



# Greenhouse rock: How geologists can stop global warming

**Dr Michael Palin**

**When:** Thursday October 29, 2020 12 – 1pm

**Where:** Centre for Sustainability Seminar Room, 563 Castle Street.

## **About the talk:**

Earth's surface and oceans are warming and sea level is rising at unprecedented rates. These changes are the inevitable consequence of humans burning 300 million years of accumulated fossil fuels in less than 200 years. In the wake of multiple failed international agreements, our carbon emissions are accelerating. If current trends continue, models predict 4°C of warming and 1 m of sea-level rise by the end of this century.

The late, great geochemist Wally Broecker - who first coined the term "global warming" - also led efforts to fix the problem by sequestering atmospheric CO<sub>2</sub> as carbonate minerals in mafic and ultramafic igneous rocks. Recent field demonstration projects around the world indicate that in-situ reaction rates are faster than anticipated. New Zealand has more than its fair share of potential "greenhouse rock", are we prepared to sacrifice these to stop global warming?



## **About the speaker:**

Mike Palin is a geochemist in the Department of Geology at the University of Otago. He grew up in southern California where desert landscapes inspired his study of geology. He completed a PhD at Yale and held research fellowships at Caltech and ANU prior to taking up his current appointment in 2002.

