

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

IOBC NEWSLETTER 69

ORGANISATION INTERNATIONALE DE LUTTE BIOLOGIQUE CONTRE LES ANIMAUX ET LES PLANTES NUISIBLES (OILB)

SUMMER 1999

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

President: Dr J.K. Waage, CABI BIOSCIENCE, UK Centre (Ascot) Silwood Park, Buckhurst Road, Ascot, Berkshire, SL5 7TA UK.

Tel: + 44 1-344-872-999, Fax: + 44 1-491 829 123 e-mail: J.WAAGE@cabi.org.

Vice-President: Dr Y. Hirose, Faculty of Agriculture, Kyushu University, Fukuoka 812-81, Japan.

Tel: +81-92-642-3036, Fax: +81-92-642-3040,

e-mail: hirose@grt.kyushu-u.ac.jp.

Vice-President: Dr L. Knutson, 4, rue des Erables, 34830 Clapiers, France. Tel: +33 (0)4-67-59-42-34,

e-mail: lvKnutson@wanadoo.fr.

General Secretary: Dr E. Wajnberg, INRA, Parasitoids Ecology,

37 Blvd. du Cap, 06600 Antibes, France.

Tel: +33 (0)4-93-67-88-92, Fax: +33 (0)4 93-67-88-97, e-mail: wajnberg@antibes.inra.fr. **Treasurer**: Dr H.K. Berger, Federal Office and Research Center

for Agriculture, Institute for Phytomedicine, Spargelfeldstr.

191, P.O.B. 400, 1226 Vienna, Austria,

Tel: +43-1-732 16-2109, Fax: +43-1-73216-2205 e-mail: hberger@bfl.at

Past-President: Dr E.S. Delfosse, USDA, ARS, 5601 Sunnyside Avenue, Building 4, Room 4-2230, Belts-

ville, MD 20705-5139, USA. Tel: +1-301-504-6470,

Fax: +1-301-504-6191, e-mail: esd@ars.usda.gov.

IOBC Permanent Secretariat: Ms M. Montes de Oca, AGROPOLIS, Ave. AGROPOLIS, 34394 Montpel-

lier Cedex 5, France.

Tel: +33 (0)4-67-04-75-30, Fax: +33 (0)4-67-04-75-99, e-mail: IOBC@agropolis.fr.

A NEW EXECUTIVE COMMITTEE OF THE IOBC GLOBAL FOR 2000

The four years period of the Executive Committee will end after the next General Assembly that will be organised within the Framework of the next XXI International Congress of En-

tomology, Foz do Iguaçu, Brazil, in summer 2000. New officers are elected by all IOBC members by postal ballot which will be performed before the General Assembly, likely in

Spring 2000. The Executive Committee consists of the President, the immediate Past-President, the two Vice-Presidents, the Treasurer and the Secretary General. Accord-

ing to the statutes of the IOBC Global, all officers, except the immediate Past-President, are elected by votes. With the exception of the Secretary General, officers are not eligible for

a second term in the same office. Any member of the IOBC can be a candidate for the election. If you are interested to be a candidate (either as President, Vice-President, Treasurer or Secretary General), please contact the Secretary General of the IOBC. The details of the election procedure will be given in one of the following issues of the IOBC Newsletter.

A WEB PAGE FOR THE IOBC

These last few years, the number of internet users increased exponentially world-wide. Some of them are interested in the development of biological control and IPM programs. Of course, IOBC members are concerned. As this was announced within the previous issue of the IOBC Global Newsletter, the previous IOBC Executive Meeting decided to develop and install an official Web site

for our Organization. For this, our President, Dr J.K. Waage, just signed an agreement between AGROPOLIS (located at Montpellier, France) and our Organization. AGROPOLIS will host our Web site. The address site will of this he: http://www.oilb.Agropolis.fr. This site will be developed soon. It will contain all the relevant information both for our members, and for anyone wishing to become a member. Progressively, information will be added on Regional Sections, Working Groups, meetings, publications, members directory, links to other Web addresses developed by IOBC members and Working Groups' convenors or addresses related to biological control, etc. In the future, the IOBC Newsletter will also be available at this site.

E. Wajnberg

IOBC EXECUTIVE MEETING

A meeting of the Executive Committee of the IOBC Global will be organised in Montpellier, France, October 21-22, 1999. It will be organised within the framework of the next IOBC International Symposium (see below). All the members of the Executive Council should be present, along with the Permanent Secretary, Ms M. Montes de Oca. Among others, the different following points will be discussed:

- The budget of the IOBC.
- The situation of BioControl and our relationship with Kluwer, the publishing company.
- Activity of Regional Sections.
- Activity of Global Working Groups.
- The content of the official IOBC Web site (see above).
- The preparation of the next IOBC General Assembly to be organised within the

framework of the next XXI International Congress of Entomology, Foz do Iguaçu, Brazil, in summer 2000.

• The preparation of the election for a new council (election planned for Spring 2000).

The main conclusions of this Executive meetings will be provided within the next issue of the IOBC Newsletter.

E. Wajnberg

IOBC INTERNATIONAL SYMPOSIUM

The IOBC is currently organising an International Symposium

« Evaluating Indirect Ecological Effects of Biological Control ».

A detailed presentation of this symposium can be found within

the previous IOBC Newsletter, and at the following Web address:

http://www.agropolis.fr/iobc/.
The symposium will be held at
Montpellier, France, 17-20
October 1999. It is organised
within the framework of the
« Complexe International de

Lutte Biologique Agropolis » (CILBA). A summary of the main conclusions of the meetings will be presented in the next issue of the IOBC Newsletter.

Organising committee

- Dr J.K. Waage, IOBC President, CABI Bioscience UK
- Dr E. Wajnberg, IOBC General Secretary, INRA France
- Dr P. Ferron, CILBA, France
- Dr C. Quimby, EBCL, USDA/ARS, USA
- Dr J.K. Scott,, CSIRO Australia
- Dr Y. Gillon, CBGP, IRD France
- Dr K. Hoelmer, EBCL, USDA/ARS, USA
- Dr R. Villet, EBCL, USDA/ARS, USA

- Dr A. Kirk, EBCL, USDA/ARS, USA
- Ms M. Montes de Oca, IOBC Permanent Secretariat, AG-ROPOLIS, France
- Ms C. Silvy, CBGP, INRA France

A book entitled "Evaluating Indirect Ecological Effects of Biological Control" will be produced after the symposium. The chapters of this book will be the contributions of the different keynote speakers. The book will be published by the publishing company "CABI Publishing" located in the UK. A contract has just been signed recently with this company.

The editors of the book will be Dr. E. Wajnberg (INRA, Antibes, France), Dr. J.K. Scott (CSIRO, Montpellier) and Dr. P.C. Quimby (USDA, Montpellier). The book will be released on the market during the year 2000 at a price of about 100 US\$. However, if they were willing to do so, participants to the symposium can purchase the book in advance at a reduced price of 75 US\$ (including postage). The list of the chapters with their authors will be provided within the next issue of the IOBC Newsletter.

