



INTERNATIONAL ORGANIZATION FOR BIOLOGICAL CONTROL
OF NOXIOUS ANIMALS AND PLANTS (IOBC)

IOBC NEWSLETTER 85

[WWW.IOBC-GLOBAL.ORG](http://www.iobc-global.org)

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)

President: Prof.dr. J. Brodeur
Plant Biology Research Institute,
Montreal University
4101, rue Sherbrooke Est, Montreal (Quebec)
Canada H1X 2B2
Tel: + 1 514-872-4563, Fax: + 1 514-872-9406
Email: jacques.brodeur@umontreal.ca

General Secretary: Prof. dr. J.C. van Lenteren
Laboratory of Entomology, Wageningen University
P.O. Box 8031, 6700 EH Wageningen, The Netherlands,
Tel: +31 317 482327 Fax: +31 317 484821
Email: Joop.vanLenteren@wur.nl

Treasurer: Dr. A. Urbaneja
Unidad de Entomología, Inst. Valenciano Invest.
Agrarias, Carretera de Moncada-Náquera km. 4,5
Moncada 46113, Valencia, Spain
Tel: +34 963424130, Fax: +34 963424001
Email: aurbaneja@ivia.es

Vice-President: Dr. Barbara Barratt, New Zealand.
Email: barbara.barratt@agresearch.co.nz
Vice-President: Prof.dr. J. R. P. Parra, Brazil. Email:
jrpparra@esalq.usp.br
Past-President: Prof.dr. J.C. van Lenteren, The
Netherlands. Email: Joop.vanLenteren@wur.nl

CONTENTS OF IOBC GLOBAL NEWSLETTER ISSUE 85 – MAY 2009

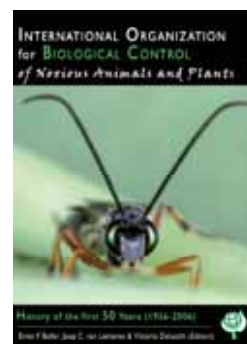
1. Editorial
2. Activities of the Executive Committee 2008-2012
3. Flying start of IOBC Global Commission on Biological Control and Access and Benefit-Sharing
4. Future IOBC Symposia
5. Fifth Edition of IOBC Internet Book of Biological Control
6. Regional Sections of IOBC Global (including activity reports)
7. Working Groups of IOBC Global (including activity reports)
8. Guidelines for Regional Sections and Working Groups of IOBC Global
9. Latest news



Some copies of “IOBC: History of the first 50 years”
are still available.

Order your copy (10 Euro or 15 US\$) by emailing
Joop.vanLenteren@wur.nl

PDF files of previous newsletters can be found at
www.iobc-global.org



1. EDITORIAL: BIOLOGICAL CONTROL VS. ACCESS AND BENEFIT-SHARING OF GENETIC RESOURCES

The Convention on Biological Diversity (CBD), signed in 1992, promotes the equitable and respectful sharing of access and benefits to genetic resources. A primary goal is to protect genetic resources that potentially have commercial value for biomedical and agricultural applications. Parties to the Convention on Biological Diversity have agreed to develop an international Access and Benefit-Sharing (ABS) protocol that will be effective in 2010. In the mean time, several countries have restricted access to their often unexplored biological resources. Government policies and regulations on biological diversity can sometimes have critical disincentives to biological control. Research on biological diversity, discovery and exportation of new biocontrol agents are now on hold in some countries. The ABS is currently appearing as a constraint to developing and implementing appropriate biological control programmes worldwide. There is a need to reach an international agreement on ABS that would be acceptable to all parties. Attention must be given to the economic, environmental, social and cultural aspects related to the exploitation of biological resources.

The ABS issue has recently captured the attention of the biological control community and in October 2008 IOBC Global put together a *Commission on Biological Control and Access and Benefit-Sharing*. Through this commission, IOBC Global shall provide scientific advice to oversee and advise the design and implementation of an ABS protocol that ensures practical and effective arrangements for the collection and use of biological control agents. The mandate of the Commission and its period of activity are provided in the Terms of Reference which are available on the IOBC web site. Members of the Commission are Jacques Brodeur (convenor), Barbara Barratt, Franz Bigler, Karel Blockmans, Matthew Cock, Fabian Haas, Joop van Lenteren, Peter Mason and Jose Parra.

The mission of the IOBC Commission will be realized by:

- 1) Increasing the scientific knowledge in the area of biological control and access and benefit-sharing;
- 2) Documenting the potential for negative consequences of adopting strict regulations about access and benefit-sharing of biocontrol agents;
- 3) Transferring the knowledge concerning the question of access and benefit-sharing to the scientific community, stakeholders and international parties;
- 4) Developing linkages/agreements with international partners;
- 5) Promoting the development and application of new international conventions on biological control and access and benefit-sharing which respect the Convention on Biological Diversity.

We, as biological control scientists and practitioners, have to find a convincing way to talk about the ABS issue to people and National governments around the world. They usually know little about the value of biological control and how it is delivered to our communities. The issues associated with ABS raised by the CBD are complex and could be controversial. The IOBC organization is a key body to providing the necessary scientific knowledge and to communicating that knowledge to the national and international decision-making parties. Fortunately, unlike some other parties exploiting genetic resources, biological control scientists and practitioners have a reputation of high standards in terms of ethical conduct when conducting biological control programs, from surveying and collection in different countries to the introduction or commercialization of new biological control agents.

In late December 2008, the IOBC Commission was approached by the FAO Secretariat of the Commission on Genetic Resources for Food and Agriculture. This entity is dedicated to the development of policies related to biodiversity for food and agriculture. This is also the Commission which negotiated the International Treaty on Plant Genetic Resources for Food and Agriculture, so far the only ABS functional sector-specific system that is operational at the global level. Also of interest to us, they have undertaken seven sector-specific studies on genetic resources, including one on Invertebrates for Biological Control. Given that IOBC and FAO were planning to conduct similar analyses and that we share the common goals of achieving food security and sustainability, we decided

to join forces and cooperate on the ABS issue. There is a long-standing tradition of cooperation between both FAO and IOBC, for instance the one leading to the adoption in 1997 of the Guidelines to ensure the safety of biological control introductions as an International Standard for Phytosanitary Measures. With regards to ABS, IOBC brings the scientific expertise while FAO contributes their expertise in policy-making, as well as financial support to conduct the activities of the IOBC Commission. Alvaro Toledo from FAO has become an ‘observer’ on our Commission.

The IOBC Commission is finalizing a report to FAO on biological control and ABS. One purpose is to have a strong, well-documented paper that represents the position of IOBC. The document presents the nature and intent of biological control, describes and makes distinctions between ways of conducting biological control (classical, augmentative,...) and provides examples of situations related to ABS issues. The report also documents case studies describing how regulations favoured or not the search for and access to new candidate species for biological control agent worldwide. The Commission has also worked on recommendations on how biological control should be managed by governmental and non-governmental organizations, as well as the biological control industry, within the future ABS protocol. Finally, M. Cock and J. van Lenteren are currently working on two exhaustive lists of natural enemies that have been used for classical and augmentative biological control. These lists are valuable tools not only in the context of the present work of the Commission but also to document aspects of the history and outcome of biological control. The lists will eventually be made available to the biological control community.

