

December 2008

Faculty News

Three faculty positions are available at the University of Florida, or at the USDA lab in Gainesville, Florida.

- UF/IFAS [Post-Doctoral position in entomology](#) - [whiteflies](#) in greenhouse tomatoes
- UF/IFAS [Post-Doctoral Fellowship in apiculture](#) - [varroa mite](#) biology
- USDA [Research Entomologist/Molecular Biologist \(Virologist\)](#) - managing invasive fire ants

Seventy meters per second is pretty fast, and it can be fatal, especially if you are an invader of a termite colony and a soldier termite hits you that fast with its mandibles. Dr. Marc Seid and Dr. Jeremy Niven, post-doctoral fellows at the [Smithsonian Tropical Research Institute](#), and Dr. [Rudolf Scheffrahn](#) of our department, captured footage of the soldier termite's jaws as they struck an invader at that speed. The action was captured on a high speed video camera in the laboratory at 40,000 frames per second. See <http://www.sciencedaily.com/releases/2008/11/081124165259.htm> for details.

Dr. **Arturo Cocco**, a postdoctoral scientist in Dr. **Marjorie Hoy's** laboratory will return to Sardinia on December 11th, where he will take a new post conducting research on biological control.

Dr. [Marc Branham](#) and Dr. [Phil Kaufman](#) served on the Program Committee for the 2008 National Meeting of the [Entomological Society of America](#) (ESA) held in Reno, Nevada, during November 16-19, 2008. Members must be appointed to the Program Committee.

Dr. [James P. Cuda](#) was one of several faculty members invited to have breakfast with IFAS Research Dean Dr. Mark McLellan at the UF Hilton Conference on 17 November. The purpose of the breakfast meeting was to discuss issues relevant to IFAS research programs.

Staff News

Dr. [Rebecca Baldwin](#) was part of a team of entomologists that performed outreach activities during the recent ESA

meeting. Twenty-three fifth graders from Lena Juniper Elementary school in Sparks, NV, received a surprise on November 17th, when termites, beetles, hissing cockroaches, a black widow spider, a tarantula showed up for school. Entomological Foundation Board of Counselors and ESA members Dr. Rebecca Baldwin, Dr. Whitney Cranshaw, and Dr. Nick Toscano, provided science-related activities to the students through the use of arthropods. You can contribute to or participate in the **Entomological Foundation** by viewing information at http://www.entfdn.org/how_you_can_help.php.

Student News

Ph.D. student **Hou-Feng Li** received the **2008 William L. and Ruth D. Nutting Award** from [IUSI/NAS](#) (International Union for Studies of Social Insects - North American section) at the ESA meeting. The award states that "Mr. Li's Masters research focused on foraging gallery construction by subterranean termites. He demonstrated that subterranean termites excavate foraging galleries without depositing soil above ground, thus disproving the long-held assumption that termites compact soil. Mr. Li used creative techniques, such as multicolored soil particles, digital microphotography and mathematical analysis of the resulting color pixels, to test the hypothesis of soil compaction by termites. He has five (four as first author) research publications in excellent journals, and has demonstrated outreach to the scientific, pest control industry and greater entomological community. He is involved with basic research, as well as serving as a site manager for a study to evaluate modifications to a bait system for control of subterranean termites." For the complete award statement, please see [Hou-Feng Li 1208.pdf](#).

Ph.D. student [Christian Salcedo](#) received a UF/IFAS [James Davidson Graduate Student International Travel Scholarship](#). The \$650 Scholarship will be used to support his travel expenses to the [3rd Meeting on Neotropical Lepidoptera](#) in Chetumal, Mexico during June 2009.

[Seth Bybee](#) (Branham Lab) will graduate this month with a Ph.D. in Entomology. The title of his dissertation is "Phylogenetics, evolution and systematics of Holodonta with special focus on wing structure evolution: morphological, molecular and fossil evidence." Beginning in January, Dr. Bybee has a post-doctoral position at the University of California - Irvine.

