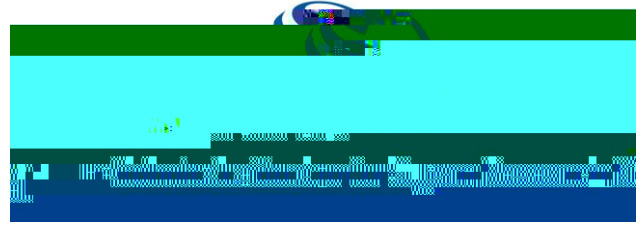


Press Release



16/2014

Protected by the Seabed: Unicellular Organisms Tolerate Ocean Acidification **GEOMAR scientists simulate future climate scenarios**

09 April 2014/Kiel. The concentration of atmospheric greenhouse gases, such as carbon dioxide (CO₂), increases continuously. Due to the absorption of CO₂ from the atmosphere, the oceans are becoming increasingly acidic. Researchers at the GEOMAR Helmholtz Centre for Ocean Research Kiel show in a recent study funded by the German Research Foundation (DFG) that calcifying unicellular organisms, called foraminifera, can deal rather well with very high CO₂ levels under certain conditions. The results have recently been published in the international journal *Biogeosciences*.

The oceans are becoming more acidic. This fact is due to a steadily increasing atmospheric CO₂ content. The permanent gas exchange between atmosphere and ocean also leads to an increased concentration of CO₂ in the ocean. Here, the dissolved CO₂ reacts with water to form carbonic acid. As a consequence of this reaction, the pH value of seawater



shells are protected from severe dissolution, and foraminifera
to survive even under high CO₂ concentrations - a crucial factor
studies," says Dr. Haynert.

the need to understand the natural processes in the soil habi-
ter assess the impacts of climate change.

R., Wilson, B., and Thomsen, J. (2014): Response of benthic
their natural sediment environment: a long-term culturing ex-
1597, <http://dx.doi.org/10.5194/bg-11-1581-2014>

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