The IOBC Commission further accomplishes its mission by participating in and contributing to international workshops/conferences on ABS. As mentioned above, the CBD has established a roadmap to develop an International ABS Protocol that will be effective in 2010. The IOBC Commission is dedicated to improve the situation for biological control within the future ABS protocol. Members of the IOBC Commission have jumped into the debate and started to present the case for biological control on a number of national and international forums. For those of you who would like to learn more about the ABS issue, I would recommend a recent publication (2008) by the Secretariat of the Convention on Biological Diversity entitled “Access and benefit-sharing in practice: Trends in partnerships across sectors” (CBD Technical series No. 38). The document is available on line at www.cbd.int. The report from the IOBC Commission on biological control and ABS will also soon be available on line at www.iobc-global.org.

The activities of the IOBC Commission on Biological Control and Access-Benefit Sharing have so far greatly benefited from the support of IOBC Global and FAO. I thank all my colleagues from the Commission for their contribution, a special appreciation to M. Cock who took the responsibility of writing the report.

Jacques Brodeur
President IOBC Global
Université de Montréal
Québec, Canada

2. ACTIVITIES OF THE EXECUTIVE COMMITTEE 2008 - 2012

A first meeting of the Executive Committee of IOBC Global took place in July 2008, in Durban, Africa. The second meeting of the ExCie was held from December 2008 in Utrecht, The Netherlands. A third meeting of the ExCie took place in March 2009, in Zurich, Switzerland. Some of the issues discussed where:

- **Financial situation.** The budget proposal for the coming years was discussed and adapted. It was decided to stop the possibility for creditcard payment to IOBC Global as only 4 persons have used this facility in 2008 and costs to use this system are high. During the coming years more money will be available for support of IOBC Global activities, including Working

Groups. Also, IOBC intends to financially support CABI for updating and maintaining its BIOCAT classical biological control database.

- **Functioning of Regional Sections, and Global Working Groups and Commissions.** The ExCie will spend extra attention at the functioning of the African Regional Section. The other Sections are active and also most Global Working Groups function well. During the General Assembly in Durban (2008) the existence of several non-functioning Working Groups was officially terminated and several new Working Groups were formed (for a list of current WGs, see below). During the ExCie meeting in The Netherlands, the formation of new WG on Biological control of plant pathogens was proposed, and this idea will be discussed in the next Council meeting as well as with the Regional Sections of IOBC. The Commission on Biological Control and Access and Benefit Sharing met for the first time during a workshop in Zurich, Switzerland in March 2009.
- **Website.** Discussion with WPRS have been started to have the Global website managed by the webmanager of WPRS.
- **Newsletter Global.** In addition to the current content, it was thought interesting to include a section with opinions about important IOBC issues.
- **BioControl.** The state of affairs was discussed, situation is good, Impact Factor increases, review period shortened, many positive changes realized.
- **Guidelines for working groups and regional sections, the statutes and the by-laws.** A few adaptations need to be made after the discussion of these issues at the General Assembly in Durban 2008. The new texts will be prepared by the ExCie and discussed at the next Council meeting.
- **Future Election Executive Committee Global.** A new, transparent procedure for election of the next Executive Committee will be developed and discussed at the next Council meeting.
- **IOBC Archive: state of affairs.** An archive of Global and WPRS has been set-up by Dr. Ernst Boller (Waedenswil, Switzerland). Due to his enthusiasm and hard work, we now have a good collection of start up documents related to IOBC, as well as copies of most of IOBC publications.
- **Development of rules for nomination, selection and appointment of honorary members.** There are currently no rules for selection of honorary members. It is planned to have once every 4 years some 6-10 honorary members appointed. The ExCie will develop guidance for this issue and discuss its ideas during the next Council meeting.
- **Training course on biocontrol and IPM.** The idea to develop an MSC level course including practical work and composition of a course book was seen as an important activity of IOBC Global. In 2009 the Executive Committee will develop a workplan for this together with its Regional Sections. The first course might be given in 2010, followed by an annual course at different locations in the world.

3. IOBC GLOBAL COMMISSION ON “BIOLOGICAL CONTROL AND ACCESS AND BENEFIT SHARING” MADE A FLYING START

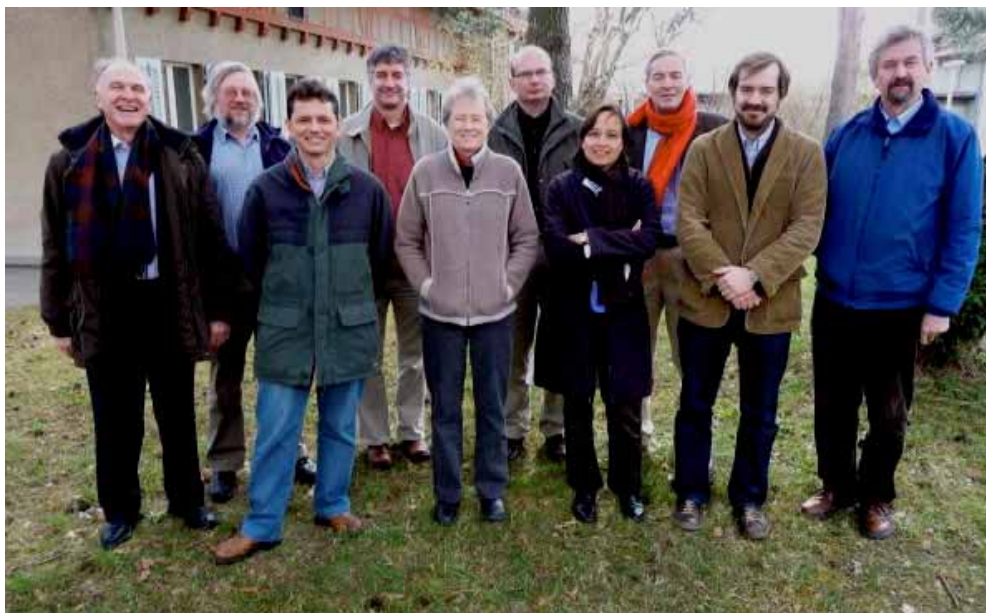
The Executive Committee has received a number of positive reactions related to the formation of the Global Commission on Biological Control and Access and Benefit Sharing. One of the results of the Convention on Biodiversity seems to be that several countries have restricted the access to their often unexplored biological resources. The commission was formed to discuss the problematic situation concerning regulations related to the collection and use of new natural enemies. Through this commission, IOBC Global shall provide scientific advice to oversee and advise the design and implementation of an ABS regime that ensures practical and effective arrangements for the collection and use of biological control agents which are acceptable to all parties.

