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Hexapod Herald

Volume 23 September 2011 Number 5

WELCOME

Dr. Edson Baldin, from São Paulo, Brazil, has joined the Entomology Department as a visiting scientist and will be working with **Drs. Tiffany Heng-Moss** and **Tom Hunt** for the next 12 months in a soybean-aphid project. Dr. Baldin has worked for São Paulo State University (UNESP) for four years conducting research in plant resistance and botanical pesticides, working with soybeans, (stink bugs, caterpillars) storage grains, (bean weevils) and tomato (whiteflies) and cucurbit crops (leaf beetle, etc). He received his B.S. degree in Agronomy in 1995 and his M.S. degree in Entomology in 1998 from São Paulo State University, UNESP, Brazil. He received his Ph.D. degree in Entomology in 2001 from the São Paulo University, USP, Brazil. Dr. Baldin is joined by his wife, Claudia, and their children, Guilherme (11) and Mateus (1). Although they are newcomers to Nebraska, the family says they are enjoying Lincoln very much.

Dr. Laramy Enders is a new postdoc who will be working under the supervision of **Dr. Nick Miller** on a collaborative project involving the Departments of Entomology and Biochemistry and the School of Biological Sciences. The project is funded for the next two years by a UNL Life Sciences Grant and will take an interdisciplinary approach to studying the response of soybean aphids (*Aphis glycines*) to biotic and abiotic stresses. Collaborators include **Dr. Nick Miller** (lead PI) and **Drs. Tiffany Heng-Moss** and **Blair Siegfried** from the Entomology Department, Dr. Renu Nandakumar from the Department of Biochemistry, and **Drs. Jenn Brisson**, Ryan Bickel, and Tony Zera from the School of Biological Sciences. Laramy received her B.S. degree in Ecology and Evolutionary Biology from the University of Rochester in 2002 and her Ph.D. degree in Ecology, Evolution and Organismal Biology, from the University of California, Riverside in 2010. She worked as a postdoc in the Biology Department at University of California, Riverside until arriving here in September.

Dr. Chitvan Khajuria has joined the department for one year as a Research Assistant Professor working with **Dr. Blair Siegfried**. He received his B.S. degree in Agriculture in 2002, and M.S. degree in Entomology in 2004 both from Punjab Agricultural University, Punjab, India. He received his Ph.D. degree in Entomology in 2010 from Kansas State University. His Ph.D. dissertation research involved the identification of genes involved with Bt resistance in the European corn borer. He was a post-doctoral associate at Kansas State University where he studied the role of small RNAs in wheat-Hessian fly interactions.



Dr. Edson Baldin



Dr. Laramy Enders



Dr. Chitvan Khajuria

Jelfina Costansje Alouw is a new Ph.D. student from Indonesia who is working under the supervision of **Dr. Nick Miller**. Jelfina received her B.S. degree in Plant Pest and Disease Study from Sam Ratulangi University in 1992 and her M.S. degree in Entomology from the University of the Philippines, Los Baños in 2004.

Alister Kinoshita Bryson will be working under the supervision of **Dr. Roberto Cortinas** as a new M.S. student. Alister received his B.S. degree in Biology from Iowa State University in 2007. He recently completed his active duty service with the United States Navy and is now affiliated with the Navy Reserves based out of Omaha, NE.

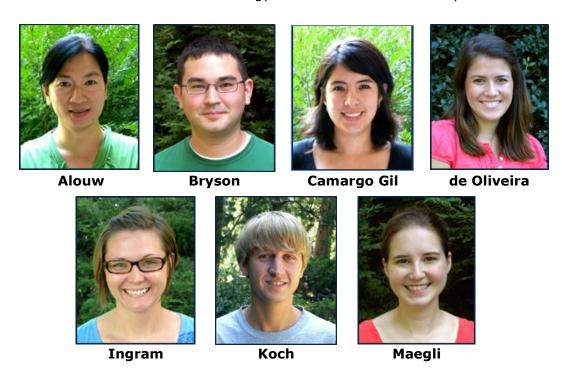
Carolina Camargo Gil is a new dual program student from Columbia working under the supervision of **Dr. Blair Siegfried** in the M.S. degree program in the Entomology Department and in the Doctor of Plant Health Program under the supervision of **Dr. Gary Hein.** Carolina received her B.S. degree in Biology from the Pontificia Universidad Javeriana, Bogotá.

Camila Farias de Oliveira is a new M.S. student from Brazil working under the supervision of **Dr. Gary Hein**. Camila received her B.A. in Anthropology and her B.S. in Biological Sciences from the University of Missouri-Columbia in 2010.

