



At the University of Hildesheim (Germany), the Institute for Geography, has a vacancy for

**three post-graduate researchers - PhD students - (m/f/d)**  
[scholar ship, 1.650 EUR/month]

within the Junior Research Group “Biosphere Reserves” in the project

***Multi-protection schemes for better nature conservation? A coupled remote sensing-field assessment approach taking two Biosphere Reserves - European National Parks/Nature Conservation Areas as a comparative case study (EuroPa)***

for the period 01.10.2025 until 30.09.2028

The Junior Research Group is funded by the Marianne und Dr. Fritz Walter Fischer-Foundation.

The loss of biodiversity and ecosystem services remains a major challenge of global environmental change, highlighting the need to enhance existing conservation strategies. Large protected areas, such as National Parks, Nature Conservation Areas, and Biosphere Reserves, are crucial for biodiversity conservation—either through strict protection or sustainable land-use integration. However, the comparative effectiveness of these protection concepts for biodiversity maintenance remains insufficiently understood.

This project investigates the hypothesis that, particularly in Europe's long-inhabited cultural landscapes, Biosphere Reserves differ in their contribution to biodiversity and ecosystem services compared to National Parks and Nature Conservation Areas, especially regarding traditional land-use systems. This raises fundamental questions about whether strictly protected area strategies are generally appropriate for Europe.

Two paired protected area case studies are examined:

- Hortobágy, Hungary (Biosphere Reserve and National Park),
- Spreewald, Germany (Biosphere Reserve and Nature Conservation Areas).

These regions include natural, semi-natural ecosystems and diverse land-use systems. Biodiversity and ecosystem services are evaluated, focusing on vegetation and soils. Spatial and temporal analyses will utilize satellite-based remote sensing methods.

The Junior Research Group is lead by Prof. Dr. Christoph Raab as PI and consists of 3 PhD students and the further supervisors and Co-PIs Prof. Dr. Martin Sauerwein and Prof. Dr. Stefan Zerbe as well as cooperation partners from Germany, Italy, and Hungary, thus forming an international and interdisciplinary project team. The PhD students are expected to closely interact in this interdisciplinary team and willing to integrate remote-sensing approaches into their specific research topic. The working place is Hildesheim.

### **Topics for the PhD positions:**

1. Remote Sensing of Vegetation and Land Cover/Land Use Trends between 1960 and 2025
2. Biodiversity and services of flora and vegetation on the ecosystem and landscape scale in cultural landscapes along the gradient of increasing human impact
3. Geodiversity and soil-related ecosystem services in cultural landscapes along the gradient of increasing human impact

### **Qualifications for the PhD positions:**

- Completed university studies (diploma, master's degree or comparable), depending from the topic, e.g. in landscape ecology, biology, ecology, physical geography/geoecology, remote sensing, environmental informatics, environmental management, forestry/agricultural sciences, or similar disciplines;
- Master thesis (or similar) with reference to one of the topics;
- Experience in comprehensive data analysis and literature evaluation;
- Experience and willingness to cooperate in an interdisciplinary and international team;
- Good knowledge of written and spoken English.

If you have any questions, please contact the principal investigators of the Junior Research Group Prof. Dr. Christoph Raab ([christoph.raab@uni-hildesheim.de](mailto:christoph.raab@uni-hildesheim.de)), Prof. Dr. Martin Sauerwein ([martin.sauerwein@uni-hildesheim.de](mailto:martin.sauerwein@uni-hildesheim.de)) or Prof. Dr. Stefan Zerbe ([stefan.zerbe@unibz.it](mailto:stefan.zerbe@unibz.it)).

Personal data will be stored and processed for the purposes of the application procedure.

**Please send your application and attachments by 08.08.2025 as one PDF document (< 5 MB) by e-mail to [christoph.raab@uni-hildesheim.de](mailto:christoph.raab@uni-hildesheim.de), [martin.sauerwein@uni-hildesheim.de](mailto:martin.sauerwein@uni-hildesheim.de) and [stefan.zerbe@unibz.it](mailto:stefan.zerbe@unibz.it).**

For university degrees obtained abroad, a certificate evaluation by the Central Office for Foreign Education (ZAB) is required as proof of equivalence prior to employment. If necessary, please apply for this in due time. For more information, please visit <https://www.kmk.org/zeugnisbewertung>