The Commission had a flying start as a result of a request by FAO to perform a study and prepare a report on the “Use and exchange of biological control genetic resources relevant for food and

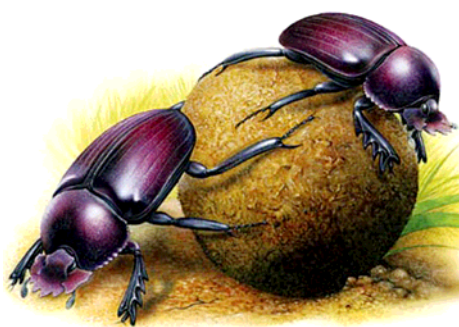
agriculture: the Case of Biological Control Agents” by mid 2009. A first draft of the report has been written is is currently discussed with FAO.

For a work plan and the mission of the IOBC Commission, see newsletter 84, October 2008 on www.IOBC-Global.org

**Participants in first meeting of the
IOBC Global Commission on Biological Control and Access and Benefit Sharing,
March 2009, Switzerland**



4. IOBC SYMPOSIA AT ICE, JULY 2008, DURBAN SA and FUTURE OF IOBC SYMPOSIA



IOBC Global organized 4 symposia at the International Congress of Entomology (6-12 July 2008, Durban, South Africa). The symposia were all well attended and the Executive Committee of has received a number of very positive reactions about the scientific quality and importance of the presentations.

This positive experience of an intensive involvement of IOBC in the International Congress of Entomology led to an ExCie discussion on organizing IOBC Global meetings: should we hold meetings concurrent with other large meetings, or should we organize specific “only-IOBC” ones? The ExCie of Global concluded that it is most effective and economic to have IOBC meetings within the framework of other large meetings, and, therefore, the ExCie will contact the organizers of the next International Congress of Entomology in Korea (2012) with the proposal to organize several symposia. Although the ExCie has several ideas for symposia, we would very much welcome your suggestions (please email them to Joop.vanLenteren@wur.nl).

5. IOBC INTERNET BOOK ON BIOLOGICAL CONTROL

The FIFTH EDITION of the IOBC INTERNET BOOK OF BIOCONTROL IS AVAILABLE ON IOBC-Global.org

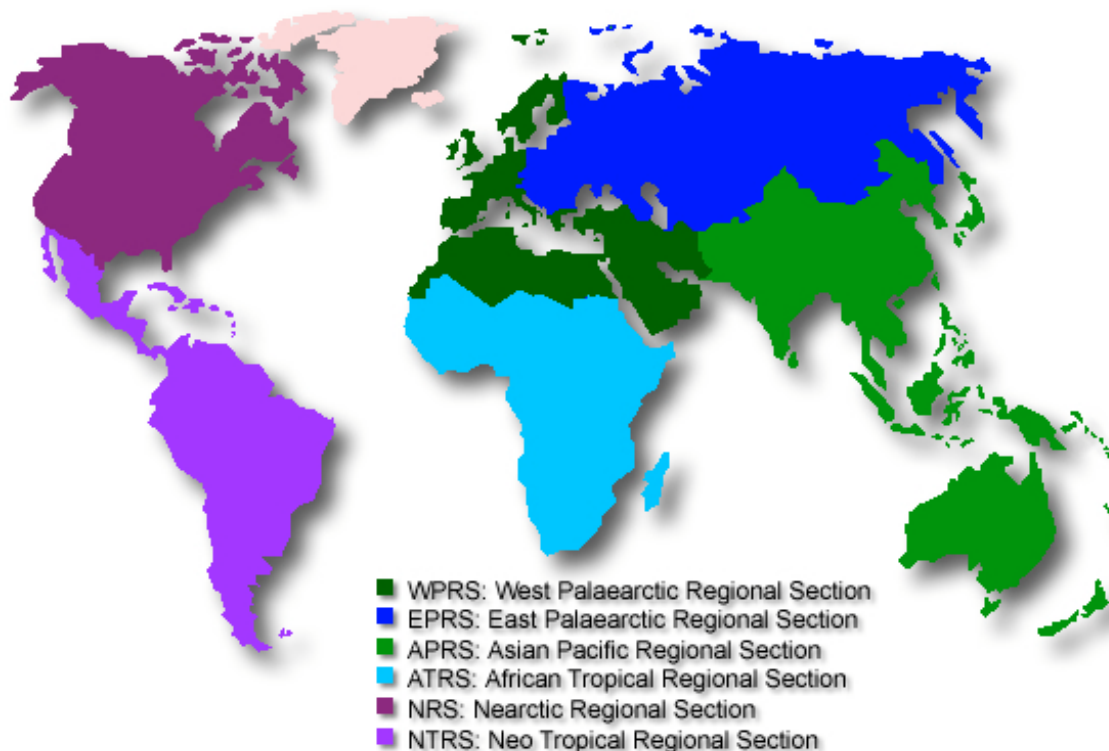


IOBC Internet Book of Biological Control

Aim: to present the history, the current state of affairs and the future of biological control in order to show that this control method is sound, safe and sustainable

The fifth edition of the book (2008) contains more than 130 pages with information about biocontrol is available for free on our website. We ask you to support the preparation of this book. The first priority is to receive summaries of the actual application of biological control in each country or region. The second priority is to document the history of biological control in each country, including some key references, so that it will be easier for all biocontrol workers worldwide to know what has been done and what is going on at this moment. This will help us to make clear **how important biological control is**. We have received several very good contributions during the past months, which will be included in the sixth edition, THANK YOU !!!!

6. REGIONAL SECTIONS OF IOBC



Short information of all the Regional Sections, with a link to their websites, can be found on www.IOBC-Global.org.

ASIA AND THE PACIFIC REGIONAL SECTION (APRS)

President: Prof. Masami Takagi, Institute of Biological Control, Faculty of Agriculture, Kyushu University, Fukuoka 812-8581 Japan, TEL 81-92-642-3035 FAX 81-92-642-3040, E-mail mtakagi@grt.kyushu-u.ac.jp

Vice Presidents: Prof. Shu-Sheng Liu (Zhejiang University, China), Institute of Insect Sciences, Zhejiang University, 268 Kai Xuan Road, Hangzhou 310029, People's Republic of China, Tel. (86-571) 86971505, Fax (86-571) 86049815, E-Mail: shshliu@zju.edu.cn

Dr Barbara Barratt, Programme leader for Biosecurity at AgResearch in New Zealand. Email: barbara.barratt@agresearch.co.nz.

