



## Personnel News

Rebecca Brown entered a M.S. program with Greg Courtney. Her research will include revision of the net-winged midge genus *Paulianina* Alexander (Diptera: Blephariceridae). She also will be helping with Insect Zoo programs.

Abby Hade-Terpstra joined the Insect Zoo staff as a Program Assistant I. Abby's duties include providing educational programs to schools and other groups, helping with the creation of educational materials, and assisting in the delivery of these materials through internet-based technology.

Dr. Matt O'Neal arrived in March to assume his position as Assistant Professor in soybean entomology.

Masayo Ozaki joined the Beetham lab in January. Masayo graduated from Grinnell (Iowa) in December, 2003, and had conducted a senior research project in the Beetham lab during the Fall of 2003.

Dr. Carol Pilcher was appointed Lecturer within Department of Entomology on January 1. Carol is currently involved with Ent 386 and Ent 311.

Dr. Kyung Seok Kim has been working as an ARS Postdoctoral Research Scientist in Tom Sappington's lab since February 2003. However, he remained an employee of the Areawide Pest Management Research Unit in College Station, TX until his original appointment expired at the end of April. During that time he has focused mainly on completing research on the population genetics of boll weevil. He is now officially a member of the Corn Insects & Crop Genetics Research Unit, and will shift his attention to the population genetics of European corn borer and western corn rootworm. He is a native of South Korea where he conducted research on several vertebrates, including a project where he elucidated the evolutionary history of domestic Asian dogs using molecular markers. He lives in Ames with his wife So Young, and his 5 year old son.

## Awards and Honors

Patti Anderson was awarded an Iowa State University Teaching Excellence Award. This award is given to the top 10% of teaching assistants in Entomology. Patti will receive a certificate and \$200 in association with this award. Patti also received the North Central Branch ESA Graduate Student Scholarship Award at the NCB meeting in Kansas City in March. She also received first place for her talk (Ph.D. Paper) entitled "Effects of Bt-corn anthers on monarch butterfly larvae."

Brad Coats received second place for his talk "Geographic and voltinism differentiation among North American *Ostrinia nubilalis* using mitochondrial DNA analysis" at the NCB ESA meeting.

Greg Courtney was appointed to the editorial board of the journal *Aquatic Insects*.

Matt Cummings received an Iowa State University Research Excellence Award for his thesis research entitled "Genetic studies of population structure and evolutionary history on the house fly *Musca domestica* L.". This award is given to the top 10% of graduate students for their research accomplishments. Matt received a certificate at his graduation and \$200.

David Dorhout, a senior in entomology, was one of 10 ISU students enrolled in entrepreneurial programs who will receive \$1,000 scholarships from the John and Mary Pappajohn Scholarship Fund. Student winners were selected based on their involvement in Iowa State's entrepreneurship programs, including academic courses, extra-curricular activities and their experience and aspirations in business ownership.

Rick Hellmich was re-elected chair of the NC205 regional research committee in January. This committee deals with ecology and management of European corn borers and other corn insects.



## Personnel News, continued

**Theresa Horton** (University of Iowa) was awarded a summer research internship from the Program for Women in Science and Engineering. She will conduct research with Dr. O'Neal on bean leaf beetle and soybean aphid attraction to soybean plants that are either healthy or infested with bean pod mottle virus.

**Erica Cromer** will work in the Bonning lab during the summer. Erica will be funded by a Research Experiences for Undergraduates grant from the National Science Foundation.

**David Dorhout** will be joining the Rice lab as an M.S. student.

**Kevin Johnson** was accepted as a M.S. student with Dr. O'Neal. He will conduct research on management of the soybean aphid (*Aphis glycines*).

**Nicholas Schmidt** was accepted as an M.S. student with Dr. O'Neal. Nick will investigate the natural enemy community in soybeans and their impact on soybean aphid population regulation.