Erin Michelle Ingram will be working under the supervision of **Drs. Marion Ellis** and **Blair Siegfried** as a new M.S. student. Erin, originally from Franklin, NE, received her B.S. in Education & Human Sciences from UNL in 2004 and then spent the next six years in the Pacific Northwest working as a nanny and tutor before returning to Nebraska in 2010.

Kyle Gene Koch is a new M.S. student working under the supervision of **Drs. Jeff Bradshaw** and **Tiffany Heng-Moss.** Kyle received his B.S. in Biology from Creighton University in 2009, and he had been a research tech/entomology intern at the Panhandle Research and Extension Center since March 2010.

Amanda Claire Maegli is working under the supervision of **Dr. Roberto Cortinas** as a new M.S. student. Amanda received her B.S. in Entomology in 2010 from the University of Wisconsin–Madison.



New Distance Masters Students:

<u>Fall 2011</u> – **Jense Fredericks**, Olympia, WA; **Matthew Greenwood**, Midvale, UT; **Michele Griffin**, Las Cruces, NM; **Katy Hillard**, St. Louis, MO; **Emily Jones**, Coronado, CA; **Phillip Matthews**, Durham, NC; **Steven Ridgely**, Telford, PA; **Timothy Suhr**, Lincoln, NE; **Ann Yaroch**, Midland, MI

New insect science majors: **Matthew Bond**, Omaha, NE; **Gene Curl**, Lincoln, NE; **Stephanie Endrulat**, Lincoln, NE; **Junsuk Kim**, Shreveport, LA; and **Nicole Mann**, Papillion, NE.

CONGRATULATIONS

The following students graduated August 2011:

Christina Fennell, M.S. (Advisor - Dr. Tom Weissling)

Ryan Geisert, M.S. (Advisor – Dr. Lance Meinke)

Laura Higgins, Ph.D. (Advisors – **Drs. John Foster** and **Blair Siegfried**)

Kathleen Kneeland, Ph.D. (Advisors – Drs. John Foster and Steve Skoda)

David McKinney, M.S. (Advisor - **Dr. Tom Weissling**)

Ruby Reynolds, M.S. (Advisor - Dr. Tom Weissling)

Michael Sowers, M.S. (Advisor - Dr. Tom Weissling)

Sheri Svehla, Ph.D. (Advisor - Dr. Leon Higley)

Bamphitlhi Tiroesele, Ph.D. (Advisor - Dr. John Foster)

Chancellor Harvey Perlman's annual State of the University Address and UNL's Employee Service Award recognition program were held September 1 at the Lied Center for Performing Arts. The following employees were honored: **Jim Kalisch,** 30 years; **Marilyn Weidner**, 30 years; **Bob Roselle**, 15 years; **Terence Spencer**, 15 years; **Dr. Tiffany Heng-Moss**, 10 years; **Dr. Gary Brewer**, 5 years; and **Dr. David Carter**, 5 years.

IPad App Available to Help Producers Scout for Soybean Aphids

Now is the time to scout for soybean aphids and a new University of Nebraska-Lincoln Extension app can help do just that. Aphid Speed Scout, which was produced for UNL Extension by EdMedia's Mark Hendricks and others, is available in the iTunes store at http://itunes.apple.com/us/app/aphid-speed-scout/id454600279?mt=8.

Aphid Speed Scout will make scouting for soybean aphids easier and faster, said **Wayne**Ohnesorg, UNL Extension educator in Madison County. Ohnesorg said he got the idea for the app after he took his new Apple iPad into the field -- all part of a statewide UNL Extension effort to better use technology to teach, deliver, and manage information.

Ohnesorg said he thought an app would help crop scouts more efficiently scout for soybean aphids. He took his idea back to the office and began to work with UNL Extension entomologists **Drs. Tom Hunt** and **Bob Wright** in making Excel spreadsheets on which the app is based. The spreadsheets process data input by crop scouts.

PUBLICATIONS

Campbell, Laura A. and **Lance Meinke.** 2010. Fitness of *Diabrotica barberi, Diabrotica longicornis,* and Their Hybrids (Coleoptera: Chrysomelidae). Ann. Entomol. Soc. Am. 103(6):925-935.

Coates, B.S., D.V. Sumerford, **H. Wang**, C.A. Abel, R.L. Hellmich, and **B.D. Siegfried**. 2011. A single major QTL controls expression of larval Cry1F resistance trait in *Ostrinia nubilalis* (Lepidoptera: Crambidae). Genetica doi: 10.1007/s10709-011-9590-0.