Secretary General: Dr. Takatoshi Ueno, Institute of Biological Control, Kyushu University, Fukuoka 812-8581, JAPAN, Tel. +81-92-642-3036 (office), Fax.+81-92-642-3040, E-mail: ueno@grt.kyushu-u.ac.jp

Treasurer: Dr. Leigh Pilkington, Gosford Horticultural Institute, Locked Bag 26, Gosford NSW 2250, AUSTRALIA, Telephone: +61 2 4348 1953 , Fax: +61 2 4348 1910 , Mobile: +61 409 77 00 61 , Email: leigh.pilkington@dpi.nsw.gov.au

Past President: Prof.dr. Eizi Yano

IOBC APRS organised a very successful conference in Sydney, Australia in February 2008. The Australia and New Zealand Biocontrol Conference was held 10-14 February at the Menzies Hotel in central Sydney. About 128 delegates attended the conference mainly from Australia and New Zealand, but also from Indonesia, Canada, Fiji and United States including Hawaii. Marilyn Steiner from IOBC Global gave a welcoming address in which she talked about the IOBC, its history and activities, and encouraged membership for the APRS. The benefits for members including a sense of community, knowledge sharing and the IOBC publication *Biocontrol* were highlighted by Marilyn during this address. The program was very full with three days of invited and contributed papers, and on the fourth day a workshop was held on 'Biological Control: Current State and Future prospects'. There were about 60 presentations in total at the conference, and 30 poster presentations. The full programme can be viewed on the website: <http://www.anzbc2008.org/> and the proceedings of the conference will be available very soon on DVD. At the workshop a number of invited speakers discussed aspects of new approaches and new methodologies for biocontrol and biosafety, and the real-world context of biocontrol such as commercial, social and policy implications. The speakers and delegates of the final day's workshop have been invited to be co-authors on a needs analysis for biocontrol development in the APRS region. This paper will combine the views and opinions of several of the region's leading scientists and industry members. The EH Graham Centre, the major sponsor for the conference, organized and invited speakers and delegates through the conference to contribute papers from their presentations for publication in a special issue of the journal *BioControl*, which should be published early in 2009.

Website with all relevant information about APRS: <http://iobc-aprs.org>

AFROTROPICAL REGIONAL SECTION (ATRS)

President: Dr. James A. Ogwang, Biological Control Unit, Namulonge Agricultural Research Institute, Kampala, Uganda. Email: jamesogwang@hotmail.com

Past President: Dr. H.G. Zimmermann, Agricultural Research Council, Plant Protection Research Centre, Weeds Research Division, Pretoria, South Africa. Email: riethgz@plant2.agric.za

Vice-President: Dr. Charles O. Omwega, International Centre of Insect Physiology and Ecology, Nairobi, Kenya. Email: comwega@icipe.org

General Secretary: Dr. M.P. Hill, ARC PPRI, Private Bag X 134, Pretoria 001, South Africa. Email: riethgz@plant2.agric.za

Treasurer: Dr. J. Ambrose Agona, Post Harvest Program, Kawanda Agricultural Research Institute, Kampala, Uganda. Email: karihawe@starcom.co.ug

Few activities took place during the period 2004-2008, except for assistance in the organization of several symposia at the Durban 2008 International Congress of Entomology. Proposed activities for the period 2008 onwards: (1) Election of new office bearers, (2) Active recruitment drive especially among the young graduates including sensitization among member countries, (3) equipping and funding of office bearers to cater for issues like Website development, internet etc., and (4) development of regional projects to support biological control activities in member countries.

EAST PALEARCTIC REGIONAL SECTION (EPRS)

President: Dr. Istvan Eke. Budapest, Hungary. Email: Ekei@posta.fvm.hu; istvan.eke@freemail.hu

Vice Presidents: Dr. Danuta Sosnowska. Institute of Plant Protection, Department of Biocontrol and Quarantine, 60-138 Poznan, Mieczurina Str. 20, Poland.

Email: D.Sosnowska@ior.poznan.pl

Dr. Vladimir Nadykta (Institute of Biocontrol, Krasnodar, Russia)

General Secretariat: Dr. Yury Gninenko and Dr. E. Sadomov, Russia



IOBC-EPRS has organized a General Assembly and several Working Group meetings during the past 4 years. The section will have its next General Assembly in May 2009 and elect a new Executive Committee.

NEARCTIC REGIONAL SECTION (NRS)

President: Marshall W. Johnson, University of California at Riverside, CA 93648, USA. Email: mjohnson@uckac.edu

President-Elect: Les Shipp, Agriculture and Agri-Food Canada, Harrow, Ont., NOR 1G0 Canada. Email: shipl@agr.gc.ca

Past President: Robert N. Wiedenmann, University of Arkansas, Fayetteville, AR 72701, USA. Email: rwieden@uark.edu

Vice-President: Jean-Louis Schwartz, University of Montreal, Montreal, H3C 3J7 Canada. Email: jean-louis.schwartz@umontreal.ca

Secretary-treasurer: Stefan T. Jaronski, USDA-ARS, Sidney, MT 59270 USA. Email: sjaronski@sidney.ars.usda.gov

Corresponding Secretary: Jonathan G. Lundgren, USDA-ARS, Brookings, SD, 57006 USA. Email: jlundgren@ngirl.ars.usda.gov

Members-At-Large: Ruth Hufbauer, Colorado State University, Ft. Collins, CO 80523 USA. Email: hufbauer@lamar.colostate.edu;

James D. Harwood, University of Kentucky, Lexington KY 40546 USA
Email: James.Harwood@uky.edu;

William A. Overholt, University of Florida, Ft. Pierce, FL 34945 USA. Email: billover@ufl.edu



IOBC-NRS regularly produces a newsletter and maintains a website (see below). This section sponsored several meetings during the past 4 years.

(1) *IOBC Conference at Montreal, Canada* “Making Worldwide Connections for Quality Assurance in Arthropod & Nematode Rearing” in Montreal, Quebec, Canada, from 28 October to 1 November 2007. This conference was a joint meeting of members of several organizations including the Biocontrol Network of Canada, Association of Natural Bio-control Producers (ANBP), IOBC Global Working Group on Arthropod Mass Rearing and Quality Control, ASTM Subcommittee E35.30 on Natural Multi-Cellular Biological Control Organisms, and the International Biocontrol Manufacturers Association Invertebrate Biocontrols Group (IBMA). It was supported by several organizations and companies including IOBC Global, Koppert Biological Systems, IBMA, Syngenta, BeckerUnderwood, Bio-Bee Biological Systems, INRA, and CFBC. Two members of the IOBC NRS Governing Board served on the conference organizing committee and assisted with organization, planning, and implementation of the conference: Marshall Johnson and Jean-Louis Schwartz. More than 70

individuals attended the meeting representing more than 20 countries from Europe, North & South America, Asia, Africa, and the Middle East. Forty-two presentations were given and several posters displayed including findings on natural enemy quality assurance, the state of the biological control industry, rearing and production methods, natural enemy fitness and cold storage, genomics, and augmentation industry needs. A proceedings document was produced from presentation papers. It was published as Proceedings of the 11th Meeting of the Working Group Arthropod Mass Rearing and Quality Control, Bulletin IOBC Global No. 3, 2007, which was edited by Joop C. van Lenteren, Patrick DeClercq, and Marshall W. Johnson.

(2) *IOBC Conference at Meridia, Mexico* “Biological Control Without Borders — A Collaborative Symposium between IOBC and the Mexican Society for Biological Control”, Merida, Yucatan, Mexico, November 13-15, 2007. This Symposium was held in conjunction with the National Congress of the Mexican Society. Attendance was 230 at the congress. The IOBC Symposium, held concurrently, consisted of three symposia: 1) GM Crops and Biological Control (Jon Lundgren – 6 papers); 2) Biological Control in Protected Environments (Les Shipp, Luis Canas – 6 papers); and 3) Biological Control of Weeds (Rob Wiedenmann – 5 papers). Also, NTRS hosted a roundtable discussion on rearing natural enemies.