**Hailin Tang**, a Ph.D. student (toxicology major), will join the Bonning lab to work on the mechanism of action of an insecticidal protease.

## Awards and Honors, continued

**Keri Henderson** received first place in the Student Platform Competition and a \$500 travel award to the Society of Environmental Toxicology and Chemistry (SETAC) World Congress in Portland, OR in November 2004 at the Joint Regional Meeting of the Ozark-Prairie and Midwest Chapters of SETAC held in LaCrosse, WI, March 3-5. Keri also received second place in the Student Poster Competition, and one year paid membership of SETAC.

**Mandi Lingren**, an undergraduate research assistant in the medical entomology laboratory, was recognized as outstanding student employee of the year and was also elected into the Society of Sigma Xi as an undergraduate research scholar.

**Megan O'Rourke** received the 2004 Department of Entomology Henry and Sylvia Richardson Research Incentive Grant. This grant for \$2,500 will cover costs for her research project on insect dispersal.

**Megan O'Rourke** was awarded an honorable mention in the 2004 National Science Foundation graduate fellowship competition. Her proposal was entitled, "The effects of landscape structure on insect flight behavior and population dynamics." Three entomology graduate students in the country received the fellowship and seven received honorable mentions (<http://www.ehr.nsf.gov/dge/programs/grf/>). Recipients of honorable mentions are awarded the opportunity to use one of NSF's super-computing facilities within the next five years.

**Marlin Rice** along with P. Pedersen, B. Land, T. Vagts and B. Brueland, received the 2004 Educational Project Award for CD-ROM Software on the Soybean Aphid. The purpose of this award, which is presented by the Board Certified Entomologists of Mid-America, is to provide recognition for contributions toward the advancement of the science of entomology through educational projects. Marlin also received a Recognition Award as Linnaean Games Master, for years of dedicated service, from past and present NCB-ESA students. He was presented with a plaque and an original piece of insect art, a life-size Goliath beetle made of metal and vitreous enamel ([www.beetlesculpture.com](http://www.beetlesculpture.com)).

West Des Moines Schools received the Governor's Iowa Environmental Excellence Award for their leadership and innovation in managing Iowa's natural resources, including implementing integrated pest management in their schools instead of traditional pest control services. **Mark Shour** and **Carol Pilcher** have worked with West Des Moines in the planning and implementation phases of this program.

**John VanDyk** received the Award of Merit from the North Central Branch of the Entomological Society of America for his work on the Branch website and electronic presentation submittal system. The purpose of this award is to recognize individuals making outstanding contributions to the NCB of the Entomological Society of America. John is chair of the ESA-NCB Website Committee.



## Publishing Activity

Choi, M.-Y., and R. Jurenka. 2004. PBAN stimulation of pheromone biosynthesis by inducing calcium influx in pheromone glands of *Helicoverpa zea*. *J. Insect Physiol.* (in press).

Perich, M., O. Rocha, M. Zaldivar, L. Castro, A.W. Alfaro, K.B. Platt, T. Solano and W.A. Rowley. 2003. Evaluation of the efficacy of lambda-cyhalothrin applied by three spray application methods for emergency control of *Aedes aegypti* in Costa Rica. *J. Amer. Mosquito Control Assoc.* 19(1):58-62.

Lingren, M., W.A. Rowley, C. Thompson and M. Gilchrist. 2004. Geographic Distribution of ticks (Acari: Ixodidae) in Iowa with emphasis on *Ixodes scapularis* and their infection with *Borrelia burgdorferi*. *J. Vector-borne Zoonotic Dis.* (in press)

Harrison, R.L. and B.C. Bonning 2004. Application of maximum likelihood models to selection pressure analysis of group I nucleopolyhedrovirus genes. *J. Gen. Virol.* 85: 197-210.

Lincoln, L.M., M. Ozaki, J.E. Donelson, and J.K. Beetham. Genetic complementation of *Leishmania* deficient in PSA (GP46) restores their resistance to lysis by complement. *Mol Biochem Parasitol* (in press).

