

IOBC Global

International Organization
for Biological Control



IOBC Newsletter Issue 99, June 2016

IOBC is affiliated with the International Council of Scientific Unions (ICSU) as the Section of Biological Control of the International Union of Biological Sciences (IUBS)

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Message from the President:

Well, the last 4 years have flown by, and this is my last message as president. I believe that our current Executive Committee has achieved a huge amount during this time that will benefit biological control in the future. Furthermore, our regional sections, working groups and membership in general have worked very hard to promote biological control, to share research, and to discuss and debate the challenges and opportunities.



I think noteworthy over the last four years has been the re- invigoration of an Afro-Tropical Regional Section; the tentative establishment of one new Global Working Group on the 'Management of cactus species' and two regional section Working Groups (APRS - Predatory Mites as Biological Control Agents and WPRS - Integrated Protection Of Date Palms); the meeting in Engelberg to discuss some of the challenges and solutions for biocontrol in the future (that will be reported at a symposium at ICE); and last but not least, the much needed 'face-lift' for our website, thanks to Madeleine Buehler, our very efficient and talented webmaster.

continued on next page...

Sadly, we lost one of our founding members late last year, Prof. Vittorio Delucchi. He was one of the key driving forces within IOBC prior to 1971, who advocated splitting the former IOBC (today IOBC-WRPS) into geographic sections... and making IOBC Global the umbrella organisation. Prof. Delucchi served IOBC in many capacities over 28 years. Please see his obituary on page 3.

Some very good news from the southern hemisphere is that Australia is starting to rebuild its weed biological control capabilities again after several years of reduced funding. More on this later in the newsletter...

Finally, I hope you are all making plans to attend the ICE at Orlando in about three months. Our General Assembly will be held there starting 6:00 pm on 26 September. On behalf of the Executive Committee, we very much look forward to seeing you all, and being able to catch up with as many members as possible.



Join us at the International Congress of Entomology in Orlando, Florida, USA taking place September 25-30, 2016. There will be four IOBC-sponsored symposia, plus a host of additional talks related to biological control and IPM.

See the full list of all symposia here:

<http://ice2016orlando.org/scientific-program/symposia/>

Registration information is here:

<http://ice2016orlando.org/registration/>

PLEASE NOTE: IOBC-Global will be co-hosting (along with IOBC-NRS, and participants in a weed biocontrol symposium) a **Social Mixer** for all IOBC members worldwide:

Tuesday, 27 Sept. 2016, 8:00 - 9:30 pm
International Congress of Entomology
Convention Center, Room W340 A

(or come early at 6:30 pm for IOBC-NRS professional and graduate student awards)



OBITUARY FOR PROF. VITTORIO DELUCCHI

The Biocontrol and IPM community has lost one of its most prominent figures of the past 60 years: Prof Vittorio Delucchi passed away November 26, 2015 at the age of 90.

He started his scientific career in 1949 at the European Laboratory of the Commonwealth Institute of Biological Control (CIBC) in Feldmeilen, Switzerland (known today as CABI Europe Centre in Delémont, Switzerland), where he soon became a specialist of the parasitoid families *Pteromalidae* and *Eulophidae* (Hym., *Chalcidoidea*). He was particularly interested in the taxonomy and rearing of natural enemies of the white-fir woolly aphid, that had established as an invasive species in Canada. He became one of the pioneers in quantitative and qualitative ecology applied to natural regulation of pest populations.

Prof Delucchi continued his research career with FAO in Morocco for a number of years, where he became an expert of citrus pests and their antagonists. He published his results in 1964 with Henri Chapot in a book titled "Maladies, troubles et ravageurs des agrumes au Maroc". Delucchi left Morocco to become the head of the entomology division of FAO in Rome until 1968, when he was nominated as professor of entomology at the Swiss Federal Institute of Technology (ETHZ) in Zurich. During his tenure until 1990, Vittorio Delucchi contributed immensely to the development of biological control and IPM. In his vision and approach to understanding and solving plant protection problems, he strongly promoted the holistic way by considering 'pests' as an integral part of an agro-ecosystem, and by contributing to their management in an IPM context. This approach was based on ecological principles of pest population dynamics, supported by efforts of his younger collaborators, post-docs and PhD students, in developing complex computer simulation modeling. This critical endeavor provided the basis to develop and deploy science-based approaches for solving continent-wide problems, such as the cassava mealybug outbreak in Africa in the early 1980s. Vittorio's scholars and collaborators at the International Institute of Tropical Agriculture (IITA) were leaders of the biological control campaign against this invasive insect pest, today still considered one of the most successful biocontrol projects worldwide and internationally recognized by the prestigious World Food Prize.