(3) *IOBC Symposium at San Diego, California, USA*. Jean-Louis Schwartz organized a symposium titled “*Biocontrol: Economic, Social and Ethical Factors Shaping its Success.*” Participating speakers included Richard S. Gray (*Preliminary estimates of benefits and costs of biocontrol research in Canada*), Murray E. Fulton (*Commercialization of biocontrol products: Barriers and opportunities*), Keith D. Warner (*Strategies to link economics to policy in the public interest*), and Karen Jetter (*Socio-economic considerations in the public support of biological control programs*).

The section presented several awards to distinguished scientists and students during the past 4 years.

Website with all relevant information about NRS: <http://www.entomology.wisc.edu/iobc/nrs.htm>

NEOTROPICAL REGIONAL SECTION (NTRS)

President: Prof.dr. Vanda .H.P. Bueno, Department of Entomology/UFLA, P.O.Box 3037, 37200-000 Lavras, MG, Brazil. Email: vhpbueno@ufla.br

Secretary General: Dr. William Cabrera, South American Biological Control Laboratory, Agricultural Counselor American Research Service Laboratory, USDA--ARS, U.S. Embassy–Buenos Aires. Unit 4325, APO AA 34034–0001. Email: gcabrera@speedy.com.ar

Treasurer: Dr. Luis Devotto, Avda. Vicente Méndez 515, and Instituto de Investigaciones Agropecuarias (INIA), Chillán, Chile. Email: ldevotto@inia.cl

Vice President 1: Dr. Maria Manzano, Universidad Nacional de Colombia, sede Palmira, Colombia. Email: mrmanzano@palmira.unal.edu.co

Vice President 2: Dr. Mary M. Whu Paredes, Enrique León García N° 527. Urb. Chama-Surco. Unidad de Producción de Insectos Benéficos del Programa Nacional de Control Biológico del Servicio Nacional de Sanidad Agraria -SENASA Lima-Perú. E-mail: mwhu@senasa.gob.pe

Vice President 3: Dr. Leopoldo Hidalgo, Centro Nacional de Sanidad Agropecuaria (CENSA), Carretera a Tapaste y 8 vías, Apartado 10, CP 32700, San José de las Lajas, La Habana, Cuba. Email: lhidalgo@censa.edu.cu

President Elect: Prof.dr. F. Consoli, Department of Entomology, Fitopatologia e Zoologia Agrícola, ESALQ, Universidade de São Paulo, Av. Pádua Dias 11, Piracicaba, SP 13418-900, Brazil. Email: fconsoli@esalq.usp.br

Past President: Dr. Raquel Alatorre, Mexico. Email: alatoros@colpos.mx



After a somewhat difficult period, IOBC-NTRS is very active again! It organized several meetings during the past 4 years.

- (1) During the 10th edition of the SICONBIOL congress in Brasilia, from June 30 to July 4, 2007, an IOBC/NTRS symposium “Biological Control, from production to sales” was held. The subjects addressed were: Challenges in mass production; natural enemy quality; entomophages in the era of transgenics; and obstacles and successes in natural enemy marketing.
- (2) An IOBC/SRNT and SRN Meeting “Biocontrol without frontiers” was from 11-16 November 2007 in Merida, Mexico. This meeting was organized by NRS, NTRS and the Mexican Society for Biological Control .
- (3) An IOBC-NTRS symposium “Biological Control in Latin America” at the Entomology Congress at Cali, Colombia (16-18 July, 2008)
- (4) Second Taller Uruguayo de Agentes Microbianos de Control Biologico in Colonia, Uruguay, NTRS-IOBC representative in charge: Dra. Rosario Alzugaray (INIA, Uruguay).
- (5) An IOBC-NTRS symposium “Opportunities for Commercial Biocontrol in Argentina” at the Entomology Congress at Huerta Grande, Argentina (21-24 October, 2008)

IOBC-NTRS publishes a newsletter twice annually. It follows the same format as the IOBC Global newsletter, and is available off the IOBC Global website. Micro-newsletters or periodical bulletins are also distributed by e-mail among the members every so often, as urgent news demand postings out of the biannual regime. Also, IOBC-NTRS maintains a website (see below). It is currently both in Portuguese and English, and the Spanish version is under construction. Feel free to send us any comments on how to improve the page and other information that we could make available.

Website with all relevant information about NTRS: <http://www.lef.esalq.usp.br/iobc-ntrs/>

WEST PALEARCTIC REGIONAL SECTION (WPRS)

President: Dr. F. Bigler, Switzerland, email: franz.bigler@fal.admin.ch

Vice Presidents: Prof.dr. Sylvia Blümel (Austria), Dr. Heidrun Vogt (Germany), Prof. Dr. L Tirry, University of Gent, Laboratory of Agrozoology, Department of Crop Protection, Gent, Belgium. Email: luc.tirry@ugent.be

Secretary General: Dr. Philippe Nicot (INRA, Avignon)

Treasurer: Prof. Dr. R. Albajes, Universita de Lleida, Centre UdL-IRTA, Lleida, Spain. Email: ramon.albajes@irta.es



This Section of IOBC has always been one of the most active and has an excellent website with all information on working groups, meetings and bulletins. This website also has PDF files of the WPRS newsletter **PROFILE**, providing all recent information about IOBC WPRS. The executive committee, the council and the convenors of the 22 working/study groups and commissions regularly meet. One new Working Group (Integrated control of mite pests) and one new Study Group (Benefits and risks associated to exotic biological control agents) have been created during the period 2004-2007. New convenors have been elected for one Commission, nine Working Groups and one Study Group. During the past 4 years, the following major activities took place: (1) Collaboration with EC funded projects (Rebeca and Endure), (2) Development of relationship with EPPO for harmonized regulation of invertebrate biological control agents (in collaboration with IOBC Global), (3) Establishment of archive (in collaboration with IOBC Global), (4) revision of the convenor’s handbook, (5) Organisation of 32 scientific conferences by the convenors of the working/study groups, (6) publication of the 50 Years History book of IOBC (in collaboration with IOBC Global), (7) publication of the book Ecological Infrastructures, an idea book on functional biodiversity at farm level, (8) publication of 41 WPRS bulletins, and (9) publication of 8 newsletters.

Website with all relevant information about WPRS: www.iobc-wprs.org

7. WORKING GROUPS OF IOBC GLOBAL

Below, we only present contact addresses of the Working Groups, most information is regularly updated on the websites of the working groups or the website of IOBC Global.

WG ARTHROPOD MASS-REARING AND QUALITY CONTROL

Dr. P. De Clercq, Laboratory of Agrozoology, Department of Crop Protection, Faculty of Bioscience Engineering, Gent University, Belgium. Email: Patrick.DeClercq@ugent.be; **Dr. T. Coudron**, USDA-ARS, Columbia, Missouri, USA. Email: coudront@missouri.edu

Membership in the Working Group is free, but members are strongly encouraged to join IOBC. Membership in the AMRQC Working Group is open to all individuals and institutions, both private and public, active in the field of arthropod mass rearing and quality control. Members will be included in the mailing list and informed about events organized by the Working Group. Currently some 100 persons take part in this WG.

