

## Open PhD position in Tropical Agroecology

# Managing pollination and biological pest control in Peruvian cacao agroforestry systems

Background: Cacao agroforestry systems may support high levels of biodiversity and profit from ecosystem services such as pest control and pollination. There is growing evidence that cocoa agroforestry systems based on native fine flavour genotypes and with appropriate management practices to optimise the provision of multiple ecosystem services can be as productive as monocultures with commercial non-native cacao clones and high external fertiliser and pesticide inputs. However, cacao production in Peru is currently hampered by poor use of native cocoa diversity, frequent pest and disease outbreaks, low resilience to climatic extremes, and lack of biodiversity-friendly ecosystem service management. We focus on single and combined effects of pollination and pest control services provided by arthropods (predatory, flower-visiting and phytophagous insects) and flying vertebrates (birds and bats) on cacao productivity and sustainability in relation to cacao genotypes, local and landscape management. The project is a collaborative project of Bioversity International, a network of Peruvian stakeholders and research institutions, and the universities of Göttingen, Vienna, and Würzburg.

Requirements: We are seeking two highly motivated PhD students with strong interest and expertise in animal ecology, tropical ecology or agroecology. Applicants should have a MSc. or Diploma degree in ecology or related disciplines and skills in several of the following areas: experimental field research (e.g. plant-insect interactions, pollination and/or pest control), practical skills in insect, bird or bat identification, use of GIS and statistical data analysis (preferably in R), and scientific writing in English. A driver license and very good language skills in English and preferably also Spanish are required. The candidates are expected to work both individually and in team and to be able to integrate into an interdisciplinary and international project with field work in Peru. **One PhD position will be located in the Department of Animal Ecology and Tropical Biology** (<http://www.zoo3.biozentrum.uni-wuerzburg.de/en/>) at University of Würzburg and one in the Agroecology Group at the University of Göttingen (<https://www.agroecology.uni-goettingen.de>), while Vienna University is also involved ([www.univie.ac.at/population-ecology/people/research%20associates/bm/bm\\_research.html](http://www.univie.ac.at/population-ecology/people/research%20associates/bm/bm_research.html)). For further information please contact: *beamaas@gmx.at*, *ingolf.steffan@uni-wuerzburg.de*, *ttschar@gwdg.de*

Salary and conditions: Salary and benefits are according to public service positions in Germany (E13 TV-L, 65%). Start date: **15th April 2018** if appropriation of funds happens as announced. The planned duration of the project is three years. The doctoral thesis will be done as a series of English manuscripts. We offer the membership in an international research team, modern facilities and a structured graduate training program. Würzburg University is an equal opportunities employer and places particular emphasis on fostering career opportunities for women. Qualified women are therefore strongly encouraged to apply. Disabled persons with equivalent aptitude will be favored.

Applications: Please send your application as **one single pdf file** per email to *ingolf.steffan@uni-wuerzburg.de* latest until **28th February 2018**. Applications should include a cover letter, a short summary of research interests, CV, complete certificates, and the names (with email addresses) of two potential referees. Interviews of invited candidates will be held from 12-14th March 2018.