PhD position (UNIVERSITÄT ZÜRICH)
Bewerbungsfrist: k.A.

PhD position: Ecology of plant-mycorrhizal interactions

We are seeking a PhD student with a background (MSc degree) in ecology, biology, or a closely related discipline. The successful applicant will be based at the Department of Evolutionary Biology and Environmental Studies of the University of Zurich, Switzerland.
The mutualism between plants and arbuscular mycorrhizal fungi (AMF) is widespread and has persisted for over 400 million years. The stability of this mutualism depends on a "fair trade" between plants and fungi, and on mechanisms that protect this system from exploitation by "cheaters". Indeed, plants and AMF are able to discriminate symbiotic partners through a range of mechanisms and invest selectively into different partners, depending on the relative quality of their service.
The successful applicant will analyze the trade of carbon and nutrients among plants and AMF in a series of experiments, using methods that include isotope labeling and molecular tools. The overall objective of the project is to characterize the strategies of both partners in the light of game-theoretical and network-based predictions. A particularly important question will be how strategies of plants and fungi scale from pairwise interactions to systems with multiple species involved.
We are looking for a highly motivated, enthusiastic, and independent PhD candidate who has a strong interest in ecological and evolutionary questions. An accurate and clean laboratory working style is absolutely essential. Experience with standard molecular biological techniques is beneficial. A high standard of written and spoken English is essential.

The successful applicant will be supported and supervised by Pascal Niklaus and Jordi Bascompte (University of Zurich), Ansgar Kahmen (University of Basel), and Marcel van der Heijden (Agroscope Reckenholz).
http://www.ieu.uzh.ch/en/staff/member/niklaus_pascal.html
http://www.ieu.uzh.ch/en/staff/member/bascompte_jordi.html
http://botanik.unibas.ch/forschungsgruppen-der-botanik
http://www.agroscope.admin.ch

The PhD candidate will benefit from training offered within the PhD program in ecology (http://www.ieu.uzh.ch/en/teaching/phd/graduate.html) and the Zurich-Basel Plant Science Center (http://www.plantsciences.uzh.ch/en.html), through which this project is funded. Important parts of the experimental setup have been prepared so that the successful candidate can capitalize immediately on previous work. The position is opened immediately, and the successful applicant should therefore start no later than September 1, 2018. Salaries will follow University of Zurich regulations.
The University of Zurich is the largest University of Switzerland and offers outstanding work conditions, a high quality of life in Zurich, and an excellent support environment.
To apply, please send a single pdf containing motivation letter, complete CV, and the names of two references to pascal.niklaus@ieu.uzh.ch, with subject PSC-PLANT-AMF.