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IOBC - NRS Newsletter

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Distinguished Scientist Award 2001



Mary and Jim McMurtry

Dr. Jim McMurtry, Professor Emeritus at University of California-Riverside, was the recipient of the IOBC-NRS's Distinguished Scientist Award for 2001. Jim and his wife

Mary traveled from their home near Bend, OR to accept the award at the annual meeting of the IOBC-NRS, held in conjunction with the Entomological Society of America National meetings in San Diego, CA in early December. Past IOBC-NRS President Larry Charlet introduced Jim with the following comments:

Jim received his Ph.D. from UC-Davis in 1960 working on host plant resistance to spotted alfalfa aphid, then was hired at UCR to direct a project on biological control of mites. He has worked on mites ever since (even past retirement), concentrating on mites of citrus and avocado, but also cooperating on programs on strawberry, walnut and pines. Throughout his career Jim directed 15 students from the U.S., Canada, Brazil, Venezuela, Egypt, Guatemala, Morocco and Iran, including current IOBC-NRS President Dan Mahr and Past President Larry Charlet. He and his graduate students conducted long-term studies on population dynamics of mites and natural enemies, field studies to understand the roles of natural enemies and other biotic factors in population regulation, and laboratory studies to elucidate the biology and predatory behavior of many species of phytoseiid mites.

Over a 30 year period Jim conducted foreign exploration for natural enemies of mites throughout the world: the Mediterranean; Mexico; Central and South America; North, East and Southern Africa; and Australia. He has published over 140 papers, taught courses on general and agricultural acarology, and has served on the editorial board of *International Journal of Acarology*, *Experimental and Applied Acarology*, and *Acarologia*.

Some of his accomplishments in the area of mite biological control include:

- Established *Phytoseiulus persimilis* in 1963 as a biological control agent on strawberry and other high-value crops in California.
- Established *Galendromus helveolus* in 1992 against the recently introduced perseas mite on avocado.
- Established two predatory mite species (*Typhlodromus rickeri* and *Euseius stipulatus*) on citrus in coastal southern California.



Larry Charlet (L) and Dan Mahr (R) present a plaque to Distinguished Scientist Jim McMurtry.

Because the need was great (and as he put it, "it was also fun") Jim became involved in taxonomy and biosystematics of the Phytoseiidae. He is currently working with Don Chant on a taxonomic revision of the subfamily Amblyseinae. The revision of the family Phytoseiidae has been a 10-year project, and they are "finally seeing some light at the end of the tunnel." Jim has continued helping colleagues from California, Oregon, Mexico, Poland, Iran, Costa Rica, and Brazil on identification of specimens. He is also working with Brian Croft on hypotheses of categorizing generalist and specialist (and intermediates) phytoseiid mites based on various traits — in his spare time!



FROM the PRESIDENT

The President's Job Is Easy, and Other Rambling Thoughts From the San Diego Meeting

As usual, we had a very good turnout at our annual meeting/mixer/symposium, held in December in San Diego. Thanks go to all those members who attended; those of you who couldn't, we hope to see you this year in November in Ft. Lauderdale.

As the IOBC session was smoothly progressing, it occurred to me what a wonderful evening that we were having, and that my role in the entire operation was incredibly minor. In our organization, the job of coordinating the "annual affair" falls on the shoulders of the vice-president. Molly Hunter did a fabulous job for two years, and last year the responsibility fell to John Ruberson. If you are like me, you attend such events and live for the moment, without giving any thought as to how it all got put together. John was responsible for interacting with ESA as well as the convention center to assure that we had a spot on the program and the rooms to conduct our board meeting and general session; this involved everything from ordering the A/V equipment to making sure we had sufficient potato chips for the mixer. In addition, John contacted all of the speakers and organized the symposium. Dozens of hours go into such planning, and we really appreciate all of John's efforts. Thanks also go to

Molly Hunter for agreeing to moderate the symposium and for organizing the computer presentations. Another person needing recognition here is Rob Wiedenmann, our secretary/treasurer. I've called on Rob's great memory and organizational skills throughout the year whenever I needed to know something about the daily operational matters of our Section and our relationship with IOBC-Global. The annual Board meeting is where Rob summarizes all of the year's membership and financial activities, unintentionally impressing us with all the effort that he has put forth for the organization during the past year. Susan Mahr is our corresponding secretary and newsletter editor. Her responsibilities at the annual meeting are to record the minutes of the board and general meetings and take notes on whatever may be appropriate newsletter material. So, now you know who you really need to thank for keeping the organization functioning smoothly.

