



PhD position in Palaeoecology / Palaeolimnology

100% / possible date of entry: October-December 2025

The Geoecology research group at the Department of Environmental Sciences, University of Basel (Switzerland) is looking for a PhD student candidate that will explore innovative research questions in chironomid palaeoecology within a four-year PhD project.

Chironomid midges (Diptera: Chironomidae) are aquatic insects that are excellent palaeoenvironmental indicators, and fossil chironomid remains have been used to reconstruct past changes in chironomid communities and, indirectly, past variations in environmental variables such as temperature, nutrient availability and oxygen in lakes. Recent, exciting developments in the field of chironomid palaeoecology include the development of high-resolution analyses to reconstruct decadal-scale ecosystem dynamics of lake ecosystems, the interpretation of influx data for assessing the response of chironomids to environmental disturbance and changes in oxygen availability of lakes, the development of eDNA analyses for supporting fossil chironomid records, and the application of DNA barcoding for improving identification of modern and fossil chironomid larvae. This PhD project will contribute to further developing fossil chironomid research by exploring one or several of these research topics.

Your position

The successful PhD applicant will develop a PhD research program in the research fields listed above, or a closely related field, in close collaboration with the daily supervisor Prof. Dr. Oliver Heiri and the Geoecology group. The research should contribute to methodological and interpretational advancements in the field of chironomid palaeoecology by applying new methods to fossil chironomid research, applying new approaches for interpreting fossil chironomid records or developing new types of calibration data for further expanding the use of aquatic invertebrate and particularly chironomid remains in lake sediment studies. The successful candidate will also contribute to other research and teaching activities of the Geoecology group and is expected to collaborate closely with other research group members and researchers from other research institutions.

Your profile

Applicants should hold an MSc in Earth or Environmental Sciences, Physical Geography, Ecology, Biology, Quaternary Science, Palaeoecology, or a related field. Experience in palaeolimnology, palaeoecology, limnology, microfossil analysis and/or sediment work would be an advantage. Candidates should hold a valid driver's license and have good English language skills. Good communication and organizational skills and willingness to work in a team environment are essential.

We offer you

The project is funded by the Geoecology group and salary and social benefits are provided according to University of Basel rules.

Application / Contact

Please submit your complete application documents, including a letter of motivation, CV, copies of academic qualifications and contact details for three referees via our **online recruiting platform**. We accept online applications only.

A first evaluation of applications will start on 15 August 2025 and continue until the position is filled. For enquiries, please contact Prof. Dr. Oliver Heiri (oliver.heiri@unibas.ch), for more information on the Geoecology group please visit <https://duw.unibas.ch/en/research-groups/geoecology/>.

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