



NEWSLETTER

April - May 2002 Entomology and Nematology News
Entomology and Nematology Student Organization
A University of Florida Publication

Meetings and Publications

James P. Cuda was invited by Steve Shaw, Vice-President of the Southwest Chapter of the Florida Association of Environmental Professionals, to give a presentation at their March meeting in Ft. Myers, on biological control of weeds focusing on melaleuca. The title of the presentation was "Classical Biological Control of Weeds in Florida: The Melaleuca Weevil Success Story." The first part of the presentation introduced basic concepts on biological control of weeds, and provided an overview of Florida's programs. The second part of the presentation focused on melaleuca, a highly invasive weed in southwest Florida. Various aspects of the biology the Australian weevil *Oxyops vitiosa*, a recently introduced natural enemy of melaleuca, and techniques for redistributing the insect to melaleuca infested sites were presented.

Eileen Buss, landscape and turf extension entomologist, recently used a PowerPoint presentation in a talk at the SE Pest Management Conference called "Challenges of Insect Pest Management in the Landscape" and was asked by several county faculty to post it to the UF/IFAS Presentations Web site. It is there now.

Elizabeth Felter of Orange County Extension has also contributed a PowerPoint presentation titled "Scouting - A Real Life Experience." The UF/IFAS Presentations Web site can be accessed through <http://pests.ifas.ufl.edu/>. To access this site requires a IFASDOM username and password. If you don't have one or can't remember it, then you must contact IFAS IT.

Jim Cuda and **Norm Leppla** also posted the following PowerPoint presentation on the UF/IFAS Presentations Web site: "Lovebugs in Florida - Setting the Record Straight."

Norm Leppla recently traveled to Tunis, Tunisia and visited the Institute National Agronomique de Tunisie, Departement de Biologie to review a research project for the International Atomic Energy Agency, Food and Agriculture Organization of the United Nations, "Control of Date Moth Using Radiation Sterilization." The objectives of this assignment were to assist the counterpart, Professor Dr. Mohamed Habib Dhouibi, leader of the date moth eradication project, in improving rearing of the date moth (carob moth), *Ectomyelois ceratoniae* (Lepidoptera: Pyralidae), with special emphasis on mating densities in oviposition cages, mating procedures, diet preparation, marking with calico red dye, irradiation for sexual

sterilization, and associated procedures. Additionally, a meeting was held with Professor Mougou Abdelaziz, President, Institution for Agriculture Research and Higher Education, Ministry of Agriculture to determine if an irradiator could be housed in the date moth rearing facility. The mission was successful in determining the status of the date moth project, including capabilities of the staff, resource requirements, pilot level operations, and support from the Tunisian Ministry of Agriculture. Professor Dhouibi is exceptionally capable and productive, and has the full support of his administration. Although functional, the rearing system could be improved in several ways to help prevent problems in the future. It is notable that the colony was appropriately established with insects from the target population and has been in production for about 25 generations. Irradiation is a bottleneck to releasing the maximum number of moths that can be reared; however, there are several options for solving this problem. Success in the field will depend on reducing the size of the target population by site selection and cultural practices in date production. It is essential to devise an efficient means of determining and tracking levels of sterility in wild-type date moths. As the eradication project becomes operational, the date moth will have to be excluded from areas where it has been eradicated.

PCT Magazine, a national magazine servicing the urban pest control industry, contained an article in its March 2002 issue titled "Insect Repellents Provide Safe Relief With Proper Use." The article is designed to be torn out of the magazine so that companies can reproduce it, stamp their company name and address on the top and distribute to customers. The article was written by **Angela Brammer**, a M.S. student in our department. Angela has a B.S. in Journalism (with emphasis on copy editing) and intends to be a science writer. She is currently working on the final review of the new national Public Health Pest Control Pesticide Applicator manual, of which she is one of the editors. A link to the online version of Angela's article in PCT magazine is available from the Florida Pest Alert site. The Florida Pest Alert WWW site is available at <http://PestAlert.ifas.ufl.edu/>

Levy, H. C., Garcia-Maruniak, A. and Maruniak, J. (2002). Strain identification of *Spodoptera frugiperda* (Lepidoptera: Noctuidae) insects and cell line: PCR-RFLP of Cytochrome Oxidase C subunit I gene. Florida Entomologist 85(1): 186-190.