The meeting in San Diego was a homecoming for Susan and me. I am a fifth generation San Diegan, and Susan and I both have family in the area. I received my B.S. and M.S. from San Diego State University, only about 5 miles east of the convention facility, and later was on the faculty there (Dept. of Zool-

ogy) prior to coming to the University of Wisconsin. Although UC-Riverside is most commonly considered the center of biological control in southern California, I take some pride in knowing that San Diego State has also started many young scientists on the road to biological control activities. San Diego State graduates who have worked or are currently working in the area of biological control include Tom Ashley, Larry Charlet, Vince Jones, Susan Mahr, Dale Meyerdirk, Nelson Powers, John Sanderson, Pete Stoddard, Tom Unruh, and Roger Vargas (apologies to any I have missed). Many other entomologists started their college education at San Diego State, including ESA's immediate past president Larry Larson. It was nice to see many of these people back together again.

— Dan Mahr

If you move, please send your new address to the Secretary/Treasurer or Corresponding Secretary so this newsletter will continue to reach you. We have to pay return postage when your newsletter can't be delivered.

NEWSLETTER INFO

Improve This Newsletter by Submitting Articles

Submission of news items from the membership is what makes this newsletter of value to all.

Do you have a student finishing a M.S. or Ph.D.? Send in their abstract to publicize the work they've done.

Know of some biocontrol work done by your local county, state, or provincial government that will probably never be published? Submit excerpts from their report so others can hear about these success stories (or cautionary tales of biocontrol gone bad).

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
- Biocontrol position announcements
- 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 2002



Announcing The New IOBC-NRS Student Award

IOBC-NRS is now giving an annual award for Outstanding Graduate Student in Biological Control. For the last several years, as part of its Informal Conference, IOBC-NRS has recognized a Distinguished Scientist in Biological Control, someone who has dedicated their career to the discipline of biological control and has made a significant contribution to its development. The governing board wanted to similarly honor those likely to shape the future of the discipline, and to encourage student involvement in the society. IOBC-NRS thus announces an annual Outstanding Graduate Student in Biological Control award. The recipient will be recognized at the IOBC NRS Informal Conference held at the Annual Entomological Society of America meeting, will receive a cash award of \$250, and will give the lead talk in the IOBC-NRS symposium.

All individuals who are enrolled in a graduate program and are members of the IOBC NRS at the time of the application deadline are eligible. Students who are *not* planning to attend the Entomological Society of America Meetings would ordinarily be less likely to be considered for the award. We note that students may join IOBC-NRS at the time of submitting their application (membership application on page 9; for more details see the web site at <http://www.entomology.wisc.edu/iobcnrs.htm>). Also, while finishing Ph.D. students may be more likely to be able to demonstrate scholarship and achievement than Masters students, promising Masters students are also encouraged to apply.

The deadline for the application is March 15, 2002. Please:

- send a letter which details the signifi-

cance of your research and its relevance to biological control;

- include a 2 page CV that includes contact information, education, honors & awards, presentations, and publications; and
- ask 2 referees to send letters of reference to Martha S. Hunter, President-Elect IOBC-NRS.

We also ask that you confirm your plans to attend the Ent. Soc. Mtg. in Ft. Lauderdale in November 2002 in the letter. To facilitate sharing of applications among the Student Award Committee members, we ask that you send the documents as Microsoft Word attachments to <mhunter@ag.arizona.edu>. A decision will be made and the recipient notified in late April or early May, in time for the recipients' talk title and abstract to be entered in the ESA online submission system.