Matos, B. and J.J. Obrycki. 2004. Abundance and parasitism of *Lygus lineolaris* in alfalfa and strawberry fields. *J. Kansas Entomol. Soc.* 77 (2): 69-79.

O'Neal, M., E. Zontek, D. Landis, R. Isaacs. Ground predator abundance affects prey removal in highbush blueberry (*Vaccinium corymbosum*) fields and can be altered by aisle ground covers. *BioControl* (in press).

O'Neal, M., D.A. Landis, J.R. Miller and C.D. DiFonzo. 2004. Corn phenology influences *Diabrotica virgifera virgifera* (LeConte, Coleoptera: Chrysomelidae) emigration and visitation to soybean: a sufficient explanation for injury to rotated corn? *Environ. Entomol.* 33: 35-44.

Rice, M. E. 2004. Transgenic rootworm corn: Assessing potential agronomic, economic, and environmental benefits. *Plant Health Progress*. Online: <http://www.plantmanagementnetwork.org/pub/php/review/2004/rootworm/>

Krell, R.K., L.P. Pedigo, J.H. Hill, and M.E. Rice. 2003. Bean leaf beetle (Coleoptera: Chrysomelidae) management for reduction of bean pod mottle virus. *J. Econ. Entomol.* 97:192-202.

Sappington, T.W., A.D. Brashears, M.N. Parajulee, S.C. Carroll, M.D. Arnold, and R.V. Baker. 2004. Boll weevil (Coleoptera: Curculionidae) survival through the seed cotton cleaning process in the cotton gin. *J. Econ. Entomol.* (In Press).

Kim, K.S. and T.W. Sappington. 2004. Genetic structuring of boll weevil populations in the U.S. based on RAPD markers. *Insect Mol. Biol.* (In Press).

Sappington, T.W., A.D. Brashears, M.N. Parajulee, S.C. Carroll, M.D. Arnold, J.W. Norman Jr., and A.E. Knutson. 2004. Potential for transport of boll weevils (Coleoptera: Curculionidae) to the cotton gin within cotton modules. *J. Econ. Entomol.* (In Press).

Sappington, T.W. and A.S. Raikhel. 2004. Insect Vitellogenin/Yolk Protein Receptors. In: A.S. Raikhel and T.W. Sappington, (volume eds.): *Reproductive*

## Graduations

Cloti Tate graduated on May 8 and will begin a postdoctoral position with Dr. James Carpenter at the USDA-ARS Crop Protection and Management Research Unit in Tifton, GA.

Elsie Burbano graduated with an M.S. degree from the Obrycki lab.

Matt Cummings graduated with an M.S. degree. He will continue to conduct research in the Krafur lab during the summer.

Dr. Sonthaya Tiawsirisup received his PhD degree in December and returned to Bangkok, Thailand where he is an assistant professor of veterinary microbiology at Chulalongkorn University.

John VanDyk graduated in December with his PhD. John will continue to work for the department in his capacity as systems analyst and instructor.



## Publications, continued

*Biology of Invertebrates, Volume XII - Recent Progress in Vitellogenesis*, Part B. Science Publishers Inc., Enfield, NH. (In Press.).

Greenberg, S.M., T.W. Sappington, G.W. Elzen, J.W. Norman, and A.N. Sparks. 2004. Effects of insecticides and defoliant applied alone and in combination for control of overwintering boll weevils (Coleoptera: Curculionidae) – Laboratory and field studies. *Pest Management Sci.* (In Press).

Kim, K.S. and T.W. Sappington. 2004. Boll weevil (*Anthonomus grandis*, Boheman) (Coleoptera: Curculionidae) dispersal in the southern United States: evidence from mitochondrial DNA variation. *Environ. Entomol.* 33: 457-470.