Vittorio Delucchi was a founding member of the International Organization for Biological Control (IOBC), established in 1956. At the first plenary session in November 1956, Delucchi was appointed to two new positions: (A) as Secretary of the newly established "Identification service for entomophagous insects" (presently called "Commission on determination and identification of entomophagous insects and insect pathogens") and (B) as Head of the Systematics sub-group of the newly founded "Documentation service". He was also nominated simultaneously as a member of the "Bureau Exécutif" which was responsible for guiding and managing IOBC for the first 12 years. A turning point in the early history of IOBC was in 1968, when most of the old members of the "Bureau Exécutif" were replaced. Delucchi was now elected as Secretary General and served in this function until 1976. Consecutively, he was elected Treasurer (1977-1980) and President (1984-1988). Vittorio played a key role as Secretary General in the historic landmark of IOBC in 1971 at the 5th General Assembly in Rome at FAO headquarters, when the decision was taken to create IOBC Global and several Regional Sections to promote IOBC's activities worldwide (for details see Boller E.F., van Lenteren J.C. & Delucchi V. (eds.) 2006. International Organization for Biological Control of Noxious Animals and Plants. History of the first 50 years, 1956-2006, pp. 12-23).

In all IOBC positions held by Vittorio during the 28 years, he was passionately engaged in the worldwide promotion of biological control and IPM, at the same time warning of the unintended side-effects of inappropriate pesticide use. His innovative and critical thinking in plant protection will survive in the heart and gestures of his many scholars, and their own students and collaborators worldwide.

submitted by Franz Bigler and Markus Bieri

IOBC at ICE:**Event 49 IOBC Executive Committee Meeting and Executive Council Meeting**

- **Sunday, September 25, 2016 - 02:00 PM - 04:00 PM**
Rosen Centre Hotel - Salon 6

Event 197 IOBC General Assembly

- **Monday, September 26, 2016 - 06:00 PM - 08:05 PM**
Convention Center - Room W232 A

Event 359 IOBC NRS Annual Meeting, Awards, and Mixer

- **Tuesday, September 27, 2016 - 06:00 PM - 09:30 PM**
Convention Center - Room W340 A

Symposium 252 Symposium: Biological Control under Climate Change (IOBC)

- **Tuesday, September 27, 2016 - 09:15 AM - 12:30 PM**
Convention Center - Room W222 B

Symposium 99 Symposium: Zoophytophagous Arthropods in Biological Control (IOBC Symposium)

- **Monday, September 26, 2016 - 09:15 AM - 11:45 AM**
Convention Center - Room W331 D

Symposium 258 Symposium: Opportunities and Challenges for Biological Control of Disease Vectors (IOBC)

- **Tuesday, September 27, 2016 - 09:15 AM - 11:45 AM**
Convention Center - Room W230 D

Symposium 151 Symposium: Status and Prospects for Biological Control in the 21st Century (IOBC)

- **Monday, September 26, 2016 - 01:30 PM - 04:15 PM**
Convention Center - Room W232 A

BioControl, the official journal of IOBC

The 2015 Impact Factor for *BioControl* is 1.767. Congratulations to Editor-in-Chief Eric Wajnberg and all the Associate Editors!

Submit your best work to our journal this year.
Some recent articles of interest:



Trends in the classical biological control of insect pests by insects: an update of the BIOCAT database

**Matthew J. W. Cock, Sean T. Murphy,
Moses T. K. Kairo, Emma Thompson,
Rebecca J. Murphy & Antonio
W. Francis**

BioControl
Journal of the International
Organization for Biological Control
ISSN 1386-6141



BioControl
DOI 10.1007/s10526-016-9739-y



Biological control of mealybugs with lacewing larvae is affected by the presence and type of supplemental prey

Gerben J. Messelink · Roland Vijverberg ·
Ada Leman · Arne Janssen

It's time to vote:

As indicated in the last (December 2015) Newsletter, we are in the process of electing a new IOBC-Global Executive Committee for the years 2016-2020.