Elections for IOBC-NRS Officers Coming Soon — Nominations Needed

Nominations for the different offices of the Nearctic Regional Section Governing Board for 2003-2004 are open and should be submitted by **March 15**. The duties of the various offices are outlined in the NRS Statutes (see below). You may submit the name of someone you feel would be qualified or you own name if you have an interest in serving the Section. Please contact nominees in advance to determine their willingness to serve. **Note: all officers serve a term of two years.** Please submit names to the President either by mail or email (Dan Mahr, Dept. Entomology, Univ. Wisconsin, Madison, WI 53706 USA; dmahr@entomology.wisc.edu).

President-Elect. The President-Elect shall serve two years as President-Elect and the following two years as President. The President-Elect shall assume the office of President at the close of the annual meeting held at the end of the term of the incumbent President. A vacancy in the office of the President-Elect shall be filled as soon as practical

by written ballot. The President-Elect is the chair of the membership committee.

President. The President shall provide leadership for the Region, insure that the goals and objectives of both the Regional Section and the global organization are carried out, and preside at annual meetings. The President shall also serve as the chair at the Governing Board meetings. The President shall also have the authority to appoint members to committees or groups in order to meet the objectives and functions of the Regional Section and global organization. (nominations not required)

Past-President. The Past-President shall serve as an advisor and consultant to the President, in order to provide continuity in the development and implementation of the long-term policies of the Section. (nominations not required)

Vice-President. The Vice-President serves as the program chair for the Regional Section. In case of the inability of the President to serve, the Vice-President shall become President for the

remainder of the current term of office.

Secretary-Treasurer. The Secretary-Treasurer shall have custody of all accounts, securities, property, and records of the Region. The Secretary-Treasurer shall prepare an annual budget, maintain membership and fee records, and pay the annual global membership fee and subscriptions to *BioControl*.

Corresponding Secretary. The Corresponding Secretary shall be responsible for publication of the Regional Newsletter and shall act as a liaison for Regional information to be included in the global newsletter. The Corresponding Secretary shall also keep minutes of annual meetings and meetings of the Governing Board.

Members-at-Large. The Members-at-Large shall serve as chairs of special committees or projects established by the membership or the Governing Board to facilitate meeting the objectives of the Regional Section and global organization. (nominations required for 3 members at large)



Minutes of the IOBC-NRS Governing Board Meeting

The Annual Meeting of the Nearctic Regional Section Governing Board was held 9 December 2001 in San Diego, CA in conjunction with the Annual Meeting of the Entomological Society of America. Those present included Jacques Brodeur, Larry Charlet, Les Ehler, Gary Buckingham, Molly Hunter, Tim Kring, Dan Mahr, Susan Mahr, Rob Wiedenmann. The following is a somewhat condensed version of the minutes of the Governing Board meeting.

OFFICER AND COMMITTEE REPORTS

1. **Vice-President's report** — A plaque was obtained by John Ruberson to present to the winner of the Distinguished Scientist Award (DSA). Expenses for the winner to travel to this meeting would be defrayed, up to \$1000.

2. **Secretary-treasurer's report** — Membership declines of the last few years seem to be rebounding. A separate mailing was sent to people who did not renew in 2001 and also to those who were not IOBC members but attended the symposium in Bozeman — some memberships were renewed from these solicitations. Some journal memberships lapsed because of delivery problems.

3. Tim Kring presented **accounts from the Bozeman conference** (*The Practice of Biological Control*, 2001, supported by IOBC-NRS): \$37,250 in total income; \$31,836 in total expenses (several grants were received to offset expenses). The net income of \$5,414 (which includes the \$1500 of seed money from IOBC-NRS) was given to IOBC-NRS, with the stipulation that this money be used to fund the DSA. Discussion followed about organizing conferences in the future as money-making ventures.

