

"Invertebrate Pathogens in Biological Control: Present and Future"

Locorotondo (Bari), Italy, June 10-15, 2005

Convenor: Bernard PAPIEROK (Institute Pasteur, France)

Subgroup Fungi: Bernard PAPIEROK (Institute Pasteur, France)

Subgroup Nematodes: Ralf-Udo EHLERS (Christian-Albrechts-University Kiel, Raisdorf, Germany)

Local Organizer: Oreste TRIGGIANI (DiBCA, Faculty of Agriculture, University of Bari, Bari, Italy)

in cooperation with
COST ACTION 842 and 850
“Entomophthorales” & “Biocontrol Symbiosis”

COST Action 842: Biological Control of Pest Insects and Mites with special reference to Entomophthorales. Final Meeting of the Working groups 1-4. June 10-11, 2005

Chairman: Siegfried KELLER, (Swiss Federal Research Station, Zürich, Switzerland). Scientific Organizers: S. Keller, J. Eilenberg, R. Meadow, C. Santiago Alvarez, L. Steengaard Hansen.

COST Action 850: Bio-Control Symbiosis. Symbiotic Complexes for Biological Control of Pests. Novel use of EPNs. June 10-11, 2005.

Chairman: Ralf-Udo EHLERS (Christian-Albrechts-University Kiel, Raisdorf, Germany)

Local Organizer Committee

Oreste Triggiani, University of Bari, Italy
Eustachio Tarasco, University of Bari, Italy
Vlora Alessandro, University of Bari, Italy
Poliseno Michele, University of Bari, Italy
Vito Savino, Director of ITA-CRSA, Italy
Martino Pastore, Chairman of ITA-CRSA, Italy
Giovanni Cardone, Headmaster of the agricultural school “Basile Caramia” Italy
Antonietta Lisi, Basile Caramia, Locorotondo (Bari), Italy

Local Organizer:

Oreste Triggiani, University of Bari
Faculty of Agriculture, DiBCA, sect. Entomology and Zoology
Via Amendola 165/a 70126 Bari - Italy
Tel.: ++39-080- 544 28 78
Fax: 0039-080- 544 28 76
e-mail: triggian@agr.uniba.it

SCIENTIFIC PROGRAM OF THE MEETING
IOBC/WPRS

10th EUROPEAN MEETING
“INSECT PATHOGENS AND ENTOMOPARASITIC NEMATODES”
IN COOPERATION WITH
COST Action 842 and 850
“ENTOMOPHTHORALES” & “BIOCONTROL SYMBIOSIS”

Friday, June 10, 2005

8:00-16:30	Registration of COST participants	HALL
8:30-9:00	Welcome, announcements, state of COST 842	AUDITORIUM
9:00-10:00	COST 842 Meeting WG1 - <u>S. Keller</u> : Outline new taxa - <u>A.B. Jensen</u> : Ecology using novel techniques - <u>J. Pell</u> : Conservation biocontrol	AUDITORIUM
9:00-10:00	COST 842 Meeting WG4 -Presentation and discussion of the impact that the Biocides and Pesticides Regulations will have on registration and application of biological control agents against stored product pests (SPP)	ROOM 1
<i>10:00-10:30</i>	<i>Coffee break</i>	<i>GYMNASIUM</i>
10:30-12:00	COST 842 Meeting WG2 - <u>B. Papierok</u> : General aspects - <u>I. Klingen</u> : <i>Neozygites</i> - <u>J. Pell</u> : <i>Neoaphis</i> and <i>Zoophthora</i> - <u>J. Eilenberg</u> : <i>Entomophthora</i> and <i>Strongwellsea</i> - <u>C. Tkaczuk</u> : <i>Hirsutella</i> - <u>J. Lord, D. Moore</u> : <i>Beauveria</i> and <i>Metarhizium</i>	AUDITORIUM
10:30-12:00	COST 842 Meeting WG4 -Discussion of publication covering the activities of WG 4	ROOM 1
<i>12:00-14:00</i>	<i>Lunch</i>	<i>GYMNASIUM</i>

- 14:00-14:45 COST 842 Meeting WG3** ROOM 1
- E. Quesada, C. Tkaczuk: Metabolites of Entomophthorales
 - M. Barta: Specificity of aphid pathogenic Entomophthorales
- 14:00-14:45 COST 842 Meeting WG4** ROOM 2
- Completion of Final Resolution from WG4 on "Research priorities to enhance application of environmentally acceptable stored product pest control"
 - Discussion of how to disseminate this document
- 14:45-15:30 COST 842 Meeting WG2** ROOM 1
- S. Keller: output COST 842
- 14:45-15:30 COST 842 Meeting WG4** ROOM 2
- New COST Action?
- 14:00-15:30 COST 850 Meeting** AUDITORIUM
- O. Triggiani, R.-U. Ehlers: Introduction
 - O. Strauch, B. Kiefer, S. Toepfer, U. Kuhlmann, A. Peters, R.-U. Ehlers: The billion dollar insect has arrived: Perspectives to control larvae of the invasive pest *Diabrotica virgifera virgifera* in maize with *Heterorhabditis bacteriophora*
 - V. Cyrille: Nemaslug use in Field Vegetables
 - M. Zec-Vojinovic: Slow release of epn (Nemabag)
 - J. Oestergaard, R.-U. Ehlers: The Potential of Entomopathogenic Nematodes to Control *Tipula paludosa*: A Critical Review of Results
 - X. Yi, R.-U. Ehlers: Entomopathogenic Nematode (*Steinernema carpocapsae*) and Bacteria (*Bacillus thuringiensis*) for Biocontrol of Diamondback Moth (*Plutella xylostella*)
- 15:30-16:00** Coffee break GYMNASIUM
- 16:00-18:30 COST 842 Meeting** ROOM 1
- Management Committee Meeting
- 16:00-18:30 COST 850 Meeting** AUDITORIUM

