

PhD candidate in Evolutionary Biology: Amsterdam, Netherlands

We have a PhD position available to study the ecogenomics of host race formation in spider mites. Spider mites are important crop pests with a remarkable evolutionary potential to adapt to a vast array of different host plants, including more than 1000 different plant species.

However, the factors that determine such an enormous host plant range have not yet been uncovered. The project aims to uncover the genetic determinants of plant adaptation in a generalist mite species by several complementary approaches. Specific detoxification enzyme families recently uncovered in the genome sequences will be studied *in silico* and *in vitro*. Using an experimental evolution set-up, mites are allowed to adapt to several novel host plant species and phenotypically characterized. Population-level bulk segregant mapping will be used to uncover genomic regions (genes) associated with adaptation. Adaptation and speciation in a natural habitat will be studied to determine the effects of adaptation in the context of speciation and gene flow in nature.

Description

MSc in biology, biotechnology or agricultural sciences; experience with experimental approaches relevant to the project, such as current techniques in molecular biology is recommended; ability to work on a multidisciplinary topic in a multidisciplinary research team.

Benefits

The position will start preferably 1 May 2015, but is flexible. The full-time appointment will be on a temporary basis for a maximum period of 4 years. Initial appointment will be for a period of 18 months and after satisfactory evaluation it will be extended for a total duration of 4 years. The full-time gross monthly salary will range from € 2,125 in the first year to € 2,717 in the final year, according to the Dutch salary scales for PhD candidates. The Collective Labour Agreement for Dutch Universities is applicable. The annual salary will be increased by 8 % holiday allowance and 8.3 % end-of-year bonus.