

The Department of Ecology & Evolution at the University of Salzburg is offering

**2 PhD positions for three years each**

in the FWF-funded project „Local pollinator adaptation in deceptive *Arum maculatum*“  
(Project leaders: Dötterl, Comes, Hörger)

This project aims to identify 1) the ecological roles of floral scent in the plant-pollinator interaction between brood-site deceptive *Arum maculatum* and its main pollinators, *Psychoda phalaenoides* and *Psycha grisescens*; and 2) the likely differential selective influence of each moth fly species and its olfactory preferences on inflorescence scent divergence between European *A. maculatum* populations along a latitudinal gradient covering areas north and south of the Alps. The project will be pursued along three axes. First, it will study the geographic patterns of pollinators trapped in comparison to the inflorescence scents emitted. Second, it will study the mechanisms of pollinator attraction by looking which molecule(s) within the blend is(are) responsible for deceiving the two main pollinator species. Finally, it will test for the involvement of inflorescence scent in the divergent local adaptation of *A. maculatum* by using both ecological-experimental and genomic approaches.

One of the doctoral researchers will be mainly responsible for the ecological and chemo-ecological approaches (dynamic headspace, gas chromatography / mass spectrometry; electroantennographic detection, behavioral assays, multivariate statistical analyses), the other student will focus on the genomic approaches (Rad-seq, meta-barcoding, bioinformatics) and correlative analyses (ecological-genomic). Both students are expected to perform field work (scent sampling, pollinator observations, reciprocal transplants) and supervise field assistants.

The successful applicants should be highly motivated, proficient in English language and scientific writing, and have a research focus in one or more of the following fields of research: a) pollination biology; b) chemical ecology; c) population genetics/genomics. An MSc, diploma degree or equivalent in Botany, Zoology, Ecology, Genetics, Molecular Biology or Evolutionary Ecology is required. Previous field and lab experience and/or bioinformatics skills are of advantage.

The monthly gross salary is c. 2071 EUR paid 14 times a year. The University of Salzburg offers excellent research facilities, and a very pleasant working and living environment in a beautiful landscape with numerous lakes and mountains.

Please send your application (letter of motivation, CV, certificates, contacts of two potential referees) in electronic form as a single pdf file to Univ.-Prof. Dr. Stefan Dötterl, [Stefan.Doetterl@sbg.ac.at](mailto:Stefan.Doetterl@sbg.ac.at). Please also indicate your preference for the ecological or the genomic project. The start date is scheduled for April / May 2017. The positions will be filled as soon as suitable applicants are found. In case you have any requests, please contact [Stefan.Doetterl@sbg.ac.at](mailto:Stefan.Doetterl@sbg.ac.at).