

INTERNATIONAL ORGANIZATION FOR BIOLOGICAL CONTROL

NEARCTIC REGIONAL SECTION

NEWSLETTER

Volume 23, No. 1

Winter 2001

Editor: S. E. R. Mahr

Message From President Mahr

The change of officers for IOBC-NRS occurred at the end of the general business meeting last December in Montreal. I want to thank each of the outgoing officers for the work that they have conducted on behalf of the Section over the past several years. In particular, I want to thank Past President Larry Charlet for piloting the ship the past two years. Several improvements to our section were instituted under Larry's guidance; one of his top priorities was to improve communications and strengthen relations with the other regional sections, which he has certainly accomplished. Of course, Larry continues to serve on the Governing Board in the capacity of Past President, the position which Tim Kring just vacated. It may not be widely known amongst our members, but agreeing to be nominated for President of our section means, if elected, a 6-year commitment, as President Elect, President, and Past President. Each of these offices has specific responsibilities in our organization. A special thanks also goes to Molly Hunter who has served as vice-president the past two years. Vice-president has two major responsibilities: to plan and conduct the annual symposium and to be involved with the selection of our Distinguished Scientist award. John Ruberson has now assumed these responsibilities.

Another note of appreciation goes to Lindsay Milbrath, who has stepped aside after editing our newsletter for the past several years. In our last election, Susan Mahr, University of Wisconsin-Madison, was chosen to fill this position. Editing a newsletter is a time-consuming chore that can often be frustrating if article submissions are few or not in time to meet deadlines. I want to

sincerely thank Lindsay for his past service to our section. Susan has considerable newsletter editorial experience. She was editor-in-chief of Midwest Biological Control News for over five years, and continues to edit the web-based newsletter Biological Control News. She also edits the Wisconsin Master Gardener newsletter. In addition to her duties as newsletter editor, her responsibilities as NRS Corresponding Secretary including taking the minutes at the annual Board and general meetings, and maintaining our NRS website.

Mention must also be made of the outstanding work that has been done by Alan Cameron for the past several years as the NRS representative to the global IOBC Management Board. Alan has been very active in the evaluation of our journal and the transition that has been made from Entomophaga to BioControl. I have appointed our treasurer Rob Wiedenmann to be our representative to the Management Board. Rob was also re-elected to the office of treasurer. Finally, I want to thank our departing Governing Board Members-at-Large, John Ruberson, Ann Hajek and Keith Hopper, for their past service, and incoming Board members Jacques Brodeur, Stefan Jaronski, and Peter Mason for agreeing to serve.

I believe that, as scientists and practitioners of biological control, in the past few years we have seen increasing pressures on our discipline. Never before in our past have we experienced the criticisms we are facing today, especially in regard to non-target impacts. *Scelio*, *Rhinocyllus*, *Cactoblastis*, and saltcedar have all developed into environmental issues, real or perceived; the entire area of risk assessment is probably in need of being revisited. Here

in the United States we not only do not yet have our long-awaited new regulatory processes in place, USDA APHIS has quit regulating the release of entomophages, creating a void in the federal process where there should not be one. Genetic engineering is a concern of the general public and is impacting trade, especially with the European community. Even the use of conventional *Bacillus thuringiensis*-based microbial insecticides, especially in forests and other natural habitats, is being increasingly criticized for non-target effects.

Therefore, I propose that our newsletter become an open forum for the discussion and debate of these and other issues that face biological control. I will be asking leaders in our community to address specific concerns in feature articles. And I call on all of you to submit letters or short articles with your thoughts on these subjects.

Finally, I look forward to working with all of you over the next two years. Please let me know if there are things that IOBC-NRS can be doing to better serve our collective interests.