E. Wajnberg

BIOCONTROL

After a slow start at printing of our journal, we now have the first five issues of BioControl at our hands. Issue 4 contains the first "Forum" article, so the journal progressively become more varied and interesting. With this speed, the journal will certainly be able to get out this year the first three issues of volume 44, and easily can establish the regular publishing rhythm next year. This of course still depends on the rate of inflow of excellent manuscripts and our rate of reviewing them.

Dr H.M.T. Hokkanen, Editorin-Chief of BioControl

Our scientific journal BioControl is continuously managed by Management Board. This board is constituted by 6 members:

 The Editor-in-Chief of the new journal (Dr H.M.T. Hokkanen).

- The general secretary of the IOBC: Dr. E. Wajnberg (INRA Antibes, France).
- One WPRS representative: Dr. A.K. Minks (IPO-DLO, Wageningen, The Netherlands).
- One NRS representative: Dr. E.A. Cameron
- (Pennsylvania State University, USA).
- One representative of other Sections: Dr. S. Pruszynski (Plan Protection Institute, Poznan, Poland).
- A publisher (*i.e.*, Kluwer) representative.

This board will have a meeting in Montpellier, France, October 17, 1999. All the relevant questions concerning BioControl will be discussed, including (1) the current situation of the journal, (2) its future developments, (3) our relationship with Kluwer and (4) how this relationship can be improved. The main conclusions of this meeting

will be provided within the next issue of the IOBC Newsletter.

We remind you that BioControl has its home page on the Internet at the following address: http://www.wkap.nl/journalhom e.htm/1386-6141. You will find there all the information necessary for publication: aims and scope, submission information, instructions for contributors, etc.. Since the subscription rate for BioControl, is much lower for our members than for nonmembers, and that this subscription rate is low compared to other journal in the same field area, I strongly recommend all of you to subscribe to the journal if you had not already decided to do so. Finally, IOBC members, and Working Group participants are strongly encouraged to submit their contributions in the form of research papers or reviews.

E. Wajnberg

REGIONAL SECTIONS

Share your information: Activities and events within IOBC Regional Sections do interest your colleagues outside the Sections as well. They will most probably not be informed if you do not tell them. You may share information by sending any kind of news to the Secretary General (address on first page).

SOUTH EAST ASIAN REGIONAL SECTION (SEARS)



President: Dr R.E. McFadyen, Alan Fletcher Research Station, PO Box 36, Sherwood Q 4075, Australia. Fax: +61-7-3375-0777,

mcfadyenre@dnr.qld.gov.au.

Vice Presidents: Dr R. Wang (China) and Dr Md. Y. Hussein (Malaysia).

Secretary/Treasurer: Dr D. Holdom, CRC for Tropical Pest Management, Gehrmann Laboratories, University of Queensland, St Lucia, Qld 4072, Australia. Tel: +-61-7-3896-9397, Fax: +61-7-3365-1855, e-mail: d.holdom@mailbox.uq.edu.au. Past President: Dr R. Muniappan, Agricultural Experimental Station, University of Guam, Mangilao, Guam 96923 USA. Fax: +1-671-734-6842, e-mail: rmuni@uog9.uog.edu.

4th International Symposium on Population Dynamics of Plant-Inhabiting Mites

The Symposium was held in Kyoto, Japan, from 10 to 14 May 1999, attended by 93 delegates including 33 foreigners representing the Netherlands,

USA, Taiwan, Israel, Canada, France, Kenya, Brazil, Thailand, China, Denmark, Australia, Finland and India. There were 5 Sections and 76 papers (46 orals and 30 posters) were presented in total, which included many topics on natural enemies of pest mites and IPM programs. Unique in this Symposium was the Section: Acarology in Asia. Mite problems and control strategies were reported from different countries in Asia such as China (by Dr Zhang), Taiwan (by Dr Ho), Thailand (by Dr Kongchuensin), Japan (by Dr Takafuji & Dr Nemoto) and India (by Dr Haq). Formerly little-known information on mite control and natural enemies in this region became available in this occasion. The symposium is held every four years and covers all aspects of the plant-associated mites and their natural enemies. The next meeting will be held in the USA in 2003.

Dr H. Amano, IOBC/SEARS

AFROTROPICAL GIONAL SECTION (ATRS)



President: Dr H.G. Zimmermann, Agricultural Research Council, Plant Protection Research Centre, Weeds Research Division, Private Bag X134, Pretoria 0001, South Africa. Tel: +27-12329-3276, Fax: +27-12329-3278, e-mail: RIETHGZ@PLANT2.AGRIC. ZA.

Vice-President: Dr Ouayagode Bakary, DPR, MESRS, B.P. V151, Abidjan, Ivory Coast. **General Secretary**: Dr G. Bani, B.P. 2499, DGRST, Brazzaville, Congo.

Fax: +242-831337.

Treasurer: Dr A. Paraiso, B.P. 12625, Niamey, Niger, Fax: 00-227-73-22-37.

There was a small increase of individual membership within the African Region. However, activities within the region are few and communication remains a problem. At the recent Xth International Symposium on Biological Control Weeds held in Bozeman, Montana, which was attended by more that 300 delegates from all over the world, Africa again was underrepresented. Only one delegate from Africa (excluding South Africa) attended the symposium.

A workshop on invasive species was recently held in Nairobi between 5-6 July 1999. The workshop was organised by ICIPE and although most delegates were from the lake countries, several came from outside the region and as far as Mauritius. Topics on the control strategies of alien invaders, legal issues, impact on the environment and economics were discussed.

The journal of the Entomological Society of Southern Africa, "African Entomology", recently published Memoir No. 1 (June 1999) entitled "Biological Control Of Weeds In South Africa (1990-1998)". The volume of 182 pages contains 20 papers which cover all the recent projects on biological control of weeds in South Africa. It also lists all the weeds and all the biological control agents released in South Africa since 1913. The volume can be ob-

tained from Dr H.G. Zimmermann (see address above) at US\$20.

Second general meeting of the Insectary Society of Southern Africa

The Insectary Society of Southern Africa was founded in October 1998 and its establishment was announced in the IOBC Newsletter 68. The second meeting on July 1999 in Potchefstroom, South Africa, was held in conjunction with an Insect Rearing Workshop of the 12th Congress of the Entomological Society of Southern Africa. The workshop theme was "Quality Control of Mass Reared Arthropods" and the objective was to lay the foundation for quality control standards that the Insectary Society could adopt. Proposals were presented by eight researchers on standards for fruit flies, Coccidoxenoides peregrinus, Aphytis linganensis, Nephus reunioni, Nephus boschii, Cryptolaemus montrouzieri, Chilocorus nigritis, Chilocorus cacti and Trichogrammatoidea cryptophlebiae. Although there is still further work required, preliminary values were proposed for various components of each standard. The workshop agreed that these could serve as a valuable starting point, but that they should be confirmed with measurements on newly established cultures. Adoption of the finalised constitution and insectary code of conduct was approved at the Insectary Society meeting. The status of the major insectaries in the southern African region was reported on by Dr V. Hattingh, the outgoing President. The new president is Dr D. Conlong, e-mail: conlong@iafrica.com.

