



Graduations

Andrew Alverson successfully defended his M.S. thesis entitled "Feeding ecology of larval net-winged midges (Diptera: Blephariceridae: *Blepharicera*)." Andy is now working as a technician in a benthic ecology lab at Michigan State University and will likely embark on a Ph.D. program in the Fall 2001.

Awards and Honors

Andrew Alverson received an Iowa State University Research Excellence Award in the Summer 2000 competition. In addition to a letter of commendation from the ISU President and a certificate of achievement, Andy also received \$200 from the department in recognition of his outstanding research accomplishments.

The American Chemical Society has honored two Iowa State University researchers with its "Newsmaker" award for their contributions in communicating chemistry to the public. **Joel Coats** and **Christopher Peterson** were cited for their efforts in communicating the results of their research on using compounds extracted from catnip to repel cockroaches. In presenting the award, the society said the ISU project generated media coverage that reached a potential audience of more than 17 million people. Dr. Coats is professor and chair of ISU's Department of Entomology. Chris is a graduate student from Marshalltown. The award was presented on Aug. 22 at the 220th national meeting of the American Chemical Society in Washington, DC.

Russell Jurenka was appointed to the editorial board of a new online entomology journal called "Journal of Insect Science."

New Arrivals

Nanette Heginger (formerly Brcka) arrived in August as the new Program Assistant for the Insect Zoo.

Julie Coan has joined the Rowley lab as a Masters student and Biology Teaching Assistant.

Johnson Ouma Odera joined the Krafzur lab and **Xin Zhou** joined the Rice lab, both as Ph.D. students.

Publishing Activity

Krafzur, E.S. and J.J. Obrycki. 2000. *Coleomegilla maculata* De Geer (Coleoptera:Coccinellidae) is a species complex. *Annals Entomological Society of America* 93:1156-1163.

Lam, W.F. and L.P. Pedigo. 2000. A predictive model for the survival of overwintering bean leaf beetles (Coleoptera:Chrysomelidae). *Environ. Entomol.* 29:800-806.

Lee, J.H. and W.A. Rowley. 2000. The abundance and seasonal distribution of *Culex* (Diptera:Culicidae) mosquitoes in Iowa during 1995-1997. *J. Amer. Mosq. Control Assoc.* (in press).

Lefko, S.A., L.P. Pedigo, and M.E. Rice. 2000. Symptoms and growth response of potato leafhopper-tolerant alfalfa to potato leafhopper (Homoptera:Cicadellidae) feeding. *Agronomy Journal* 92:721-725.

Lewis, L.C., D.J. Bruck, and J.J. Jackson. 2000. Microbial Control of Insect Pests of Corn. pp. 405-424. In - *Field Manual of Techniques in Invertebrate Pathology* (Ed) L.A. Lacey and H.K. Kaya. Kluwer Publishers, Boston.



Marquez, J.G., R.D. Moon, and E.S. Krafur. Genetic differentiation among populations of house flies (Diptera:Muscidae) breeding at a multiplebarn, egglayer facility in central Minnesota. *Journal of Medical Entomology* (in press).

Murphy, M.W., R.F. Dunton, M.J. Perich, and W.A. Rowley. 2000. Attraction of *Anopheles* (Diptera:Culicidae) mosquitoes to volatile chemicals in western Kenya. *J. Med. Entomol.* (in press).

Peterson, C.J., A. Cossé, and J.R. Coats. 2000. Insecticidal components in the meal of *Crambe abyssinica*. *J. Agric. Urban Entomol.* 17(1):27-36.

Peterson, C.J., R. Tsao and J.R. Coats. 2000. Naturally occurring cyanohydrins, analogues and derivatives as potential insecticides. *Pest Management Science* 56:615-617.

Peterson, C.J., A. Fristad, R. Tsao, and J.R. Coats. 2000. Osajin and pomiferin, two isoflavones purified from osage orange fruits, tested for repellency to the maize weevil (Coleoptera: Curculionidae). *Environ. Entomol.* 29(6):(in press).

Platt, K.B., J.A. Mangiafico, O.J. Rocha, M.A. Zaldivar, J. Mora, G. Trueba, and W.A. Rowley. 2000. Detection of dengue virus neutralizing antibodies in bats from Costa Rica and Ecuador. *J. Med. Entomol.* (in press).

