



IOBC/WPRS

Integrated Protection of Olive Crops



8th IOBC/WPRS Meeting - Florence, Italy, June 4-7, 2018

Abstract book



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**8th IOBC-WPRS meeting on
“Integrated Protection of Olive Crops”**

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| 16:15-16:30 | Coffee break |
| 16:30-17:30 | POSTER SESSION (Session 3) |
| Poster n. 16 | <i>Xylosandrus compactus</i> (Coleoptera, Curculionidae, Scolytinae): a new possible threat for olive trees <i>Valeria Francardi, Fabrizio Pennacchio</i> |
| Poster n. 17 | Evaluation of attractant devices for the monitoring of Olive Fruit Fly with particular reference to colour, size and selectivity toward natural enemies <i>Pasquale Calabrese, Andrea Sciarretta</i> |
| Poster n. 18 | Captures of olive fruit fly in Alto Garda Trentino with different traps <i>Massimo Mucci, Mario Baldessari, Franco Michelotti, Serena Giorgia Chiesa, Gino Angeli</i> |
| Poster n. 18b | Secondary pest and climate changes affect Calabrian olive growing <i>Veronica Vizzarri</i> |
| 20:30 | Gala dinner |

Thursday 7 June 2018

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| Session 4 | <i>Biological and biotechnological control of pests and diseases in olive crops</i> <i>Chairpersons: Virgilio Caleca and Jennifer Gillett-Kaufman</i> |
| 9:15-9:30 | The contribution of ground predation to the reduction of the overwintering pupae of the olive fruit fly <i>Malayka Samantha Picchi, Susanna Marchi, Albertini Alice, Ruggero Petacchi</i> |
| 9:30-9:45 | Post mortem gut content analysis for determining the contribution of different soil predators to control <i>Bactrocera oleae</i> <i>Esther Lantero Bringas, Susana Pascual López, Beatriz Matallanas Peñas, Carmen Callejas Hervás</i> |
| 9:45-10:00 | The use of complementary approaches for conservation biological control: carabid and staphylinid beetles as natural enemies of the olive fruit fly <i>Alice Albertini, Paula Baptista, Giovanni Burgio, Serena Magagnoli, Susanna Marchi, Fátima Martins, José Alberto Pereira, Ruggero Petacchi, Claudio Ratti, Sónia Alexandra Santos Paiva</i> |
| 10:00-10:15 | Functional response of <i>Chrysoperla carnea</i> (Neuroptera: Chrysopidae) to <i>Saissetia oleae</i> (Olivier) (Hemiptera: Coccidae) <i>Abdelkader Meni Mahzoum, María Villa Serrano, Jacinto Benhadi-Marín, José Alberto Pereira</i> |
| 10:15-10:30 | Biodiversity and pollen feeding habits of syrphids in olive groves and surrounding landscape in northeastern Portugal during spring <i>María Villa Serrano, Sónia Alexandra Santos Paiva, Rosalina Marrão, Lara Pinheiro, José António López-Sáez, Carlos Aguiar, José Alberto Pereira</i> |

THE USE OF COMPLEMENTARY APPROACHES FOR CONSERVATION BIOLOGICAL CONTROL: CARABID AND STAPHYLINID BEETLES AS NATURAL ENEMIES OF THE OLIVE FRUIT FLY

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The pupae of the olive fruit fly *Bactrocera oleae* that complete their development in the ground are exposed to a guild of soil arthropods whose species identity, traits, activity and predatory patterns are mostly unknown. We used complementary approaches to fill these knowledge gaps and help advances in conservation biological control strategies. Firstly, carabids dwelling in olive orchards and woody semi-natural habitats SNHs were sampled in low-input systems, and we found that the well-structured assemblage of the olive orchard can potentially play a stronger role in *B. oleae* control, rather than the less diversified SNH assemblage. Secondly, the soil carabid *Pseudoophonus rufipes* was used as a model species for laboratory feeding tests. *B. oleae* pupae consumption was detected by means of DNA-based gut content analysis up to 20 hours post ingestion, in both female and male predators. Finally, live staphylinids were collected in low-input olive orchards and DNA-based gut content analysis were carried out on *Ocypus olens*, the species resulting to be influential in controlling the pest pupae during autumn. Carabids and staphylinids can be considered as good candidate taxa for biological control programs in olive orchards. Further agroecological studies are needed to investigate how habitat management can affect their survival in the agroecosystem and how to conserve and enhance their presence within the cropped field.