Greenberg, S.M., T.W. Sappington, M. Sétamou, and R.J. Coleman. 2004. Influence of different cotton fruit sizes on boll weevil (Coleoptera: Curculionidae) oviposition and survival to adulthood. *Environ. Entomol.* 33: 443-449.

## Extension, Educational, Technical Publications

West Nile Virus and Mosquito Control in your Town, Iowa. 2004. Iowa Department of Public Health, Center for Acute Disease Epidemiology, and Department of Entomology, Iowa State University. 32 pages. Available through the Iowa Department of Public Health.

## Out-of-state Travel

Bryony Bonning traveled to Washington, D.C. to participate in the Consortium for Plant Biotechnology Symposium held February 24 – 26.

Bryony Bonning traveled to University of Kentucky, Lexington and University of Columbia, Missouri in March to give seminars to the respective Departments of Entomology.

Bryan Clark, Dingfei Hu, Keri Henderson, and Joel Coats traveled to the Joint Regional Meeting of the Ozark-Prairie and Midwest Chapters of the Society of Environmental Toxicology and Chemistry in LaCrosse, WI, March 3-5. Dingfei Hu presented a poster. Bryan Clark and Keri Henderson each presented platform and poster presentations. Dr. Coats also presented a platform presentation entitled “New insecticide modes of action.”

Joel Coats traveled to Washington, DC to participate in the annual meeting of the North Central Region Entomology Administrators’ Committee, February 7-9.

Joel Coats participated on a grant review panel for the National Institutes of Health (NIH), specifically NIEHS (National Institute of Environmental Health Sciences) in Research Park Triangle, NC, March 15-19.

Joel Coats participated as a member of the Scientific Advisory Panel for the Institute for Environmental and Human Health at Texas Tech University, Lubbock, TX, and February 29-March 2.

Joel Coats traveled to Chicago, IL to attend the Mosquito Control Workshop at Clarke Mosquito Control, April 13-15.

Joel Coats and Keri Henderson traveled to Anaheim, CA for the 227<sup>th</sup> National Meeting of the American Chemical Society, March 27 – 31. Dr. Coats presented “New insect repellents from natural sources.” Keri presented a platform presentation as runner-up in the Young Scientists Research Recognition Award Symposium on her work entitled “Mass balance of atrazine and metolachlor in soil phytoremediation systems.”

Greg Courtney and 17 students (including Matthew Petersen, Greg Curler, Megan O’Rourke, and a visiting Romanian student, Mircea Mitriou) traveled to the southern Appalachian over Spring Break (12-20 March) to Highlands Biological Station, Coweeta Hydrological Laboratory, Great Smoky Mountains National Park, and Clemson University as part of the Ecology and Evolutionary Biology Extended Field Trip course (EEB 585).



Jerry DeWitt traveled to Washington, DC, January 29-February 9, to work on the National Sustainable Agriculture Program. He gave an invited presentation to the Iroquois County Soil and Water Conservation District on Sustainable Agriculture in Woodworth, IL, February 22-24, and then traveled to Lacrosse, WI, February 25-28, to give three invited presentations to the Upper Midwest Organic Conference on Sustainable Agriculture. DeWitt attended the NC Sustainable Agriculture Administrative Meeting in Kansas City, MO, March 8-11, and attended a board meeting of the Organic Farming Research Foundation in Santa Cruz, CA, March 12-22. He traveled to Washington DC, March 25-30, to work on National Sustainable Agriculture program, and attended the Sustainable Agriculture Workshop in Milwaukee, WI, April 2-5 for program review. He then traveled to Indianapolis, IN, April 6-8, to attend the regional IPM workshop. Finally DeWitt traveled to Lincoln, NE, April 15, to work on a PDP proposal.

Rick Hellmich co-organized the NC205/NCR46-sponsored Insect Resistance Management Meeting to address corn insect resistance to transgenic corn hybrids, held in Columbus, OH in January.