Dr H.G. Zimmermann, Acting

President of the IOBC/ATRS

NEARTIC REGIONAL SECTION (NRS)



President: Dr L. Charlet, USDA-ARS, Northern Crop Science Laboratory, Box 5677, State University Station, Fargo, ND 58105-5677, USA. e-mail: charletl@fargo.ars.usda.gov.

Vice President: Dr M.S. Hunter, Department of Entomology, 410 Forbes Bldg., University of Arizona, Tucson, AZ 85721, USA.

Tel: +1-520-621-9350,

Fax: +1-520-621-1150, e-mail: mhunter@ag.arizona.edu.

President Elect: Dr D.L. Mahr, Department of Entomology, 1630 Linden Drive, University of Wisconsin, Madison, WI 53706, USA.

Tel: +1-608-262-3228,

Fax: +1-608-262-3322,

e-mail:

dmahr@entomology.wisc.edu.

Secretary-Treasurer: Dr R. Wiedenmann, Center for Economic Entomology, Illinois Natural History Survey, 607 East Peabody, Champaign, IL 61820, USA.

e-mail: r-wiede@uiuc.edu.

Corresponding Secretary: Dr L. Milbrath, Department of Entomology, 123 Waters Hall, Kansas State University, Manhattan, KS 66506-4004, USA. e-mail:

lmilbrat@oz.oznet.ksu.edu.

Past President: Dr T. Kring, Department of Entomology, Agric. Bldg. 321, University of Arkansas, Fayetteville, AR 72701, USA.

 $e\hbox{-mail: } tkring@comp.uark.edu.$

The IOBC-NRS is preannouncing an International Symposium for 2001: The Practice of Biological Control: Importation and Management of Natural Enemies in the **New Millennium,** 2-5 August 2001, Montana State University, Bozeman MT, USA.

Theme

The science and application of biological control has gained both greater public appreciation and scrutiny than ever before. To develop and implement biological control programs, practitioners must be able to intelligently present and discuss the activities and goals of their discipline with diverse audiences. Therefore, the focus of the symposium is on education, what we have learned from the past century of biological control efforts, and how we can apply this knowledge. The symposium will emphasise:

- A renewed focus on why biological control by natural enemies should be the first consideration in pest control.
- Development of effective education programs about biological control that target and communicate with diverse audiences.
- A new set of modern biological control case histories which illustrate important successes.
- A discussion of the issues which both promote and adversely impact the practice of biological control.

The symposium will consist of sessions of keynote speakers followed by paper presentations, with afternoons dedicated to poster sessions and opportunities for smaller discussion groups. The symposium will develop a proposed list of objectives to enhance the practice of biological control in the 21st century. The proceedings of the symposium will be published.

Location

The symposium will be held on the campus of Montana State

University in Bozeman, Montana, USA. The facility offers a unique combination of meeting rooms, service areas and four food outlets, all under one roof. Numerous hotel/motels service the campus area, and the university residence halls will be available to attendees and guests for the ultimate in convenience and economy. Nestled in the Rocky Mountains, Bozeman is a favourite vacation destination in the heart of Yellowstone country, and is served by several major airlines. Attendees will be encouraged to register for the meeting a year in advance in order to attain the best travel and lodging rates for this popular destination.

Preliminary Organising Committee

Dr T. Kring (University of Arkansas, USA), Dr M. Rose (Montana State University, USA, Beneficial Insectary), and Dr J. Obrycki (Iowa State University, USA). For more information, contact Dr T. Kring Department of Entomology, Agric. Bldg. 321, University of Arkansas, Fayetteville, AR 72701, USA.

Tel: +1-501- 575-3186, e-mail: tkring@comp.uark.edu.

Reprinted from IOBC/NRS Newsletter #21/2

NEOTROPICAL REGIONAL SECTION (NTRS)

President: Dr R. Alatorre Rosas, Colegio de Postgraduados, Instituto de Fitosanidad, Km. 36.5 Carretera, Mexico-Texcoco, Montecillo, Texcoco, Mexico 56230. Tel-Fax:+52-1-595

10220/11580/11587.

e-mail:

alatoros@colpos.colpos.mx.

Secretary: Ms C.H. Arredondo Bernal, Comision Nacional de Sanidad Agropecuaria, Dirección General de Sanidad Vegetal, Centro de Referencia de Control Biologico, Km. 1.5 Carretera, Tecoman-Estacion FFCC. Fax: +52-332-42773. email: hcesar@triton.ucol.mx.

Treasurer: Dr J.F. Barrera Gaytan, Division de Tecnología Agropecuaria, El Colegio de la Frontera Sur, Carretera Antiguo Aeropuerto, Km 2.5, Apartado Postal 36, 30700 Tapachula, Chiapas. Mexico. Tel: +52-962-81103.

Fax: +52-962-81015.

e-mail:jbarrera@tap.ecosur.mx.

Vice Presidents: (1) Dr R. Vergara, Universidad Nacional de Colombia, Facultad de Ciencias Agropecuarias, Seccional de Medellin, Apdo. 1779, Medellin, Colombia,

Fax: +57-4-2300-420;

(2) Ing. J. Jimenez, Productos Biologicos Perkins Ltda., Carrera 29 N° 53-51, Apdo. 1015, Palmira, Valle, Colombia.

Fax: +57-2)-27-33719;

and (3) Dr E. Botto, Insectario de Investigaciones para Lucha Biologica, IMYZA-CICA-INTA, Castelar (1712), CC 25, Buenos Aires, Argentina.

Fax: +54-1-481-1316. e-mail:

postmaster@ebotto.inta.gov.ar.

Successful experience of biological control of aquatic iris (*Eichhornia crassipes*) in Mexico

At the end of 1993, a group of researchers of the "Instituto de Fitosanidad of the Colegio de Postgraduados" began a project pilot of Biological Control of Aquatic Iris in the state of Sinaloa, Mexico. This work needed to unit the efforts of three institutions: (1) the Colegio de Postgraduados, (2) the Instituto Mexicano de Tecnología del Agua (IMTA-Coordinación de riego Drenaje), and (3) the Comisión

Nacional del Agua (CNA-Delegación Estatal en Sinaloa). As a whole, more than 6,000 hectares of surface of water in reservoirs and channels were infested. There, the iris generated several different problems, including: (1) Loss of water from evapo-transpiration, which is three times lower than the evaporation occasioned by the sun in bodies of water free of the overgrowth, (2) Obstruction of the flow of water in channels, what rebounds in losses for infiltration to the underground, as well as in delay in the delivery of the water to the farmers, (3) Deterioration from the infrastructure of watering and the necessity for enormous expenses for maintenance and control of the iris, representing 60% of the operative budget of the Districts, (4) Impediment for the recreation, aqua-culture and fishing in reservoirs, (5) Proliferation of mosquitoes and gadflies whose abundance was favoured by the iris, attacking human populations and exploitating cattle bordering to the places infested by the iris.

In general, the project consisted in:

- Introduction of colonies. The biological controllers of the iris, *Neochetina bruchi* and *N. eichhorniae* (Coleoptera: Curculionidae), natives from Argentina. They were introduced from populations previously established in Florida, USA.
- Quarantine and sanitation. These processes enabled to clean up the colonies of both species of infections caused by *Bacillus thuringiensis* and by a protozoan microsporidio. The latter was the most aggressive and caused a drastic reduction in reproductive success of the insects.