— Dan Mahr

Name Our Newsletter: Winner Receives 1 Year Free Membership

At the December 2000 IOBC NRS Governing Board Meeting, it was mentioned that we might enliven the title of our newsletter to something other than "Newsletter." I guess the rationale is that our IOBC journal is not entitled "Journal" so why can't we come up with a nice descriptive and identifiable name for our sectional newsletter? Therefore, we have initiated a

“Name Our Newsletter” contest. So, put on your thinking caps and come up with a name (or several choices) that is short and descriptive and easily remembered. It must be discipline-neutral, so please, no suggestions such as “Entomophaga.” The deadline for submissions will be July 1. The Governing Board will screen entries to assure appropriateness, and the final selections will be voted on at the December 2001 general meeting in San Diego. The winner will receive one year free membership in NRS (exclusive of subscription to BioControl). Send your entries by mail, fax, or e-mail to our new editor, Susan Mahr, whose contact information can be found on the back page.

— Dan Mahr

New Student Award

The IOBC-NRS will be instituting a student member award. The first award, consisting of \$250 and a plaque, will be presented to a NRS student member at the NRS informal conference in 2001. In future years the winner will be invited to present a paper during the NRS conference. More details and an application form will be included in the summer newsletter.

Minutes of the IOBC/NRS Governing Board Meeting

The Annual Meeting of the Nearctic Regional Section Governing Board was held in Montréal, Québec, Canada in conjunction with the Joint Annual Meeting of the Entomological Society of America, the Entomological Society of Canada and the Société d'Entomologie du Québec on 3 December 2000 and continued on 5 December. Those present included: J. Brodeur, A. Cameron, J. Cuda, K. Hopper, M. Hunter, S. Jaronski, T. Kring, D. Mahr, S. Mahr, P. Mason, L. Milbrath, J. Ruberson, and R. Wiedenmann.

1. Vice president's report (M. Hunter)

No updates other than noting details of the NRS symposium that was held on 6 Dec.

2. Sec-treasurer (R. Wiedenmann)

The decrease in membership is due to non-renewals. Higher budget amounts reflect year-end expenses being paid the following year. D. Mahr reported that funds appropriated for the *Cactoblastis* meeting in

2000 were not requested as other sources were available. 2001 budget deferred till later.

3. Corresponding-secretary (L. Milbrath)

Expenses for 2000 newsletters - printing and postage includes 98 copies mailed to Global body and IOBC/WPRS plus mailing of IOBC/WPRS bulletins to institutional members.

Winter 2000 (12 pages) + Global newsletter #69 - mailed to 295 members
Summer 2000 (8 pages) + Global newsletter #70 - mailed to 277 members.

Fall 2000 (4 pages) - mailed to 280 members.

Complimentary copies: 60 to Global body, 30 to WPRS, 3 to other regional presidents.

New Website - For several years the IOBC/NRS website had been maintained on a server at the NSF Center for IPM, North Carolina State University, with the kind assistance of Ron Stinner. The website has undergone a major overhaul under the initiative and direction of Susan Mahr, who will now serve as the webmaster. The new address is: <http://www.entomology.wisc.edu/iobc/nrs.htm>

4. President-elect (D. Mahr)

Membership renewal letters have been sent by Wiedenmann to current as well as former NRS members. NRS still needs to attract plant pathologists. Cameron stated that we need to seriously consider meeting with other societies during their meetings. Cuda mentioned that the Weeds working group has done this. Mason commented that the same issue applies to the Canadian Biocontrol Forum.

5. Past president (T. Kring)

A new Plant Pest Act (United States) has been signed into law that includes a definition of biological control organisms. Although it appears that the law provides USDA-APHIS with regulatory authority over non-plant feeding beneficial arthropods (and related organisms), APHIS contends that this is not the case. There is (as usual) much confusion over who has regulatory authority over these biological control agents. Recent permit requests to

APHIS makes it clear that APHIS is interpreting the law to mean that they have no authority over non-plant pests, and have returned permit requests (i.e. 526) marked “void,” presumably indicating they will take no action on such requests. As a provision of the new plant pest law, APHIS must publish guidelines, and intends to publish these in the Federal Register. These will represent revisions to plant pest guidelines, and will directly impact biological control of weeds programs. Biological control practitioners are encouraged to read and comment on these proposed guidelines. If you would like to participate in a listserv dedicated to regulations relating to biological control (BCREGS-L), contact Tim Kring (tkring@uark.edu) for subscription information.

