

Post-doctoral research position in marine paleoecology

Within the framework of the ERC Synergy project SEACHANGE, the Institute of Geosciences (Paleontology group) at the University of Mainz, Germany, invites applications for a 2 yr-postdoc position (temporary appointment) to reconstruct marine food web dynamics through compound-specific and bulk isotope analysis (**CSIA, BSIA**) of mollusk shell organics etc. The University of Mainz has a vibrant campus with nearly 31,000 students and amongst others hosts the Institute of Geosciences, which is equipped with state-of-the-art facilities. Our team maintains strong research collaborations with the Max Planck Institute for Chemistry which is located in the immediate neighborhood of the university campus.

The ERC Synergy project SEACHANGE, a joint research project lead by PIs of the universities of Exeter, Copenhagen and Mainz, aims to quantify the impact of major cultural transitions on marine ecosystem functioning and biodiversity. Target areas include NW Europe, eastern Australia and the west Antarctic Peninsula. The group at Mainz focuses on temporal changes of the food web structure, hydrographic changes and determination of major primary producer groups at the base of the food web. For this purpose, the **postdoc will generate annually (and better) resolved $\delta^{15}\text{N}$ and $\delta^{13}\text{C}$ chronologies of individual protein-amino acids via GC-C-IRMS (CSIA) and bulk shell organics via IRMS+EA (BSIA). He/she will also play an active role in further developing and streamlining the methodological approach.** Our team has recently established the CSIA method of bivalve shell organics as a complementary technique of BSIA and is now routinely applying this method. Proteins will be extracted from absolutely dated, live-collected and fossil shells, predominantly of long-lived species. Growth patterns (annual 'rings') in the shells will be used to temporally contextualize the samples (sclerochronology).

Candidate profile:

- PhD degree (above average grade) in Earth Sciences, Biology, Chemistry or related field
- Outstanding motivation and enthusiasm
- Broad scientific background in isotope geochemistry; previous experience with BISA and / or CSIA ($\delta^{15}\text{N}$) is advantageous and a basic knowledge of invertebrates and marine ecology is very useful. Previous experience with sclerochronology would be an asset as well.
- Ability and willingness to conduct chemical laboratory work
- Solid experience with data analysis and statistical methods
- Computer literacy, e.g., skillful command of MS office packages, R, graphics software etc.
- Excellent written and oral communication skills in English
- Ability to write convincing and impactful publications for peer-reviewed scientific journals

- Ability to work independently and self-guided, but likewise within an interdisciplinary research team

The initial appointment will be for two years and ideally starts on 1 July 2023. Salary according to E13 TV-L (100% position) includes fringe benefits (health insurance etc.). The University of Mainz is an equal opportunity employer. Disabled persons with comparable qualifications receive preferential status.

Interested individuals are invited to submit an application package including a motivation letter explaining why they apply and how they meet the hiring criteria outlined above, CV, copies of certificates (high school, BSc and MSc/diploma, PhD), degree transcripts (plus English or German translation) including an explanation of the scoring system, and names/addresses of at least two referees as a single pdf to Prof. Dr. Bernd R. Schöne, bernd.schoene@uni-mainz.de, Institute of Geosciences, University of Mainz, Joh.-J.-Becher-Weg 21, 55128 Mainz, Germany. Application Deadline: 12 June 2023. Note, application review will begin immediately. The position will remain open and applications will be reviewed until the position is filled. Further information about the research focus of the Applied and Analytical Paleontology research team can be obtained at <http://www.paleontology.uni-mainz.de> and more details on SEACHANGE at <https://www.seachange-erc.eu/>