Recent activity:

Organisation of the 11th Working Group meeting “Maintaining Worldwide Connections for Quality Assurance in Arthropod and Nematode Rearing”, 28 October – 1 November 2007, Montreal, Canada. Co-organized with ANBP, IBMA, ASTM and Biocontrol Network of Canada. Some 70 delegates from 20 countries participated in the event. A report of this meeting can be found in the previous IOBC Global newsletter.

Publications:

J.C. van Lenteren, P. De Clercq & M. Johnson (eds.) Precedings of the 11th meeting of the Working Group Arthropod Mass Rearing and Quality Control, 28 October – 1 November 2007, Montreal, Canada, Bulletin IOBC Global no. 3, 2007, 117 pp.

Boller, E. F. and N. C. Leppla, 2006. Global Working Group on Arthropod Mass Rearing and Quality Control (1968-present). *In* E. F. Boller, J. C. Van Lenteren and V. Delucchi (Eds.), IOBC, OILB, Ponsen & Looijen, Wageningen, the Netherlands.

Proceedings of the 4th – 10th workshops (1988-2003) are now available online on the website as pdf-files

Future activity: The next workshop of the AMRQC group is projected to be in 2010 in Vienna (Austria) in co-organisation with the International Atomic Energy Agency.

See website for details on future activities and for proceedings of meetings: www.amrqc.org

WG ECOLOGY OF APHIDOPHAGA

Convenor: IOBC Contact: **Dr. J.P. Michaud** (USA) Associate Professor of Entomology, Kansas State University Agricultural Research Center-Hays 1232 240th Ave. Hays, KS, 67601. Email: jpmi@ksu.edu; ipmi@ksu.edu. Co-convenors: Kris Giles, Nick Kavallieratos, Carlo Ricci, Wolfgang Weisser.

Current Membership is 112. This WG does not produce a newsletter but maintains a website (see below). The WG organizes a meeting every 3 years. Ecology of Aphidophaga 9 was held in Ceske Budejovice, Czech Republic, 6-10 September, 2004. Attendance was 46 registered participants with 21 countries represented. Ecology of Aphidophaga 10 was held in Athens, Greece, September 6-10, 2007.

Attendance was 80 registered participants with 23 countries represented. A total of 6 IOBC student travel grants were awarded.

See website for future activities: www.aphidophaga.org

Next meeting: Perugia, Italy, fall of 2010

WG BIOLOGICAL CONTROL OF CHROMOLAENA ODORATA (SIAM WEED)

Convenor: Dr. Costas Zachariades, ARC-PPRI, Private Bag X6006, Hilton, 3245 South Africa; Tel 033-3559418, cell 0833152100, fax 033-3559423. Email: ZachariadesC@arc.agric.za

Some 120 persons take part in the activities of this WG. Activities during the period 2004-2008 were: (1) Following the Sixth International Workshop on Biological Control and Management of *Chromolaena*, held in May 2003 in Cairns, Australia, the Proceedings of this workshop were published in 2004 as ACIAR Technical Reports 55, edited by M.D. Day and R.E.C. McFadyen, (2) The Seventh International Workshop on Biological Control and Management of *Chromolaena odorata* and *Mikania micrantha* was held at the National Pingtung University of Science and Technology, Taiwan, in September 2006, and (3) The Proceedings of the Seventh International Workshop on Biological Control and Management of *Chromolaena odorata* and *Mikania micrantha* were published in 2007 by the National Pingtung University of Science and Technology (NPUST), edited by Po-Yung Lai, G.V.P. Reddy and R. Muniappan.

Proposed activities 2008 - 2012

If recent reports of *C. odorata* in western Kenya are verified, it would be a positive move to host the 8th International Workshop in that country in 2010, for several reasons. This would be the third time the workshop will be held in Africa, and for the first time in 10 years. There is institutional infrastructure there, in the form of CABI (Nairobi), and Mr Arne Witt (Coordinator: Invasive Species CABI Africa) has indicated that he will consider hosting it. Finally, the stem-galler *Cecidochares connexa* which has proved successful in SE Asia has not yet been introduced into Africa, partly due to a conflict of interest in West Africa. It should be noted that the scope of the international workshops has been widened to include other invasive Eupatorieae of interest (e.g. other chromolaena species and *Mikania micrantha*). However, there are currently no plans to change the description and mandate of the working group or newsletter. Other proposed activities are the production of several Newsletters; a Proceedings of the 8th Workshop; and completion of website upgrade. Promotion of new, successful biocontrol agents and a resolution to the conflict of interest situation in West Africa, to the extent that international funding becomes available to those countries wishing to import new biocontrol agents, is also desirable.

Publications: see under activities

Newsletter: The *Chromolaena odorata* Newsletter No.16 (7 pp.) was published in December 2004. This was the last newsletter produced at the University of Guam Agricultural Experiment Station in cooperation with the USDA. Future newsletters (under the current convenorship of C. Zachariades) will be published under the Agricultural Research Council, South Africa.

See website for future activities/newsletter: <http://www.ehs.cdu.edu.au/chromolaena/siamhome.html>

Latest news: October 2010, Niarobi, Kenya: 8th International Workshop on Biological Control and Management of *Chromolaena odorata* and Other Eupatorieae: this workshop is organized under the auspices of the IOBC, and the 8th workshop will be hosted by CABI.

WG BIOLOGICAL CONTROL OF PLUTELLA

Convenors: Dr. A.M. Shelton, Department of Entomology, Cornell University, New York State Agricultural Experimenta Station, 416 Barton Lab Geneva, NY 14456, USA. Tel: +1-315-787-2352. Fax: +1-315-787-2326. Email: ams5@cornell.edu. Dr. A. Sivapragasam, Strategic, Environment and Natural Resources Centre, MARDI, Kuala Lumpur, Malaysia. Email: sivasam@mardi.my. Dr. D.J.

Wright, Department of Biology, Imperial College at Silwood Park, Ascot, Berkshire, UK. Email: d.wright@ic.ac.uk

The *Plutella* / Diamondback Moth Working Group continues to be active on an international scale. In October 24-27, 2006, over 150 scientists from more than 20 countries attended the 5th International Workshop on Management of the Diamondback Moth and Other Crucifer Pests that was held in Beijing, China. The meeting contained both oral and poster presentations and the Proceedings will be finalized in the next several months and published in hard copy as well as on the website (see below). The format of the Workshop consisted of presentations on: biology, ecology and behavior of insect pests of crucifers; insect-plant interactions in the crucifer crop systems; host plant resistance and habitat manipulation; biotechnology; biological control; microbial control and resistance to Bt; insecticides and insecticide resistance; development and implementation of IPM programs.

Future activity: the WG next meeting is scheduled for 2011 in Thailand.