6. BioControl Management Board (A. Cameron)

A. Cameron's 4-year term expired and R. Wiedenmann was nominated and approved to serve as the new NRS representative. The Management Board is expected to meet every other year. D. Mahr offered the governing board's gratitude to A. Cameron for his service.

7. IOBC NRS working group reports: A. Biological Control of Weeds working group (J. Cuda)

There was no activity to report this year. No one volunteered to Chair the working group after Cuda stepped down after 3 years, so the only recourse is to abolish the Weeds Working Group.

B. Greenhouse, Nursery and Ornamental Landscape IPM Working Group

The International Thrips Research Workshop in mid-June at Niagara-on-the-Lake, Ontario, Canada was quite successful, with 40 participants from 11 countries. A proceedings of the meeting is being compiled and will be published. The WG co-organized the symposium *Beyond Pesticides: Advances in Biological Control Research and Implementation in Greenhouses and Conservatories* for the Joint Entomology meetings in Montreal, with their annual meeting following the symposium. A joint meeting of the NRS and WPRS greenhouse IPM working groups will be held May 8-11, 2002 in British Columbia, Canada.

8. IOBC Global

The IOBC Global General Assembly, which was held during the XXI International Congress of Entomology, was poorly attended. IOBC is financially solvent. European institutional membership is declining. There are 10 global working groups. Les Ehler is the new global president. Goals of IOBC are to make classical BC more predictive, augmentative BC more economical and emphasize more conservation BC.

9. *Cactoblastis* workshop (D. Mahr)

Proceedings from the workshop are being published in the *Florida Entomologist*, and a white paper will appear in the journal *Biological Invasions*. Various committees (education, risk assessment, research, and international coordination) were formed.

10. 2001 IOBC-NRS Symposium

Potential topics include the role of general predators in agroecosystems and conservation biological control. There is \$2500 available from NBCI to support the 2000 NRS symposium.

11. Ad hoc committee on elimination of working groups (J. Ruberson)

The consensus was to affirm the original recommendations (that the NRS not support any new working groups (WGs) but support active WGs until their dissolution) and actively move toward supporting only global WGs. The Weeds WG was abolished and the NRS greenhouse WG will be asked to pursue global status or give the governing board strong justification to continue as an NRS WG.

12. Ad hoc committee on funding

An IOBC-NRS student member award, consisting of \$250 and a plaque, to be presented to an NRS student member at the NRS informal conference will be created. The awards committee will consist of the past-president, president-elect, and another governing board member, with both U.S. and Canadian representation on the committee. Other funding sources will be explored by Wiedenmann and Mason.

13. Operations Manual

Governing board members will list their responsibilities for producing an operations manual for the board.

14. Additional GB Meeting

A mid-year conference call to conduct governing board business, targeted for May, will supplement the year-end meeting.

General Business Meeting (highlights)

New and outgoing officers and NRS representative Cameron were acknowledged. Requests were made for newsletter submissions and new (discipline neutral) names for the newsletter.

NEWS

A Better *Beauveria*

A new strain, BB-1200, of the fungus *Beauveria bassiana* appears to be even more effective in curbing lepidopteran pests than the commercially available GHA strain (registered as Mycotrol and BotaniGard for use in the United States, Mexico, and other countries for biological control of grasshoppers, whiteflies, aphids, thrips, and diamondback moths on many important agricultural crops). In laboratory bioassays, BB-1200 consistently exhibited virulence equal to or greater than the GHA strain against all lepidopteran pests tested, including fall armyworm, beet armyworm, black cutworm, corn borer, and cabbage looper. Mycotech has applied for permits for limited field testing in the U.S., and preliminary field evaluations against armyworms and diamondback moths are under way in Mexico and Guatemala. (From *Agric. Research* 48(11): 12-13, Nov. 2000; for the complete article see <http://www.ars.usda.gov/is/AR/archive/nov00/pests1100.pdf>)

Kudzu KO'd by Fungus

A fungus from the sicklepod plant, *Arabis canadensis*, found in the southeastern United States, effectively controls kudzu. This invasive weed from southeast Asia covers more than 7 million U.S. acres and spreads across about 120,000 more each year.