Nominations are now closed. We have a robust slate of nominees, with good geographic diversity; some new faces and some carry-overs for continuity:

President	George Heimpel University of Minnesota, USA	
Secretary General	Ronny Groentman Landcare Research, NEW ZEALAND	
Secretary General	Mark Wright University of Hawaii, USA	
Treasurer	Josep Jacas Miret Universitat Jaume SPAIN	
Vice-President	Jianqing Ding Chinese Academy of Sciences CHINA	
Vice-President	Vanda H. P. Bueno University of Sao Paulo, BRAZIL	
Past President	Barbara Barratt AgResearch Invermay NEW ZEALAND	

Only one slot (Secretary General) is "contested" - that is, there are two candidates for one position. According to [IOBC statutes](#), Individual and honorary Members shall have one vote each. Institutional Members shall have 10 votes each. Supporting Members shall have no vote. Voting Members may exercise their right to vote only if they have met their financial obligations towards the Organization. Your Regional Section leaders will have emailed each member the candidates' bios, plus a ballot form to vote for this position.

Please remember to sign and return your ballot by July 8, 2016 to:

janalee@hotmail.com and franz.bigler@gmx.ch

These two members of the elections committee will tally the votes, and the outcome will be announced at the General Assembly meeting at 6:00 pm on Monday, 26 September 2016 at the ICE in Orlando, Florida. *Convention Center - Room W232 A*



A Marie-Skłodowska-Curie Innovative Training Network on Breeding Invertebrates for the Next Generation Biocontrol (BINGO)

One promising alternative to reduce or even eliminate the need to import exotic natural enemies is through the optimization of existing and native biocontrol agents. This can be attained through the exploration of natural genetic variation and selective breeding, which is the mission of the consortium BINGO. BINGO is an International Training Network (ITN) for early stage researchers and is funded by the Marie Skłodowska Curie scheme of the EU Horizon 2020 programme. It brings together participants from prominent universities, institutes and industry from nine European countries and advisory board members from outside the EU. The network consists of 24 researchers and 13 PhD students who will carry out their projects at BINGO partner's facilities. This initiative aims to (i) improve current biocontrol practices through the exploration and exploitation of natural genetic variation present in native natural enemies, (ii) extend the application of quantitative and population genetics to the invertebrate biocontrol field, and (iii) train 13 young researchers in an interdisciplinary environment. BINGO will provide the PhD students with education in established universities as well as access to the state-of-the-art techniques and equipment available at the different participating institutions.



BINGO is divided into different Work Packages (WP) in order to target all the steps of the biocontrol practice from production, to field performance and risk assessment. Production of natural enemies is a crucial step for the quality and posterior performance of these invertebrates in the field. Improvements in production are likely to decrease costs related to handling procedures thus making biocontrol agents more accessible for growers. The WP leading the research on rearing and storage focuses on aspects of mass rearing, scale allergy (moths), sex ratio, clutch size and exploitation of symbiotic bacteria for increased production.

A major concern after the release of natural enemies is their impact on local ecosystems and this is a specific issue underlying the creation of BINGO addressed by the WP on risk assessment. In terms of performance of biocontrol agents, the different trophic levels at which pest species and biocontrol agents interaction will determine the success of pest suppression. A WP focuses on performance will try to identify and predict the key traits related to field performance through mathematical modeling and will attempt to improve these traits using quantitative genetic approaches in three biocontrol agents. Success of artificial selection on performance traits of these species will be tested in laboratory, semi-field and field conditions. The major genomic aspects of BINGO are coordinated by the WP on genomic variations, whose objectives are to (i) develop genome-wide genetic markers for field monitoring, estimating and tracking variation of mass-reared biocontrol agent strains, (ii) unravel the genes underlying phenotypic variation in relevant biocontrol agent traits and (iii) develop genomic selection methods for improvement of biocontrol agents.

For further information about BINGO, the projects, researchers and PhD students, or to subscribe to the BINGO newsletter, visit the website <http://www.bingo-itn.eu/>.

The 5th International Symposium on Biological Control of Arthropods will take place in Langkawi, Malaysia, September 11-15, 2017.