Russell Mizell, Thomas Fasulo and Donald Short released version 2.0 of the WoodyBug CD-ROM. WoodyBug 2.0 contains new and updated information and photographs. However, whereas WoodyBug 1.0 only ran on Windows PCs, WoodyBug 2.0 runs on any Mac or Windows PC with a CD-ROM drive, a mouse and a World Wide Web browser. WoodyBug 2.0 (SW-119) contains detailed information on pest and beneficial arthropods of woody ornamentals in the southeast United States. There are over 170 color images, including over 150 color photographs of the arthropods (mostly insects). The CD-ROM is heavily oriented toward IPM, and also contains detailed information on beneficial arthropods. At least 70 color images are on the beneficial insects and mites. Other areas covered, besides in-depth information on pest groups, include host plant resistance, biologically compatible pesticides, scouting and monitoring. For details access the UF Buggy Software Web site at <http://pests.ifas.ufl.edu/software/>.

James Cuda, Norman Leppla and Eileen Buss conducted an in-service training program for county faculty using interactive videoconferencing technology on April 10th. The half day distance education workshop on "Integrated Pest Management Emphasizing Biological Control in Florida's Agricultural,

Urban and Natural Environments" originated from the Gainesville Distance Education Unit in McCarty Hall, and was transmitted to remote sites in Fort Lauderdale, Immokalee, Quincy, Fort Pierce, Homestead, Lake Alfred, Apopka and Bradenton. Approximately 60 individuals at the aforementioned locations participated in the workshop that included presentations by **James Cuda**, **Norm Leppla**, and **Eileen Buss** as well as **Donald Dickson**, **Raghavan Charudattan**, **Martin Adjei**, **Howard Frank**, **Lance Osborne**, **Gregg Nuessly**, **Phil Koehler**, and **Freddie Johnson**. The goal of the workshop was to increase communication among state specialists and county faculty around the state who are interested in IPM emphasizing biological control.

Hazel C. Levy, **Alejandra Garcia-Maruniak** and **James E. Maruniak**. 2002. Strain identification of *Spodoptera frugiperda* (Lepidoptera: Noctuidae) insects and cell line: PCR-RFLP of cytochrome oxidase C subunit I gene. Florida Entomologist 85: 186-190.

James Cuda was named Associate Editor of BioControl (formerly Entomophaga), the official journal of the International Organization for Biological Control. Cuda will be responsible for soliciting reviews on papers in the sub-discipline of weed biological control.

Minor, R.K., T.R. Fasulo, and **A.D. Koehler**. [Gentrol IGR](#) - A computer-verified training\CEU tutorial. SW-152. March 2002. 11Megabytes.

James Cuda was a guest lecturer for ENY 6203 (Insect Ecology) on April 17th. Cuda presented a lecture on aquatic insect communities using examples from his research on biological control of the aquatic weed hydrilla

Dr. James Cuda participated in an in-service workshop for extension specialists to learn how to develop and conduct more effective in-service training programs for county faculty, and also how to improve writing skills. This one-day workshop was held in Gainesville, April 23rd.

Norm Leppla - An on-site review of the Insect Production Unit (IPU), Great Lakes Forestry Centre, Sault Ste. Marie, Ontario was just completed. The review was conducted at the direction and under the leadership of Errol Caldwell, Director, Integrated Pest Management, Great Lakes Forestry Centre (GLFC). The review team (Norm Leppla, Brian Melin, Fred Stewart, and Jay Whistlecraft) was asked to "critically examine our rearing facility and rearing practices with particular attention to issues affecting quality control," specifically to "eliminate current microbial contamination in our budworm colony, which steps need to be taken to prevent re-infection, and what we need to change in our rearing practices, facility, and QC management in order to maintain high-quality and disease-free rearing stocks in the longer term." The IPU currently produces 12 species of forest insects and two species of other interest. Spruce budworm (SBW) constitutes 75% of production with about 3.5 million larvae per year distributed to a wide range of important research projects. The IPU is staffed by four permanent full-time and two temporary employees with periodic seasonal assistance. A reliable source of high quality, normal (diapausing) SBW is urgently needed to support planned research projects to manage this forest and urban pest. The second stage SBW larvae are held in diapause for about six months before completing development, so production must be stabilized almost a year before the insects will be available for seasonal research. Consequently, the review

team divided its findings into two general categories: immediate action to solve the SBW rearing problems and supportive activities for the IPU. Immediate action included treating the SBW colony infection, establishing a disease-free colony of diapausing SBW, isolating rearing facilities from sources of contamination, instituting procedures to assure a healthy colony, and using QC procedures to immediately detect and correct rearing problems. Supportive activities were classified into the following categories: staffing; training and education; resources; focus and prioritization; and communication and consultation. A comprehensive report is available.