See website for future activities: <http://www.nysaes.cornell.edu/ent/dbm/>

WG BIOLOGICAL CONTROL OF WATER HYACINTH

Chairman: Dr Martin Hill, Department of Zoology and Entomology, Rhodes University, P.O. Box 94, Grahamstown, 6140, South Africa. Email: m.p.hill@ru.ac.za

The last meeting of this working group was held in Beijing in 2000. Some 50 persons are active in this WG. A meeting was to be held in Entebbe in 2003 but this didn't happen. This is unfortunate as there is a huge amount of excellent work being done on water hyacinth around the globe. The committee needs to organize another working group meeting, within the next 12 months. One of the obstacles is that most of the countries affected by this weed are resource poor and ideally the meetings should be held in these countries. Funding of such workshops then becomes problematic. There was a water hyacinth workshop held in Malawi in November 2007 to discuss an integrated management plan for the Shire River. Further, two of the committee members have a water hyacinth expert group meeting in Spain in June 2008. There is clearly a need for working group/clearing house of expertise, but the working group needs to become more active.

Accomplishments during 2004-2008: (1) there were a number of good publications on water hyacinth control, (2) several postgraduate studies were completed, increasing capacity working on the weed, (3) informal interaction between groups working on water hyacinth were established and maintained, and (4) a number of countries have released biocontrol agents.

Proposed activities 2008 – 2012: (1) organise a working group meeting, (2) upgrade the web site, (3) re-launch Water Hyacinth News, (4) develop database of all biological control research and implementation activities for Water Hyacinth.

Newsletter: Water Hyacinth News was a valuable newsletter, edited and produced for several years by CAB International. However, funding for the newsletter ceased and the last one was December 2006.

Website: www.waterhyacinth.org

WG EGG PARASITIDS

Convenors: Dr. E. Wajnberg, Ecologie Comportementale, I.N.R.A., Sophia Antipolis, France. Email: wajnberg@antibes.inra.fr. **Dr Guy Boivin**, Research Station, Agriculture Canada, St-Jean-sur-Richelieu, Québec, Canada. Email: boiving@agr.gc.ca; **Dr. F.L. Cônsoli**, ESALQ/USP, Piracicaba, Brasil. Email : fconsoli@esalq.usp.br

This WG had in the past some 200 members, but membership is currently lower. It seems that interest in this WG has somewhat diminished over the past decade. The current convenors are trying to improve this situation, among others by providing a website and writing a book on egg parasitoids.

Accomplishments during 2004-2008:

(1) An international workshop on egg parasitoids was organized at the School of Agriculture of the University of São Paulo in Piracicaba, São Paulo, Brazil, from February 11th – 14th 2008. The workshop, organized by José Parra, Fernando Cônsoli and Roberto Zucchi, had a series of lectures on many basic and applied aspects of the biology and utilization of egg parasitoids in biological control, presented by foreign experts (Eric Wajnberg, Stefano Colazza, Bradleigh Vinson, Guy Boivin, Sherif Hassan, Richard Stouthamer and Simon Grenier) and national speakers (José Parra, Roberto Zucchi, Ranyse Querino and Anderson Grutzmacher). The workshop also had a series of presentations of biocontrol companies (BIOTOP, BUG, BIOCONTROL and BIOCONTROLE), which presented their products and view of the commercial use of natural enemies in biocontrol. The workshop had over 50 participants from Uruguay, Chile, Argentina, but mainly from Brazil.

(2) A website was designed. The website brings information on the interests and activities of the WG, as well as information on how to become a member. The site was also designed to have a section for release of the newsletter and news of interest of those working on egg parasitoids. The section for the newsletter has been used to post the Egg Parasitoid Newsletter as provided by S.A. Hassan. The website has also a member list, which will provide the contact address and the research interests of those belonging to the WG.

Future activities:

(1) We are planning the next international symposium on egg parasitoids in 2010, and have initially contacted Hugo Bernal (Mexico). He showed interest in organizing the symposium, but requested some time for checking for financial support before he would give his final decision.

(2) A book is currently in preparation, and will be published in 2009 by Springer, Dordrecht, The Netherlands. The book, entitled *Egg Parasitoids in Agroecosystems with Emphasis on Trichogramma*, will be edited by JRP Parra, FL Consoli & RA Zucchi, consisting of 18 chapters covering the basic biology, physiology, development, behaviour and genetics of egg parasitoids, the taxonomy and diversity of *Trichogramma* in America and in the Old World, the mass rearing, quality control, risk assessment and utilization of egg parasitoids, the use of egg parasitoids in IPM and its association with OGM crops.

Newsletter: Egg Parasitoid Newsletter

Website: <http://www.lef.esalq.usp.br/iobc-epwg>

WG BENEFITS AND RISKS ASSOCIATED WITH EXOTIC BIOLOGICAL CONTROL AGENTS

Convenors: Dr. P. Mason & Dr. G. Heimpel. Contact: Dr. Peter Mason, Agriculture and Agri-food Canada, Neatby Building Central Experimental Farm, 960 Carling Avenue, Ottawa, Ontario, K1A 0C6 Canada. Email: masonp@agr.gc.ca

A first meeting of this new WG is planned for 2009.

WG IWGO – OSTRINIA AND OTHER MAIZE PESTS

Convenors: Dr. U. Kuhlmann; CABI-BioScience; Head Agricultural Pest Research CABI Bioscience Switzerland Centre, Delémont; Switzerland, Email: u.kuhlmann@cabi.org. **Dr. C. R. Edwards;** Purdue University; Dep. of Entomology; Indiana; USA; Email: richedwards@entm.purdue.edu. **Prof.**

Dr. Wang Zhenying: Institute of Plant Protection of the Chinese Academy of Agricultural Sciences, Beijing, P.R. China, Email: zywang@ippcaas.cn

Some 350 persons take part in the activities of this WG. The International Working Group on *Ostrinia* and other Maize Pests (IWGO) is a well-established, large Global-IOBC Working Group, which deals with integrated pest management options for all maize insect pests and pest resistance problems. The group is open to all scientists who are interested in working within an international organization dedicated to issues and activities related to maize pests. All the IWGO Conferences and meetings held to date have provided a valuable international platform for the exchange of research, experiences, and ideas on the integrated management of *Ostrinia*, and other maize pests through the use of chemical, cultural, and biological control measures. Based on these activities, IWGO is highly recognized by different stakeholders as an international and independent expert group.

Accomplishments during 2004-2008:

- (1) In 2004, the 10th IWGO Diabrotica Subgroup Meeting took place between 14 to 16 January in Engelberg, Switzerland. As usual the meeting was held together with the EPPO ad hoc Panel on Diabrotica and the FAO – Diabrotica project group. Local organization by Ulli Kuhlmann from the CABI Europe-Switzerland Centre in Delémont in close collaboration with Mario Bertossa from Agroscope in Contone. More than 100 participants (110) out of 24 countries attended this meeting and showed interest of – mainly European - scientists - in this “new” pest.
- (2) In 2005, the 11th IWGO Diabrotica Subgroup Meeting took place in Bratislava, Slovak Republic, between 14 and 17 February; again together with the EPPO ad hoc Panel and the FAO –Network Group – Meeting (nearly 90 participants). Local organization by Mr. Jozef Kotleba, Slovakian Ministry for Agriculture; Agricultural and Trade Division Plant Commodities Department, and Dr. Ulli Kuhlmann was responsible for the scientific programme.
- (3) In 2006, the 22nd IWGO Conference was held in Vienna, Austria between 5 and 8 November 2006. The “big” IWGO conference was attended by 110 participants from 24 countries. Local organization by Harald Berger, Vienna, Austria and Ulli Kuhlmann was again responsible for the scientific programme. To its end, a 10-session conference, with five speakers per session, was arranged. Sessions were designed to address the most interesting and relevant research topics in the field of maize insect pests that have current and broad international application and appeal. The oral sessions were complimented by poster presentations.
- (4) Since 2006, a large number of IWGO members are part of the DIABR-ACT project (most of the project steering committee members belong to IWGO), entitled Harmonizing Strategies to Control Western Corn Rootworm, *Diabrotica virgifera virgifera*, which is a specific support action within the European Union (EU) 6th Framework Programme, ‘Policy Oriented Research’. The final project meeting in Göttingen 2008 will present proposals which will be submitted to the European Commission, featuring: (1) a coordinated European Research Plan, identifying priority areas for research and avoiding any duplication of effort, and (2) a coordinated European Action Plan for harmonized and more efficient *Diabrotica* control and prevention in Europe.