Rick Hellmich participated in a meeting entitled 'A Regional Monitoring Program to Determine *Bacillus thuringiensis* Susceptibility in Heliothines from North America,' held in Mexico City, MX, in April.

Russ Jurenka traveled to Fargo, ND, January 13-15, to present a seminar at UND-Fargo and USDA-ARS research center.

Elliot Krafur represented Iowa at the regional research meeting regarding the Multistate Research Project, S1005, "Sources, Dispersal and Management of Stable Flies on Grazing Beef and Dairy Cattle (S274)," in Kissimmee, FL, January 8-9.

Elliot Krafur traveled to New Haven, CT to draft an invited grant application to Gates Foundation at Yale University, April 15-18.

Donald Lewis traveled to Washington, DC, April 25-28, to attend the North Central and Southern Region Ag & Natural Resource Leaders Meeting.

Matt O'Neal and Marlin Rice attended the S1010 Dynamic Soybean Pest Management for Evolving Agricultural Technologies and Cropping Systems

Annual Meeting in San Antonio, TX, March 6-10.

Matt O'Neal participated in writing a proposal to USDA Risk Avoidance and Mitigation Program (RAMP) with colleagues at Michigan State University, East Lansing, March 1-12.

Rich Pope attended the Pesticide Waste and Container Disposal Meeting Group of SFIREG (Environmental Protection Agency) in Washington, DC, April 23-29.

Wayne Rowley attended the annual meetings of the American Mosquito Control Association in Savannah, GA, February 21-25.

Wayne Rowley visited the University of Florida's Mosquito Biology Laboratory at Vero Beach, FL for help in identifying mosquitoes collected in Costa Rica, March 13-18.

Tom Sappington participated in the joint meetings of NC-205 and NCR-46, and convened a session on *Diabrotica* Genetics Research, January 25-28, in Columbus, OH. He visited Wade French, ARS, Brookings, SD, in April to discuss ongoing and future collaborative research on western and northern corn rootworm genetics research.

Jon Tollefson represented Iowa State University at the annual meeting of the Corn Rootworm Technical Committee (NCR-46) in Columbus, OH, January 25-27.

The annual Entomological Society of America's Regional Meeting was held in Kansas City, MO, March 28-31.

Presenters included: Patti Anderson, Jeff Bradshaw, Laura Jesse, Matt O'Neal, Marlin Rice and Jon Tollefson.

Attendees included: Russ Jurenka, Tom Sappington, Ben Kaeb, Jason Kinley, Betsy Matos, Jim Oleson, Marlin Rice, and Nina Richtman.

## International Travel

Bryony Bonning presented research at the University of Durham, UK on April 21 and met with collaborators there.



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**Jon Tollefson** traveled to Engelberg, Switzerland, January 13-18, to participate in the 10<sup>th</sup> Diabrotica Subgroup meeting and the 9<sup>th</sup> ad hoc panel on the western corn rootworm in Europe.

**Jon Tollefson** traveled to Belgrade, USM, February 27-March 6, to host the ISU delegation for USM young Scientist Program visit to Serbia.

## **Other**

An insect zoo newsletter will be issued shortly.

New EGSO officers from June 2004

President: **Nina Richtman**

Vice President: **Betsy Matos**

Secretary: **Becky Brown**

Treasurer: **Gretchen Schultz**

**Mark Shour** hosted the Midwest School IPM Workshop at the Gateway Hotel in Ames, March 23-25, 2004. Thirty representatives from 9 states participated in the training event, sponsored by a grant from the US EPA, Pesticide Environmental Stewardship Program. The format for the workshop will be used for similar events in other EPA regions in the country.

The **Linnaean Games Team** made an impressive showing in the first round of the games but lost a close match to Missouri in the Semi finals. The University of Kentucky went on to win.

The NCB ESA graduate students presented Dr. Wyatt Hoback, the new Linnaean Games Master, with a check for \$300 to put toward Linnaean Games improvements (e.g. a new scoreboard or buzzer system).