

THREE-YEAR PHD POSITION PLANT EVOLUTIONARY BIOLOGY

A Ph.D. position in Plant Evolutionary Biology is available at the Dept. of Ecology and Evolution, Division of Plant Ecology, Diversity & Evolution, University of Salzburg, Austria, with Prof. Hans Peter Comes and Dr. Alexander Gamisch to study the tempo and mode of trait evolution and lineage diversification in a species-rich orchid (*Bulbophyllum*) clade endemic to Madagascar and adjacent islands.

The overall aim of this research project is to investigate the temporal stages of evolution in various trait complexes that likely had a major role in the group's radiation. Specifically, this involves (1) the completion of a time-calibrated and well-sampled multi-gene phylogeny of Madagascan *Bulbophyllum*; (2) the gathering of new datasets comprising variation in four suites of traits (i.e. macro-ecological habitat, photosynthetic pathway, flower morphology/shape and floral scent); and (3) the fitting of various macro-evolutionary models of lineage diversification, trait evolution, and trait-dependent diversification to the trait data and/or the molecular phylogeny.

The successful candidate will closely co-operate with the project postdoc (Dr. Gamisch) and will be mostly responsible for (1) gathering and analysing data of the orchids' three-dimensional (3D) flower morphology, using X-ray micro-computed tomography and landmark-based geometric morphometrics (in co-operation with Prof. Dr. Jürg Schönenberger/Vienna); and (2) collecting and analysing floral scent samples by means of gas chromatography/mass spectroscopy (in co-operation with Prof. Dr. Stefan Dötterl/Salzburg). The candidate is further expected to assist in routine molecular work and in the comparative phylogenetic analyses, and also has the opportunity to participate in field work in Madagascar.

The ideal applicant has a genuine interest in plant evolution and a strong background in at least one of the following fields of research: a) floral morphometrics; b) chemical ecology/analytical chemistry; and/or c) molecular phylogenetics. Apart from short research stays at the University of Vienna, fieldwork in remote places of Madagascar is required. Accordingly, the successful candidate should be willing to travel and have physical fitness to perform field research under tropical rainforest conditions. An MSc, diploma degree or equivalent in Botany, Ecology, Genetics or Evolutionary Biology is required. Fluent English is a must and French as second language would be an advantage. German is not mandatory.

The position is starting April 1, 2017, with funding for three years by the Austrian Science Fund (FWF). The monthly gross salary is c. 2045 EUR paid 14 times a year. The University of Salzburg (<http://www.uni-salzburg.at/>) offers excellent facilities, and a very pleasant working and living environment in one of the most beautiful landscapes in Austria.

Please send (if possible via email) a letter of application together with a full CV, a copy of your master/diploma certificate, and the addresses of two referees (all merged into a single pdf) to:

Prof. Hans Peter Comes

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The position will be filled as soon as a suitable applicant is found.