[Jennifer Zaspel](#) (Branham Lab) will graduate this month with a Ph.D. in Entomology. The title of her dissertation is "Systematics, biology and behavior of fruit-piercing and blood-feeding moths in the subfamily Calpinae (Lepidoptera: Noctuidae)." Beginning in January, Dr. Zaspel has a post-doctoral position at the University of Minnesota.

Entomology Undergraduate Programs Grow

Since 2003, the undergraduate entomology program has grown from a total of 18 majors and minors to over 60 majors and minors. Our average GPA during that same time has increased from 2.76 to 3.65. Today, we have five national merit scholars, five [University Scholars](#) and one Presidential Scholar among our undergraduate student population. I am very proud of this change in our undergraduate degree and you should be, too.

We have an extremely active undergraduate entomology club that boasts almost 75 members. Take a look at what we do and the various activities in which this club participates at <http://entomologyclub.ifas.ufl.edu>. - Dr. [Carl S.](#)

[Barfield](#), Undergraduate Coordinator

Publications

[Hahn DA](#), [James LN](#), [Milne KR](#), Hatle JD. 2008. Life history plasticity after attaining a dietary threshold for reproduction is associated with protein storage in flesh flies. *Functional Ecology* 22: 1081-1090.

[Hahn DA](#), [Martin AR](#), [Porter SD](#). 2008. Body size, but not cooling rate affects supercooling points in the [red imported fire ant](#) *Solenopsis invicta*. *Environmental Entomology* 37: 1074-1080.

[Scharf ME](#), Tartar A. 2008. Termite digestomes as sources for novel lignocellulases. *Biofuels, Bioproducts and Biorefining* 2: 540-552.

[Lewis DS](#). (November 2008). Lime swallowtail, *Papilio demoleus* Linnaeus. *Featured Creatures*. EENY-444. http://creatures.ifas.ufl.edu/bfly/lime_swallowtail.htm

Meetings and Presentations

Professor Emeritus **Malcolm (Tom) Sanford** is in Turkey, just finishing his participation in the first ever Mugla Beekeeping and Pine Honey Congress. He is soon off to Israel where he will be visiting beekeepers and researchers at the Faculty of Agriculture in Rehovot. See more at <http://abeekeepersblog.blogspot.com>.

Dr. **James Cuda** was an invited speaker for a symposium on Invasive Plants and Invertebrates at the 15th Annual Conference of the Wildlife Society held in Miami, Florida, 8-12 November. Cuda gave the presentation "New research on biological control of Brazilian peppertree."

Dr. **James Cuda** participated in the 13th Annual Exotic Species Workshop for Southwest Florida held in Ft. Myers, FL, 2 December. Cuda organized a Biological Control Panel Discussion and provided research updates on Brazilian peppertree and the aquatic weed hygrophila.

Members of our department presented numerous papers and posters at the ESA meeting. Here are some of them:

Dr. [Marjorie A. Hoy](#) presented a symposium talk on "Genomic analyses of a predatory mite: status and prospects."

Dr. [Christine Miller](#) served as a judge for a session of the student talk competitions during the ESA meeting. She

also presented a talk on "The type and timing of social information alters offspring production in the cactus bug, [Chelinidia vittiger](#) (Hemiptera: Coreidae)."

[Fae Nageon de Lestang](#), an undergraduate researcher from Dr. **Christine Miller**'s lab, spoke on the "Effects of natal environment on male-male competitive success in the cactus bug *Narnia femorata* (Hemiptera: Coreidae)."

Ph.D. student [Kyle Beucke](#) was awarded runner-up for best poster in the student competition. His poster, co-authored by Dr. **Marc Branham**, was "Variation in the stridulatory apparatus in *Mycotrupes* beetles (Coleoptera: Geotrupidae)."

