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UNIVERSITÄT
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PhD position in plant species coexistence at the University of Bern

Applications are invited for a PhD position, starting ideally the 1st of September 2019, to work with Prof. Eric Allan, at the University of Bern in Switzerland.

Understanding the mechanisms determining plant species coexistence is a key goal of community ecology and is essential to better understand effects of global change on biodiversity. Modern coexistence theory has successfully unified mechanisms into those that stabilise and/or equalise coexistence between species. However, little is known about how factors such as resources and enemies affect stabilising and equalising coexistence mechanisms, which is essential to integrate coexistence theory into global change research. In addition, little is known about how these coexistence mechanisms relate to indirect and higher order interactions or to biodiversity-functioning mechanisms.

The PhD student will use field experiments to quantify coexistence mechanisms and to validate predictions from coexistence models. They will work on a large grassland field experiment (PaNDiv) near the city of Bern, which manipulates plant diversity and functional composition together with nitrogen addition and pathogen exclusion. The experimental plots will be used to estimate competition between plant species in order to parameterise coexistence models and to carry out experimental invasions to test coexistence predictions. Coexistence mechanisms can also be linked to ecosystem functioning data gathered on the plots. Two other PhD students are working on the experiment (on insect and soil invertebrate communities) and the successful candidate will collaborate closely with them. The PhD student will also collaborate with Dr Oscar Godoy (University of Cadiz) on the coexistence analyses.

We are seeking highly motivated applicants interested in plant community ecology, coexistence and biodiversity-functioning research. Applicants must hold a Master degree or equivalent in biology or another relevant discipline, with a good background in ecology. Some previous research experience in ecology and good statistical knowledge are desirable. Strong oral and written communication skills in English are required.

The PhD student will join the community ecology group (<https://allanecology.com/>) at the Institute of Plant Sciences in Bern, which offers a stimulating, international research environment and excellent facilities (<http://www.ips.unibe.ch/>).

Please send your application by email (as a single PDF) to eric.allan@ips.unibe.ch. Applications should include a CV, names and addresses of two references and a one page cover letter outlining your motivation for the position and research interests. Applications will be reviewed from **17th May 2019 until the position is filled.**

For queries on the application process or more information on the position, please contact Prof. Eric Allan eric.allan@ips.unibe.ch



The PaNDiv Experiment in Münchenbuchsee, near Bern in Switzerland. Picture by Hugo Vincent.