UNIVERSITY OF COLOGNE



Foto: Jörn Henn

Faculty of Mathematics and Natural Sciences

Interdisciplinary PhD position (f/m/x)

The Rhine Floodplain – a Biogeochemically Coupled System under Stress

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.

Floodplains are dynamic, valuable ecosystems increasingly threatened by river regulation, land use, and climate change. The University of Cologne's project "The Rhine Floodplain – a Biogeochemically Coupled System under Stress" investigates how altered hydrology affects sediment dynamics, biodiversity, food webs, microbial processes, and greenhouse gas emissions.

YOUR TASKS

- Characterise floodplain sediments using sedimentological and geochemical techniques
- Determine deposition ages and sedimentation rates using luminescence dating and fallout radionuclides
- Quantify microplastics and heavy metals in floodplain sediments
- Quantify bioturbation using luminescence-based methods, earthworm surveys and laboratory experiments
- Collaborate in joint field campaigns with an interdisciplinary team

YOUR PROFILE

- MSc in geography, geosciences, soil science, biology or a related field
- Experience in laboratory work and the analysis of complex datasets
- Ability and willingness to undertake fieldwork, including extended stays at the Ecological Research Station Rees
- Experience in sedimentological or geochemical analysis, luminescence dating or microplastic analysis is desirable
- Excellent communication skills in English (C1 equivalent)
- Proficiency in German is desirable

WE OFFER

- Exciting research in an interdisciplinary project with 2 other PhD students and a postdoc
- A diverse working environment with equal opportunities
- Support in balancing work and family life
- Flexible working time models
- Extensive advanced training opportunities
- Occupational health management offers

The University of Cologne promotes equal opportunities and diversity. Women will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from all suitable candidates regardless of their gender, nationality, ethnic and social origin, religion, disability, age, sexual orientation and identity.

The position is available from 1 February 2027 on a part time basis with 25,89 hours per week. The position is to be filled for a fixed term until 31 January 2030. If the applicant meets the relevant wage requirements and has the appropriate personal qualifications, the salary is based on remuneration group 13 TV-L of the pay scale for the German public sector.

Please apply online with proof of the required qualifications (without a photo) under https://jobportal.uni-koeln.de. The reference number is Wiss2611-06.
The application deadline is 10 December 2026.
For further inquiries, please contact Junior Professor Dr Svenja Riedesel at (svenja.riedesel@uni-koeln.de) and take a look at our FAQs.

HR EXCELLENCE IN RESEARCH