

# Antarctic rocks help predict sea levels

November 14 2011

---

Ancient rocks embedded in the West Antarctic ice sheet could help University scientists improve sea level predictions.

Researchers will determine how long Antarctic rocks at the ice surface have been exposed to [cosmic radiation](#) - energy from exploding stars in space - during their lifetime.

They will use sensor technology and chemical analysis to analyse the rocks.

Their findings will indicate whether the ice sheet melted at the warmest point between the two most recent global ice ages, some 120,000 years ago, when sea levels rose by up to six meters.

Melting ice would have exposed the rocks to more cosmic radiation than if they had remained embedded in the ice sheet, where they are now.

The research, led by Edinburgh researchers, will shed light on whether the ice sheet played a role in [rising sea levels](#) between the ice ages.

Understanding how the West [Antarctic ice sheet](#) behaved between ice ages will enable scientists to improve their models of past climates.

This in turn enables more accurate predictions of how sea levels will change as climates continue to warm.

The three-year study is a collaboration with the Universities of

Northumbria and Exeter, Scottish Universities Environmental Research Centre, the University of Cologne, and the [British Antarctic Survey](#).

The project is funded by the Natural Environment Research Council.

"Studying these half-a-million-year-old rocks will help us discover whether they have always been where they are now – stuck in the ice sheet – or if the ice sheet melted in warmer climates," said Professor David Sugden, School of GeoSciences.

Provided by University of Edinburgh

Citation: Antarctic rocks help predict sea levels (2011, November 14) retrieved 11 May 2024 from <https://phys.org/news/2011-11-antarctic-sea.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.