Establishment and dispersion. Of inoculative releases of the insects were done in the state of Sinaloa. The dispersion of the insects was monitored with the control effect on the overgrowth.

As a result, the treated areas were completely under control or in process of control, depending on the release date of the insects. In general, more than the 97% of the iris plants were eliminated. These extraordinary results are of great importance. Back in 1978, another team of researchers unsuccessfully attempted the biological control of the same overgrowth in Chapala, Jalisco, Mexico. According to this failure, the authorities related with the water in Mexico were sceptical of the viability of this technology. At the present time, thanks to the results obtained in Sinaloa, the method appears to be reliable. The method is now planned to be used on different locations. It is hoped that there will be gradually increasing areas of application. In the future, more than 100,000 hectares infested with iris will be protected that way in Mexico. For more information, contact: Dr. M.C.A. Perez Panduro, IFIT- Colegio de Postgraduados, Carretera Mexico-Texcoco, Kilometro 35.5, 56230 Montecillo, Estado de Mexico, Mex-

Tel: +52 -1-595-20265.

Vedalia

Vedalia is a scientific magazine publishing works dealing with biological control. It has been published from 1992, on a yearly basis, by the Mexican Society of Biological Control, with a system based on external arbitration. The journal welcomes articles of scientific quality. Do not hesitate to submit your original investigation

for publication. For more information, please contact the editors: (1) Dr. J. Leyva Vazquez, Instituto de Fitosanidad, Colegio de Postgraduados, Carretera Mexico-Texcoco, Kilometro 35.5, C.P. 56230 Montecillo, Edo. de Mexico, Mexico.

Tel: +52 1- 595-20265/20267. e-mail:

jleyva@colpos.colpos.mx; or (2) Dr. L. Angel Rodriguez del Bosque, INIFAP, Serapio Rendon 83, Colonia San Rafael, Mexico, D.F.

Tel: +52-1 40-1610. E-mail: rod-

rigul@inifap2.inifap.conacyt.m x

XXII Congress, X Course and II Expo-Technological of Biological Control

The Mexican Society of Biological Control, "Colegio de Postgraduados en Ciencias Agricolas", the "Universidad Autonoma de Chapingo", the "Instituto Nacional de Investigaciones Forestales y Pecuarias" and the "Direccion General de Sanidad Vegetal" through the "Centro Nacional de Referencia de Control Biologico", make a cordial invitation to partners, producers, scientific societies and institutions of investigation or superior education, to participate to the X Course of Biological Control and to the XXII National Congress of Biological Control that will be held 25-27 and 28-29 of October of 1999. respectively. This will be organised within the facilities of the "Colegio de Postgraduados", Montecillo, Mexico, Mexico. The congress will lead to the Technological II Expo-Fair of Biological Control (28 and 29 October), in which participation of institutions is expected, along with companies of biological control exposing products and materials. Studies and searches or commercialisation

of biological control agents will also be presented. For more information, please contact: Dr N. Malena Barcenas, Colegio de Postgraduados, IREGEP-Programa de Genética, Carretera Mexico-Texcoco, Kilometro 35.5, 56230 Montecillo, Edo. de Mexico, Mexico.

Email:

barcenas@colpos.colpos.mx,

Website:

www.controlbiologico.org.mx.

EAST PALAEARTIC
REGIONAL
SECTION
(EPRS)

President: Dr A.I. Smetnik, All-Russian Institute for Plant Quarantine, Pogranichnaya 32, reg. Bikovo, Moscow Region, 140150, Russia.

Fax: +95-975-3971.

Vice President: Dr S. Pruszynski, Plant Protection Institute, 60-138 Poznan, Miczurina Str. 20. Poland.

Tel: +48-61-679-222, Fax: +48-61-676-301, e-mail: tjk@ior.poznan.pl. **General Secretary**: Dr A. Orlinski, Present address: EPPO, 1, rue Lenotre, 75016 Paris,

Tel: +33 (0)1-45-20-78-09. Fax: +33 (0)1-42-24-89-43. e-mail: Orlinski@eppo.fr.

France.

In 1999 the IOBC/EPRS held the following Conferences and Symposia:

- Preservation and protection of mountain forest, July 5-10, Kyrgyzstan.
- The use of pheromones and other biologically active substances in plant protection and quarantine, August 30 September 4, Anapa (Russia)
- Ecological problems in plant protection. Technology of

production and use of biological control agents, 13-17 September, Varna (Bulgaria)

- Industrial technologies, production and means of "Biologization" of agriculture. September 27 - October 2, Odessa, Ukraine.
- Monitoring of Entomophages, September, Odessa (Russia).
- New biotechnologies in the schemes of integrated plant protection, September, Varna, Bulgaria.
- Microbiological plant protection, December, Saint-Petersburg (Russia).

The address of the Secretariat

of IOBC/EPRS is: 25, Goncharnaya Str., Moscow 109172 Russia.

Tel: +7 095-915-72-12, Fax: +7 095-924-66-55.

Dr A. Orlinski, General Secretary of the IOBC/EPRS

WEST PALAEARTIC RE-**GIONAL SECTION**

(WPRS)



President: Dr P. Esbjerg, Royal Veterinary and Agricultural University, Department of Zoology, Bulowsvej 13, 1870 Frederiksberg C., Danemark. e-mail:

peter.esbjerg@ecol.kvl.dk.

Vice Presidents: Dr J. Huber, Institute for Biological Pest Control. Heinrichstr. 243, 62287 Darmstadt, Germany. Fax: +61-51-40-7290, e-mail:

j.huber.biocontrol.bba@tonline.de, and Dr A.M.P. Lavadinho, Instituto de Protecçao da Produçao Agroalimentar, Centro Nacional de Protecçao da Produçao agricola, Quinta do Marquês, 2780 Oeiras, Portugal.

Tel: +351-01-443-05-27, Fax: +351-01-442-06-16. Secretary General: Dr C. Alabouvette. INRA, Laboratoire de recherches sur la Flore pathogène du Sol, 17, rue Sully, BP 1540, 21034 Dijon Cedex, France.

Tel: +33 (0)3-80-63-30-41, Fax: +33 (0)3-80-63-32-26,

e-mail:

Claude.Alabouvette@dijon.inra

Treasurer: Dr C. Gessler, Ecole Polytechnique Fédérale Zurich, Phytomedizinde Pathologie, ETH Zentrum/LFW, Universitätstr. 2, 8092 Zurich, Switzerland.

e-mail:

cesare.gessler@ipw.agrl.ethz.ch

The last issue of "PROFILE" (issue #26) was released on February 1999. For information concerning this IOBC/WPRS Newsletter, please contact its editor, Dr H. Bathon, Institute for Biological Control, Heinrichstr. 243, 64287 Darmstadt, Germany,

Tel: +49-6151-4070, Fax: +49-6151-407290, e-mail:

h.bathon.biocontrol.bba@tonline.de.

The Council of the Regional Section has met in Gent, Belgium, 1-2 October 1999. Executive Committee, Council, Convenors of WPRS Working Groups, and General Assembly will meet in Switzerland, September 14-15, 2001.

