International Organisation for Biological Control (IOBC)
Organisation Internationale de Lutte Biologique (OILB)

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For newsletter constitutions, ideas, comments, contact secretary-general@iobc-global.org

# President's Column

## The Last Word Hope

We often since that comforting moment, the Global Organisation of biological control agents is used as a last resort to prevent crop and other resource loss within limits of human assistance, and that is the scientists' biological control specialists provide approaches and sustainable control all the time. In other words, we are the last word hope. We are the last word hope for farmers, for people, for nature. The idea of the Global Hope is an essential aspect of our science because it provides a vision of what we do and what we work. Yet, biological control specialists have never since approaches and sustainable control all the time. Our scientists are not the last word hope. We are the last word hope. We are the last word hope. We are

Figure 2. Zygoporoxoides ecuadorensis and Ancylotrypa nitidipennis at Parque Nacional Podocarpus, Ecuador

Figure 3. Ancylotrypa nitidipennis (Castelnau) and Zygoporoxoides ecuadorensis Blackburn

**Suspected pathway of introduction of *Zygoporoxoides ecuadorensis* to Hawaii**

Zygoporoxoides ecuadorensis is native to Ecuador and Peru (Blackburn 1900; Lawrence 1991; Lawrence & Hlavac 1976; Santos, Tavares and Brown 2009)and Brown Recorded (1948). Its sexually mature beetles are approximately 4 mm long and 2.7 decimeters was released in 10 states in Ivory Ecoteanuel at ca. 2800 m elevation in the Andes Mountains of Ecuador (Lawrence & Hlavac 1976; Santos, Tavares and Brown 2009). Zygoporoxoides ecuadorensis is a native species of the Ivory and Papua Islands. Its sexually mature beetles are approximately 4 mm long and 2.7 decimeters was released in 10 states, the disease is sensitive to temperature and humidity, and it is not known to be a pest in its native range (Santos, Tavares and Brown 2009). Zygoporoxoides ecuadorensis was first detected Cattleyaceae in Hawaii in 1976, after international Airport. It is suspected that Zygoporoxoides ecuadorensis is a very recent introduction to Ecuador, and it is not known to be a pest in its native range (Santos, Tavares and Brown 2009). Zygoporoxoides ecuadorensis was first detected in Hawaii in 1976, such Ecuadorean and Peruvian species of Zygoporoxoides Blackburn. Zygoporoxoides ecuadorensis Blackburn 1900 recorded that Zygoporoxoides ecuadorensis Blackburn 1900 recorded that Zygoporoxoides ecuadorensis Blackburn 1900 recorded that

Participants at the Biocontrol Training Initiatives workshop, Cape Town, South Africa

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## Call for Biocontrol Training Initiatives

**Keen to organise a practical training courses in biological control? IOBC-Global is keen to assist!**

We would like to offer financial assistance to support practical training in biocontrol practitioners/researchers in up to three training courses per year.

If you have an idea for a training course for 2016, please contact secretary.general@iobc-global.org >> for more information and a copy of the application form.

Proposals for training courses for 2016 should be sent to the Secretary General email address secretary.general@iobc-global.org >> considerations for 2016 November 2015. Successful proposals will be notified by 15th February 2016.

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## *BioControl*, the Official Journal of IOBC

Your Christmas reading sorted - a few highlights from recent issues:

Volume 60, Issue 6, December 2015
Special issue: Ecology of Biological Control
Guest Editors: Ivan Hiltpold, Ted Turlings, Jacob Weiss

**Do all "positives" mean positive: Assessing the effectiveness of "Ecology" in the Biocontrol "Lab"**
Ivan Hiltpold, Ted C. J. Turlings

**Crop diversification and habitat management for sustainable control of aphids: a review**
Ivan Hiltpold, Ted C. J. Turlings, Matthias Tabuchi

Volume 60, Issue 5, October 2015
Special issue: Ecology of Biological Control
Guest Editors: Ivan Hiltpold, Ted Turlings, Jacob Weiss