4. **Corresponding secretary's report** — 2001 newsletters (Vol. 23):

- Winter issue (8 pages) + global newsletter #71 — mailed to ~280 members
- Summer issue (8 pages) + global newsletter #72
- Fall issue (8 pages)
- Complimentary copies: 60 to Global body, 30 to WRPS, 3 to other regional presidents

The IOBC-NRS website has not been updated this year, but it is being overhauled to make it ADA compliant to comply with University of Wisconsin regulations where it is hosted.

5. **Biocontrol Management Board representative's report** — the health of the journal was the main topic, with statistical reports broken down by sub-disciplines.

Semiochemicals will be incorporated into the IPM subsection. The publication is now back on schedule, and there will be 6 issues rather than 4 issues in the coming year. The editor-in-chief (Heiki Hokkaanen) has agreed to stay on for an additional 3 years beyond his term that will expire in 2003. Some editors (weeds, IPM) have completed their terms and Wiedenmann replied to a request for names for replacements.

6. The former **Weeds Working Group** that was dissolved last year presented \$335.48 to IOBC-NRS that it had remaining once all its bills for printing conference proceedings were paid.

7. The **Greenhouse Working Group** provided a written report of their activities in 2001, which includes an upcoming meeting (see announcement, page 8).

8. **IOBC Global report** — the global body will meet at the International Entomological Congress in 2004 in Brisbane, Australia. The IOBC website (www.iobc.agropolis.fr) has been redone, and will be the location for the new electronic version of the global newsletter. The next major IOBC conference — which are now being scheduled to coincide with a new group of officers every four years — will be in Montpellier in October 2002.

9. **President-Elect's report** — as a means of increasing student memberships, a student award application and selection will be implemented this year. The winner will be a speaker on the IOBC's informal conference program at the 2002 symposium.

OLD BUSINESS

1. Several means of **promoting membership** (through direct mailings to ESA subsection Ca participants, workshop participants, etc.), posters, or other ideas were discussed. IOBC-NRS needs to encourage people to join to support their discipline rather than for individual benefit.

2. **Cactoblastis Symposium** proceedings were recently published. Publication costs were paid for by NBCI.

3. **Revision of statutes** need to be submitted to IOBC-Global, and should be submitted to the Secretary General for approval.

4. **Operations manual** — officers were to have written up their duties. Only some have accomplished this.

5. The intent of the **Distinguished Scientist Award** was discussed in an effort to make balloting and results less diffuse. Nominations will be requested from the gen-

eral membership.

6. **Publications sent to institutions** will be revisited by Wiedenmann, since some publications are no longer provided to us or are not available. He will respond to the institutions to inform them of the situation.

NEW BUSINESS

1. **Elections** — were discussed, and nominations will be announced in the newsletter. It is understood that candidates be able to attend the ESA meeting when the general business meeting is normally held.

2. **Meeting location for next year** — will again be in conjunction with the ESA meeting in Fort Lauderdale, Florida.

3. A **topic for the 2002 symposium** program has not been determined. Some possibilities suggested included *Cactoblastis*, non-target issues, evolution of host range, impacts of transgenic crops on natural enemies, future of microbial biocontrol agents, A Florida Perspective on Biocontrol (to include weeds, mosquitoes, *Cactoblastis*, etc. and new projects starting to be addressed).

4. Potential candidates for **nominations for officers for 2003-2004** were discussed.

5. USDA-APHIS has substantially changed the mission of the **National Biological Control Institute**. NBCI, through its small-grants program, has been a significant sponsor of the annual IOBC-NRS conference. The NBCI grants program seems to have been abolished and no support was available for the 2001 symposium; no support is anticipated in the future. NBCI has been a productive participant in the North American biological control community and the change of mission will undoubtedly leave gaps in the coordination of biological control activities.

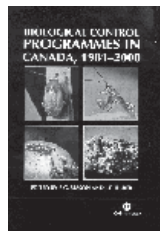
6. **Funding of NRS activities** — currently there is sufficient money to sustain IOBC-NRS activities for the near future, but NBCI contributions have been used heavily in the past. A conference to be held periodically to generate money for IOBC-NRS was suggested. Charlet and Brodeur agreed to assist D. Mahr in generating ideas for a symposium tentatively to be held in 2006.

