

Is IPM ready for Microbial Control Agents?

# 16th Meeting of the IOBC-WPRS Working Group

June 11-15, 2017  
Tbilisi, Georgia



Microbial and Nematode  
Control of Invertebrate  
Pests



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## JUNE 11, 2017

- 16.30 **Registration**
- 17.30 **Convenors Meeting**
- 18:00 **Mixer**
- 19.00 **Transfer to hotels**

## JUNE 12, 2017

- 8.00 **Registration**
- 9.00 **Opening Ceremony**  
(Medea Burjanadze, Johannes Jehle, Giselher Grabenweger)
- 9:30 **Giselher Grabenweger - Introduction to IOBC**
- 10.00 **Coffee Break**

### PLENARY SESSION: BIOCONTROL AND IPM

Convenor: Johannes Jehle

- 10:30 **Tsisia Chkhubianashvili**  
**PL-1.** Development of Microbial Control Agents to Plant Protection from Pest Insects in Georgia: Past and Future
- 11:00 **Heiri Wandeler**  
**PL-2.** Including Baculoviruses in Insect Control Strategies – Opportunities and Challenges
- 11:30 **Itamar Glazer**  
**PL-3.** Efficacy and Persistence of Entomopathogenic Nematodes (EPNs) Against Burrowing and Sedentary Insects
- 12:00 **Stefan Jaronski**  
**PL-4.** Using Insect Pathogenic Fungi to Manage Insect Pests “Where Are We Going? (Where SHOULD We Be Going?)”
- 12:30 **Lunch**

### ORAL SESSION: BACTERIA.

Convenor: Medea Burjanadze

- 14:00 **Ardahan Eski**  
**OP-1** Bacterial based biopesticide production for pest management
- 14:15 **Ebru Guney**  
**OP-2** Bacterial isolation from *Capnodis tenebrionis* and determination of the insecticidal effects of these bacteria
- 14:30 **Rami Horowitz**  
**OP-3** Effect of UV-stabilized BtK on *Helicoverpa armigera* larvae after exposure to sunlight

- 14:45 **H. M. Kariithi**  
 OP-4 Identification of Cultivable Tsetse Gut Microbiota and Assessment of Their Probiotic Potential to Improve Fly Quality and Performance
- 15:00 **Monika Maurhofer**  
 OP-5 Root-colonizing fluorescent pseudomonads as biocontrol agents of insects
- 15:15 **Zane Metla**  
 OP-6 Analysis of the bacterial community associated to different life stages of the forest pest *Lymantria dispar*
- 15:30 **Chandrashekhhar Patil**  
 OP-7 Cloning, Characterization and Expression of a cry1B-type Gene of *Bacillus thuringiensis* to Combat *Capnodis tenebrionis* - a Coleopteran Pest of Stone Fruit Trees
- 15:45 **Luca Ruiu**  
 OP-8 Recent findings on *Brevibacillus laterosporus* toxins and virulence factors
- 16:00 **Coffee Break**  
 16:30 **Poster Session**  
 19:00 **Transfer hotels**

**JUNE 13, 2017**

**ORAL SESSION: FUNGI**

Convenor: Hermann Strasser

- 08:30 **Nona Chkhaidze**  
 OP-9 First report of entomopathogenic fungi on the insect vector *Hyaletthes obsoletus* Signoret in Georgia
- 08:45 **Deborah Kaiser**  
 OP-10 Biological control of pollen beetles with the entomopathogenic fungus *Beauveria bassiana* – the tricky path to an efficient formulation
- 09:00 **Vivien Krell**  
 OP-11 Exoenzymes improve penetration and colonization of potato plants by endophytic entomopathogenic *M. brunneum*
- 09:15 **Natalia Kryukova**  
 OP-12 Possible variants of the interactions on tree-component system: entomopathogenic fungus *Beauveria bassiana* - great wax moth *Galleria mellonella* - ectoparasitoid *Habrobracon hebetor*
- 09:30 **Johanna Mayerhofer**  
 OP-13 Non-target effects of *Metarhizium brunneum* on soil microorganisms
- 09:45 **Arne Peters**  
 OP-14 Commercial production of conidia emitting granules for the soil application of *Metarhizium brunneum*
- 10:00 **Jaka Razinger**  
 OP-15 Evaluation of different strategies employing entomopathogenic and soil fungi against spotted wing drosophila (*Drosophila suzukii*)
- 10:15 **Coffee Break**