Both greenhouse and field studies have shown the fungus *Myrothecium verrucaria* to be lethal to kudzu. Applied at different plant growth stages and under varying physical and environmental conditions, it proved to be 100 percent effective in controlling this fast-growing weed. Testing of the fungus on several economi-

cally important hardwood and softwood trees showed no harmful effects. And even though the fungus can injure and kill soybean plants, proper timing and application techniques minimize injury. In fact, directed-spray applications of the fungus to sicklepod seedlings in soybeans showed no resulting injury. Researchers will seek a patent. (From *Agric. Research* 47(10): 23, Oct. 2000; for the complete article see <http://www.ars.usda.gov/is/AR/archive/oct00/sci1000.pdf>)

Four bacterial strains for take-all, a fungal disease of wheat

ARS scientists and cooperators at Virginia Polytechnic Institute and State University screened large numbers of diverse bacteria present around wheat roots for their ability to suppress the fungus *Gaeumannomyces graminis* var. *tritici* (Ggt), which causes take-all. This disease demolishes wheat harvests around the world, causing wheat roots to turn black and die, reducing yields by 50 percent or more, and costing U.S. wheat growers alone millions of dollars in years with severe infestations. The four bacterial strains that show potential as biocontrol agents will be tested separately and in combination with commonly used wheat pesticides in field trials next year. (USDA-ARS Quarterly Report, July-Sept 2000)

Natural enemies of the Russian wheat aphid are now established in six states

Ten years after ARS scientists and collaborators released millions of exotic wasp parasites in small grain fields in eastern Colorado to control the Russian wheat aphid, they've found that four wasp species have become established in six states. Since invading the United States in 1986, the green, 1/16-inch-long Russian wheat aphids have caused more than \$1 billion in insecticide costs and related losses. Conventional breeding has produced aphid-resistant wheat varieties, which are now available to producers. In 1988, to screen natural controls for the Russian wheat aphid, ARS scientists worked with a consortium of federal and state scientists to release 11 species of wasps. Key to the success of the project was the collection of these exotic enemies by the staff of the ARS European Biological Control Laboratory,

Montpellier, France. The wasps were released in the wheat- and barley-growing areas of the western United States. The 11.8 million parasitic wasps released represented more than 80 geographic strains collected from 25 different Eurasian countries where the aphid originated. From 1991 through 1993, ARS scientists working with USDA's Animal and Plant Health Inspection Service, the Colorado State Agricultural Experiment Station, and the Colorado Department of Agriculture conducted an intensive biological control release program. Its purpose: to establish natural enemies of the aphid in small grains in eastern Colorado. That group released seven wasp species into Russian wheat aphid-infested wheat fields. Now, 7 years later, ARS scientist report that four of the seven wasp species have become established throughout a six-state area—Colorado, Kansas, Montana, Nebraska, Oklahoma, and Wyoming. Three species were found parasitizing greenbugs—an aphid relative—on sorghum. Two species successfully parasitized the Russian wheat aphid on wild grasses that aphids used as host plants over summer. Establishing natural enemies as part of integrated pest management systems is important because they do not cost anything, are highly compatible with plant resistance, and can contribute considerably to the overall reduction in the reliance on insecticides to control aphid cereal pests. (USDA-ARS Quarterly Report, April-June 2000)

PUBLICATIONS

Field Manual of Techniques in Invertebrate Pathology

The 38 chapters of this *Field Manual*, edited by L. A. Lacey and H. K. Kaya, provide the tools required for planning experiments with entomopathogens and their implementation in the field. Basic tools include chapters on the theory and practice of microbial control agents, statistical design of experiments, equipment and application strategies. The major pathogen groups are covered in individual chapters. Subsequent chapters deal with the impact of naturally occurring and introduced exotic pathogens and inundative application of microbial control agents.