WORKING GROUPS (WG)

WG ARTHROPOD MASS REARING AND QUALITY CONTROL

Co-chairman: Dr P. Greany, USDA-ARS, 1700 SW 23rd Dr, Gainesville, FL 32608, USA, Tel: +1-904-374-5763, e-mail pgrany@gainesville.usda. ufl.edu.

Co-chairman: Dr S. Grenier, INSA/INRA, Biologie 406, 20 Av. A. Einstein, 69621 Villeur banne Cedex, France, Tel: +33 (0) 4-72-43-79-88,

Fax: +33 (0) 4-72-43-85-34, e-mail: sgrenier@jouy.inra.fr.

Co-chairman: Dr D. Nordlund. USDA-ARS Biological Control and Mass Rearing Research Unit, P.O. Box 5367, Mississippi State, Mississippi 39762, Usa,

Tel: +1 601-323-2230 ext. 248, Fax: +1 601-323-0478.

e-mail: donn@ra.msstate.edu.

The Working Group developed its own Website at the following address:

http://www.amrqc.org. At this site can be found all the relevant information concerning

activity of the WG. Among other things, this Website provides information on: (1) the history of the group with the list of all the meetings that have been organised since 1982, (2) the detailed address of the three co-chairmen of the WG, (3) an access to a searchable members database with provision for their mailing address, e-mail address, phone & fax numbers, (4) the previous issues of « FRASS » in pdf format (which likely will be known as the « Insect Rearing Newsletter » in the future), and (5) a « links » page, which will allow the user to quickly find many relevant biological control Websites.

WG BIOLOGICAL CONTROL of *PLUTELLA*

Co-chairman: Dr A.M. Shelton, Department of Entomology, Cornell University, New York State Agricultural Experimental Station, 416 Barton Lab Geneva, NY 14456, USA. Tel: +1-315-787-2352,

Fax: +1-315-787-2326, e-mail: ams5@cornell.edu.

Co-chairman: Dr A. Sivapragasam, Strategic, Environment and Natural Resources Centre, MARDI, GPO Box 12301, 50774, Kuala Lumpur, Malaysia. Fax: +60-3-948-7639, e-mail: sivasam@mardi.my.

Co-chairman: Dr D.J. Wright, Department of Biology, Imperial College at Silwood Park, Ascot, Berkshire SL5 7PY, UK. Fax: +441-34-429-4339,

e-mail d.wright@ic.ac.uk.

WG FRUIT FLIES OF ECONOMIC IMPORTANCE

Chairman: Dr B.A. McPheron, Dept. Entomology, 501 ASI Bldg., Pennsylvania State University, Univ. Park, PA 16802, USA.

Tel: +1 814-865-3088, Fax: +1 814-856-3048,

e-mail: bam10@psu.edu.

Dr M. Aluja, a past Chairman of the WG, just published the following book: "Fruit flies (Tephritidae): Phylogeny and evolution of behavior", edited by Dr M. Aluja and Dr A. Norrbom. The book will be released on the market by December 1999. Its price will be \$139.95. At the moment, it is estimated that its length will be 900 plus printed pages including full colour inserts. The book not only contains reviews of past and present research but also includes novel, previously unpublished results and attempts to foster the conceptual advancement of the field. Derived from a conference attended by world-renowned authorities, handy, comprehensive volume will eliminate the timeconsuming search in scattered sources for information on the Tephritidae. For more information, contact: CRC Press, 2000 N.W. Corporate Blvd., Boca Raton, FL 33431-9868, USA.

Tel: +1 561-994-0555, Fax: +1-561-998-9114,

e-mail: orders@crcpress.com, Website: www.crcpress.com.

WG ECOLOGY of APHI-DOPHAGA

Chairman: Dr D.J. Horn, Department of Entomology, Ohio State University, 1735 Neil Ave., Columbus OH 43210, USA. Fax: +1-614-292-2180, e-mail: horn.1@osu.edu.

Co-chairman: Dr J.-L. Hemptinne, Faculté Univ. des sciences agronomiques, Zoologie générale et appliquée, Passage des Déportés, 2, B-5030 Gembloux, Belgium.

Co-chairman: Dr P. Wellings, CSIRO Division of Entomology, GPO Box 1700, Canberra, ACT 2601, Australia. The WG recently organised its last International Congress, « Aphidophaga VII », in Montreal, Canada, August 31st - September 4th, 1999 (see information at the following Web address:

http://www.er.uqam.ca/nobel/la bscenv/aphidophaga.htm. A summary of this International Congress will be presented within the next issue of the IOBC Newsletter. For any information concerning this congress, please contact: Dr D. Coderre, Aphidophaga VII, Département des sciences biologiques, Université du Québec à Montréal, C.P. 8888 Succ. Centre-ville, Montreal, Quebec, Canada H3C 3P8.

Fax: 00-1-514-987-4647. e-mail: coderre.daniel@uqam.ca

Dr D. Coderre, Université du

WG CHROMOLAENA ODORATA

Québec à Montréal

Chairman: Dr R. Muniappan, Agricultural Experimental Station, University of Guam, Mangilao, Guam 96923 USA. Fax: +1-671-734-6842, e-mail: rmuni@uog9.uog.edu.

Chromolaena odorata Newsletter #13 was published in July 1999. Copies are available free of cost upon request from Dr R. Muniappan, chairman of the WG.

The Fifth International Workshop on Biological Control and Management of *Chromolaena odorata* will be held at Durban, South Africa, October 23-25, 2000. The purpose of this workshop is to facilitate the dissemination of information on the management and control of *Chromolaena*, to identify areas in which new research is needed, and to foster global cooperation on managing and

controlling this plant. For more information, contact: L. Strathie-Korrubel, ARC-PPRI, private Bag X6006, Hilton, 3245 South Africa,

Tel: +27-331-355-9419/3, fax: +27-331-355-9423,

e-mail: ntlws@natal1.agric.za; or visit the *Chromolaena* biocontrol web page

www.ctpm.uq.edu.au/chromola ena/siamhome.html

The proceedings of the Fourth International Workshop on Biological Control and Management of *Chromolaena odorata* held in Bangalore, India in 1996 is available to purchase from Dr. A. Krishnamoorthy, Division of Entomology and Nematology, Indian Institute of Horticultural Research, Bangalore 560089, India.

Dr R. Muniappan, Chairman of the WG

WG EGG PARASITOIDS

Chairman: Dr F. Bin, Agricultural Entomology Institute, University of Perugia, Borgo XX Giugno, 06121 Perugia, Italy. Tel: +39-075-585-6030, Fax: +39-075-585-6039,

e-mail: fbin@unipg.it.

Co-Chairman: Dr E. Wajnberg, INRA, Parasitoids Ecology, 37 Blvd. du Cap, 06600 Antibes, France.

Tel: +33-04-93-67-88-92, Fax: +33-04-93-67-88-97,

e-mail:

wajnberg@antibes.inra.fr.

Co-Chairman: Dr S.A. Hassan, Institute for Biological Pest Control, Heinrichstr. 243, 64287 Darmstadt, Germany. Tel: +49-6151-407223,

Fax: +49-6151-407290, e-mail: s.hassan.biocontrol.bba@tonline.de.

