

IOBC Global

*International Organization
for Biological Control*



IOBC Newsletter Issue 93, June 2013

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:

There has been quite a bit going on during the first half of this year. Of particular interest (and I hope you have all noticed) the IOBC Global website has had a very nice face-lift, thanks to the work of our webmaster, Madeleine Buehler. We were aiming for a more modern look, while still retaining a strong professional image for IOBC. I hope you agree that we have achieved that balance. The development is now in the stage of seeking feedback, so please log on (http://www.iobc-global.org/about_iobc.html), have a look, and if you would like to make any suggestions, or if you find any mistakes, inconsistencies etc., please let Russell know, and we will collate your suggestions and pass them on to Madeleine. Also, if you have any high quality images that would be suitable for the banner slide show on the website, preferably with a biological control theme, please send those too, with captions and appropriate acknowledgements.



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Message from the President (continued)...

During 4-8 March this year the International Symposium on Biological Control of Arthropods (ISBCA) was held in Pucon, Chile. It was an exceptionally good meeting, and very well organised by Tania Zaviezo and her team. The meeting was held in a very grand, 1930s hotel on the shores of Lake Villarica, with spectacular views of the snow-topped Villarica volcano. The programme was outstanding, and the proceedings very expertly put together by Peter Mason, David Gillespie and Charles Vincent from Agriculture and Agri-Food Canada. The abstracts from the conference will be posted on the IOBC Global website soon.



Several IOBC members organised sessions at the symposium including: *Risk assessment in biological control: where are we?* (Peter Mason, Dave Gillespie and Jian Duan hosted by the IOBC WG on Benefits and Risks Associated with Exotic Biological Control



Agents); *Classical biological control for the protection of biodiversity* (Roy van Driesche and Mark Hoddle); *Evaluation and practical application of parasitoids and predators of the tomato leaf miner *Tuta absoluta** (Vanda Bueno and Jose Belda); *Functional implications of non-prey feeding in biological control* (Don Weber and Jon Lundgren); *Compatibility of transgenic insecticidal crops with biological control* (Joerg Romeis and Tony

Shelton). Many other members presented excellent papers, so it is well worth having a look at some of these contributions.

During the conference we held an IOBC Global meeting of those members of the Executive Committee, Council, and Working Group (WG) representatives who were able to attend. We also held a special meeting with the NTRS executive members present, as we were in the region. It was very useful to be able to take this opportunity, and we were able to make progress with a few issues. Of particular interest is that Jon Lundgren has proposed that NRS establish a new WG on 'Conservation Biological Control'. The initial focus will be on North America, but there is potential for this to expand globally in the future. The "Arthropod Mass Rearing and Quality Assurance" WG will hold its next meeting in Bangalore, India in November this year.

We are still finding it difficult to locate key people who might be willing to help re-establish the IOBC Afro-tropical Regional Section (ATRS); so if you have contacts there, please put them in touch with us.



Finally, our Global Newsletter has a new colorful format. We would like to make this a useful vehicle for communication among members, so please send meeting announcements, publication announcements, and news from sections and working groups to messing@hawaii.edu.

Regional sections of IOBC operate largely independently, and sometimes it seems we have limited opportunity to interact across regions. Therefore, in each of the next several issues of the Global Newsletter, we will have one region present an overview of its membership and activities.

In this issue Dr. Jonathan Lundgren, President of the **Nearctic Regional Section**, provides information about IOBC-NRS.



Currently the Nearctic Regional Section supports two working groups: the Conservation Biological Control Working Group, and the IPM in Greenhouses Working Group. We also support a curriculum of biological control-related short courses aimed at educating the next generation of biocontrol scientists, and we sponsor four professional awards (Masters level, PhD, Early Career, and Distinguished Scientist).

Over the next few years, our society will secure its place as North America's leading biological control association, and will provide leadership in new endeavors to advance biocontrol from an academic endeavor to one that is widely recognized and can be practiced on every farm. To accomplish this, our Governing Board has put together a roadmap to increase conservation biological control by providing clear and dynamic practical solutions for farmers who want to conserve natural enemies on their farms. We will work with other organizations and agencies to align biological control with biodiversity conservation initiatives, and eventually incentivize the practice of conservation biological control at the farm level. A big part of this plan is to improve our role as an educational tool, and to take better advantage of our diverse and expert membership as resources to disseminate the messages of our society.

Additional details on these plans (that are already taking shape) can be found on the IOBC-NRS website (www.iobcnrs.com) and in our newsletters (www.iobcnrs.com/index.php/newsletter).

To join IOBC-NRS, see the membership link on our website.

Emerging Opportunities for Mass Production & Quality Assurance of Invertebrates. 13th Workshop of the IOBC – MRQA: Bangalore, INDIA

This is a joint meeting [November 6-8, 2013] of the IOBC Global Working Group on Mass Rearing & Quality Assurance (MRQA), International Biocontrol Manufacturers Association (IBMA), Invertebrate Biocontrol Agents Group, Indian Council of Agricultural Research (ICAR) and the Society for Biocontrol Advancement (SBA), India.

