMAs) in English waters, marking a significant step in marine conservation. These areas will prohibit extractive and damaging activities, including fishing, to allow marine ecosystems to recover and thrive. The initiative follows recommendations from the Benyon review and aims to set a new standard for marine protection.
7. <https://www.independent.co.uk/climate-change/news/uk-protected-marine-zones-sea-fishing-ban-ocean-biodiversity-defra-a9555281.html> - A review has recommended the introduction of Highly Protected Marine Areas (HPMAs) in the UK, where all fishing activities would be banned to preserve ocean health. The proposal has received strong public support, with over 90% agreeing on the need for such protections. The review also highlights the current inadequacy of existing Marine Protected Areas in safeguarding marine biodiversity.