This WG originated from an international symposium held in 1982 in Antibes, France, which was opened with the name "Trichogramma" and closed with the addition of "and other egg parasitoids". This name was maintained for the following symposia held every four years: Canton, China 1986, San Antonio, USA 1990, Cairo, Egypt 1994, Cali, Colombia 1998. These have been intercalated every two years with symposia organised within the International Congresses of Entomology (Hamburg, Germany 1984, Vancouver, Canada 1988, Beijing, China 1992, Florence, Italy 1996) to give continuity to the WG. While the role of Trichogramma as a leading group has been widely recognised, the importance of other groups seems to emerge only occasionally and for specific situations. This is also the case of a few genera of trichogrammatids other than Trichogramma.

Trichogrammatids is one of three families entirely composed of egg parasitoids, the other two being mymarids and scelionids. In 9 other families several species or genera are important biocontrol agents. All together the hosts belong to 8 orders of insects and include many crop and forest pests but also species of medical and veterinary importance. This great biological potential and diversity is still unrecognised or used only in a very small proportion especially when considering that Trichogramma is effective mostly on exposed eggs with thin egg shell but is unable to exploit exposed with eggs thick

chorion and those being protected, concealed or embedded. In fact, in the last 25 years (1972-1997) of CAB database, the number of records confirms this situation: 2459 trichogrammatids, 882 scelionids, 382 mymarids and 853 the others. Both the Proceedings of the 5th International Symposium and the "Egg Parasitoid News" reflect this disproportion of research investment on Trichogramma vs. other groups of egg parasitoids.

5th International Symposium on "Egg Parasitoids".

The Proceedings, published by "Mitt. Biol. Bundesanst. Land. Forstwirtsch." Berlin-Dahlem (Vol. No. 356), are now available and can be ordered from any book store or directly from the publisher (Parey Buchverlag Berlin, Kurfuestendamm 57, 10707 Berlin, Germany, ca. 45 DM). This volume, edited by Dr S.A. Hassan, is composed of 197 pages and contains 25 articles on the following topics: Physiology and Behavior (3), Ecology and Populations Dynamics (4), Natural Occurrence and Compatibility (3), In vitro Rearing (3), Quality Control of Mass Reared Arthropods (3), Production and Release (9).

"Egg Parasitoid News"

Issue No. 10, edited by Dr S.A. Hassan who can provide free copies, provides information in the traditional format of previous issues (names and addresses, main area of interest, current research, publications, news in 30 words, practical use, problems and suggestions) and calls for new contributions for the next issue. An electronic version is available at the following Web address: http://www.bba.de/eggpara/egg p.htm.

Next International Symposium on "Egg Parasitoids" in 2000 in Brazil

The call for papers for the XXI International Congress of Entomology, Brazil 2000, has been announced at the end of 1998 and is open until the end of 1999. The proposal submitted for a symposium of our WG (listed in Session 8: Entomophagous Insects and Biological Control) under the title "Utilization methods of egg parasitoids" has been officially approved. While waiting for time assignment, we can start thinking how to use this opportunity for further improvements.

Dr F. Bin, Co-chairman of the

WG IWGO - OSTRINIA AND **OTHER MAIZE PESTS**

Chairman: Dr H.K. Berger, BFL, Spargelfeldstraße 191, 1226 Wien, Austria Tel: +43-1-732-16-2002.

Fax: +43-1-732-16-2108, e-mail: hberger@bfl.at.

Meetings, Workshops

The two meetings were organized (1) for September 4-10, 1999, in Adana, Turkey; hosted by Prof S. Kornosor (for more information, contact: Prof S. Kornosor, University of Cukurova, Faculty of Agriculture, Plant Prot. Department, TR-01330, Adana, Turkey (Meeting of the IWGO-Group), and (2) November 4-5, 1999, in Paris, France; Meeting of the IWGO-Diabrotica sub-group (together with the corresponding FAO and EPPO meeting).

The next meeting planned for the Iwgo-Group should be organised in the USA in 2001. The next meetings for the IWGO-Diabrotica sub-group are planned in Venice, Italy, in 2000; in Nitra, Slovakia, in 2001; and in Germany in 2002.

Publications

The WG released several publications, partly with the support IOBC. Volume Global XVIII/2 and Volume XIX/1 of the IWGO-Newsletter (a scientific magazine, edited by Dr H.K. Berger since 1981) were released in November 1998 and in March 1999, respectively. The papers presented at the IWGO/EPPO/FAO meeting Goedoelloe, fall 1997, have been released as proceedings in the Austrian Journal "Pflanzenschützberichte" (1998) 57:2. The proceedings of the IWGO Meeting in Braga will be issued in fall 1999. All publications can be ordered from the Convenor, of the WG.

Major Results, **Progress Achieved**

The most important event in IWGO is certainly the appearance of Diabrotica virgifera virgifera in Europe since 1992. A numerous amount of meetings (Sub-group "Diabrotica", Convenor Prof R. Edwards, University of Purdue, Lafayette, Indiana. Usa. e-mail: rich edwards@entm.purdue.ed u) took place. The FAO research program together with Hungary, Croatia, Bosnia and Herzegovina and Romania was finished by beginning of 1999 and we hope to find donors to continue this important and necessary work. Since the new appearance of Diabrotica in two different place in Italy, the European Union also showed more interest in this problem. The meeting in April 1999 is the first result of these activities.

Within the 5th Framework Programme of the European Community for Research, Technical Development and Demonstration Activities, Dr S. Vidal (Justus Liebig, University Giessen, Germany) as the Coordinator, together with Dr P. Baufeld (BBA, Berlin, Germany), Dr H.K. Berger, (BFL, Vienna, Austria), Dr S. Derridj (INRA, Versailles, France), Dr L. Furlan, (University of Padova, Italy), Dr H. Hummel (Justus Liebig, University Giessen, Germany), Dr J. Kiss (Agricultural University, Gödöllö, Hungary), and Dr U. Kuhlmann (CABI-Bioscience. Delemont. Switzerland) are currently trying to achieve a Research Programme entitled: "The threat to maize production in the EU by the exotic corn rootworm pest Diabrotica virgifera virgifera: sustainable pest management ecological approaches and background".

Dr H.K. Berger, chairman of the WG

WG WATER HYACINTH

Chairman: Dr H.G. Zimmermann, Agricultural Research Council, Plant Protection Research Centre, Weeds Research Division, Private Bag X134, Pretoria 0001, South Africa. Tel: +27-12329-3276, Fax: +27-12329-3278,

e-mail:

RIETHGZ@PLANT2.AGRIC.