On April 12, in London, **Tom Walker** spoke at the 18th International Learned Journals Seminar, sponsored by the Association of Learned and Professional Society Publishers. This year's seminar was titled "We can't go on like this: the future of journals." Walker's talk, "Author (or sponsor) pays," was one of four talks in a session on alternative business models. In it, he described how two journal-publishing societies (Florida Entomological Society and Entomological Society of America) were making money by providing (at a fair price) what their authors want--namely, immediate free Web access (by everyone) to the authors' articles. The seminar was attended by representatives of the major commercial publishers of journals as well as by those from society-based publishers. Should anyone be interested in the details of the talk, it can be viewed or downloaded at <http://csssrvr.entnem.ufl.edu/~walker/epub/ALPSP.htm>.

Eileen Buss recently attended the IR-4 meeting for minor use crops in Houston, TX (April 14-16). She met with other research and government entomologists, product manufacturers, and ornamental growers to discuss the prioritization of phytotoxicity and efficacy studies of insecticides and miticides currently registered through EPA and those in the "pipeline." The ultimate goal of the IR-4 program is to assist in obtaining data for pesticide and biopesticide label registrations and label expansions.

Kathryn Barbara and **Eileen Buss** conducted a field demonstration of the entomopathogenic nematode that attacks exotic mole crickets, *Steinernema scapterisci* (Nematac S), in Bradenton on April 5th. About 60 school administrators, county agents, master gardeners, teachers, students, a school principal, school grounds crews, parks and recreation personnel, pest management professionals, distributors, and golf course superintendents attended. Students in one of the science classes were enthusiastic about helping with the research/demonstration project. Even some pest management professionals, who have resisted adopting an IPM strategy, were really interested in working with the nematodes and other mole cricket biological control agents.

Speakers for the 2002 Southeast Pest Management Conference held May 5-8 at the Constans Theater included, **Eileen Buss, Billy Crow, Philip Koehler, Faith Oi, Brian Cabrera, Matt Aubuchon, Deanna Branscome, Shawn Brooks, Rebecca Baldwin, Katie Barbara, Roxanne Burrus, Cara Congdon, Brian Eisenberg, Richard Martyniak, Kim McCanless, Robin Minor, Dina Richman, and Cindy Tucker.**

Awards

Eileen Buss was recently awarded \$67,000 in a three year EPA Strategic Agricultural Initiative Grant, titled "Evaluation of Integrated Pest Management Practices in Urban Turfgrass."

Scotty Long was the recipient of the Outstanding Graduate Student Paper Award in the Agricultural and Natural Resources Section of the Florida Academy of Sciences. The award was in recognition for Scotty's oral presentation, "Initial Testing Results of a Novel Bio-Rational Compound for the Control of Insect Pests of Agricultural and Medical Importance" at the Academy's 2002 Annual Meeting held at Barry University, Miami, 7-9 March. **Lucy Treadwell** also received the Honorable Mention Graduate Student Paper Award in the same section for her presentation titled, "Population Dynamics of Meristems Among Defoliated Brazilian Peppertrees: Consequences for Growth and Reproduction."

Several students in the Entomology and Nematology Department were recently recognized by **Charles E. Young**, President of the University of Florida, "for outstanding achievements and contribution to the University of Florida." The recipients were **Cynthia Khoo, Heather Smith, J. Chapman, Alison Neeley, Scotty Long, Jim Dunford, Rebecca Baldwin, Wade Davidson, and Kelly Sims.**

In April, **Emily Heffernan**, a student of **Tom Emmel**, received a Fulbright Fellowship Award to Malaysia. She will be doing fieldwork out of FRIM (The Forest Research Institute of Malaysia) for ten months. The grant totals \$17,800 and includes travel, living, research costs, and a monthly stipend. Her research will consist of fieldwork on symbiotic ants and lycaenid caterpillars in the 100 million year old rainforests of western peninsular Malaysia.

Cynthia Khoo, a Ph.D. student in the lab of **Pauline Lawrence**, was recently inducted into the Gamma Sigma Delta honor society of Agriculture. She was also recognized as one of five outstanding International graduate students in the College of Agricultural and Life Sciences. Students were selected based on "academic success (GPA, scholarly activity, and outstanding service to their department, college or the University). In December 2001 Cynthia was elected as a member-at-large of the International Affairs Committee, a Standing Committee of the Entomological Society of America. Congratulations for a job well done, Cynthia.