7. **Proposed budget** — two items were added to the proposed budget for 2002 (GHWG - \$250; student award - \$250) and no expenses for Management Board or Global Body are anticipated in 2002, for a total proposed budget of \$3500.



PUBLICATIONS

Special Book Offer For Members



CABI Publishing is offering IOBC members a 20% discount on their latest book on biological control in Canada. *Biological Control Programmes in Canada, 1981-2000*, edited by P. G. Mason and J. T. Huber, was published in December

2001 (ISBN 0 85199 527 6). The 608-page hardback book follows on from a previous volume *Biological Control Programmes against Insects and Weeds in Canada, 1969-1980* published in 1984. It includes chapters written by well-known scientists involved in work on biological control between 1981 and 2000. The work reported provides models that will be applicable in many other

countries. The normal price is US\$175.00, but is being offered at the special price of US\$140.00 from their website. To obtain the 20% discount, go to <www.oup-usa.org/k352> and place an order for the book. The 20% will come off automatically once processed. This URL should be up and running after 1 February 2002, after which members will be able to order online.

POSITIONS

Two Biocontrol Postdoctoral Positions Available

Dr. Michael P. Hoffmann, Department of Entomology at Cornell University, NY, has two postdoctoral associate positions available 1 May 2002. Both have an application deadline of 1 March 2002.

One position focuses on biological control of the tarnished plant bug by *Peristenus digoneutis*, with an emphasis on the economic benefit of this parasitoid in high value crops such as strawberry; assessment of impact on non-targets and indirect impact on native parasitoids; and modification of an existing DNA ID technique for parasitoids.

The other position is a bit more flexible, but options include investigat-

ing the field ecology of vegetable insect pests and their natural enemies and development and deployment of biological, cultural and mechanical control tactics. Of particular importance is the further development of inoculative releases of *Trichogramma ostrinae* for suppression of European corn borer in corn and the further development of novel fiber barriers for control of insect and vertebrate pests.

Qualifications for both positions include a Ph.D. in Entomology or related field with a strong background in applied ecology, biological control, and the principles of integrated pest management. Experience with molecular tech-

niques highly desired for the first position. The candidate must be able to work equally well in field and laboratory situations and be able to effectively supervise employees and communicate with cooperating growers. Excellent statistical and writing skills expected.

For more information, or to apply, send CV, representative reprints, statement of research and career interests, and names of three references to:

Dr. Michael P. Hoffmann
Department of Entomology
Insectary Building
Cornell University
Ithaca, NY 14853
<mph3@cornell.edu>

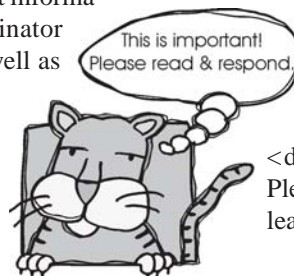
IOBC-NRS BUSINESS

Distinguished Scientist Award Nominations Requested

I am a firm believer in telling people how much their work is appreciated. Therefore, I think that one of the most important things done by our Section is the recognition of those scientists who have made outstanding contributions to the science and implementation of biological control over extended and illustrious careers. Many members have expressed to me their enjoyment of seeing colleagues honored with our Distinguished Scientist Award.

At this time, I am soliciting nominations for the 2003 DSA. Nominees must have spent most of their career in

the Nearctic Region (essentially Canada and the U.S.), and have made significant contributions to biological control, but need not be members of IOBC. Nominations are restricted to one page in length and should include the name and current contact information of both nominator and nominee, as well as a thorough but concise summary of the principle contributions of the nominee.



Please send nominations by **September 1, 2002** to:

Dan Mahr, President IOBC-NRS
Department of Entomology
University of Wisconsin
1630 Linden Drive
Madison, WI 53706 U.S.A.

Nominations may also be sent by fax (608-262-3322, attn. Dan Mahr) or by email to <dmahr@entomology.wisc.edu>. Please help us honor our deserving colleagues.