WG TRANSGENIC **ORGANISMS IN IPM AND** BIOLOGICAL CONTROL

Chairman: Dr A. Hilbeck. Swiss Federal Research Station Agroecology and Agriculture, Reckenholzstr. 191, 8046 Zurich, Switzerland. Tel: +41-1-3777-410,

Fax: +41-1-3777-201,

e-mail:

angelika.hilbeck@fal.admin.ch The WG is still in its build-up phase and growing in members. From October 22 to 24, 1998. the WG held its kick-off meeting at the Swiss Federal Research Station in Zurich, Switzerland. Since then, a symposium on 'Transgenic Plants in Agriculture: Agroecological Implications" had been organised during the annual meeting of the Entomological Society of America, in Las Vegas, December 8–12, 1998. The summaries of the papers presented at that symposium will be printed in the first issue of the WG newsletter. Α first News

letter has been released recently. Aside of the symposium summaries mentioned above, it contains scope and objectives of the WG, a section on worldwide news regarding genetically modified (GM) crops in agriculture, short reports on the status of GM crops in some countries and more. Also a web site will be established soon. The next meeting is planned to be held at the Pan-American School of Agriculture, Zamorano, Honduras and will be organised by Dr A. Hruska. The meeting date is still to be announced but will be some time

during the first quarter of the year 2000.

WG ON COFFEE BERRY BORER

Chairman: Dr J.F. Barrera Gaytan, Division de Tecnología Agropecuaria, El Colegio de la Frontera Sur, Carretera Antiguo Aeropuerto, Km 2.5, Apartado Postal 36, 30700 Tapachula, Chiapas. Mexico. Tel: +52-962-81103.

Fax: +52-962-81015.

e-mail:

jbarrera@tap.ecosur.mx.

SCIENTIFIC EVENTS

IOBC International Symposium on « Evaluating Indirect Ecological Effects of Biological Control ». October 17-20 1999, Montpellier, France. Contact the following Web address for more information: http://www.agropolis.fr/iobc/.

1st International Symposium on « Development of biological control in Middle East and neighbouring countries ». October 24-29, 1999, Aleppo, Syria. Organised by the University of Aleppo, Syria, and the Arabic Society of Plant Protection. Five sessions are organised: (1) Using parasitoids, (2) using predators, (3) using micro-organisms, (4) using plant extracts, and (5) using other means of biological control. The symposium will only discuss on pests present in the Middle East. There will be no registration fees. For more information, please contact: Dr A. Babi, University of Aleppo, Faculty of Agronomy, B.P. 12352, Aleppo, Syria, Fax: +963-21-2229184.

"The 1999 Brighton Conference on Weeds". November 15-18, 1999, Brighton, UK. The

conference will be held in the Brighton Metropole Hotel. The scientific program will encompass weeds and their control in an international context. Some sessions will deal with biological ways of controlling weeds. For more information, contact the conference secretariat at: The 1999 Brighton conference secretariat, 8 Costwold Mews, Square, Battersea London SW11 3RA, UK. Tel: +44-171-228-8034, Fax: +44-171-924-1790.

e-mail: conference@bcpc.org, Website: www.bcpc.org.

"5TH International Conference on Pests in Agriculture". December 7-9, 1999, Montpellier, France. This conference is organised by the French ANPP (Association Nationale de Protection des Plantes). It will include plenary sessions with lectures by leading authorities. The main session will be devoted to the use of transgenic organisms for the control of pests. Round tables will be organised on this occasion in order to bring everyone together, from growers to consumers. Other sessions will cover the widest range of topics

related to plant protection: all pest and beneficial organisms, pest management, resistance and alternative methods of pest management, etc. For all information, contact: Secrétariat Scientifique de la Conférence, ANPP, 6 Blvd. de la Bastille, 75012 Paris, France.

Tel: +33-1-43-44-89-64, Fax: +33-1-43-44-29-19, e-mail: anpp@anpp.asso.fr,

Website: www.anpp.asso.fr.

"International Symposium on Plant Health in Urban Horticulture". May 22-24, 2000, Braunschweig, Germany. In the next century, a large portion of the human population will live and work in urban areas. The structure and sustainable preservation and development of Urban Horticulture is an important instrument to determine air quality of urban areas and the quality of life for the inhabitants. The International Symposium will present a scientific platform to discuss and summarise the basic and applied scientific work concerning plant health in urban horticulture and its impact on the life of human beings and the environment. The symposium is organised by the Federal Biological Research Centre for Agriculture and Forestry, Institute for Plant Protection in Horticulture, and by the Plant Protection Services of Berlin, Germany. For more information, contact: Dr G.F. Backhaus, Federal Biological Research Centre for Agriculture and Forestry, Institute for Plant Protection in Horticulture, Messeweg 11/12, 38104 Braunschweig, Germany.

Tel: +49-531-2994400, Fax: +49-531-2993009, e-mail: g.f.backhaus@bba.de.

"Second California Biological Control Conference". July 11-12, 2000, Riverside California, USA. The purpose of the conference is to promote biological control and facilitate contact biological between control practitioners and researchers in California, USA. Meeting topics will include: (1) Biological Control as a Component of Integrated Pest Management Systems, (2) Ecological Benefits and Risks of Classical Biological Control, (3) Plant Biodiversity and the Enhancement of Biological Control Agents, (4) Mass Production of Natural Enemies: Taxonomy, Quality Control, Release Strategies, and Issues Relating to Genetics. For more information, contact: Dr.

M.S. Hoddle, Applied Biological Control Research, Department of Entomology, University of California, Riverside CA 92521-0314, USA.

Tel: +1-909-787-4714, or +1-909-787-4360,

Fax: +1-909-787-3086,

e-mail: mark.hoddle@ucr.edu, Website of the conference: www.biocontrol.ucr.edu/CCBC II.html.

« XXI International Congress of Entomology, 2000 ». Foz do Iguaçu, Brazil. For further information, contact: c/o Dr D.L. Gazzoni, Caixa Postal 231, 86001-970 Londrina-PR, Brazil. Tel: +55-43-3716213, Fax: +55-43-3716100, e-mail: gazzoni@cnpso.embrapa.br.

BOOKS

"Insects and their natural enemies associated with vegetable and sovbean in Southeast Asia". Dr B.M. Shepard, G.R. Carner, A.T. Barion, P.A.C. Ooi & H. van den Berg. The book promotes awareness of non-chemical pest management by illustrating and discussing many commonly occurring arthropods that occur in Asian agroecosystems. Although the text focuses on vegetables and soybeans, many of the insects would also be encountered in other crops and regions. The book contains 267 colour photos of insects and natural enemies. For more information, contact: Dr B.M. please Shepard, Coastal Research and Education Center, Clemson University, 2865 Savannah Highway, Charleston, South Carolina 29414, USA. Phone: +1-843-766-3761;

Fax: +1-843-571-4654.

e-mail:

MSHPRD@Clemson.edu.

"The biopesticide manual, a world compendium". The

British Crop Protection Council (BCPC) recently published what is said to be the first, authoritative, world compendium of the diverse range of naturally occurring products that are now commercially available for pest insect, weed, and disease management. The 333-page work, first edition, edited by L.G. Copping, presents 188 biocontrol agents covering more than 800 products, divided into natural products, pheromones, living systems, insect predators, and genes. A free, full colour brochure provides details of a typical main entry from the manual (in this case, spinosad, a microbial insecticide, whose parent strain was first isolated from an abandoned rum still in the Caribbean). The hardbound manual includes a directory of companies, a glossary, and other useful material. For more information, contact: BCPC Publications Sales, Bear Farm, Binfield, Bracknell, Berks. RG42 5QE,

Tel: +44-118-934-2727,

Fax: +44-118-934-1998, e-mail: publications@bcpc.org, Website: www.bcpc.org.