This conference continues the series of international symposia on the biological control of arthropods held every four years. Dr Roy Van Driesche was the founder of the series and held the first meeting in Hawaii in January 2002. The second meeting took place in Davos, Switzerland, in September 2005, the third in Christchurch, New Zealand, in February 2009. The latest one was held in Pucón, Chile, in March 2013. The upcoming 5th symposium will follow the proven format and framework of the previous four symposia, as they have all been very successful and highly appreciated by the participants.

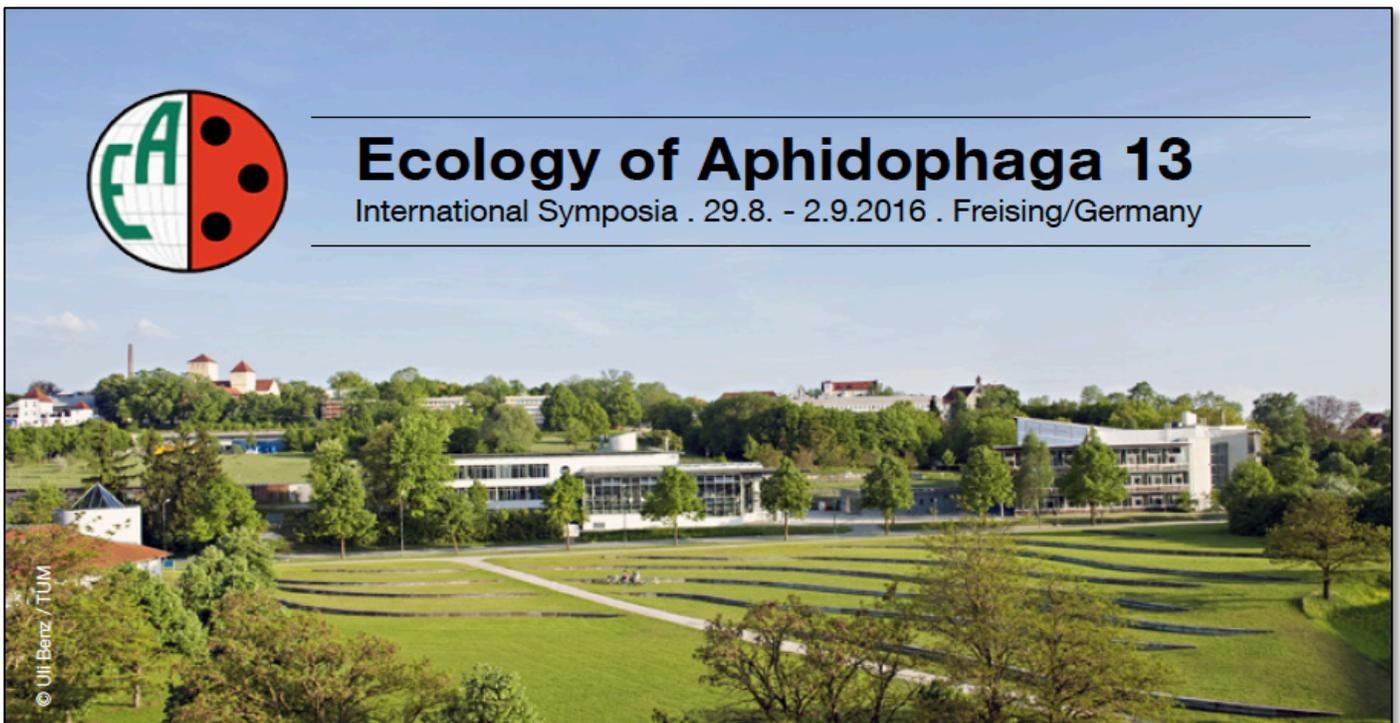
For more information: www.isbca-2017.org

or contact the Secretary: info@isbca-2017.org



Ecology of Aphidophaga 13

International Symposia . 29.8. - 2.9.2016 . Freising/Germany



The 13th International Symposium on "Ecology of Aphidophaga" will be held in Freising, Germany, from Monday 29th August to Friday 2nd September, 2016.

For more information: www.aphidophaga.de

Global Biocontrol & Biostimulants Congress 2016

September 12-13 Philadelphia, PA

The Global Biocontrol & Biostimulants Congress will be held on September 12-13, 2016 in Philadelphia, Pennsylvania. For more information: <http://bit.ly/28VAyqW>. The event will be co-located with the 4th [Plant Genomics Congress USA](#).

