

PhD position in Quaternary Paleoecology

We are pleased to offer a 3-year PhD position entitled “Late Quaternary palaeohydrological investigations in the Zagros Mountains based on ostracod paleoecology and isotope geochemistry”. As the geology of the Zagros Mountains is dominated by calcareous and evaporitic rocks, lake and wetlands have high pH and high dissolved carbonate. This chemistry determines the biology of the lake and taphonomy of the invertebrate fossil assemblages commonly used as proxy for hydrological reconstructions. In the Zagros, ostracods are the most common lacustrine fossils that can be used to reconstruct the lake paleoecology and regional hydrology. The temporal changes in ostracod assemblages, as well as stable isotopes and trace elements, will be compared to aquatic fossil pollen assemblages and stable isotope measurements for a more robust reconstruction of lake hydrology. The selected PhD candidate will be officially registered at the Aix-Marseille University (France) and will work in two research institutes IMBE and CEREGE. She/He will be trained in ostracod ecology and paleoecology (supervisor: Dr. Hélène Bruneton, CEREGE) and numerical analysis of ecological data (supervisor: Dr. Emmanuel Gandouin, IMBE). She/He will further be trained in stable isotope study of ostracods at California State University at Long Beach (supervisor: Prof. Lora Landon-Stevens). Date of the beginning of the PhD will be January 2025. The PhD project is part of the Swiss-French SINERGIA project “MITRA - Holocene hydroclimate, drought dynamics and environmental change recorded in multiple archives from SW Asia” led by Dominik Fleitmann (University of Basel), Morteza Djamali (Aix-Marseille University) and Christoph Raible (University of Bern).

The PhD student will be paid for a period of three years with no possibility of extension.

Qualifications and personal qualities

- Applicants must hold a Master's degree in Earth Science, Environmental Science, or Biological Science,
- Experience in hydrobiology or aquatic ecology will be an advantage,
- Experience in ostracod taxonomy and ecology will be an advantage,
- Experience in stable isotope geochemistry will be an advantage,
- Basic knowledge in data analysis using R will be an advantage
- Applicants must be proficient in both written and oral English,
- A good knowledge of the French language will be an advantage but not a necessity

Contact

Candidates are invited to send their motivation letters, CVs, details of two referees, and the abstract of their Master thesis in one PDF to:

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Deadline for applications is June 30, 2024