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## Pressem<sup>^</sup> teilu

Der Abdruck der Pressemitteilung ist honorarfrei unter Nennung der Quelle. Um die Zusendung eines Belegexemplars wird gebeten.

***Das Leibniz-Institut für Meereswissenschaften ist Mitglied der***

samples which were collected with the submersible will be used to reconstruct the process of the sea level rise since the last ice age as detailed as possible.

During the second part of the expedition the scientist took samples of emerged and dry-fallen reefs on land. These reefs were formed when the sea level reached its peak about 6000 years ago. Since then, the sea level is slightly sinking in the entire Indo-Pacific area. The reason: the gravity of the continents. When the large continental ice sheets covering North America and Europe melted at the end of the last ice age, the northern continents lost an enormous mass which had pressed them into the Earth's mantle. Since then, the slow emergence of the once glaciated areas provides an extra gravitational force pulling large amounts of seawater from the South to the North. In the Central Pacific this water is missing, as a result, the sea levels are sinking. From the age of the emerged fossil reefs and their height above the present sea level the scientists gain information about the timing of the post-glacial sea level change since 5000 years ago.

"We will use the samples to extend and complete our present picture of this process", says Prof. Eisenhauer after he returned from the tropical South Pacific. The samples will be analysed with state-of-the-art analytic isotope techniques in order to identify the exact age of the fossil corals and other information which are hidden in the samples. Among others, the scientist are able to reconstruct the water temperatures that prevailed during the growth of the coral – with an accuracy of 0.5 degrees Celsius. "The isotope analysis allows us to nail down solid information about the chemical history of seawater and the sea level fluctuation", says Prof. Eisenhauer. "When the patient is not willing to confess we will let the evidence speak", he adds optimistically.

**Links:**

<http://www.ifm-geomar.de/index.php?id=5194> Homepage der JAGO-Expedition

**High resolution images:**

At [www.ifm-geomar.de/presse](http://www.ifm-geomar.de/presse) there are images for download.

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