A new framework supports the vision for a step change in the global monitoring of OA impacts on marine life Around one quarter of the CO2 emitted from human activities annually is absorbed by the ocean.Professor Widdicombe adds: "An improved and inclusive monitoring framework, enabling the combination of chemical and biological data, is vital in terms of how we understand ocean acidification and the impacts it is having –- and will have in future – across marine species and ecosystems. Ultimately, this new approach should help enable the scientific community to contribute even more effectively to the achievement of the UN Decade of Ocean Science vision – "the science we need for the ocean we want'.Lead author, PML's Director of Science and Co-Chair of the Global Ocean Acidification Observing Network (GOA-ON), Professor Steve Widdicombe explains: "The chemical effects of ocean acidification are well-documented but we still need much better, more detailed and more consistent real-world data on its biological effects. Over the past two decades, lab experiments and other studies and analyses have shown that ocean acidification can have profound effects on species such as corals, crabs and other shellfish and marine organisms. Higher CO2 levels in seawater make it difficult for shellfish to build their shells and for corals to form their reefs, as these are made of carbonate compounds. This is hugely significant for ecosystems, the wider marine food web and indeed, our own food security. By establishing a universal methodology we hope to be able to effectively evaluate the rate of change and the various mechanisms that affect ocean acidification across a diverse range of ocean environments. It's a very ambitious and innovative step forward but also something that requires rapid and widespread adoption."This has been shown to affect the chemistry of the seawater, causing a .drop in pH which has major implications for many marine species and ecosystems