

Stuart Hands

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Contact details

Telephone [+44 \(0\)121 414 5561 \(tel:+44 121 414 5561\)](tel:+44%20121%20414%205561)

Email [sth873@bham.ac.uk \(mailto:sth873@bham.ac.uk\)](mailto:sth873@bham.ac.uk)

School of Biosciences
University of Birmingham
Edgbaston
Birmingham
B15 2TT
UK



About

PhD Title: The Biological Control of *Liriomyza* Leafminers in Tomato: Problems and Possible Solutions

Supervisor: Professor Jeff Bale

Stuart's research focusses on reducing the use of chemical pesticides in European glasshouse agriculture through an examination of factors limiting the effectiveness of Biological Control agents, especially parasitoids wasps, with a long term aim of developing ways of overcoming or mitigating for these negative factors; in special relation to a case study of polyphagous *Liriomyza* leafminers and the synovigenic primary larval hymenopteran ectoparasitoid *Diglyphus isaea*.

Qualifications

BSc Dunelm (Hons), MRes Ecology and Environmental Management

Biography

Stuart Hands studied Zoology at the University of Durham, Trevelyan College. Whilst in Durham Stuart conducted a research project on the thermal biology of the invasive Signal Crayfish, *Pacifastacus leniusculus*, this triggered an enduring fascination with the physiological interactions between ectothermic organisms and their environment. Having completed his BSc Stuart moved to the University of York to study for a MRes in Ecology and Environmental Management, this culminated in a collaborative project with the Macaulay Land Use Research Institute in Aberdeen on how the co-grazing of sheep and red deer impacts on their gut parasite load. Most recently Stuart has been working towards his PhD in another collaborative setting this time between the University of Birmingham and Koppert Biological Systems on how the efficacy of the parasitoid *Diglyphus isaea* as a biological control agent of the Tomato Leafminer, *Liriomyza bryoniae*, is affected by various biotic and abiotic factors.

Research

Research group: Arthropod Ecophysiology Group

Research interests: Thermal biology, sustainable agriculture, insects as disease vectors, parasitology

Other activities

Stuart Hands is a member of the Royal Entomological Society and has been an active participant in their Post-Graduate Forum for several years; he also recently obtained a Grant from the Royal Entomological Society to attend the Fourth International Symposium on Environmental Physiology of Ectotherms and Plants in Rennes, France. As well as speaking at ISEPEP4 Stuart has also delivered an oral presentation at the Global Conference on Entomology in Chiang Mai, Thailand, in early 2011. Outside of academia Stuart enjoys spending time in the great outdoors: hiking, cycling and geocaching. As an Explorer Scout Leader he is passionate about passing on his knowledge, skills and enthusiasm to a younger generation.

Publications

Conference Papers:

S.T. Hands & J.S. Bale (2010) Plants, Pests and Parasitoids: Effects of host plant on the third trophic level. ENTO'10 : Royal Entomological Society Annual Science Meeting.

S.T. Hands & J.S. Bale (2010) Hypothermic Hymenoptera: The thermal biology of *Lirimoyza bryoniae* and its parasitoid *Diglyphus isaea*. Fourth International Symposium on Environmental Physiology of Ectotherms and Plants.