Despite the best efforts of the authors to keep this affordable for its intended audience (researchers, especially graduate

students, organic growers, and IPM practitioners), Kluwer Academic Publishers priced the hardbound 932 page book at \$334. ISBN 0-7923-6269-1(2000)

Natural Enemies in Your Garden: A Homeowner's Guide to Biological Control

This 60-page handbook tells you how to use predators, parasites and pathogens for biological control of insect pests. Compiled from previous Midwest Biological Control News articles plus additional information, it includes in-depth profiles of 30-plus natural enemies from more than 20 biological control experts. Easy-to-use tables quickly guide you to information on the natural enemies to use against a particular pest. The book also encourages experimentation and adaptation to fit particular situations. Parents and teachers will especially appreciate the "Fun for Kids" activities that stimulate children's curiosity about the natural world around them. "The Scientist in You" experiments encourage readers to test the impacts of natural enemies in their own gardens.

To order MSU Extension bulletin E-2719, send \$6.25 (make checks payable to **Michigan State University**; credit cards also accepted) to:

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MEETING CALENDAR

53rd International Symposium on Crop Protection, 8 May 2001, Ghent, Belgium. The symposium will give attention to all topics related to crop protection. The deadline for submission of abstracts is 31 January 2001. The full program will be available in March and the proceedings will be published in a special issue of a journal of the Ghent University Faculty. For more information see the symposium website at <http://allserv.rug.ac.be/~hvanbost/symposium>. All correspondence should be sent to the secretary general:

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Biological Control of Invasive Species: Methods, Issues and International Co-operation

Midwest Institute for Biological Control course, 25-30 June 2001, USDA-ARS European Biological Control Lab, Montpellier, France. The Institute is designed for graduate students, biological control specialists and others interested in invasive species management. Working with USDA-ARS, French (INRA & CIRAD) and Australian (CSIRO) scientists, the shortcourse will cover the approaches, philosophy, case histories and risks associated with invasive species management in field, laboratory and classroom exercises. Cost is estimated at \$US 1000, which includes airfare from Chicago, hotel, most meals, in-country transportation, tuition and course materials. Limited to 15 students. For more information contact Bob O'Neil (bob_oneil@ent.purdue.edu) 765-494-7207.

The Practice of Biological Control: Importation and Management of Natural Enemies and Agents

IOBC-NRS/ESCOP Symposium, 2-5 August 2001, Bozeman, Montana. This symposium, consisting of keynote speakers followed by paper presentations, with afternoon poster sessions and small discussion groups, will develop a list of objectives to enhance the practice of biological control in the 21st century and publish a proceedings. For more information see the website at <http://www.montana.edu/wwwcf/biocontrol/mainframe.htm>

First International Symposium on Biological Control of Arthropods

17-21 September 2001, Honolulu, HI. This is the first meeting (to be held every 4 years) for practitioners of biological control of insects and mites. It will be focused on conservation, augmentation and importation using parasitoids and predators. (Microbial control was excluded to keep the group size to a manageable level). Attendance will be limited to 250 people, with no concurrent sessions. Includes an optional one day field trip on Oahu to sites of biological and ecological interest for an additional charge

(TBA). Registration, which includes proceedings, 4 lunches, a pre-meeting mixer, and daily refreshment breaks, is \$120 by July 17. Visit the website for more information and registration and hotel registration.

IPM in Glasshouses, IOBC-West Palearctic and Nearctic working groups joint meeting, 8-11 May 2002, Laurel Point Inn, Victoria, British Columbia, Canada. The meeting will feature 4 days of presentations and workshop discussions on Integrated Pest Management in Glasshouses, and will include a research tour of the dynamic glasshouse industry in southwestern British Columbia. The meeting will be restricted to 150 delegates, on a first-come, first-served basis. To be placed on a mailing list to receive further details, please contact: D.R. Gillespie, Pacific Agri-Food Research Centre, Agriculture and Agri-Food Canada, P.O. Box 1000, Agassiz, British Columbia, Canada V0M 1A0. Fax (604) 796-0359, E-mail: gillespie@em.agr.ca.

