

Scientists call for a more ambitious approach to management of Marine Protected Areas

October 29 2019, by Mr Alan Williams



Credit: University of Plymouth

Researchers from the University of Plymouth have contributed to a new book addressing some of the most pressing challenges in marine conservation.

Senior Research Fellow Dr. Emma Sheehan and Research Assistant Tom Mullier are among those to share their expertise in "Marine Protected

Areas: Science, Policy and Management," published by *Elsevier*.

Working alongside Dr. Jean-Luc Solandt from the Marine Conservation Society, and Dr. Sophie Elliott, from the National Museum of Natural History in Paris, they contributed a chapter recommending an approach to Marine Protected Areas (MPA) management which isn't only limited to protecting vulnerable areas of seabed within the UK's vast network of MPAs.

Their paper outlines the legal tools the UK already has to protect the seabed from damaging activity, and calls for MPAs of all seabed types and sizes to restrict trawling and scallop dredging.

It is hoped the paper will make the case to government that a 'whole sites' approach to managing MPAs must be implemented, restricting bottom towed fishing gear from much larger expanses of seabed to allow wider [marine ecosystems](#) to recover and repopulate.

Dr. Sheehan leads a number of projects focussed on monitoring the effects of MPAs from both a conservation and human perspective.

These include the nationally recognised Lyme Bay Project, which has been running for more than a decade and continues to assess life on the seabed in the wake of a ban on bottom-towed fishing. She said:

"Our chapter draws directly on the discoveries we made while monitoring the recovery of marine habitats in Lyme Bay. We found that sediment habitats can function as a reef habitat and be colonised by reef associated species, such as sponges and corals, if protected from destructive mobile fishing practices. This work underpins the call for a whole site approach to MPA management, and shows how a feature-based approach that only protects specific features within an MPA such as rocky reef or key species, is not sufficient to protect and allow the

recovery of our marine ecosystems."

Mr Mullier, also the Director of Marine Mapping Ltd, is currently working on the SCILL-E Project which hopes to preserve the seas around the Isles of Scilly in a way that supports wildlife and the local economy. He added:

"Moving from managing individual features to mosaics of different habitats can have many benefits, from better supporting those species that utilise the edges of features to accounting for change in more ephemeral habitats. It can also achieve additional advantages including the potential for simplifying management and reducing monitoring costs."

In their chapter, the authors highlight that despite 25 percent of UK seas being in Marine Protected Areas, just 2 percent are currently legally protected from seabed trawling and dredging.

Unfortunately therefore, designating MPAs in the UK doesn't automatically mean these areas are protected from anything, while in contrast, many MPAs in Overseas Territories (such as Chagos, South Georgia and Pitcairn) have vast restrictions on all forms of fishing, dumping and dredging to protect entire ecosystems.

Better management of the UK's expansive network of MPAs, they add, would result in a higher percentage of our seas being protected from damaging activities, and offer benefits not only to the wider marine ecosystem, but to mankind too.

Healthy marine ecosystems absorb huge volumes of carbon, helping to fight the causes of climate change. Additionally, a healthier marine ecosystem will mean more efficient nutrient recycling and greater oxygenation of upper [seabed](#) layers, leading to cleaner seas.

Provided by University of Plymouth

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