

Speed of ocean acidification concerns scientists

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Speaking at the Third International Symposium on the Ocean in a High-CO₂ World this week in Monterey, California, Dr Daniela Schmidt, a geologist from the University of Bristol, warned that current rates of ocean acidification are unparalleled in Earth history.

Dr Schmidt of Bristol's School of Earth Sciences said: "Ocean acidification has happened before sometimes with large consequences for [marine ecosystems](#). But within the last 300 million years, never has the rate of ocean acidification been comparable to the ongoing acidification."

She added that the most comparable event, most likely 10 times slower than the current acidification, was 55 million years ago.

"At that time, species responded to the warming, acidification, change in

nutrient input and loss of oxygen – the same processes that we now see in our oceans. The geological record shows changes in [species distribution](#), changes in species composition, changes in calcification and growth and in a few cases extinction," she said.

"Our current acidification rates are unparalleled in Earth history and lead most ecosystems into unknown territory."

That rate of change was echoed by Dr Claudine Hauri, an oceanographer from the University of Alaska Fairbanks: "The waters up and down the coast from our conference site here in [Monterey Bay](#) are particularly prone to the effects of ocean acidification. The chemistry of these waters is changing at such a rapid pace that organisms now experience conditions that are different from what they have experienced in the past. And within about 20 or 30 years, the chemistry again will be different from that of even today."

A paper by Dr Schmidt and colleagues on the [geological record](#) of [ocean acidification](#) was published in *Science* in March 2012.

Provided by University of Bristol

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