NEW MEMBERS

Welcome to the following new members:

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Niles, MI 49120

MEMBER NEWS

Address Change (new company name)

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P.O. Box 2430
Oxnard CA 93034-2430 USA

NEWSLETTER INFORMATION

Submission of news items from the membership is what makes this newsletter of value to all. Although a deadline is set for the editor's sake, please submit at any time for future newsletters (my address is on the back page). Some suggested topics are:

Items in the news affecting biological control
Taxonomy (revisions or studies impacting biocontrol)
Reports of Working Groups
Announcements
New research projects
Thesis or dissertation topics
Open Forum type letters
New appointments or people moving around
Awards or honors received by members
Meetings or workshops related to biological control
New publications

**Items for the Summer Newsletter are
due by 15 May 2001**

**FIRST INTERNATIONAL SYMPOSIUM ON
BIOLOGICAL CONTROL OF ARTHROPODS**

WHEN: September 17–21, 2001

WHERE: Radisson Waikiki Prince Kuhio Hotel, Honolulu, Hawaii

PURPOSE: To bring together biological control practitioners from around the world to promote and address international issues relating to arthropod biological control. A full day will address pertinent aspects of each of the following major topics: 1) Classical Biological Control, 2) Augmentative Biological Control, 3) Conservation of Natural Enemies in IPM Systems, and 4) Examples of Classical Biological Control. An additional day mid-week will offer visits to ongoing biological control projects and sites of ecological interest. For a copy of the draft program of the meeting, contact Roy Van Driesche at vandries@fnr.umass.edu or, in the near future, you can visit our soon to open website www.biocontrol.ucr.edu/isbca

WHY IS THIS MEETING NEEDED AND UNIQUE? In 1964, practitioners of biological weed control inaugurated a series of international meetings for weed biocontrol scientists that has been held every four years since the original meeting. This series of meetings has been a vital force for information exchange, development of internal strength and cohesion in their group, helping them to resolve issues and meet new challenges to practical use of biological weed control. As a result, weed biological control has prospered. In contrast, no such forum exists for biological control of insects and mites. We are scattered in larger meetings (such as the Entomological Society of America, or other national societies) or have drifted into narrowly focused meetings such as those on host specificity testing, nontarget impacts, or natural enemy biology. This lack of a forum for our group is holding back our discipline and making us less effective in meeting new challenges to the practical use of our science (which are many and growing). Our intent is to start such a meeting series for biological control of arthropods, beginning in HI in 2001 and continuing every 4 years thereafter. Come join us.

MORE INFORMATION: Contact Dr. Roy Van Driesche, Dept. Entomology, Univ. of Massachusetts, Amherst, MA 01003, Ph 413-545-1061, vandries@fnr.umass.edu. A website at www.biocontrol.ucr.edu/isbca provides details on the purpose, program agenda, regional contacts, and registration information.

**International Organization for Biological Control of Noxious Animals and Plants
Nearctic Regional Section**

**Organisation Internationale De Lutte Biologique Contre Les Animaux Et Les Plantes Nuisibles
Section De La Region Nearctic**

<http://www.entomology.wisc.edu/iobc/nrs.htm>

President:	Daniel Mahr	The International Organization for Biological Control - Nearctic
President Elect:	Molly Hunter	Regional Section Newsletter is published 3 times a year in February,
Past President:	Larry Charlet	June, and October to provide information and further communication
Vice President:	John Ruberson	among members of the Region (Bermuda, Canada, and the United
Secretary-Treasurer:	Robert Wiedenmann	States).
Corresponding Secretary:	Susan Mahr	
Members-at-Large:	Jacques Brodeur	
	Stefan Jaronski	
	Peter Mason	

Send items for the Summer 2001 IOBC-NRS Newsletter by 15 May to:

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