Aspergillus Against Aflatoxin in Peanut

Peanut farmers could soon have a biological pesticide for protecting their crop from fungi that produce aflatoxin, a fungal carcinogen toxic to humans and livestock. The main culprits are *Aspergillus flavus* and *A. parasiticus*. USDA-ARS microbiologist Joe Dorner and colleagues have identified benign strains of *Aspergillus* that compete with the aflatoxin-producing types for space and resources. Over the past 14 years they perfected methods of growing, formulating and applying the beneficial *Aspergillus* spores. Their approach, called bio-competitive exclusion, involves “seeding” these formulated spores

around the base of peanut plants. The good fungus colonizes soils in the peanut pod zone, blocking the aflatoxin-producing fungi. In field tests aflatoxin levels were reduced by 70 to 90 percent.

One of the biggest challenges was finding a fast, cheap method of mass-production. Solid-state fermentation was expensive, time-consuming and required sterilizing and drying before packaging. They switched to mixing the spores with soybean oil and spraying them onto whole, hull-free barley kernels. Coated with diatomaceous earth, which is self-drying, the kernels become tiny, easily applied granules. Circle One

Global, Inc. (COGI), of Cuthbert, Georgia, has applied for an exclusive license on the ARS technique for making the biopesticide from a nontoxigenic strain of *A. flavus*. COGI plans to register the formulation as a biopesticide with the U.S. EPA. Once registered, the product could become commercially available in the next couple of years.

—Adapted from *ARS News & Information, Biopesticide on Tap Against Aflatoxin, January 7, 2002* by Jan Suszkiw; for the complete article see <www.ars.usda.gov/is/pr/2002/020107.htm>.

Fungi To Stop Invasive Weeds

USDA-ARS scientists at several U.S. laboratories are testing the effectiveness of three new fungus species as biocontrols for some of the United States’ major invasive weeds: ragweed, purple loosestrife, kudzu, and morningglory.

Ragweed (*Ambrosia artemisiifolia*) is a noxious plant worldwide that causes seasonal allergies in many people. Scientists in Hungary—where ragweed is even more of a problem—reported that they had found a fungus that was pathogenic to ragweed. It causes leaves to die and kills some plants, probably by entering through leaf pores. This previously undescribed species of *Septoria* is also found in the U.S. Distinct from three other related, known *Septoria* species, it has been named *S. epambrosiae*. The new fungus has the potential to be developed as a biocontrol agent for ragweed.

Another newly discovered fungus attacks purple loosestrife (*Lythrum salicaria*), an invasive weed in wetlands and other moist habitats. This species has been named *Harknessia lythrii*. Many species of *Harknessia* are host specific—but not all of them—so scientists need to ensure that this fungus attacks only purple loosestrife before it could potentially be utilized for biological control.

The sicklepod fungus *Myrothecium verrucaria* was recently found to also be an effective bioherbicide for controlling kudzu, the fast-growing, non-native weed that has covered more than 7 million acres of the South. In greenhouse and small field plot studies, the *Myrothecium* bioherbicide killed 100% of kudzu weeds treated at different growth stages and under varying physical and environmental conditions. It should provide a good nonchemical con-

trol alternative, since one spray treatment kills leaves and stems and appears to invade the roots. Extensive toxicological studies are being conducted on the fungus and the USDA is looking for a company to license the patented kudzu-control technology.

Different strains of *M. verrucaria* kill morningglories, a weed that plagues sugarcane growers. *M. verrucaria* is being tested for broad-spectrum weed control. In field studies, spraying re-droot- and smallflower-morningglories with an oil-based carrier containing *Myrothecium* spores proved as lethal to these weeds as the herbicide atrazine.

—Adapted from Becker, H. 2001. *Fungi Can Whack Invasive Weeds, Ag. Res. 49(1)*; for the complete article see <www.ars.usda.gov/is/AR/archive/nov01/fungi1101.htm>.