Proposed activities: 2008-2012:

- (1) The 23rd IWGO Conference will be held in 2009 in Germany. Papers published in an international scientific journal.
- (2) IWGO will be the only global platform to discuss the follow up of the EU Project Diabr-Act which might lead to a number of new scientific projects for IWGO members on national, international and specifically on EU level.
- (3) IWGO members will be contributing to the establishment of a new version of an EU Directive for managing Diabrotica.
- (4) 24th IWGO Conference will be organized in early spring 2011
- (5) Starting to develop a General IPM Technical Guideline for maize production in order to define the minimum agronomic requirements.

Publications: In the past, IWGO published its own proceedings in which oral and poster presentations were included. In 2006, IWGO had for the first time the opportunity to publish nine selected manuscripts from papers presented during the 22nd IWGO Conference in Vienna in the July 2007 issue of the Journal of Applied Entomology (131 (6): 378-440).

Newsletter: 8 issues of the IWGO Newsletter have been published during 2004-2008. Initially it was produced as hard copy, but it now appears in the form of a pdf file on the website of the WG.

All relevant data, reports and future meetings are published on the IWGO website:

<http://www.iwgo.org>

GLOBAL WG ON TRANSGENIC ORGANISMS IN IPM AND BIOCONTROL

Convenors: **Dr. Angelika Hilbeck**, Swiss Fed. Inst. of Technology, Geobotanical Institute, Zurichbergstr. 38, CH-8044, Zurich. Tel: +41 (0) 1 632 4322. Fax: +41 (0) 1 632 1215. Email: angelika.hilbeck@env.ethz.ch. **Dr. Salvatore Arpaia**, Italy. Email: arpaia@trisaia.enea.it. **Dr. Nick Birch**, UK. Email: n.birch@scri.sari.ac.uk. **Dr Gabor Lovei**, Denmark. Email: gabor.lovei@agrsci.dk;

Accomplishments during 2004-2008:

More than 100 persons take part in the activities of this WG. The WG operates as an umbrella to link funded projects and people interested in this topic area. Members of the WG have been very active in several externally funded projects, organized workshops, wrote books, held training courses and presented many papers at international conferences. An example is The BioSafe Train project: the aim of the project is to build capacity in biosafety and ecological impact assessment with respect to the introduction of genetically modified plants (<http://www.biosafetrain.dk/Home/About.htm>).

A selection of publications (see website for more information)

Lövei GL, Arpaia S. 2005. The impact of transgenic plants on natural enemies: a critical review of laboratory studies. *Entomologia Experimentalis et Applicata* 114, 1-14.

Andow, D.A., Lövei G.L. & Arpaia S. 2006. Bt transgenic crops, natural enemies and implications for environmental risk assessment. *Nature Biotechnology* 24, 749-751.

Lövei, GL. 2006. Biological control as an ecosystem service and its relevance to GMO biosafety testing. In: Hansen, LS, Enkegaard, A, Steenberg, T, Ravnskov, S., Larsen, J. (Eds) Implementation of biocontrol practice in temperate regions – present and near future. *Danish Inst Agricultural Sciences Report Series* 119, 37-42.

Mertz O, Ravnborg HM, Lövei GL, Nielsen I, Konijnendijk CC. 2007. Ecosystem Services and Biodiversity in Developing Countries. *Biodiversity and Conservation* 16, 2729-2737.

Proposed activities 2008 – 2012: see website

Newsletters: E-newsletters are sent out periodically by the WG co-convenors to members of the umbrella of projects linked to the WG.

Website: http://www.unipa.it/iobc/view.php?pg=iobc_global&id=9

8. GUIDELINES FOR REGIONAL SECTIONS AND WORKING GROUPS OF IOBC GLOBAL

Guidelines for Working Groups and Regional Sections were circulated among Council members and Regional Sections several times during the past four years, and can now be considered approved. The latest version of these Guidelines can be found on the IOBC Global website.

9. LATEST NEWS

IOBC and EPPO (European Plant Protection Organization) are collaborating on a project concerning “white lists” of natural enemies. Based on a number of criteria, including potential risks caused by invasive or native natural enemies, lists will be compiled of natural enemies used in inundative and classical biological control in Europe. For current criteria and white lists go to www.EPPO.org

Participants in Second Joint EPPO/OIBC Panel Meeting on Biological Control Agents Engelberg (CH), 2009-03-25/27



Estimados amigos: Con fecha de hoy hemos puesto on line nuestro portal

www.controlbiologicochile.cl , en el cual participan todos uds y que espero podamos mantenerlo actualizado cada semana. Aquellas empresas que no aparecen con datos es porque no nos han enviado los suyos, por favor aun pueden enviarlos. Cualquier sugerencia será bien recibida . Espero que les sea de utilidad y la podamos ir perfeccionando en el tiempo. El administrador de la pagina es Hugo Rodriguez, periodista del CTCB. Atentamente, Marcos Gerding, Chile, September 2008

World-wide database of insect cultures available for distribution

The Canadian Forest Service, Natural Resources Canada, is sponsoring the establishment of a comprehensive world-wide listing of producers who are willing to sell or donate live insects. **We are currently soliciting the enrolment of insect producers.** This database is intended to provide those in need with a current source for accessing live insect cultures and to give producers the opportunity to expand their client base. Our database is in the early stages of development, but will become more useful as additional insect producers decide to participate and have their cultures listed. We hereby solicit your enrolment and encourage you to make your colleagues and peers aware of the database: www.insect.glf.cfs.nrcan.gc.ca. Contact: Peter Ebling, email: pebling@nrcan.gc.ca

Information about Congresses and Meetings in the field of biological control and integrated pest management can be found at:

- (1) www.IOBC-WPRS.org and
- (2) IPMnet News at: http://www.ipmnet.org/IPMNews/main_page.html

Material for website of IOBC Global: if you would like to mention an IOBC or biological control related activity on the website of IOBC Global, please send your message to Joop.vanLenteren@wur.nl and I will contact our website manager.

Next newsletter (issue 86) will be published in October 2009.

Editor: Joop C. van Lenteren, May 2009