The workshop will be held at the Mövenpick Hotel & Spa in Bangalore.

General Themes for the Organized Symposia include:

1. Development and validation of protocols for invertebrate mass rearing and quality assurance; 2. Mass rearing invertebrates for management of arthropod pests, veterinary and medical field applications, & production of microbial biocontrol agents; 3. Biocontrol in high value and export crops and new emerging markets; 4. Legal and ethical issues associated with mass-rearing invertebrates.



Upcoming information on the program, registration and accommodation will be available on the MRQA (www.AMRQC.org), NBAII (www.nbaii.com) and ICAR (www.ICAR.org.in) websites. For queries regarding sponsoring or display space or for any other queries, please contact the organizing secretaries: iobcmrqa13thworkshop@gmail.com

Aphidiphaga 12 - Belgrade , SERBIA



The 12th International Symposium on “Ecology of Aphidophaga” will be held in Belgrade, Serbia from 9-13 September, 2013. This is the first time that Ecology of Aphidophaga will be held in Serbia. The purpose of the meeting is to provide an international forum for the presentation and discussion of research on organisms contributing to the mortality of aphids (Hemiptera: Aphididae). For full details, and to download the first and second circulars, visit: <http://aphidophaga12.bio.bg.ac.rs/>

IOBC-WPRS General Assembly, Zurich, Switzerland 23-25 October 2013

The next General Assembly of IOBC-WPRS will take place in Zürich, 23-25 October 2013 (opening at 13:00 on Wednesday October 23, closing at 12:30 on Friday October 25). The venue will be in **Agroscope - Reckenholz** and the host will be IOBC-WPRS President, **Dr. Franz Bigler** (franz.bigler@art.admin.ch).



Contact: IOBC-WPRS General Secretary: [Philippe Nicot](mailto:Philippe.Nicot@art.admin.ch)

For more information on upcoming meetings: <http://www.iobc-wprs.org/events/index.html> and <http://www.iobcnrs.com/index.php/events-calendar>

The Diamondback Moth Working Group focuses on understanding the biology, ecology and management of this global pest, and pays considerable attention to incorporating biological control into overall management programs. Over the decades of research on this hard-to-manage insect, it has become apparent that the use of natural enemies, especially parasitoids, is a key to sustainable management.



The group remains active and is rather unique, as it was initiated in the early 1980s and has routinely conducted international workshops approximately every 5 years. The first conference was held in Taiwan in 1985, and the last conference was in Thailand in 2011. The next scheduled conference will be in India in 2015. A complete set of conference proceedings can be seen at the website:

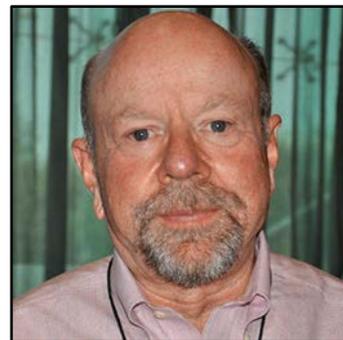
<http://web.entomology.cornell.edu/shelton/diamondback-moth/>.

Additionally, the website contains a contact list of people working on diamondback moth, and information on rearing this pest.

The first comprehensive review of diamondback moth was written by Talekar and Shelton in 1993 (*Annu. Rev. Entomol.* 38: 275-301), and included an estimated cost for control of US \$ 1 billion. A review in 2013 by Furlong et al. estimated the cost to the world economy of this pest at US \$ 4-5 billion (*Annu. Rev. Entomol.* 58: 517-41).

Research on diamondback moth continues to be published widely, with an average of >100 publications per year. Many of these document the evolution of resistance to the latest insecticides. Clearly, this insect continues to be one of the world's most devastating insect pests. More effort needs to be conducted on the use of biological control so that the successes of past introductions of natural enemies, especially parasitoids, can be replicated.

For more information on this IOBC Global Working Group, contact the convener, Dr. Tony Shelton of Cornell University (USA) at: ams5@cornell.edu.





Give us your best shot...

The newly refurbished IOBC Global web site (<http://www.iobc-global.org>) has a banner on the top of each main page with a rotating series of color photographs of insects, plants, and people to illustrate our focus on biological control. At the moment, some of these are only placeholders; our intention is to showcase IOBC members' best photos (with full credit given). So please, send us your finest pictures. Preference is for dramatic shots that show natural enemies in action (predators killing their prey, parasitoids ovipositing, herbivores devouring weeds). The drama of seeing natural enemies in action can capture some of the excitement of biocontrol. Also, we can use eye-catching photos of any organisms that are natural enemies, that are pests (including weeds), and even of crops - as they are often the focus of our work. Named species have priority over unnamed ones; photos by IOBC members have priority over non-members.

Pics should be high resolution (at least 72 DPI) in wide format (minimum size 960x360 px).