Dr. **Marc Branham** and D.K. Young presented "Formal course instruction in 'Immature Insects:' 20 years of data across U. S. institutions." This was an invited presentation for the SEB Section Symposium: Immature Stages in Insect Systematics.

Graduate students **Seth Bybee**, **Jennifer Zaspel**, **Kyle Beucke**, [Clare Scott](#), [Bradley Smith](#) and Dr. Marc Branham presented "Is molecular data supplanting morphological data in modern phylogenetic studies?"

[E.H. \(Gino\) Nearns](#) and Dr. **Marc Branham** presented "Biogeography of two genera of longhorned beetles occurring in the Caribbean."

Ph.D. student **Clare Scott** and Dr. **Marc Branham** presented "A preliminary phylogenetic analysis of the lichen moths of the genus *Crambidia* (Lepidoptera: Noctuidae: Arctiinae)."

Graduate student **Bradley Smith** and Dr. **Marc Branham** presented "Predicting the geographic distribution of sexual signaling systems of Colombian fireflies."

Ph.D. student **Jennifer Zaspel** and Dr. **Marc Branham** presented "Comparative survey of proboscis morphology in fruit-piercing and blood-feeding moths in the subfamily Calpinae (Lepidoptera: Noctuidae)."

[Frank Fogarty](#), a [Howard Hughes Medical Institute Undergraduate Research Fellow](#), **Seth Bybee**, **Spencer Ingley** and Dr. **Marc Branham** presented "Phylogenetic relationships of Central and South American flatwing damselflies (Odonata: Zygoptera: Megapodagrionidae): an examination of monophyly in a convoluted group."

[Spencer Ingley](#), a Howard Hughes Medical Institute Undergraduate Research Fellow, **Seth Bybee**, **Frank Fogarty** and Dr. **Marc Branham** presented "Wings, evolution and oviposition: Phylogenetics of the helicopter damselflies (Odonata: Pseudostigmatidae)."

[Jessica Awad](#), an undergraduate and member of the [University Scholars Program](#), Dr. **Marc Branham** and Dr. [Heather McAuslane](#) presented "Using ecological niche modeling to examine the influence of host specificity on species distribution in the leaf beetle *Microrhopala floridana* and its host plant."

Dr. **James Cuda** was an invited speaker for a Plant-Insect Ecosystem Section Symposium on Advances in Weed

Biological Control. Cuda spoke on "Novel approaches for risk assessment: temporary releases of biocontrol agents using arrhenotoky or F1 sterility."

Outreach

During 4-9 November, several members of the department participated in the [Ocali Country Days](#), an annual 19th century living history event put on by the [Silver River Museum and Environmental Education Center](#), within [Silver River State Park](#) in Marion County. This event also features booths about the environment hosted by local and state organizations. This was the first year our department hosted a booth and, as usual, we brought along live arthropods to play with the people. According to Center Director Scott Mitchell, our booth was an "overwhelming success" due to the many favorable comments he received and the crowds he saw every time he passed by our tables.



Awaiting the crowd.



Human larval stages.



Cochroaches and tarantulas and dung beetles! Oh, my!



Being brave earns an "I touched a roach" sticker.

Twelve-hundred students and teachers attended on each of the four days the event was open to schools during the week, and another 4,400 people attended on Saturday and Sunday when the event was open to the public. Our thanks to the following who helped out at the booth: [Thomas Fasulo](#), Dr. [Rebecca Baldwin](#), [Lois Wood](#), [Jane Medley](#), and graduate students [Sharon Clemmenson](#), [Matt Thom](#), [Dan Fitzpatrick](#) and [Thomson Paris](#). Jane Medley brought Levi, her 7-year-old son, along. After Levi had visited the 19th century displays and living historians, he was asked what he thought of them. He replied, "This is so like the 70s!" We also extend our thanks to Scott Mitchell and his Center for providing our people with lunch every day and a \$150 contribution to our Outreach Program.

