UNIVERSITY OF COLOGNE


Foto: Jörn Henn

Faculty of Mathematics and Natural Sciences

PhD position in Antarctic marine paleoenvironments (f/m/x)

Institute of Geology & Mineralogy

We are one of the largest and oldest universities in Europe and one of the most important employers in our region. Our broad range of subjects, the dynamic development of our main research areas and our central location in Cologne make us attractive for students and researchers from around the world. We offer a wide range of career opportunities in science, technology, and administration.

The position is funded by the DFG within the framework of the Priority Programme SPP1158 Antarctic Research. The project aims to utilize biogenic deposits of Antarctic seabirds (snow petrels) as a means to study and reconstruct Holocene sea-ice conditions in the coastal zone of the Southern Ocean. This involves employing a multiproxy approach that combines inorganic, lipid and isotope geochemical analyses to infer past changes in the diet of the snow petrel and to link these changes to environmental conditions such as sea ice variability, polynya activity and primary production. The project is linked to a larger initiative investigating the interaction between the ice sheet, ocean and atmosphere in relation to the stability of the East Antarctic Ice Sheet.

YOUR TASKS

- Analysis of lipid biomarkers from fossil stomach oil deposits and modern reference material, involving GC-FID and GC-MS
- Conducting and evaluating GC-MS-IRMS measurements for compound-specific $\delta^{13}C$ analysis of selected lipid compounds
- Integration of modern observations of snow petrel ecology with paleo-reconstructions based on stomach oil deposits
- Integration of evidence from multiproxy studies from different sediment archives (terrestrial and marine)
- Active participation in research communication (seminars, conferences, publication in international journals)

YOUR PROFILE

- M.Sc. in the field of Geosciences
- Good knowledge of organic geochemistry, geobiology or Quaternary geology
- Motivation to work in an interdisciplinary research environment
- Good understanding of the interrelationships between ecology and environmental conditions
- Good understanding of palaeoceanography and processes of the interaction between land and ocean
- Willingness to collaborate with scientists within and outside the project and to establish new scientific cooperations
- Ability to work both in a team and independently
- Excellent communication skills in written and spoken English

WE OFFER

- Working in an internationally well-established research group with the opportunity to earn a PhD. degree
- Extensive advanced training opportunities within the GSGS graduate school of the Department of Geosciences
- A diverse working environment with equal opportunities
- Support in balancing work and family life
- Extensive advanced training opportunities
- Occupational health management offers
- Flexible working time models

The University of Cologne is committed to equal opportunities and diversity. Women are especially encouraged to apply and will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from people with disabilities / special needs or of equal status.

The position is to be filled at the earliest possible date on a part-time basis (26,5 hours per week). It is limited for three years. If the applicant meets the relevant wage requirements and personal qualifications, the salary will be based on remuneration group 13 TV-L of the pay scale for the German public sector.

Please send your application with proof of the required qualifications without a photo online to: https://jobportal.uni-koeln.de. The reference number is Wiss2401-25. The application deadline is 08.04.2024. If you have any questions, please contact Dr Sonja Berg (Sonja.Berg@uni-koeln.de) or Professor Dr Christine Heim (Christine.Heim@uni-koeln.de). Information on the project can be found here: Snow petrel stomach oil deposits- an archive of Antarctic paleoclimate