Please email contributions as attachments to: messing@hawaii.edu



BioControl is the official journal of the International Organization for Biological Control (IOBC). It includes original papers on basic and applied research in all aspects of biological control of invertebrate, vertebrate and weed pests, and plant diseases. Subject areas covered in *BioControl* comprise biology and ecology of organisms for biological control, and various facets of their use including any biological means of control for integrated pest management (IPM) such as plant resistance, pheromones and intercropping. Interdisciplinary papers with a global perspective on the use of biological control in integrated pest management systems are strongly encouraged.

Developments in molecular biology and biotechnology that have direct relevance to biological control will also be considered for publication. Organisms covered by *BioControl* include parasitoids, invertebrate and vertebrate predators of pest animals and plants, mites, plant and insect pathogens, nematodes, and weeds. In addition to original research papers, *BioControl* also publishes forum papers, reviews (solicited by the Editor-in-Chief) and Letters to the Editor on critical issues relevant to biological control.



Thanks to the hard work and dedication of Eric Wajnberg, Editor-in-Chief, **the 2012 Impact Factor for BioControl has increased to 2.215.**

Congratulations to Eric and the Editorial Board!

BioControl has **58** Volumes; **250** Issues;
2,949 articles available from **1956 - 2013**



<http://link.springer.com/journal/10526>



2012 Impact Factor – 2.215

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The U.S. is a large, diverse country with 50 semi-independent states, and numerous scientists who focus on biological control at Federal, State, and University laboratories. To foster collaboration, and recognizing the regional nature of most biocontrol programs, the U.S. Dept. of Agriculture (National Institute of Food and Agriculture) funds programs to help facilitate research on high priority topics that engage State Agricultural Experiment Stations, other research institutions and agencies, and the Extension Service. These activities involve cooperative, jointly planned research employing multi-disciplinary approaches.



For an overview of these “multi-state” projects, see:

http://www.csrees.usda.gov/qlinks/research_multistate.html and links therein.

As part of the reporting requirement for involvement in these funded programs, the regional projects contribute extensive information that is collated annually and made available online. **This represents a very rich resource for biological control information that the global membership of IOBC can readily access** to find out the who, where, and how of research and implementation projects being tackled by workers at many U.S. institutions.

The information on individual project websites generally includes the goals of each group, and a justification for their collaboration and choice of target organisms; lists of participants from each state (and their institution and contact information); major accomplishments during each year, including target organisms and natural enemies employed, methods used, research results; and lists of recent publications.

Major multi-state projects involved in biocontrol research in the U.S., and their websites:

NE 1032 - Biological Control of Arthropod Pests and Weeds

<http://www.nimss.umd.edu/homepages/home.cfm?trackID=10056>

NE 1040 - Plant-Parasitic Nematode Management as a Component of Sustainable Soil Health Programs in Horticultural and Field Crop Production Systems

<http://nimss.umd.edu/homepages/home.cfm?trackID=9937>

S1052 – The Working Group on Improving Microbial Control of Arthropod Pests

<http://nimss.umd.edu/homepages/home.cfm?trackID=14196>

S1058 – Biological Control of Arthropod Pests and Weeds

<http://nimss.umd.edu/homepages/home.cfm?trackID=14496>

W3185 – Biological Control in Pest Management Systems of Plants

<http://nimss.umd.edu/homepages/home.cfm?trackID=14316>

West Palearctic Regional Section (WPRS) www.iobc-wprs.org

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East Palearctic Regional Section (EPRS)

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Vice President	Prof. V. Dolzenko, St. Petersburg, Russia.
Vice President	Prof. M. Glavendekic, University of Belgrade, Serbia.
General Secretary	Dr. Y. Gninenko, Russia.

Afro-tropical Regional Section (ATRS)

IOBC Global is seeking individuals with interest and expertise in biocontrol to help re-establish the ATRS.

If you would like to serve, please contact:

Dr. Barbara Barratt [barbara.barratt@agresearch.co.nz]



Mass Rearing and Quality Assurance

Contacts: Dr. P. De Clercq, BELGIUM: Patrick.DeClercq@ugent.be

Dr. T. Coudron, USA: coudront@missouri.edu

www.amrqc.org

**Ecology of Aphidophaga**

Contacts: J. P. Michaud, USA (chair): jpmi@ksu.edu, Kris Giles (USA),

Nick Kavallieratos, GREECE; Carlo Ricci, ITALY; Wolfgang Weisser, GERMANY

www.aphidophaga.org

**Biological Control of *Chromolaena odorata* (Siam Weed)**

Contact: Dr. Costas Zachariades, SOUTH AFRICA: ZachariadesC@arc.agric.za

<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

Prof. Dr. C. Richard Edwards, USA: edwards@purdue.edu

Dr. Wang Zhenying, China: zywang@ippcaas.cn

www.iwgo.org

**Biological Control and Management of Parthenium Weed**

Contacts: Kunjithapatham Dhileepan, AUSTRALIA:

Kunjithapatham.Dhileepan@deedi.qld.gov.au

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

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