Bacterium Against Colorado Potato Beetle

The glowing bacterium *Photobacterium luminescens* produces several toxins that are potential biocontrols. USDA-ARS scientists are investigating both the toxins and the whole bacterium for control of Colorado potato beetle. One strain tested in lab studies reduced

Colorado potato beetles by 100%, making it a prime biocontrol candidate against this beetle. It appears *P. luminescens* causes the beetles to stop eating, though the scientists don’t know why. More tests will be conducted to determine the mechanism of control and

if *P. luminescens* can successfully be transferred from the lab to the field.

—Adapted from *ARS News & Information, Colorado Potato Beetles May Succumb to the Glow, October 26, 2001* by Sharon Durham; for the complete article see <www.ars.usda.gov/is/pr/2001/011026.htm>.



RESEARCH BRIEFS

Russian Wheat Aphid Parasites in Wyoming

The aphelinids *Aphelinus albipodus* and *A. asychis*, and the braconids *Diaeretiella rapae*, *Aphidius colemani*, *A. matricariae*, *A. picipes*, *A. rhopalosiphii*, *Ephedrus plagiator*, and *Praon gallicum* were released in southeastern Wyoming for biological control of Russian wheat aphid from 1989 to 1996. Three species, *A. albipodus*, *A. asychis*, and *D. rapae*, were first detected in winter wheat fields 3 years after the first release and spread throughout the wheat production region

within 5 years of release. Other primary aphid parasitoids were recovered sporadically and in very small quantities, and hyperparasitoids consisted of up to 20% of the specimens recovered.

A. albipodus and *D. rapae* commonly occurred in wheat and barley and adjacent grasslands of southeastern Wyoming. *A. albipodus* is likely becoming the predominant species in small grain production in the region. And *A. albipodus* and *D. rapae* range expansion and occurrence in grassland sites

adjacent to wheat and barley may aid in their ability to control *D. noxia*.

— From Brewer, M. J., D. J. Nelson, R. G. Ahern, J. D. Donahue, and D. R. Prokrym. 2001. Recovery and Range Expansion of Parasitoids (Hymenoptera: Aphelinidae and Braconidae) Released for Biological Control of *Diuraphis noxia* (Homoptera: Aphididae) in Wyoming. *Environ. Entomol.* 30(3): 578-588.

Limitations of Mass Rearing on Artificial Diet

In order for mass rearing and augmentative release to become viable as an alternative to pesticide use and other pest control measures, it must prove to be cost effective, with large numbers of beneficial insects available upon demand. The impact of an insect-free artificial diet provided at nymphal and/or adult stage upon the developmental rate, life table parameters, and fertility table parameters was examined for *Podisus maculiventris*.

Although generational survivorship was not significantly different between prey-fed and diet-fed insects, developmental time to adult of *P. maculiventris* on this artificial diet was extensively prolonged. The analysis of both the cost per egg and the cost of doubling based on life and fertility table parameters presented in this study revealed a significant increase in the cost to rear *P. maculiventris* on this artificial diet. In light of this study, the evaluation of ar-

tificial diets should be carefully reported and may benefit from a comparison of cost.

— From Wittmeyer, J. L. and T. A. Coudron. 2001. Life Table Parameters, Reproductive Rate, Intrinsic Rate of Increase, and Estimated Cost of Rearing *Podisus maculiventris* (Heteroptera: Pentatomidae) on an Artificial Diet. *J. Econ. Entomol.* 94(6): 1344-1352.

Weevil Stops Giant Salvinia

One of the world's worst aquatic weeds — giant salvinia (*Salvinia molesta*), which forms dense mats that can double in a few days — has invaded some areas of the U.S. USDA-ARS scientists in Fort Lauderdale, FL and Australia are leading studies of the tiny, salvinia-eating weevil *Cyrtobagous salviniae*, obtained from another

salvinia species, *S. minima*, or common salvinia, that grows in Florida. This insect has already been used — with great success — in more than 13 countries. More than 800 salvinia weevils were collected from common salvinia in Florida and released in an east Texas pond and lake and in a reservoir on the Texas-Louisiana border. Scientists have

begun to make additional releases, but using weevils collected from Australia rather than from Florida.

