



**GeoBio-Center^{LMU}
Report 2020 / 2021**

GeoBio-Center^{LMU} Report 2020 / 2021



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Welcoming note

Dear Ladies and Gentlemen, dear Colleagues,

it is a great pleasure for me to present to you the biannual report 2020/2021 of the GeoBio-Center. Those last two years were dominated by the COVID pandemic, which certainly also affected the activities of the GeoBio-Center. Several planned meetings, colloquia and collaborative seminars had to be postponed due to restrictions related to the pandemic, and we hope to hold them again in the near future. Nevertheless, I am happy to report that these two years still have been very successful for the GeoBio-Center in many aspects, including the publication output as summarized in this annual report. I am especially pleased that the GeoBio-Center again attracted additional national and international researchers and research groups.

The GeoBio-Center hosts a part of the Bavarian government funded joint project *AlpSenseRely*, of GeoBio-Center member Prof. Dr. Florian Siegert, together with Dr. Ulrich Münzer (Geology, LMU). This project comprises remote sensing-based early warning systems for natural hazards in particularly climate change sensitive alpine areas. More about *AlpSenseRely* in this report.

Dr. Christine Böhmer, former student and PhD student of our institute joined the GeoBio-Center with a Marie Skłodowska-Curie Individual Fellowship *Evolutionary Dissection of the Neck Musculoskeletal System in Dinosaurs*. She accepted in the meantime an appointment to a W2 professorship at the Christian-Albrechts University of Kiel. Congratulations to Dr. Böhmer for this exciting achievement, and we are happy to have contributed to your career!

Likewise, the GeoBio-Center welcomes the Alexander von Humboldt-funded project of Dr. Thodoris Argyriou (working with with GeoBio-Center member Dr. Adriana Lopez-Arabello) *Illuminating the early evolutionary history and cranial eco-morphology of neopterygian fishes*.

Dr. Sebastian Höhna, Emmy-Noether fellow at the GeoBio-Center will conduct a further, DFG-funded project on genome delimitation of fireflies at the GeoBio-Center (with Dr. Ana Catalán).

Finally, I am especially pleased to anticipate good news for 2022, as a further Emmy Noether group will join the GeoBio-Center. In August 2022 Dr. Gonzalo Gómez Sáez will start his research group *OXYGEDOM* on ocean deoxygenation effects on dissolved organic matter sequestration in a changing ocean.

I am excited that many research groups identify the GeoBio-Center as an established overarching platform for collaboration between research groups of different institutions, and as an excellent platform to develop and host interdisciplinary projects. I am looking forward to further collaborations in the future.

With the very best regards,

Prof. Dr. Gert Wörheide
Spokesman of the GeoBio-Center^{LMU}



Prof. Dr. Gert Wörheide
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AlpSenseRely Early detection of natural hazards



*Pictures courtesy of
realitymaps.de*

Alpine natural hazards related to climate change pose a significant threat to alpine communities, infrastructure, residents, tourists and the local economy. The ability to cope with and protect against them is a key challenge for alpine communities and other stakeholders in the near future.

3D RealityMaps is involved in a new research project for the prediction and analysis of climate-related natural hazards in the Alps. The AlpSenseRely project is funded for a period of 3 years by the Bavarian State Ministry for the Environment and Consumer Protection.

AlpSenseRely is intended to make an important contribution to the early detection of risks and, due to its preventive character, to the reduction of damage and the associated costs. AlpSenseRely focuses on real-time monitoring of critical objects in densely populated areas of the Alps.

For this purpose, four representative test regions were selected in the critical area of the Eastern Alps between 2000-3000 m altitude, as the effects of climate change are most evident here. The rise of the permafrost line and the strong retreat of glaciers often leads to rockfalls and landslides, which endanger the local population and the tourism infrastructure.



Publications 2020 & 2021

ISI-Indexed Journals (190)

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