## ORAL SESSION: FUNGI

Convenor: Jaka Razinger

- 10:45 **Hermann Strasser**  
OP-16 Biological Control of Adult *Diabrotica*- Spray experiments with *Metarhizium brunneum* strain BIPESCO 5 under real farm conditions
- 11:00 **Maria Zottele**  
OP-17 *Metarhizium brunneum* BIPESCO 5: a sustainable and preventive biological control agent to control *Diabrotica virgifera virgifera* larvae
- 11:15 **Eustachio Tarasco**  
OP-18 Potential of entomopathogenic fungi and nematodes against *Drosophila suzukii* in laboratory assays
- 11:30 **Oksana Tomilova**  
OP-19 Entomopathogenic fungi and natural avermectins are interact as a synergists
- 11:45 **Maksim Tyurin**  
OP-20 Entomopathogenic fungi *Metarhizium* spp. from Russia and neighbouring territories, ecological preferences and activity against Colorado potato beetle larvae
- 12:00 **Eustachio Tarasco**  
OP-21 Potential of entomopathogenic fungi and nematodes against the two cryptic species *Parahyopta caestrum* and *Cossus cossus* in laboratory assays
- 12:15 **Francesca De Luca**  
OP-22 Exon-intron structure and sequence variation of the hsp-90 gene in the entomopathogenic nematode *Heterorhabditis bacteriophora*
- 12:30 **Lunch**

## ORAL SESSION: NEMATODE

Convenor: Arne Peters

- 14:00 **Itamar Glazer**  
OP-23 Response of *Steinernema carpocapsae* and *Heterorhabditis bacteriophora* to physical stimuli by Red Palm Weevil: Behavioral and molecular analysis
- 14:15 **Oleg Gorgadze**  
OP-24 Susceptibility of the cutworm, *Agrotis segetum* (Lepidoptera: Noctuidae) to entomopathogenic nematodes
- 14:30 **Baris Gulcu**  
OP-25 Biological Control of *Naupactus godmani* (Curculionidae), Fuller Rose Beetle, with Entomopathogenic Nematodes
- 14:45 **Javad Karimi**  
OP-26 Challenges toward implementation of microbial pesticide with emphasis on entomopathogenic nematodes as biocontrol agents in Iran

- 15:00 **Ivan Kerchev**  
OP-27 Complex of endoparasitic nematodes of four-eyed fir bark beetle *Polygraphus proximus*, and their impact on its immunity
- 15:15 **Branimir Njezic**  
OP-28 Efficacy of entomopathogenic nematodes against European cherry fruit fly *Rhagoletis cerasi* (L.) in laboratory and field conditions
- 15:30 **Coffee Break**

### ORAL SESSION: NEMATODE/IPM

Convenor: Itamar Glaser

- 16:00 **Martine Rehayem**  
OP-29 New insights in biocontrol strategy against *Cephalcia tannourinensis*, the principal insect defoliator of cedars in Lebanon
- 16:15 **Rostislav Zemek**  
OP-30 Microbial and nematode control of the Colorado potato beetle
- 16:30 **Sigal Braun Miyara**  
OP-31 The use of *Daldinia concentrica*, an endophytic fungus, and its bioactive volatiles against the plant parasitic nematode *Meloidogyne javanica*
- 16:45 **Hilfred Huiting**  
OP-32 IPM in practical wireworm control; struggle or challenge?
- 17:00 **Milan Pernek**  
OP-33 Comparison of pathogen abundance between high and low level populations of *Ips typographus* in Croatia after an ice storm disaster
- 17:30 **Transfer to Old Tbilisi. City Tour**
- 20:00 **Transfer to hotel**

**JUNE 14, 2017**

### ORAL SESSION: VIRUS

Convenor: Johannes Jehle

- 08:30 **Zihni Demirbag**  
OP-34 Functional Analysis of Putative glycosyl transferase gene (AMV248) of *Amsacta moorei entomopoxvirus*
- 08:45 **Cihan Inan**  
OP-35 Protein-Protein Interactions Between Attachment (AMV248) and Entry Fusion Complex Proteins of *Amsacta moorei entomopoxvirus*
- 09:00 **Michael D. Jukes**  
OP-36 Baculovirus synergism: investigating mixed alphabaculovirus and betabaculovirus infections in the false codling moth, *Thaumatotibia leucotreta*, for improved pest control

- 09:15 **Miguel Lopez-Ferber**  
OP-37 Measuring the fitness cost of type I resistance breaking by CpGV
- 09:30 **Sean Moore**  
OP-38 The isolation of a novel alphabaculovirus and its potential for microbial control of key tortricid moth pests
- 09:45 **Marcel Tanner**  
OP-39 Integratet Pest and Resistance Management of *Helicoverpa zea* (Lepidoptera: Noctuidae) with a *Helicoverpa armigera nucleopolyhedrovirus*
- 10:00 **Coffee Break**

**PLENARY SESSION: NOVEL TECHNIQUES FOR BIOLOGICAL CONTROL**

Convenor: Giselher Grabenweger

- 10:30 **Johhanes Jehle**  
PL-5. Deciphering different mechanisms of resistance to CpGV products in codling moth field populations
- 11:00 **Stefan Vidal**  
PL-6. From lab to registration: an Attract & Kill control strategy for wireworms in field crops: achievements and problems
- 11:30 **Business Meeting and Closing**
- 13:30 **Lunch**
- 14:30 **Excursion to Jvari and Mtskheta**
- 19:00 **Banquet**