— Adapted from ARS News & Information, Giant Salvinia Attacked by Tiny Weevil, December 18, 2001 by Marcia Wood; for the complete article see <www.ars.usda.gov/is/pr/2001/011218.htm>.

Lacewings Use Nectar As Survival Food

The role of extrafloral nectar in the ecology of a larval common green lacewing, *Chrysoperla plorabunda* was examined in cotton fields and almond orchards in CA. Extrafloral nectar was a major component of the diet of neonate lacewing larvae, and consumption increased strongly as the local availability of aphid prey declined. In the absence

of arthropod prey, extrafloral nectar contributed only slightly to neonate lacewing growth and did not support lacewing development. Nevertheless, extrafloral nectar did promote substantial longevity of first-instar lacewing larvae, which were able to maintain a high level of searching activity. This nectar provides more nutritional benefits

than simply a water source.

— From Limburg, D. A. and J. A. Rosenheim. 2001. Extrafloral Nectar Consumption and Its Influence on Survival and Development of an Omnivorous Predator, Larval *Chrysoperla plorabunda* (Neuroptera: Chrysopidae). *Environ. Entomol.* 30(3): 595-604.



MEETING CALENDAR

IPM in Glasshouses

8-11 May 2002

Victoria, British Columbia, Canada

The IOBC-West Palearctic and Nearctic working groups are hosting this joint meeting. 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:

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8th International Colloquium on Invertebrate Pathology and Microbial Control and 6th International Conference on *Bacillus thuringiensis*

August 18-23, 2002

Foz do Iguassu, Brazil

For more information, contact the organising committee chairman:

F. Moscardi
Fax: +55-371-6100
Email: <moscardi@cnpso.embrapa.br>

6th International Symposium: Egg Parasitoids for Biocontrol of Insect Pests

September 15-18, 2002

Perugia, Italy

Registration and a welcome reception will take place on Sunday afternoon, while sessions are planned from Monday through to Wednesday. An "open lab" is planned and informal contacts can be arranged for Thursday morning. Oral presentations and poster sessions will cover basic and applied aspects. The symposium's goal is to integrate concepts and strategies to allow full utilization of *Trichogramma* and of other egg parasitoids in biocontrol.

The estimated registration fee of 250 Euro for participants (100 Euro for accompanying persons) includes the program, abstract book (proceedings will not be published), 3 lunches, 6 coffee breaks and a social dinner. Deadline for registration and submission of abstracts is 31 March 2002.

For more information e-mail <eggpar@unipg.it> or visit the conference website at <www.unipg.it/eggpar>.

The Role of Genetics and Evolution in Biological Control

14-16 October 2002

Montpellier, France

The aims of the 3rd International Symposium of the IOBC are to acquaint biological control workers with the latest advances in genomics and molecular biology and to explore ways that these advances can be put to practical use in biological control. Leading ecologists and biological control researchers have been invited as keynote speakers; papers can also be submitted until 1 April 2002 (extended from 1 March). There will be 6 themes, each introduced by a keynote speaker, followed by oral papers and posters. The second announcement is expected in early 2002.

For more information and registration forms, visit the website at <http://www.iobc.agropolis.fr/symposium2002/PagesUS/Frameset-welcome2.htm> or contact:

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Global Newsletter Goes Electronic

Starting with issue #74,

the IOBC Global Newsletter will be available only electronically (except to institutional members). The last hard copy of the IOBC Global Newsletter (#73) is enclosed

with this issue, but it is also available in color, and in Word and pdf formats from the Corresponding Secretary. In the future IOBC Global newsletters will also be available on the IOBC website <www.iobc.agropolis.fr> to help improve the speed of distribution and to reduce cost.



**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>

IOBC website: <www.iobc.agropolis.fr>

**Send items for the
Summer 2002 IOBC-NRS Newsletter
by 15 May to:**

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The International Organization for Biological Control - Nearctic Regional Section Newsletter is published 3 times a year in February, June, and October to provide information and further communication among members of the Region (Bermuda, Canada, and the United States).

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