

Project on cryptic fauna of fossil Red Sea reefs at the University of Vienna, Austria

The Department of Palaeontology at the University of Vienna offers a project on cryptic fauna of Pleistocene coral reefs. The study is part of the FWF project “Red Sea coral reefs: A Pleistocene-Recent comparison” (<https://corals.univie.ac.at>).

The Eemian is a period in the Pleistocene, about 125.000 years ago, that had warmer temperatures and a higher sea level than today. It reflects environmental conditions as we expect them for the upcoming years and therefore, the fossil reef community can be used to better understand the future of Red Sea coral reefs. In the FWF project “Red Sea coral reefs: A Pleistocene-Recent comparison” we compare a variety of components of the fossil reef, such as corals, mollusks and the cryptic fauna, to the modern Red Sea reefs.

The offered project will focus on the cryptic fauna of the fossil reefs. The cryptic fauna consists of skeletal remains smaller than 2mm of various organisms that are abundant on coral reefs. The most abundant remains are from mollusks, echinoderms, crustaceans, foraminifera and fish. The main task of the project will be to conduct a component analysis, by categorizing the skeletal remains into higher taxa, to analyze the dataset and to interpret the environment. A selection of the cryptic fauna needs to be photographed using the microscope.

What do we expect?

We are looking for a motivated student with a background in zoology or ecology. Interest in coral reefs and willingness to conduct microscope work is expected. Statistical skills are of advantage (preferably in R) but can be acquired during the project.

What do we offer?

We offer a project with practical work in a highly diverse team with direction supervision by a professor and by a PhD student at the University of Vienna. The workplace is close to the city center of Vienna, a vibrant city in the heart of Europe.

Specific interests, for example in a certain taxon, can be pursued by the student. We are welcoming participation in lectures and courses the university has to offer. Basic programming skills in R can be acquired during the project. The results will be included in a scientific publication, on which a motivated student can be a co-author.

How can you contact us?

If you have any questions or would like to apply for the project, you can either contact

Prof. Martin Zuschin: martin.zuschin@univie.ac.at

or

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An example of the cryptic fauna from the fossil reefs.

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