



The James
Hutton
Institute



University of
St Andrews

600
YEARS

A community genetics approach to understanding tri-trophic interactions in agricultural ecosystems

Joint PhD studentship at the University of St Andrews and the James Hutton Institute, Dundee

A four-year fully funded PhD studentship is now available in the field of community genetics, insect behaviour and ecology. The project offers an exciting opportunity to apply a community genetics approach to study complex multi-species interactions and the behavioural and physiological phenotypes that mediate them. Moreover, in agro-ecosystems community genetics approaches allow us to explore the relative contribution of genetic and environmental factors to the success and control of insect pests.

The project will combine genetics approaches and insect behavioural studies to explore how the behaviour of the parasitic wasp *Aphidius ervi* is influenced by the genetics of its host (the potato aphid *Macrosiphum euphorbiae*) and also by the genetics of the aphid's host (the potato *Solanum tuberosum*). As the reproductive decisions made by parasitic wasps can influence their success as biological control agents, the project will investigate sex allocation and oviposition decisions by *A. ervi*, and will explore the mechanism(s) of sex determination in this parasitoid wasp. The student will receive training in a variety of genetic and genomic techniques (QTL mapping, transcriptomic studies, bioinformatics, statistics and classical genetics), within an ecological context of economic relevance.

This studentship opportunity will be co-funded by the BBSRC (as part of the EASTBIO Doctoral Training Partnership) and the James Hutton Institute. The position will be filled following a competitive interview process in which the best candidates applying across a range of different projects will be offered studentship positions. Candidates should have (or expect to achieve) a First Class Honours degree and/or an excellent postgraduate qualification in a relevant subject. The project is offered jointly between the University of St Andrews (Dave Shuker) and the James Hutton Institute (Ali Karley and Glenn Bryan). For further details please see the advert on findaphd.com or contact Dave Shuker (david.shuker@st-andrews.ac.uk) or Ali Karley (Alison.Karley@hutton.ac.uk).

Applications need to be made via the School of Biology's post-grad recruitment website and the James Hutton Institute's Postgraduate Office, but we strongly recommend getting in touch first (providing an up-to-date CV and also some thoughts on why this project is of interest to you). The application deadline is **17th January 2014**.