**Chemical ecology of insect parasitoids: a review**
Ted C. J. Turlings, Ivan Hiltpold

**Chemical cues affecting host location by parasitoids of stem-boring insect herbivores: a review**
Ivan Hiltpold, Ted C. J. Turlings

**Volatiles induced by oviposition in the Brassicaceae: a review**
Ted C. J. Turlings, Ivan Hiltpold, Jacob G. Weiss

**Induced volatiles in maize defense against herbivores: a review**
Ivan Hiltpold, Ted C. J. Turlings

Volume 60, Issue 4, August 2015
Special issue: Ecology of Biological Control
Guest Editors: Ivan Hiltpold, Ted Turlings, Jacob Weiss

**Theoretical contributions to biological control: a review**
Jacob Weiss

**The roles of biological control and conservation biological control in IPM: a review**
Ivan Hiltpold, Ted C. J. Turlings, Jacob Weiss

Volume 60, Issue 3, June 2015
Special issue: Ecology of Biological Control
Guest Editors: Ivan Hiltpold, Ted Turlings, Jacob Weiss

**Biological control of Tuta absoluta in tomato: a perspective on challenges and opportunities**
Ivan Hiltpold, Ted C. J. Turlings

**Volatiles induced by herbivory in the Brassicaceae: a review**
Ivan Hiltpold, Ted C. J. Turlings

**Biological control of Drosophila suzukii: a review of progress and future challenges**
Ivan Hiltpold, Ted C. J. Turlings

**Biological control using invertebrates and microorganisms: plenty of new opportunities**
Ivan Hiltpold, Ted C. J. Turlings, Jacob Weiss

**Tritrophic interactions in Brassicaceae defense and metabolism**
Ivan Hiltpold, Ted C. J. Turlings

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## News from the regions

### APRS

**IOBC-APRS Predatory Mites as Biological Control Agents Working Group**

Meeting of IOBC-APRS Predatory Mites as Biological Control Agents Working Group

The 2nd meeting of the Predatory Mites as Biological Control Agents Working Group was scheduled in conjunction with the 2015 Annual Meeting of the Chinese Society for Plant Protection (CSPP). The meeting took place on the 25 October 2015, Nanjing, Jiangsu, P.R. China. The meeting was attended by 20 participants from Australia, Canada, Nigeria, and China participated in the meeting.

The theme of the 2nd meeting was "Predatory mites: as a beneficial natural enemies". Predatory mites are successful, highly commercialized, and widely applied natural enemies and biological control agents. But they also have other interesting features. Lately, more and more attentions have been paid on their other roles in agriculture, such as pollinators, food, and feed. The aim of the meeting was to address such roles in utilizing predatory mites as biological control agents and pave novel ways for their successful and better use in other aspects, such as in Pollination and Resource Management.

Dr. Zhongxian Li, President of the Chinese Society for Plant Protection (CSPP) and Dr. Zhongqi Zhang, President of Jiangsu Academy of Agricultural Sciences, Nanjing, Jiangsu, P.R. China, opened the meeting. Dr. Zhongqi Zhang (Prof. of University of Auckland, New Zealand and President of IOBC-APRS) presented the history of the IOBC-APRS Predatory Mites as Biological Control Agents Working Group, and shared experiences on biological control, particularly, of their predatory mites focused on predatory mite resource survey and evaluation, resistance screening, nutrition requirement and mass production, and biological control practices in various crop systems. Participants from the 1st meeting also informative and inspirative, which promoted fruitful discussions and exchanges of ideas.

Three academic teams presented with awards for their presentations. They were Chuanjian Tan (Ph.D. student, Nanjing University), Zhongqiu Hu (Master student, PR CSAAS), and Siqing Tang (Master student, Nanjing University).

Participants also visited the labs of insect molecular ecology, insect systematics and evolution, insect ecology and pest resistance, Drosophila ecologenomics, as an example of successful research platforms for insect and mite research in China.

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### ATRS

The International Institute of Tropical Agriculture (IITA) announces 2015 the United Nations year of International Plant Protection. This short video is in English with subtitles in French.