The 1st international workshop of IOBC-APRS, "WG Predatory Mites as Biological Control Agents" was successfully held in Beijing on 15-19 May 2016.

see: [IOBC-APRS event page with Book of Abstracts, Programme und Photos](#)

http://aprs.iobc.info/event_20160515_IOBC-APRS_WG_predatory_mites.html

The USDA-ARS Exotic and Invasive Weeds Research Unit (EIWRU), located in Albany, northern California, in the Bay Area, expects to have two full-time GS11/12 Entomologist postdoctoral positions available soon (one in July, and the second in September). The focus of both positions will be quarantine and field evaluations of new and previously released biological control agents of weeds. Target weeds include French broom, Scotch broom, yellow star thistle, Russian thistle, Dalmatian toadflax, Cape-ivy, and arundo. There may also be an opportunity to work on aquatic weeds including water hyacinth and water-yellow primrose. These will be approximately two-year positions, to fill a temporary vacancy in one of our research entomologist positions. Studies will focus on the biology, host range, efficacy and dispersal of insects as biological control agents of weeds, and possibly on integration of biological control with other weed control methods



While these positions are not yet available, any potential candidates are welcome to contact me and to send me a CV.

Dr. Patrick J. Moran, Research Entomologist
 USDA-Agricultural Research Service; Exotic and Invasive Weeds Research Unit
 Email: Patrick.Moran@ars.usda.gov; Phone: 510-559-6393
 USDA-ARS WRRC EIWRU, 800 Buchanan St., Albany, CA 94710

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Ecology of Aphidophaga

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 Nick Kavallieratos, GREECE; Carlo Ricci, ITALY; Wolfgang Weisser, GERMANY
<http://aphidophaga.de>



Biological Control and Management of Eupatorieae Weeds

Contact: Michael Day, Australia: michael.day@daff.qld.gov.au
<http://www.arc.agric.za/home.asp?pid=5229>



Biological Control of Diamondback Moth & other Crucifer Insects

Contact: Dr. Tony Shelton, USA: ams5@cornell.edu
<http://web.entomology.cornell.edu/shelton/diamondback-moth/>



Benefits and Risks Associated with Exotic Biological Control Agents

Contacts: Dr. Peter Mason, CANADA: masonp@agr.gc.ca
 Dr. George Heimpel, USA: heimp001@umn.edu



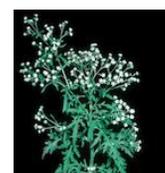
Biocontrol of *Ostrinia* and Other Maize Pests

Contacts: Dr. Ulli Kuhlmann, SWITZERLAND: u.kuhlmann@cabi.org
 Dr. Tom Sappington, USA: tsapping@iastate.edu
 Dr. Wang Zhenying, China: zywang@ippcaas.cn
www.iwgo.org



Biological Control and Management of Parthenium Weed

Contacts: Lorraine Strathie, South Africa: strathiel@arc.agric.za
 Wondi Mersie, USA: wmersie@vsu.edu
 Rangaswamy Muniappan, USA: ipm-dir@vt.edu or rmuni@vt.edu



Commission on Biological Control and Access and Benefit Sharing

Contact: Prof. dr. Jacques Brodeur, CANADA: jacques.brodeur@umontreal.ca
www.iobc-global.org/download/659ABSinBiCoAddMat2009.pdf



Join an IOBC International Working Group.... or propose a new one!
 Working groups can operate on the global level, or within a regional section...

Join IOBC...

Membership in IOBC is open to all individuals and all organizations, public or private, who desire to promote the objectives of biological control. There are four categories of membership:

- Individual Membership is open to all individuals engaged or interested in biological control.
- Institutional Membership is open to any institution, including government departments, academies of science, universities, institutes and societies participating in biocontrol activities.
- Supporting Membership is open to any person or institution interested in promoting the objectives of the Organization.
- Honorary Membership may be conferred by the Council to anyone who has made outstanding contributions to biological control.

For more information and application forms:

<http://www.iobc-global.org/member.html>



International Organization for Biological Control

Issue 99, June 2016

IOBC Global Executive Committee:

Send ideas for the IOBC
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