On 15 November, Dr. [Jamie Ellis](#) and graduate student [Anthony Vaudo](#) hosted our tables at the [Tail Gator](#). This is an annual alumni and prospective student outreach program hosted by [CALs](#) (the teaching branch of IFAS) before that day's football game.



A future graduate student contemplates entomology as a career.



A current graduate student enjoys educating the public.

Segments

Old flies can become young moms: See <http://www.sciencedaily.com/releases/2008/11/081124141051.htm> for details.

Are rat fleas now spreading human heart-damaging bacteria? See <http://www.sciencedaily.com/releases/2008/11/081123222844.htm> for details.

Roach bombs can eliminate cockroaches... and windows and walls and... See <http://www.wsbtv.com/news/18145069/detail.html#-> for details.

Florida has a new eucalyptus pest. In fact, *Leptocybe invasa* Fisher and LaSalle (Hymenoptera: Eulophida) is a genus and species new to North America also. This blue gum chalcid, as it is called, can cause substantial damage or death to young trees. See http://www.doacs.state.fl.us/pi/enpp/ento/leptocybe_invasa.html for details.

A paper by Dr. [Keith Willmott](#) and Dr. Marianne Elias, a postdoctoral associate with the University of Edinburgh, was the subject of a recent UF/IFAS news release. The paper, published in the journal PLoS Biology, "shows that groups of butterfly species in the subfamily Ithomiinae evolved to share not only color patterns, but also preferences for habitat, including the places they fly, court and rest...showing that positive interactions among species can indeed have a significant effect in structuring communities." See <http://news.ifas.ufl.edu/story.aspx?id=1314> for details.

On January 6, 2009, the [McGuire Center for Lepidoptera](#) in Gainesville will host a lunch-time seminar by Dr. Antonia Monteiro, of Yale University, on the origin of butterfly eyespots.

Bug Quotes and Personalities

"Bees have been of use in naval warfare. There is at least one recorded instance of sailors on a small ship in the Mediterranean climbing the rigging and throwing beehives down onto the deck of an attacking galley, instantly turning the tables on the larger ship." - from **The Greatest War Stories Never Told**, by **Rick Beyer**

Bees are also useful in espionage. [Astrid Løken](#), a Norwegian entomologist who specialized in the [bumble bee](#) genus *Bombus*, became the first female member of the Norwegian Entomological Society in 1941. However, during 1940-1945, she concealed a potentially fatal secret. And beginning in 1943, she obtained permission from the Nazi occupiers of her country to continue her research. As a result, she was permitted to take photographs of bumble bees in military restricted areas. What the Nazis did not know was that entomologist Løken was also a Norwegian Resistance leader who was endangering her life by photographing military installations in the restricted areas.

Cartoons

Many comic Web sites limit the length of time a panel appears to just 30 days. Others may require you to register to view previous panels, which you may not wish to do. In either case, the sooner you visit the site, the greater chance you have to view the following:

Ever wonder why your advisor lets you give a paper at a conference? See <http://www.phdcomics.com/comics/archive.php?comid=301>.

Some necessary steps to take before you apply for that faculty position: <http://www.phdcomics.com/comics/archive.php?comid=293>.

Newsletter Minutiae

[Thomas Fasulo](#) is the newsletter editor. Departmental faculty, staff, students and alumni can submit news anytime to fasulo@ufl.edu. Issues usually are published by early mid-month. Submit items for an issue by the 7th of that month.

UF-Bugnews-L listserv subscribers receive notices when issues are posted on the on the newsletter Web site at <http://entnews.ifas.ufl.edu/>, which has instructions for subscribing and unsubscribing. **Pam Howell** and **Nancy Sanders** review the newsletter for errors. Thomas Fasulo does the HTML coding.

In the last 12 months, the newsletter Web site recorded 51,029 visitor sessions, 93,772 HTML page views and 9,613 PDF downloads.

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