



The University of Bayreuth is a research-oriented university with an internationally competitive and interdisciplinary profile in research and teaching. At the Chair of Animal Ecology I at the University of Bayreuth a project-related **PhD** position in the DFG funded project " Food quantity and quality effects on inducible defences in freshwater zooplankton " is to be filled at the earliest possible date.

Research Assistant (m/f/d)

Topic: Owing to the strong selective pressure imposed by predation, a wide variety of defence mechanisms has evolved throughout the animal kingdom. Inducible defences are particularly favoured in environments with variable and unpredictable predation pressure, as they enable prey organisms to effectively reduce predation losses while minimizing the costs associated with defence in the absence of predators. *Daphnia* (water fleas) are a classic example of organisms capable of developing remarkable inducible morphological defences. However, it remains unclear how food quantity, and quality affect the development and effectiveness of defence mechanisms in *Daphnia*. Understanding these effects is essential for elucidating the complex interactions within freshwater food webs.

The project therefore investigates reaction norms of *Daphnia magna*, a key species and model organism in freshwater ecology, in response to different predator species that induce distinct defence strategies. Using a factorial experimental design, food quantity (carbon), food quality (cholesterol, EPA), predator species, and predator density (predation risk) will be manipulated in combination. The project is expected to provide an improved mechanistic understanding of inducible defences under nutrient limitation and their dependence on changes in phytoplankton community composition, with implications for trophic interactions, population dynamics, and ecosystem processes.

The project will be conducted in collaboration with the research group of Dr. Marvin Kiene at the University of Greifswald and Prof. Dr. Dominik Martin-Creuzburg at Brandenburg University of Technology Cottbus–Senftenberg.

Your profile:

You have an excellent Master's degree in biology or environmental sciences and bring above-average commitment, high flexibility, resilience and the ability to work in a team. You enjoy working independently and in a structured manner as well as collaborating in an interdisciplinary team in research work on a highly topical ecological subject.

We offer:

- A challenging, independent and diversified job in a committed team (<https://www.toek1-laforsch.uni-bayreuth.de/en/>).
- An intensive and comprehensive familiarisation with the job with the opportunity to get involved and work independently

Remuneration is in accordance with German TV-L.

The University of Bayreuth appreciates the diversity of its employees as an enrichment and is expressly committed to the goal of equal opportunities for all genders. Women are strongly encouraged to apply. Applicants with children are very welcome. The University of Bayreuth is a member of the Best Practice Club "Familie in der Hochschule e.V.", and has successfully participated in the HRK audit "Internationalization of the University". Persons with severe disabilities will be given preferential consideration if equally qualified.

Please apply online with detailed application documents including a letter of motivation by 23 of October 2026 via our application portal of the University of Bayreuth. The documents will be deleted after the position has been filled in accordance with data protection requirements.

Identification of the tender: **Wissenschaftler/in DAPHNIA** (<https://www.uni-bayreuth.de/en/job-vacancies>)

If you have any questions, please contact:

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