

PhD position in Plant Ecological Genomics

University of Vienna, Austria

We invite applications for a PhD position in Plant Ecological Genomics at the University of Vienna, Austria. The position is part of an international research project co-funded by the Austrian Science Foundation (FWF) and the French National Research Agency (ANR), aimed at gaining novel insights into the accumulation of reproductive barriers in radiated versus non-radiated plant lineages. The PhD student will be integrated in the Vienna Doctoral School of Ecology and Evolution (<https://vds-ecology-evolution.univie.ac.at/>).

The project. The PhD research will focus on the genomic drivers underlying the diversification of a highly speciose North and Central American group of *Tillandsia* subg. *Tillandsia*, compared to a slowly-radiating group within the same subgenus, found in the ancestral area of South America. The potential causal factors that will be investigated will include gene family evolution, transposable element polymorphism, signatures of selection (e.g., selective sweeps), patterns of non-synonymous variation, and heterogeneity in recombination rates along the genome. Previous findings in a handful of species indicate that the radiated clade exhibits increased dynamics of gene gain/loss, including some related to ecological adaptation. However, the role of structural variants in driving diversification remains to be rigorously evaluated, in particular against the non-radiated relatives. The results can be integrated in the general context of plant adaptive radiation, in line with ongoing projects in other plant systems in our group.

Further reading: <https://doi.org/10.1093/plcell/koae130>; <https://doi.org/10.1101/2023.11.16.567341>; <https://doi.org/10.1111/pce.13847>; <https://doi.org/10.1101/2024.05.09.593278>

Your profile. We are looking for a highly motivated candidate with

- a MSc degree (or equivalent) in evolutionary biology, genomics, bioinformatics, plant biology or a related field;
- a strong interest in evolutionary genomics and ecological adaptation;
- good data analyses skills and programming knowledge (R, Python or bash);
- teamwork, communication and problem-solving abilities;
- proficiency in English (working language of the lab); knowledge of Spanish or French will be a plus for the activities within the project.

What we offer. The PhD position provides an exciting opportunity to gain broad experience working at the interface of population, comparative and ecological genomics within an international team, including Ovidiu Paun (University of Vienna), Camille Roux and Christelle Fraisse (University of Lille, France) and Thibault Leroy (INRAE Toulouse, France), and will include short visits within the network. The position is available for 3 years with a potential extension depending on future funding. The salary will follow FWF rates (currently ca €39,000 per year before Tax) for a 30h/week employment. The contract includes health insurance and 5 weeks of holidays per year. The start date should be no later than 1 October 2025. For more information on the group see <https://plantgenomics.univie.ac.at>. For enquiries regarding the position or the project, please contact ovidiu.paun@univie.ac.at.

How to apply. Applications will be reviewed on a rolling basis starting May 5th, until the position is filled. Please send a single pdf file including a motivation letter, curriculum vitae and contact details of two referees to ovidiu.paun@univie.ac.at.