

Acidification and warming threaten Mediterranean Sea iconic species

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Scientists finalize their findings about the threat of Mediterranean Sea warming and acidification on key species and ecosystems after a 3.5 year study in Barcelona this week. They have found that this sea is warming and acidifying at unprecedented rates. The main reason is emissions of carbon dioxide to the atmosphere from burning fossil fuels causing warming of the ocean as well as acidification of its waters due to uptake of CO₂ by surface waters.

This is of particular importance to the Mediterranean coastal societies with 300 million inhabitants (living and visiting), unique ecosystems, love of seafood and its role as a focus for tourist worldwide.

Research professor Patrizia Ziveri, from Institute of Environmental Science and Technology at the UAB and the coordinator of the project says "We knew next to nothing about the combined effects of warming and [acidification](#) in the Mediterranean until this study, now we know that they are a serious double threat to our marine ecosystems."

"Iconic Mediterranean ecosystems such as sea grass meadows, the colourful Coralligene reefs and Vermetid snail reefs are threatened and now facing rapid decline through acidification and warming. These are amazing ecosystem building species, creating homes for thousands of species, and also serve to protect shores from erosion, offer a source of food and natural products to society" says Prof Maoz Fine from Bar-Ilan University in Israel.

"Subsea volcanic activity spews [carbon dioxide](#) into the seawater making the waters more acidic and an amazing natural laboratory, showing how a future Mediterranean Sea may look like. Unfortunately this window into a high CO₂ sea shows us that life will become difficult for some species, [invasive species](#) may do well, biodiversity will decrease and some [species](#) will become extinct" comments Prof Jason Hall-Spencer from University of Plymouth.

Research professor. James Orr from Laboratoire des Sciences du Climat et de l'Environnement "It is clear that to save these amazing ecosystems human society worldwide must reduce fossil fuel emissions. It is not just someone else's coasts that will be impacted but all our seas and coasts. We all need to act and there is no time to loose".

Over 100 scientists from 12 countries involved in the study have pooled their findings and produce a 10 point summary to warn society, policy- and decision-makers as well as the general public (attached). They have launched this at the final meeting today, at Barcelona.

Provided by Universitat Autònoma de Barcelona

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