Crespo, A.L.B., A. Rodrigo-Simón, **H.A.A. Siqueira**, **E.J.G. Pereira**, **J.** Ferre, and **B.D. Siegfried**. 2011. Cross-resistance and mechanism of resistance to Cry1Ab toxin from *Bacillus thuringiensis* in a field-derived strain of European corn borer, *Ostrinia nubilalis*. J. Invert. Pathol. doi:10.1016/j.jip.2011.04.007.

Cruz, Ivan, Maria de Lourdes Corrêa Figueiredo, Rafael Braga da Silva, and **John E. Foster**. 2011. Efficiency of Chemical Pesticides to Control *Spodoptera frugiperda* and Validation of Pheromone Traps as a Pest Management Tool in Maize Crop. Rivista Brasilerira de Milho e Sorgo. 9(2):1-16.

Gaspers, C., **B.D. Siegfried**, **T. Spencer**, **A.P. Alves**, N.P. Storer, I. Schuphan, and S. Eber. 2011. Susceptibility of European and North American populations of the European corn borer to the Cry1F insecticidal protein. J. Appl. Entomol. 135:7-16.

Husen, Timothy J., Ralph Narain, Abdul Hafiz Ab Majid, Shripat Kamble, and **Robert W. Davis.** 2011. Bioefficacy of Chlorfenapyr Against American and Oriental Cockroaches, and House Flies on Wood, Concrete and Vinyl Surfaces. Proceedings of the 7th International Conference on Urban Pests, pp. 89-98.

Neita, J.C. and **B.C. Ratcliffe**. 2011. Immature stages of *Homophileurus tricuspis* Prell (Coleoptera: Scarabaeidae: Dynastinae: Phileurini) with notes on natural history and distribution in Colombia. Zootaxa 2915:20-28.

Ohnesorg, Wayne J., Thomas E. Hunt, and **Robert J. Wright**. 2011. Soybean Aphid Speed Scouting Spreadsheet, Extension Circular 1582, UNL Extension. Available online at http://go.unl.edu/4kv http://go.unl.edu/4kv

Pereira, E.J.G., N.P. Storer, and **B.D. Siegfried**. 2011. Fitness costs of Cry1F resistance in laboratory-selected European corn borer (Lepidoptera: Crambidae). J. Appl. Entomol. 135:1-6.

Pitti, Abel, Steven R. Skoda, Kate M. Kneeland, Dennis R. Berkebile, Jaime Molina-Ochoa, Muhammad F. Chaudhury, Ousmane Youm and John E. Foster. 2011. The Effect of the Adult Screwworm Male Size on Mating Competence. Southwestern Entomologists. 36:(1):47-60.

Ratcliffe, B.C. 2011. A review of the species of *Phileurus* with quadridentate protibiae and description of a new species from Panama (Coleoptera: Scarabaeidae: Dynastinae: Phileurini). The Coleopterists Bulletin 65:125-129.

Ratcliffe, B.C. and D. Curoe. 2011. A New Species of *Hemiphileurus* Kolbe from Panama with a Revised Key to the Panamanian Species (Coleoptera: Scarabaeidae: Dynastinae: Phileurini). The Coleopterists Bulletin 65:139-143.

Ratcliffe, B.C. and R.L. Hoffman. 2011. *Cyclocephala nigricollis* Burmeister. What is ii? And where is it? (Coleoptera: Scarabaeidae: Dynastinae: Cyclocephalini). The Coleopterists Bulletin 65:135–138.

Ratcliffe, B.C. 2011. Book Review. *Atlas of Japanese Scarabaeoidea. Volume 3. Phytophagaous Group II* by H. Kobayashi and T. Matsumoto. The Coleopterists Bulletin 65:155-156.

Santos, Jamilton P., Paulo E.O. Guimaraes, Jose M. Waquil, and **John E. Foster.** 2010. Relative Index of Susceptibility to the Maize Weevil, *Sitophilus zeamais*, among some QPM Corn Lines. Revista Brasilera de Milho e Sorgo. 5(2):159-169.

Tan, S.Y., B.F. Cayabyab, E.P. Alcantara, Y.B. Ibrahim, F. Huang, E.E. Blankenship and **B.D. Siegfried**. 2011. Comparative Susceptibility of *Ostrinia furnacalis, Ostrinia nubilalis* and *Diatraea saccharalis* (Lepidoptera: Crambidae) to *Bacillus thuringiensis* Cry1 Toxins. Crop Prot. doi:10.1016/j.cropro.2011.05.009.

MEET AN OFF-CAMPUS STUDENT

Ron was featured in an article on the DVIDS: Defense Video & Imagery Distribution System written by Spc. Evan Lane, entitled "Scientist's Dream Deployment. The article is reprinted in its entirety below. Thanks to Dr. John Owens, past Vice Chancellor for IANR and entomologist extraordinaire for bringing this article to our attention.