-Liu Qi-zhi, Wang Y.Z., I. Glaser, R.-U. Ehlers, H.F. Cao, Y. Ban: Application and Desiccation of ENPs in Controlling Red-neck Longhorn Beetle *Aromia bungii* Faldermann

-N. Trandem: Novel targets in berries

-D. Gradinarov, N. Atanasov: Potential target hosts of entomopathogenic nematodes (Steinernematidae, Heterorhabditidae) from Bulgaria

-K. Hasselmann, A. Peters: Efficacy of *Steinernema carpocapsae* against the cockroach *Periplaneta australasiae*

-A. Brown: Evaluating the efficacy of application of EPN via drip line irrigation systems

-C. Lentz, A. Peters: Strategies to control woodlice (Isopoda) with entomopathogenic nematodes

-L. Ebssa: Compatibility of epn and predatory mites for the control of western flower thrips (*Frankliniella occidentalis*)

-S. Schroer: Optimisation of formulation technology for Entomopathogenic nematodes applied against foliar pest

19:30-21:30

Welcome party

GYMNASIUM

Saturday, June 11

8:30-12:30

Registration IOBC Working Group Meeting

HALL

8:30-10:00

COST 842 Joint Meeting **WGs 1-4**

AUDITORIUM

-J. Lord: Perspectives for biological control of stored product pests using entomopathogens, either alone or in combination with beneficial insects

-D. Moore: Application of fungal pathogens against stored product pests – production, formulation and application

-R. Hodges: Consumer acceptance, barriers to application of entomopathogens in stored products

9:00-10:00

COST 850 Meeting

ROOM 1

Management Committee Meeting

10:00-10:30	Coffee break	GYMNASIUM
10:30-12:00	COST 842 Joint Meeting WGs 1-4	AUDITORIUM
	- <u>M. Wakefield</u> : Mycopest: results and perspectives	
	- <u>T. Steenberg</u> : Safety aspects related to the use of fungal pathogens in stored products	
	- <u>M. Schöller</u> : Compatibility between entomopathogens and beneficial insects for stored product pest control	
	- <u>C. Athanassiou</u> : Combining fungal pathogens and diatomaceous earth for stored product protection	
	General discussion	
	- <u>L. Stengard Hansen</u> : description of the outputs of WG4	
10:30-12:00	COST 850 Meeting	ROOM 1
	Management Committee Meeting	
12:00-14:00	Lunch	GYMNASIUM
14:00-15:30	COST 842 Joint Meeting WGs 1-4	AUDITORIUM
	- <u>J. Eilenberg</u> : output of WG 1	
	- <u>R. Meadow</u> : output of WG 2	
	- <u>C. Santiago Alvarez</u> : output WG 3	
	- <u>L. Stengard Hansen</u> : output WG 4	
14:00-15:30	COST 850 Meeting	ROOM 1
	- <u>C. T. Griffin, A. Dillon, A. Moore, M.J. Downes, E. Darragh</u> : Biological control of pine weevil in coniferous reforestation	
	- <u>E. Tarasco, O. Triggiani</u> : EPNs and forest insects in Italy	
	- <u>V. Puza, Z. Mracek</u> : EPNs in tree habitats as a factor decreasing pest populations	
	- <u>M. Tomalak</u> : Potential of entomopathogenic nematodes for control of orchard and urban tree sawflies	
	- <u>A. Morton, F. Garcia del Pino</u> : Potential for the control of the Mediterranean flatheaded rootborer (<i>Capnodis tenebrionis</i>) with Entomopathogenic Nematodes	

-S. Kuske: Biocontrol potential of entomopathogenic nematodes against chestnut (and hazelnut) pests.

15:30-16:00 *Coffee break* *GIMNASYUM*

16:00-17:30 **COST 842 Joint Meeting WGs 1-4** AUDITORIUM

-S. Keller: general output, what was achieved? what was not achieved?
Research gaps

Open discussion, collaborations, new actions

16:00-17:15 **COST 850 Meeting** ROOM 1

-K. Koeppler: Control of European cherry fruit fly (*Rhagoletis cerasi*) with entomopathogenic nematodes

-S. Kuske: European cherry fruit fly control with entomopathogenic nematodes - only a matter of time?

-A. Peters, J. P. Sarraquine: Control of hazelnut weevil, *Balaninus nucuuum*

-P. Stock, J. Gress: Nematodes from southern Arizona: Biological control alternatives for xerophytic agriculture

-I. Glazer, R.-U. Eller "Novel use of EPN: what can we learn from the past"

17:15-18:15 **FINAL DISCUSSION** on novel use of EPNs

Relevant questions handed out for discussion and answering:

- Where are the potentials and limits?
- Where do we lack knowledge?
- How can COST fill in the gaps?

19:00-20:30 *Mixer in Locorotondo*