



PhD position in Evolutionary Ecology

Host-parasitoid coevolution: The role of parasitoid adaptation to endosymbiont-mediated defence in aphids

A 3-year PhD position funded by the Swiss National Science Foundation is available in the Ecology group of the Institute of Zoology at the University of Zürich, Switzerland. The project deals with antagonistic coevolution as an evolutionary force maintaining genetic variation. Our study system is the black bean aphid, *Aphis fabae*, and its parasitoid *Lysiphlebus fabarum*. It was shown recently that aphids may rely on 'helpers' in the form of facultative endosymbiotic bacteria for defence against parasitoids. Coevolution is thus mediated by endosymbionts in this system. While the aphid-symbiont association is currently under intensive investigation, little is known about the role of parasitoids in the interaction. However, just as parasitoids select for improved defences in hosts, the host's acquisition of defensive symbionts selects for counterdefences in parasitoids. Parasitoid adaptation to defensive endosymbionts in hosts will therefore be the main focus of this project. The work will combine field sampling and population genetic analyses with targeted experiments in the laboratory, including an experimental evolution approach.

I seek a highly motivated candidate with a strong interest in evolutionary ecology and genetics. Candidates should have a MSc or equivalent in biology. Experience with molecular methods and analysis of genetic data is an asset. If interested, please send your application before 30 September 2008 by e-mail to the address below. Applications should include a CV, a statement of research interests and experience, and the names and e-mail addresses of two referees - preferentially all in one PDF file.

Christoph Vorburger
Institute of Zoology
University of Zürich
Winterthurerstrasse 190
8057 Zürich
Switzerland
Tel: +41 44 635 49 83
Fax: +41 44 635 68 21
e-mail: christoph.vorburger@zool.uzh.ch
<http://www.zool.uzh.ch/static/ecology/people/cvorburger/>