"Pathogens and microbial control of north American forest insect pests". U.S. government publication, 1998. This book presents useful information to help select appropriate pathogens and microbial control approaches for a wide range of pest insects. Authors J.R. Fuxa et al., introduce the topic and then discuss all the main species in 12 insect groups before offering recommendations. The 204softbound (approx.), pages work is a graphically pleasing, excellent resource that includes extensive references. For a free copy, contact: L. Cress, USDA Forest Service, 180 Canfield St., Morgantown, WV 26505, USA.

Fax: +1-304-285-1564,

e-mail: cress/na_mo@fs.fed.us.

"Control of weeds, a world catalogue of agents and their target weeds". As a revised and expanded version of a bench-

mark work, this 4th edition presents a comprehensive overview of all attempts at biocontrol of weeds undertaken through 1996, including many new releases made since publication of the third edition in 1992. Editors M.H. Julien & M.W. Griffiths employ an attractive new catalogue format divided into sections according to class of biocontrol agent. Each entry lists the target weed, control agent, and all other available details, as well as key references. The softbound, 240pages volume was published jointly in 1998 by CABI Publishing and the Australian Centre for International Agricultural Research. For more information, contact: CABI Publishing, Wallingford, Oxon OX10 8DE, UK.

Tel: +44-0-1491-832111, Fax: +44-0-1491-829292, e-mail: S.Harris@cabi.org, Website: pest.cabweb.org.

"The Trichogramma Manual" Dr A. Knutson. This book offers 42 pages of practical information distilled from experience. The 1998 work is subtitled, "A guide to the use of Trichogramma for biological control with special reference to augmentative releases for control of bollworm and budworm in cotton." Colour plates, line drawings, lists of protocols, and useful sample forms are all graphically included in a friendly, spiral bound format. For more information, contact:

Dr A. Knutson, TAES, 17360 Coit Rd., Dallas, TX 75252-6599, USA.

Tel: +1-972-952-9222 Fax: +1-972-952-9632, e-mail: a-knutson@tamu.edu.

"Biological Invasions of Ecosystem by Pests and Beneficial Organisms". Edited by Dr E. Yano et al., this book is published by Yokendo Publishers, Tokyo, in June 1999. It is published as proceedings of an International Workshop which was held in Tsukuba, Japan, on February 22-27, 1997 (see IOBC Global Newsletter #67). A total of 20 papers written in English is published in the book covering 232 pages, and at least five of these papers are involved in biological control. The abbreviated titles and authors (in parentheses) of the five chapters are: (1) Invasion genetics and classical biological control (Dr G.K. Roderick & Dr F.G. Howarth), (2) Interactions between introduced Encarsia formosa and native parasitoids (Dr H. Kajita), (3) Classical biological control of the chestnut gall wasp (Dr M. Shiga), (4) Exotic weeds and their biocontrol agents in U.S. aquatic ecosystems (Dr G.R. Buckingham), and (5) Evaluation of environmental impacts of introduced natural enemies (Dr Y. Hirose). The price of the book is 6,000 yens. It can be purchased from Yokendo Publishers, Hongo 5-30-15, Bunkyo-ku, Tokyo 113-0033, Japan.

"Catalogue of Palaeartic Coccoidea". Edited by Dr F. Kozar in 1998, this book presents information about 2170 scale

insect species. A lot of them present world-wide interest. They are very often targets of biological control programs. The hardbound 526-pages work is published by the Plant Protection Institute Hungarian Academy of Sciences, Budapest. Its price is 100 US\$ (including shipment). For ordering the book, or for any information concerning this work, contact: Dr F. Kozar, Department of Zoology, Plant Protection Institute, Hungarian Academy of Sciences, PO Box 102, Budapest, 1525 Hungary. Tel: +36-1-1769555,

Fax: +36-1-1769729, e-mail: h2405koz@ella.hu.

"Fruit flies (Tephritidae): Phylogeny and evolution of behavior". Edited by Dr M. Aluja and Dr A. Norrbom. The book addressees the study of the phylogeny and the evolution of fruit fly (Diptera: Tephritidae) behaviour. It reviews the current state of knowledge and includes considerable new findings on various aspects of fruit fly behaviour, phylogeny and related subjects. In the past, the topics of phylogeny and evolution of behaviour were barely addressed, and when so, often superficially. The book is a definitive treatment covering all behaviours in a broad range of tephritids, incorporating phylogenies as much as possible. For more information, contact: CRC Press, 2000 N.W. Corporate Blvd., Boca Raton, FL 33431-9868, Usa.

Tel: +1-561-994-0555, Fax: +1-561-998-9114,

e-mail: orders@crcpress.com, Website: www.crcpress.com.

MISCELLANEOUS

"Agricultural and Forest Entomology". This is a new journal that has just been launched by The Royal Entomological

Society (UK). This journal is described as a "natural home for the best papers on entomological research relevant to the control of insect and other arthropod pests," according to an announcement mailer. Issues papers will be included, such as: "Biological Control: Environmental Success or Disaster?," and "IPM: Social Movement or a Marketing Tool?". An extensive rationale for the new periodical, published by Blackwell Science, is set forth in the mailer. For more information, contact: A.D. Watt, Editor AFE, Institute of Terrestrial Ecol., Edinburg Research Stn., Bush Estate, Penicuik, Midlothian EH26 0QB, UK. Tel: +44-0-131-445-4343,

Fax: +44-0-131-445-3943, e-mail: ADW@ite.ac.uk.

"Insect and Pest Control Newsletter", published by a section within the International Atomic Energy Agency. It focuses on use of sterile insect release programs. For more information, contact: Insect and Pest Control Section, IAEA, PO Box 100, A-1400 Vienna, Austria. Fax: +43-1-26007, e-mail: J.Hendrichs@iaea.org.

«BioControl News and Information» . Many IOBC members will be familiar with the CABI journal, BioControl News and Information, which publishes abstracts of the world's recent biological con

trol publications on a quarterly basis, as well as review papers and a News Section. The BNI News Section has a global coverage and addresses both public and private sector research, extension, training, meetings and new publications on biological control and biorational methods. The BNI News Section is now available free on the Internet. It can be found at http://pest.cabweb.org/.

Subscribers to BNI can access the entire journal at this site. Please acknowledge BNI if you use these news items in your own local newsletters.

J.K. Waage

Newsletter contributions: I would like to thank all those members who are taking time to send items for this IOBC Newsletter. If you have not previously sent anything, please consider doing so. Remember, this is your opportunity to let others know what is going on in biological control. Take a few minutes and mail fax or (even better) e-mail items on biological control to E. Wajnberg (address on first page), so they can be included in the next issue. Deadline for submitting items for the Winter 1999 issue of IOBC Newsletter is 15 November 1999.

We would like to express our grateful thanks to Ms Annette Greahead at CABI BIOSCIENCE UK Centre (Ascot) for re-reading this issue.

Any comments or remarks on this Newsletter are welcomed. Do not hesitate to contact me if there is some information you would like to see here on biological control.

Editor: E. Wajnberg, General Secretary of the IOBC, with assistance of M. Montes de Oca.

Circulation: 2000