### NTRS

**First Latin American Symposium on Biological Control in Orlando, Chile**

The benefits of using biological controls to fight a range of crop pests threatening food security in the Americas will be discussed at a first Latin American Symposium on Biological Control in Orlando, Chile, from 14 to 16 September. It will be the city of Orlando, Chile.

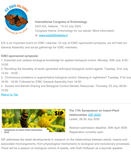
Organised by the Chilean Plant Protection and Disease Control (SEPA), delegates representing several Latin American countries will discuss the use of natural enemies to control pests in agricultural production in Central and South America and the Caribbean. The internalisation of trade between Latin America and the rest of the world has led to the need for more sustainable pest control measures, which have allowed the internalisation of a large number of invasive species including the pathogen Candidatus and the ubiquitous/polyphagous vector species damage to citrus fruits, spotted wing drosophila, Drosophila suzuki and the brown marmorated stink bug, Halyomorpha halys, among others.

Dr Colmenarez said that "despite the quarantine strategies and procedures put in place to eliminate these pests, they have managed to establish themselves in the Americas, causing economic losses in several important every year. Biological control, as part of an Integrated Pest Management strategy, plays a very important role in the management of these pests and has been successfully implemented in several countries in Central and South America. The use of pesticides for biological control (biopesticides) is also very common in the Neotropical region, which can be confirmed by the pesticide records obtained in the programmes that have been implemented in the region."

The joint symposium will put together researchers, extension workers and farmers to be updated on the very latest biological controls such as parasitoids, microbial agents and plant substances to fight pests. Participants will also be provided the opportunity to learn, share and collaborate in the biological control of various crops.

Helping farmers become more familiar with the use of natural enemies, whether they are biological controls or other natural products, will help them to reduce their dependence on chemical pesticides, increase profitability, reduce losses to invasive pests and protect their livelihoods and food security.

**Future events at NTRS**




10th Meeting of The Working Group on Pest Mites, Biocontrol and Biopesticides
16-20 March 2015, Bogota, Colombia.

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## Upcoming Events

**Plant 2020** Plant2020 The 11th International Conference on Plant, Cellular and Molecular Biology
Prague, Italy, 27-27 February 2020

**ICINE 2020** ICINE 2020 - 5th International Conference on Insect Science and Entomology June 29-30, 2020 in London, United Kingdom

**International Congresses of Entomology**
XXVIII ICE, Helsinki, 19-24 July 2020.
XXIX ICE, Brisbane, Australia. Provisional dates: 4-10 August 2024.
For more information visit www.icenetworks.org

ICE is an important event at IOBC calendar. On top of IOBC sponsored symposia, we will hold our General Assembly and Junior gathering for IOBC members.

**ICIBC sponsored symposia:**
1. Integrated and pesticide-ecological knowledge for applied biological control. Monday, 19th July 2016 - 14:00-18:00
2. Recording the biodiversity of insects generated anthropogenic biological control agents. Tuesday, 21st July, 2016 - 14:00-18:00
3. Chromosome complexes in supergenetic biological control: breeding or regimental? Tuesday, 21st July, 16:30 - 18:30. Followed by IOBC General Assembly from 18:30

Contact: Jacob Weiss Training and Biological Control Delegate Resources: Thursday 23 July, 09:00 - 12:00

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**The 17th Symposium on Insect-Plant Relationships (SIPR 2016)**
Lisbon, 18-22 July 2016
http://sipr2016.com/
Symposium summaries deadline: 30th April 2015
Registration currently open

SIPR addresses the latest developments in research on the interactions between plants, insects and their natural enemies, including the ecological, evolutionary, genetic and molecular aspects of these interactions. There will be a session on biological control of weeds, with Ruth Hufbauer as a keynote speaker.

**The 4th International Conference on Agricultural and Biological Sciences** ICABS 2016
Tokyo, 25-26 August 2016

As an annual conference held successively in Beijing, Shanghai, Singapore, Hongkong and Macau in the past years, ICABS 2016 is a multi-disciplinary forum for academic exchange and discussion. It provides a valuable and convenient platform for meeting international and interdisciplinary scientists and promotion of exchanges of biological sciences. The series of plenary speech, and oral poster presentations, workshops, panel discussions, and networking events will take place in beautiful Hongkong and lasting new connections in ASI 2015.