In recognition of her academic achievements, **Kathryn Barbara**, who works in the Landscape Entomology program, was inducted into Gamma Sigma Delta in April 2002. Kathryn also recently received the Vam York Agricultural Women's Scholarship as a result of her hard work, academic accomplishments, community involvement, and professional goals.

Jennifer Lanoie graduated this spring with a 4.0 and highest honors for her B.S. She did her Honors Thesis with **Dr. James Maruniak**. The title of her Thesis is "Sequencing and bioinformatics of the *Neodiprion sertifer* nucleoprotein." "

Debbie Hall and **Jerry Wenzel** have been awarded the Superior Accomplishment Award for their service to our department. Congratulations.

James Cuda was awarded a \$2,400 grant from the Office of the Dean for Research. The grant is being used to support **Bobbie Jo Davis**, a summer intern who will be working on a project to develop an artificial diet for rearing the flower bud weevil *Anthonomus tenebrosus*, a candidate for biological control of tropical soda apple.

Congratulations to the new ENSO and UES officers for the 2002- 2003 school year. The ENSO officers are President, **Trevor Smith**, Vice President, **Alejandro Arevalo**, Secretary, **Cara Congdon**, Treasurer, **Cindy Tucker**, and Historian **Rebecca Baldwin**. UES officers are, President, **Ricky Vasquez**, Vice President, **Joe Jonovich**, Secretary, **Cara Congdon**, Treasurer, **Cindy Tucker**, and Historian, **Richard Martiniak**

Featured Creatures

The Extension Computer Lab has been busy the last two months generating seven new CDs and working on more. As a result, only two new Creatures were added in February and March and they were previously reported in this newsletter. However, some of the text and images in the Featured Creatures lady beetles file have been changed. Thanks go to **J.P Michaud** for providing positive identification of *Olla v-nigrum* Casey and *Chilocorus stigma* (Walker) and images. So this issue will be used to provide the correct citation for Web-based articles. In a recent listing of publications by departmental faculty, I observed that almost everyone who contributed a Featured Creatures used a different form of citation. The correct citation is based on The Columbia Guide to Online Style Web site at <http://www.columbia.edu/cu/cup/cgos/>

To quote from the site in regard to World Wide Web citations:

"Scientific Style: Give the author's last name and initials (if known) and the date of publication in parentheses. Next, list the full title of the work, capitalizing only the first word and any proper nouns; the title of the complete work or site (if applicable) in italics, again capitalizing only the first word and any proper nouns; any version or file numbers, enclosed in parentheses; the protocol and address, including the path or directories necessary to access the document; and finally the date accessed, enclosed in parentheses."

Example:

Burka, L. P. (1993). A hypertext history of multi-user dimensions. *MUD history*. <http://www.utopia.com/talent/lpb/muddex/essay> (2 Aug. 1996).

However, if you are the author listing your own work, then the final date is not necessary. This applies to people citing your work to show the date they accessed it. After all, Web sites can be changed and what you have written on it today you could change tomorrow.

As an example, an author would list his or her Featured Creatures as:

Brammer, A., and W.T. Crow. (December 2001). Red ring nematode, *Bursaphelenchus cocophilus* (Cobb) Baujard. *UF/IFAS Featured Creatures*. EENY-236. http://creatures.ifas.ufl.edu/nematode/red_ring_nematode.htm

Featured Creatures Kudos

"Thank you for a comprehensive and organised website. It is one of the best ones for pests that I have seen yet!" - Emma Lumb, Office of the Chief Plant Protection Officer, Department of Agriculture, Fisheries & Forestry - Australia

Florida Today, "The Space Coast's Newspaper" of Brevard and adjoining counties, ran an article on beneficial insects and listed five files from Featured Creatures as sources. These files were on [brown lacewings](#), [lady beetles](#), [ringlegged earwigs](#) and two parasitic wasps, [Cotesia marginiventris](#) and [Diadegma insulare](#).

News

With money from the Office of the Provost and from the Dean of the College of Agriculture and Life Sciences, an academic pavilion will be built in the [Natural Area Teaching Laboratory](#). The pavilion will provide shelter from rain and lightning for classes of up to 38 students. It will be located near the kiosk and will have tables with bench seating to facilitate students working with specimens and taking notes. Construction of the pavilion will be supervised by IFAS Facilities Operations.

