



The Evolutionary Biology of Invertebrates group at the University of Tübingen (Germany) is searching for a

**PhD student in Insect Ecomorphology & Systematics:
Ecomorphological radiation of Himalayan Northeastern Indian Steninae beetles (Coleoptera,
Staphylinidae) (m/f/d; 65% E13 TV-L; limited to three years)**

Comprising more than 3000 species, the genus *Stenus* possibly forms the most speciose insect genus on earth. Extending previous work, this project lies within the framework of an international German-Indian Collaboration studying the biodiversity of Steninae (Coleoptera, Staphylinidae) across two elevational gradients in Northeast India (Arunachal Pradesh). It will investigate aspects of the ecomorphological radiation of this megadiverse clade of rove beetles. Major objectives to be addressed in this bilateral research project relate to (1) diversity, distributional and niche patterns (habitat, elevation, temperature) along two elevational gradients, (2) morphological and experimental analyses of the function and performance of the mouthparts, the tarsal attachment systems and the potential sensory trade-off between the visual and antennal systems, (3) phylogeny-informed macroevolutionary downstream analyses of relevant morphological, behavioural and ecological traits and their evolutionary radiation and (4) potential assembly rules (e.g. because of environmental filtering or interspecific competition) at the community level.

Based on a molecular phylogeny, these data will then be correlated with morphometric measurements to determine the causal relationship between morphology, performance, and ecology. Concatenation of the data matrices of this project with the ecomorphological data previously generated from two distinct mountain regions in Thailand plus that of Central European fauna will allow generalized conclusions to be drawn on the assumption that niche divergence might have been convergently repeated in independently settled (disjunct) zoogeographic regions and resulted in similar ecomorphs and community assemblages.

The project involves a mandatory four-month stay (Nov 2023 - March 2024) in the Indian state of Arunachal Pradesh for the standardized collection of beetles across elevational gradients of two Himalayan foothill mountain ranges and the experimental investigation of both their predatory and tarsal attachment performance in the laboratory at Rajiv Gandhi University.

We offer: DFG-funded PhD position (65%) for three years, work with Scanning Electron Microscopy, 3D-reconstruction software such as Amira for analyzing μ CT data, behavioural observations including (highspeed) videography, and macroevolutionary phylogenetic comparative methods. The working place is Tübingen, a university town in Southwest Germany, but a four-months stay (Nov 2023 - March 2024) in NE India for field work is mandatory. The position is scheduled for 3 years with an anticipated starting date of October 2024. The salary is based on the German public tariff E13 TV-L (65%) and includes social benefits. The University of Tübingen is committed to equal opportunities and diversity.

We expect: MSc or equivalent degree in biology with profound knowledge in entomology, arthropod morphology & systematics, and/ or insect ecology & evolution; good communication skills; fluency in English; high motivation and interest in insect systematics, morphology, ecology, and evolutionary biology; excellent writing skills and work organization capabilities.

Please send your application (CV, copies of certificates, letter of motivation, two names of potential referees) **by February 15** to Prof. Dr. Oliver Betz (bernadette.fauser@uni-tuebingen.de). For details on our working group and other ongoing projects see: <https://uni-tuebingen.de/de/147780>

Prof. Dr. Oliver Betz

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