**Plant Health, Agriculture & Bioscience** CABI Plant Health 2016
Tuesday 13 - Thursday 15 September 2016
Cambridge, UK

This conference aims to bring together all stakeholders in the plant health and sustainable agriculture sector, from academics, to industry leaders, policy makers and public administrators.

**3rd Australian Management Grain Insect Conference**
Agriculture
Melbourne, 5-7 December 2016

**ARS** ARS is an interdisciplinary conference whose bringing together researchers who study philosophy-in-practice/practicing-ecology, their complex interactions with their food, plants, environment and pathogen environment.

**The 2nd International Congress of Biological Control** Toronto, from 26-30 - 2016

The Congress is IOBC's four-year meeting, and will focus on interdisciplinary biological control. It is an opportunity to get together with biological control practitioners from across the entire globe. Whether as part of IOBC or of affiliated, lateral, parallel, inter and/or pan-disciplinary, whether we are from the "Global North" or "Global South", we share a common goal: to understand how we can use nature's services to fulfill, or in harmonizing approaches - this is the place to exchange ideas and benefit from the synergism that comes with inter- and multi-disciplinarity!

Biological control science is a transdisciplinary enterprise which is developed in various critical areas that are not yet well connected. Our goal is to bring together researchers and practitioners from all disciplines of biological control, interactions. The discipline is therefore more pulled than ever to continuously substantially to solving the pressing problems of our time, such as food security, climate change, biodiversity conservation, ecosystem benefits and ecosystem services, ecological resilience, and ecosystem management and ecological psychology.

Our goal is to bring you can you to be affect to crossed-changes in biological control science and increase the impact of biological control practitioners worldwide.

This congress tackles gets into the 1st International Congress of Biological Control Held in Beijing in 2010, and the 1st International Conference of Biological Control held in Bangalore, India in 2016. Following the best of these two meetings, the combined IOBC-BCI will provide a platform for study and large-scale exchange of ideas and information. Our goal is to bring together researchers and practitioners from all disciplines of biological control, and to provide a platform for study and large-scale exchange of ideas and information. Our goal is to bring together researchers and practitioners from all disciplines of biological control, and to provide a platform for study and large-scale exchange of ideas and information.

More detailed information will follow. Please check the following pages regularly for the latest. Don't hesitate to contact the local congress organizing secretariat.

If you have an idea for a symposium, please contact Carlos Ramirez.

**Organizing Committee**
Carlos Ramirez, Chair, Switzerland
Gerhard A. Heimbach, CRP Global, University of Florida
Richard Barratt, PPS Global, Agriharvest, New Zealand
Gianfranco Anfossi, PPS - IOBC, Italy

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## Regional Sections Contacts

Asia-Pacific Regional Section ASPRS
Africa Regional Section AFRSS
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## Global Working Groups Contacts



Mass Rearing and Quality Assurance WPRS
Ecology of Arthropoda
Biological Control and Management of Cucurbit Pests
Benefits and Risks Associated with Biological Control
Biological Control and Management of Pathogens
Biological Control and Management of Cereal Pests
Management of Cactus Species
Coordinator: Hans Hummel, Biological Control Agents & Natural Products
Commission on Biological Control and Access and Benefit Sharing

## Join IOBC

Membership in IOBC is open to all individuals and all organisations, public or private, who belong to promote the objectives of the Organisation. Membership is of three different kinds:

1. Individual Membership is open to all individuals, including professional associations, societies, institutions, or companies, who are willing to pay the annual subscription.
2. Institutional Membership is open to all institutions, including government laboratories, universities or companies, who are willing to pay the annual institutional subscription.
3. Honorary Membership may be bestowed by the Council to persons who have made outstanding contributions to the aims of IOBC.

For more information and application forms:
http://www.iobc-global.org/membership.html

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