New insect order to be reported in Science http://news.nationalgeographic.com/news/2002/03/0328_0328_TVstickinsect.html

The Florida Department of Health Weekly Arbovirus Summaries are now available from the Florida Pest Alert site at <http://PestAlert.ifas.ufl.edu/>. You can also access the 5-page Florida Arbovirus Response Plan 2002 from the Pest Alert site. This is a 66 KB PDF file.

With dengue fever again a serious problem in South America and as close to the USA as Cuba and the Caribbean, the Florida Department of Health has enhanced its surveillance for dengue fever in this state. Details are available on the Florida Pest Alert site.

Daniel Sonke, extension graduate assistant for the Florida IPM and Biological Control Program, took a day out of his spring break to take an IFAS Communication Services video crew to the Bradenton area to film an integrated pest management success story in Manatee County. IFAS extension specialists were able to convince a large corporate tomato grower to switch to IPM methods by scouting a sample field for just one season. Now the grower feels that IPM is a necessary part of his tomato production. Sonke arranged for the success story to be filmed by ICS. It will be made into a TV news article which will be released to Florida and nationwide news services.

Entomology and Nematology Course Announcement: ENY 6822C Molecular Biology Techniques Summer A 2002 (May 13th to June 21st). This will be a hands on laboratory course. It targets Entomology and Nematology graduate students interested in learning, understanding and applying molecular biology techniques for their own research projects. The students will extract the DNA that will be used for further

experiments. Maintenance of an adequate laboratory notebook, oral presentation of a project using the techniques learned, attendance and active participation in every aspect of the course will be the major criteria for grades. Instructors: **James Maruniak** (ext 148) and **Alejandra Garcia Maruniak** (ext 203)

Software Tutorials

The University of Florida has updated its Label Tutorials to reflect the latest issue of the labels and has also converted the tutorials from a diskette format to CD-ROMs. The three [Label Tutorials](#) that were updated were Premise 75, Siege gel and Talstar F. We have also issued a new Label Tutorial on Gentrol IGR. Each of these tutorials is available for one CEU in Florida for Core/General Standards in numerous categories. Premise 75, Siege gel and Talstar F are also certified for several categories in the State of West Virginia. The cost of the tutorials is \$15 each. Receive a 25% discount when ordering in quantities of 25 or more (the Label Tutorials can be mixed to receive the discount). A 40% discount is available to resellers for quantities of 10 or more. Details are on the UF Buggy Software Web site at <http://pests.ifas.ufl.edu/software/>.

The University of Florida Core2 (Pesticide Labeling) and Core6 (Emergency Response to Harmful Effects of Pesticides, Heat Stress and Heat Stroke) Tutorials are now available on CD-ROMs. In addition, the price of each tutorial is reduced from \$35 to \$25. Quantity discounts are available. Purchase 25 or more copies and receive a discount of 25%. Resellers can receive a discount of 40% on orders of 10 or more. These tutorials are based on Chapters 2 and 6 of the USDA Applying Pesticides Correctly manual. Core2 and Core6 are each authorized for two CEUs in Florida and West Virginia for pesticide applicator recertification in numerous categories. Detailed information on the CDs is available on the University of Florida Buggy Software Web site

The State of Arizona Structural Pest Control Commission has approved 16 of the University of Florida computer-verified training tutorials for CEUs and recertification of pesticide applicator licenses in nine categories. These tutorials are developed by **Tom Fasulo** and other members of the department. For details see the University of Florida Buggy Software site.

The State of Vermont Department of Agriculture, Food and Markets has approved 20 of the University of Florida computer-verified training tutorials for CEUs and recertification of pesticide applicator licenses in 11 categories. These tutorials are developed by Tom Fasulo and other members of the department. For details see the University of Florida Buggy Software site.

SOMETHING MISSING FROM YOUR NEWSLETTER?

If there is something you would like to see in future editions of the newsletter, please send all thoughts, suggestions and supportive criticisms to **Rebecca Baldwin**.

Special thanks to **Tom Fasulo** who maintains the WWW site for the newsletter and to **Pam Howell** who is a tremendous help in the editing of the newsletter.

A hard copy of this newsletter is given to department members in building 970 only. All others can obtain an electronic subscription by sending a request to listserv@lists.ufl.edu and in the text of the message type:

subscribe UF-bugnews-L yourfirstname yourlastname

Turn off any signature file, if you have one. You will receive instructions for confirming your subscription and further information on the rules for the list server.

This version of the newsletter is prepared for the Web by **Andy Koehler**.

May 2002. Updated July 2003.