Off-Campus M.S. Student - Ron Hirzel

Did you know there's a very specific way to put a live wasp in your pocket? At least one soldier on Camp Bondsteel does. Sgt. 1st Class Ronald Hirzel is currently acting as a medic with Task Force Medical, but in his off hours he learns as much



as he can about bugs. While most soldiers know a bit more about bugs than the average office worker (mainly which ones to avoid being bitten by during a field training exercise), Hirzel has turned his love of bugs into a long-term field of study. During his spare time, Hirzel goes hunting for butterflies, and along the way pockets a few beetles and bees for good measure. "I'm working on my master's degree through University of Nebraska-Lincoln," said Hirzel. A fully online master's program allows him to pursue his study while deployed. Kosovo is not the first theater that he has hunted bugs in, either. "I did this in Iraq, too," he mentions. "It was quite a bit more restricted, though." The only things that seem to keep Hirzel from looking for bugs were mortar strikes in Iraq and lightning here in Kosovo. "You can't be traipsing around with this during one of these Kosovo storms," he mused, gesturing with an aluminum butterfly net. Ironically, his butterfly net is not being used to catch butterflies. His current course requires him to conduct insect behavioral research. He heads out every three days or so, depending on his work schedule, to record the movements of the small heath butterfly. Studying this specific butterfly, also known as a ringlet, is a practical choice for Hirzel. "The ringlets are the only type I can keep up with, with my bad knees," he said. "And conducting a behavioral study of slugs would be worse than watching paint dry." "I monitor the ringlets' patterns," said Hirzel. Each behavioral session lasts about two hours, but sometimes they are cut short. "The first ringlet I tracked was lost about 45 minutes into the study," he said. "It confused a little yellow flower with a little yellow crab spider." On Bondsteel, he has to work hard to find his research subjects. The Area Support Team crews frequently mow the tall grass that the ringlets call home. There are a few places that he can count on to be insect sanctuaries, though. Small oases of butterfly bushes near out-of-the-way treelines attract all manner of bugs. "I collect for the Florida Museum of Natural History in Gainesville," Hirzel mentioned as he put a cicada wasp into a wax paper envelope. After trapping the wasp in his butterfly net, he acted quickly, compressing its abdomen between his fingernail and the metal rim of the net. This step is essential to pacifying insects, he noted. "A careless colleague of mine was stung by a tarantula wasp similar to this one; it hit bone." His samples will be sent back to the museum, run by the University of Florida for research and storage, accompanied by a customs form. Hirzel said he will continue to work toward his degree while here in Kosovo. "I'm a bit too old to start on the officer track for Army entomology," he said, "but there are some really nice civilian jobs out there in my field." Hirzel shows that no matter what a soldier's goal may be, he can accomplish it through planning and determination.

G RANTS

Fred Baxendale & Tiffany Heng-Moss	
•	DuPont\$15,000
	"Turfgrass Pests"
•	Syngenta Corp \$11,000
	"Turfgrass Pests"
Robert Wright	
•	Bayer CropScience

FACULTY NEWS

"Crop Insect Management Research"

Drs. Tom Hunt and **Bob Wright** have been selected by the European Corn Borer IPM Team to receive the 2011 Integrated Pest Management Team Award at the ESA 2011 Annual Meeting in November.

Drs. Bill Hutchison and **Ousmane Youm** have been appointed as Graduate Faculty Associates at UNL. As Graduate Faculty Associates, Dr. Hutchison and Dr. Youm can teach graduate courses, direct master's theses, serve on or chair master's degree examining committees, and serve on doctoral supervisory committees.

Dr. Shripat Kamble will receive the 2011 ESA Recognition Award in Urban Entomology at the ESA National Meeting that will be held in Reno, NV, in November. The award includes a cash award and a plaque.

Dr. Jaime Molina-Ochoa has been appointed the "Academic Coordinator of the Department of Agricultural Industries" in the Division of Health and Engineering Sciences, University of <u>Guanajuato</u>, Campus Celaya-Salvatierra.

STUDENT NEWS

Abdul Hafiz Ab Majid has been selected to receive the 2011 ESA Student Certification Award at the ESA meeting in November. Hafiz, a Ph.D. student working under the supervision of **Dr. Shripat Kamble**, is conducting research on termites.

