

Leipzig, July 27, 2017

Helmholtz Centre for Environmental Research - UFZ offers the following position:

Postdoctoral fellowship

(limited to 2 years, 100 percent of a full-time employment)

Salary: Entgeltgruppe 13 TVöD, dependent on personal qualifications

“Testing the influence of temperature on community stability and co-existence: a theoretical and microbial model systems approach”

Background:

Researchers often predict species abundances based on species traits and their associations with environmental conditions. However, in addition to reacting to their environments species also interact with each other. Theory suggests that striking shifts in community composition could arise if environments additionally alter the nature of species interactions (e.g. climate warming alters the outcome of predation or competition), and thus their abundances. Experiments taking into account presence of predators with different prey ranges are thus needed to understand the relative importance of ecological and evolutionary processes. Using theoretical and laboratory microbial model systems, the postdoctoral researcher will test how temperature-driven effects on microbial species traits and species interactions influence community stability and coexistence. To examine mechanisms underlying changes in the outcome of microbial interactions, the researcher will measure phenotypic, physiological, genomic parameters as well as co-evolutionary dynamics of each population, which in a second step will inform a mathematical model. This research forms the foundation for a collaborative microcosm research platform aimed at testing ecological mechanisms underlying species coexistence and stability in the face of global change.

Topic/job description:

- Assemble simplified microbial model communities consisting of different trophic levels
- Describe organisms, interactions and co-evolutionary dynamics under varying temperature conditions with phenotypic, physiological and genomic approaches
- Use ecological modeling to predict the outcome of changing environmental context
- Publish results in peer-reviewed journals, present results at conferences and meetings
- Transfer knowledge to technical staff or students

Requirements / expected profile:

- A PhD degree in microbiology, ecology or related disciplines at the start of the contract
- Demonstrated expertise in the area of research
- Excellent skills in running lab experiments, microbiological methods, community ecology and statistical tools
- Solid knowledge in ecological modeling and molecular biological tools; bioinformatics skills are a plus
- Experience in one or more programming languages such as R, Python, Matlab, Julia or C/C++
- Capability to collaborate effectively within a multidisciplinary team of UFZ and iDiv researchers
- Very good written and oral communications skills in English
- Proven track record of publishing research

We offer you a two-year postdoc position at the **Helmholtz Centre for Environmental Research - UFZ**, which provides excellent facilities and an interdisciplinary work environment. The project is supervised by Dr. Antonis Chatzinotas (Leader of Microbial Systems Ecology group; Department of Environmental Microbiology; <http://www.ufz.de/index.php?en=39070>) and is strongly linked to the **German Centre for Integrative Biodiversity Research – iDiv**.

Applications are accepted until **01 September 2017**. Applicants must hold their doctoral degree at the start of the contract (January 2018).

Applications should include:

- Cover letter (in English) describing motivation, research interests & relevant experience
- Complete curriculum vitae including list of publications, grants and honors
- Contact information of former professor(s)/ supervisor(s) who know the applicant
- Copy of Master’s and Bachelor’s degree, and Doctoral certificate (if already awarded)

Applications are only accepted via our application portal under apply.idiv.de. Severely disabled persons are encouraged to apply and will be given preference in the case of equal suitability. Selected candidates will be invited to an **interview between 23-27 October, 2017**. For queries on the application process, please contact joanna.hanzel@idiv.de; for research project questions, contact Dr. Antonis Chatzinotas antonis.chatzinotas@ufz.de.