

Theoretical population ecology & practical biocontrol - bridging the gap

5-6 December 2007

at Studley Castle, Warwickshire, UK

PROGRAMME

(BASIS points: TBC)

5 DECEMBER 2007

10:30 REGISTRATION

Session 1: Plenary Session

Chairman: Dr David Chandler (University of Warwick, UK)

11:15 **Introduction**
D CHANDLER (University of Warwick, UK)

11:25 **Ecological theory**
M J CRAWLEY FRS (Imperial College London, UK)

11:50 **A practitioner's view**
R JACOBSON (R. J. Consultancy Limited, UK)

12:15 DISCUSSION PANEL

13:00 LUNCH

Session 2: Classical Biocontrol

Chairman: Dr Richard Shaw (CABI- UK)

14:00 **Theoretical aspects**
M BONSALE (University of Oxford, UK)

14:25 **Practical classical biological control: can theory really help?**
S MURPHY (CABI, UK)

14:50 **Prioritising candidate biocontrol agents for garlic mustard based on their potential effect on weed demography**
E GERBER, H L HINZ, (CABI, Switzerland), D A LANDIS (USDA-ARS Invasive Weed Management Unit, USA) A DAVIS (Michigan State University, USA) B BLOSSEY (Cornell University, USA) & V NUZZO (Natural Area Consultants, USA)

15:10 **DISCUSSION**

15:25 **TEA**

Session 3: Conservation Biocontrol I

Chairman: Dr John Holland (The Game Conservancy Trust, Fordingbridge, UK)

15:55 **Conservation biological control and enemy diversity on a landscape scale**
PROF. T TSCHARNTKE (University of Göttingen, Germany)

16:25 **Conservation biological control of pests and diseases for sustainability and profit**
PROF. S D WRATTEN (Lincoln University, New Zealand)

16:55 **National scale metacommunity dynamics of carabid beetles in UK farmland**
D R BROOKS, J N PERRY, S J CLARK, R HOLDGATE, N S MASON, C R SHORTALL, M P SKELLERN, I P WOIWOD (Rothamsted Research, UK), M S HEARD (Centre for Ecology and Hydrology, UK) L G FIRBANK (Institute of Grassland and Environmental Research, UK)

17:15 **Using spatial co-occurrence networks to examine the effects of prey biomass and density on the distribution of polyphagous predators**
J R BELL, R A KING, D A BOHAN (Rothamsted Research, UK) & W O C SYMONDSON (University of Cardiff, UK)

17:35 **Testing a simple carrying model for the establishment of generalist agents in various landscape situations**
F SAMU, É SZITA, K FETYKÓ, E BOTOS, B BERNÁTH (Plant Protection Institute, Hungary) & A HORVÁTH (Institute of Ecology & Botany, Hungary)

17:55 **DISCUSSION**

18:15 **POSTER SESSION**

Influence of leaf chemistry & morphology. Suitability for invasion by thrips and their control by natural enemies
S A SCOTT-BROWN (Royal Botanic Gardens, UK)

Natural enemy diversity and biocontrol

G J K GRIFFITHS (NERC Centre for Population Biology, UK)

Do we use a ‘bouquet’ or a ‘KISS’ to win a natural enemy’s heart?

P KEHRLI, M R WADE & STEVE D WRATTEN (Lincoln University, New Zealand)

Potential for conservation biological control with entomopathogenic fungi

J K PELL (Rothamsted Research, UK)

Interconnectivity of habitats in soil

WILFRED OTTEN, DMITRI GRINEV & IAIN YOUNG (SIMBIOS, University of Abertay Dundee, UK)

20:00 CONFERENCE DINNER

6 DECEMBER 2007

Session 4: Conservation Biocontrol II

Chairman: Dr John Holland (Game & Wildlife Conservation Trust, UK)

09:00 Population dynamics of earwigs in fruit orchards: simulations of a daydegree model

R MOERKENS, H LEIRS (University of Antwerp, Belgium), B GOBIN (PCfruit, Zoology Department, Belgium) & H HELSEN (Wageningen UR, Netherlands)

09:20 Re-bugging the system: investigating adoption for alternative pest management strategies in field crop systems

J M HOLLAND (Game & Wildlife Conservation Trust, UK) & A BAILEY (Imperial College, London & University of Kent, UK)

09:40 Does the spatial density of field margins affect aerially dispersing aphid predators and their aphid prey?

H OATEN (Game & Wildlife Conservation Trust, UK)

10:00 From biological control to biodiversity and back again

D SKIRVIN & A MEAD (University of Warwick, UK)

10:20 DISCUSSION

Session 5: Augmentation Biocontrol

Chairman: Dr David Chandler (University of Warwick, UK)

10:30 COFFEE

11:00 Theoretical aspects

PROF C GILLIGAN (University of Cambridge, UK)

11:25 Practical aspects

R G GREATREX (Syngenta, UK)

11:50 **Beetle power: a novel biological control system, from the glasshouse to the field**
J BENNISON (ADAS, UK)

12:10 **Soilborne plant pathogen biocontrol: ecology and application**
J CLARKSON (University of Warwick, UK)

12:30 **Fungal interactions in heterogeneous soil: modelling, experimentation and consequences for biocontrol**
R E FALCONER, D GRINEV & W OTTEN (University of Abertay, UK)

12:50 **Percolation theory and the spread and control of soil-borne plant disease**
D BAILEY (INRA, Rennes), W OTTEN (University of Abertay, UK), V DEYTIEUX (INRA, Dijon), A BATES & C GILLIGAN (University of Cambridge, UK)

13:10 **DISCUSSION**

13:20 **LUNCH**

Session 6: Biocontrol – general concepts

Chairman: Prof. Mick Crawley FRS (Imperial College London, UK)

14:15 **The concept of predatory value in biological control**
W VAN DER WERF & HANS HEESTERBEEK (Wageningen University, The Netherlands)

14:35 **Developing a theoretical basis for the interpretation of trap counts**
S PETROVSKI (University of Leicester, UK) & R BLACKSHAW (University of Plymouth, UK)

14:55 **Landscape-scale biocontrol simulation: hoverfly-aphid population dynamics**
H PARRY (Central Science Laboratory, UK)

15:15 **DISCUSSION**

15:30 **TEA**

Session 7: The Way Forward

Chairman: Prof. Mick Crawley FRS (Imperial College London, UK)

16:00 Panel: F WÄCKERS (Lancaster University), D CHANDLER (University of Warwick, UK) & D SHAW (CABI, UK)

16:30 **End of Conference**