



STELLENAUSSCHREIBUNG

Postdoctoral Position

03.11.2017

We invite applications for a postdoctoral position to join an exciting new research group studying the **evolutionary ecology of chemical defences**, based at the Max Planck Institute for Chemical Ecology in Jena, Germany. Funding is for 2.5 years, with a possible extension of 2 years contingent on progress.

Background:

Chemically defended organisms communicate their unprofitability to potential predators with conspicuous warning signals – aposematism. A profitability spectrum among chemically defended organisms may be important in shaping ecological communities and interactions among species. For example, variability in chemical defences can switch the evolutionary dynamics of signalling systems from mutualistic to parasitic, from signal monomorphism to signal diversity. But what constitutes unprofitability, and how important is it in shaping interactions among species? We investigate these questions using a combination of laboratory experiments and field studies.

The postdoctoral researcher will be part of a team working in two systems: (i) laboratory experiments on the link between warning colours and chemical defences will investigate how organisms optimise their aposematic defences; the project includes aspects of insect culturing, characterization of aposematic traits, including their costs (using biochemical, metabolic, spectroscopy, machine learning and imaging techniques), and efficacy assays with predators; (ii) lab and field experiments on ecological pharmacodynamics will explore the mechanisms by which the chemical defences of prey have their effect. The project will utilise techniques such as working with specialist and generalist invertebrate or vertebrate predators/consumers, toxicokinetics, identification and cloning of genes, quantitative real-time RT-PCR, heterologous expression techniques, and bioinformatics procedures including comparative analyses.

Position details:

Applicants should have a PhD in relevant biological subject (e.g., biology, ecology, zoology, biochemistry, or genetics) or related area, and a strong background in evolutionary biology/ecology, chemical ecology, or sensory biology (or any combination of those fields). They should provide clear evidence of research productivity, and of having been responsible for the direction of their research. Proficiency in statistics and the use of R is particularly encouraged.



The starting date is negotiable, starting from March 2018 (but no later than July 2018). The working language in the group is English (German skills are not essential). Candidates should have proficiency in both written and spoken English. We are an inclusive and diverse institute, and we encourage applications from women, people with disabilities, and all under-represented minority groups.

Location:

The lab is based at the Max Planck Institute for Chemical Ecology (MPI-CE), in Jena, Germany: <https://www.ice.mpg.de/ext/index.php?id=travel>. The MPI-CE is an internationally renowned research institution with more than 200 employees working in five departments and across more than 30 research groups.

Application process:

Applicants should send a single pdf file comprising of a cover letter with a - statement of their research interests, a C.V. (including publication list), and the names and contact details of at least one referee. Please send this to Dr. Hannah Rowland (hrowland@ice.mpg.de). Applications will be accepted up to and including December 13th 2017, with interviews conducted in January 2018.

For more information contact hrowland@ice.mpg.de
https://www.ice.mpg.de/ext/index.php?id=predators_preyl=0

