

Dolomite discovery ends 100-year treasure hunt

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Dolomite has been found inside 'reef building' algae.

(PhysOrg.com) -- The century-old mystery of a missing mineral in coral reefs has been solved by a team from The Australian National University.

The team, led by Dr. Bradley Opdyke of the Research School of Earth Sciences, has uncovered a hidden stash of the mineral dolomite in [coral reefs](#) around the globe, ending a search that has lasted over 100 years. The discovery was published in November's *Biogeosciences*.

“For over a century scientists have puzzled over the ‘dolomite problem’ – the mystery surrounding the abundance of dolomite in fossil reefs and its apparent absence from modern reefs,” said Dr. Opdyke.

“We have discovered that dolomite is in fact present in large quantities in modern coral reefs, but from an unexpected source.”

The team’s eureka moment came when they found large quantities of dolomite packed inside a ‘reef builder’ species of red [algae](#), *Hydrolithon onkodes*.

“There was dolomite on the reefs all along, but it was hidden within these algae,” said Dr. Opdyke.

“This species of algae is found in abundance on reefs around the world. The algae work with coral to ‘cement’ the reef structure to withstand the tremendous hydraulic pressure of waves.

“This is the first discovery of dolomite associated with a living organism.”

Student Marinda Nash and Dr. Uli Troitzsch made the surprise discovery while investigating the effects of climate change on red algae.

“The discovery was completely serendipitous – we were working on an unrelated question at the time,” said Dr. Opdyke. “When we confirmed the finding I said to Marinda, ‘This is going to be huge’. It opens up a kaleidoscope of future research topics.”

Provided by Australian National University

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