Amanda Fujikawa had two of her Scanning Electron Microscope (SEM) Photos take 2nd and 3rd place (out of 40 entries) at the International Association for Identification Conference in Milwaukee, WI, August 8-12. One photo was a side view of a *Lucilia sericata* adult blow fly, and the other was a photo of a third stage maggot's mouth hooks (see picture to the right). Besides the admiration of her peers and two really fancy ribbons, Amanda received a \$50 gift card and a camera neck strap. Amanda is a Ph.D. student working under the supervision of **Drs. David Carter** and Leon Higley.



Tim Husen is a recipient of the 2011 ESA Jeffery P. LaFage Graduate Student Research Award. He will receive his plaque and a check at the ESA meeting in November. Tim's doctoral research on termites is under the supervision of **Drs. Shripat Kamble** and Julie Stone.

Ana Maria Vélez has received a Widaman Trust Distinguished Graduate Assistant Award for 2011-2012 in the amount of \$2,000. A luncheon to honor ARD award winners will be held on October 5 at the Nebraska East Union. Ana is a Ph.D. student working under the supervision of **Dr. Blair Siegfried**.

TRAVEL

Dr. John Foster was an invited speaker at the joint meeting of the American Phytopathology Society (APS) and the International Plant Protection Congress (IPPC) in Honolulu, Hawaii, August 6-10, 2011.

Dr. Shripat Kamble attended the International Conference on Urban Pests, August 7-10, 2011 in Ouro Preto, Brazil, and presented a research paper on "Bioefficacy of Phantom (chlorfenapyr) against American and Oriental Cockroaches, and House Flies on Wood Concrete and Vinyl Surfaces." Shripat also participated as a state liaison at the North Central Regional IR-4 Meeting in Champaign, IL on August 15-16, 2011.

Dr. Brett Ratcliffe was collecting and conducting scarab research in Guatemala during the last two weeks of June.

THIS 'N THAT

An acquisition - A large collection (15 drawers of unmounted, papered specimens) of beetles and butterflies from Papua New Guinea was just donated to the Entomology Systematics Research Collections by Ronnie Rivers. Ronnie was a former Ph.D. student in the department in the 1970s, and before that he had lived in New Guinea for 8 years. **Dr. Brett Ratcliffe** traveled to Winfield, KS to retrieve the specimens and an insect cabinet. Ronnie had previously donated a small, synoptic set of New Guinea butterflies when he was a student here, but the new material vastly expands our holdings.

Market Journal Host - UNL Entomology graduate and past distance education coordinator, **Dr. Connie Reimers-Hild** will be the new host of Market Journal (http://marketjournal.unl.edu). Connie

was introduced as the new host the first week in September and will begin the position full time in October. This is an exciting opportunity for all of us to help Connie design a program that continues to address the critical issues in agriculture and also tell about the innovative and important work of IANR in research, teaching and extension.

Dr. Jesús Orozco, who received his Ph.D. from UNL last May under the supervision of **Dr. Brett Ratcliffe**, is a postdoctoral researcher for the Molecular Ecology and Systematic Group, with the Department of Zoology and Entomology at Rhodes University, Grahamstown, South Africa. Jesús is working on the phylogeography of beetles living in the afromontane forests of South Africa and the systematics of fruit chafers (Coleoptera: Scarabaeidae: Cetoniinae).

CONDOLENCES

Sheri Svehla, a Ph.D. graduate student in the Entomology Department, passed away on June 3, 2011, in Lincoln, NE, after a long battle with breast cancer. Sheri, who was working under the supervision of Dr. Leon Higley, had completed all of her graduate requirements and was awarded her Ph.D. degree posthumously at the August graduation ceremony. Leon stated that "Sheri was the heart of my research group, advising new graduate students and undergraduates, ensuring that everything on the project worked smoothly, and remaining curious and enthusiastic about entomology." Our sincerest sympathies go out to Sheri's children and families and her parents.

Calendar of Events

September 29, 2011

• Entomology Department Meeting, 3:00 p.m., Nebraska East Union

October 4, 2011

• Entomology Seminar – Dr. Laramy Enders, Post-Doctoral Researcher, Entomology Department 4:00 p.m., Nebraska East Union

October 17-18, 2011

• Fall Break (Student Holiday - UNL offices open)

October 25, 2011

• Entomology Seminar – Johan Pretorious, Entomology Graduate Student 4:00 p.m., Nebraska East Union

October 27, 2011

• Entomology Department Meeting, 3:00 p.m., Nebraska East Union

November 1, 2011

Entomology Seminar – Lia Marchi, Entomology Graduate Student
 4:00 p.m., Nebraska East Union

November 8, 2011

• Entomology Seminar – Dr. Kristina Hale, USDA/ARS Agroecosystem Management Unit 4:00 p.m., Nebraska East Union

November 13-16, 2011

ESA National Meeting – Reno, NV