

Press Release



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A strong case for limiting climate change BIOACID concludes after eight years of extensive research on ocean acidification

25 October 2017/Kiel. In November 2017, the German research network on ocean acidification BIOACID (Biological Impacts of Ocean Acidification) reaches its conclusion after eight years of extensive interdisciplinary scientific activity. Experiments and analyses carried out by more than 250 scientists from 20 German institutions clearly indicate that ocean acidification and warming, along with other environmental stressors, impair life in the ocean and compromise important ecosystem services it provides to humankind. A brochure summarises major outcomes of the project for policymakers and the public. BIOACID members will also be present at the United Nations climate change conference COP23 in Bonn.

affects ecosystems and important services the ocean provides to humankind. This includes the regulation of the Earth's climate, food provision, recreation as well as biodiversity as a condition for intact and functioning ecosystems.

“We need to see ourselves as part of a global system and understand the many ways in which we depend on the ocean and its services. Because everyone in this global community will be affected by climate change, it will be for our own benefit if we manage to reduce carbon dioxide emissions in such a way that global warming is limited to less than 2 degrees Celsius”, says Prof. Ulf Riebesell, marine biologist at GEOMAR Helmholtz Centre for Ocean Research Kiel and coordinator of BIOACID. “The future of this planet depends on us. Wouldn't it be a great achievement if the anthropocene, the age of human dominance on Earth, goes down in history as an era of rethinking and changing behaviour?”

According to Hans-Otto Pörtner, co-coordinator of BIOACID, marine ecophysiologicalist at Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research and Co-Chair of the Intergovernmental Panel on Climate Change (IPCC) Working Group II, all countries would need to reduce their carbon dioxide emissions drastically by the middle of this century if they wish to reach the Paris climate targets. “The current world climate report indicates clearly that net-zero emissions are a precondition for limiting global warming to well below 2 degrees Celsius. However, reducing CO

₂ emissions alone may not be sufficient. Net removal of CO₂ from the atmosphere would have to contribute. This is already technically possible, but the challenge is to develop and implement the respective technologies at a larger scale. The later the emission reductions start and the longer this process takes, the more difficult and costly it becomes to stay in line with the Paris agreement.”

Important BIOACID results

- Changes in the ocean carbonate system impact the acid-base balance in marine organisms. This can negatively affect key processes such as calcification.
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BIOACID at COP23

6 - 17. November 2017: information stand in the Bonn Zone

6 November 2017, 2:30-3:30 pm, German Pavilion: „Linking the ocean with climate protection - ocean acidification as a conjunctive matter“

11 November 2017, 12:30-1:30 pm, German Pavilion: German Science Hour: Our ocean future: marine ecosystems under climate change. Panel discussion Wilfried Kraus (BMBF), Prof. Hans-