Quero, C., H. Fadamiro, and T.C. Baker. Responses of male *Helicoverpa zea* to sex pheromone and behavioural antagonist in wind tunnel assays. *Physiol. Entomol.* (in press).

Shiotsuki, T., B.C. Bonning, M. Hirai, K. Kikuchi, and B.D. Hammock. 2000. Characterization and affinity purification of juvenile hormone esterase from *Bombyx mori*. *Biosci. Biotechnol. Biochem.* 64(8):1681-1687.

Wagner, B.L. and L.C. Lewis. 2000. Colonization of corn, *Zea mays*, by the entomopathogenic fungus, *Beauveria bassiana*. *Appl. and Environ. Microbiol.* 66:3468-3473.

Walker, K.A., R.L. Hellmich, and L.C. Lewis. 2000. Late-instar European corn borer

(Lepidoptera:Crambidae) tunneling and survival in transgenic corn hybrids. *J. Econ. Entomol.* 93:1276-1285.

Extension, Educational and Technical Publications

The following publications were revised by the Pest Management and the Environment group: PAT 11, Restricted Use Pesticide Record Keeping Rules for Certified Pesticide Applicators, with a worksheet (new publication PAT 11A) (**Joyce Hornstein**); and CS 20, Termite Control (commercial pesticide applicator manual) (**Mark Shour**).

Russell Jurenka wrote a section entitled "Insect Physiology" that will appear in the 9th edition of the McGraw-Hill Encyclopedia of Science & Technology.

Lam, W.F., M.E. Rice, L.P. Pedigo, and R. Pope. 2000. New concept for bean leaf beetle management. *ISU Extension, Ames IA. Integrated Crop Management Newsletter IC-484:125-127.*

Heinrichs, E.A., J.E. Foster, and M.E. Rice. 2000. Maize insect pests of North America. Radcliffe's IPM World Textbook. University of Minnesota. 41 pp. <http://ipmworld.umn.edu/chapters/maize.htm>

Patents/Intellectual Property

Fly Attractant Compositions. U.S. Patent No. 6,106,821 issued August 22, 2000. **T.C. Baker** and **A.A. Cossé**, Inventors.

Coats, J.R., C.J. Peterson, J.W. Zhu, T.C. Baker, and L. Nemetz. Biorational repellents obtained from terpenoids for use against arthropods. August 2000. Patent application submitted.

Out-of-State Travel

Thomas Baker traveled to Buffalo, NY from July 8-10 and then to Dayton, OH from July 10-12 to take part in a symposium and panel discussion on new technologies of interest to the Department of Defense at Wright Patterson Airforce Base, sponsored by the U.S. Air Force.



Royce Bitzer visited the Monsanto Agronomy Research Center in Monmouth, IL from October 3-4 to complete the first season of sampling Collembola in experimental plots of genetically modified, rootworm-resistant Bt corn. The research is a study of whether root exudates from this corn affect non-target soil organisms such as Collembola. Also involved in this project are Clint and **Carol Pilcher** (Monsanto Agronomy Research Center) and **Marlin Rice**.

Royce Bitzer, Frankie Lam, Richard Hellmich, and John Pleasants (Department of Zoology and Genetics) attended a meeting at the University of Minnesota, St. Paul, on September 27 for a data review meeting on monarch butterfly life history and abundance within corn and soybean fields, roadsides, and uncultivated areas.

Joel Coats traveled to Berkeley, CA from July 15-19 to give an invited presentation at the Insect Toxicology 2000 symposium at the University of California, Berkeley. He also traveled to Washington, DC on August 19-24 to attend the National meeting of the American Chemical Society. Coats traveled to Princeton, NJ from September 4-5 to present a seminar at the FMC Corporation.

Gregory Courtney traveled to various locations in Oregon from July 29 through August 11 to collect insects for Entomology courses (ENT 425/525, ENT 576) and the Insect Zoo, and to meet with colleagues at Oregon State University.

Gregory Courtney traveled with a group of Reiman Conservatory advisors to the Milwaukee Public Museum, WI and Sophie M. Sachs Butterfly House near St. Louis, MO. The purpose of the trip was to gather information and ideas about the planned butterfly house at Reiman Gardens.

Jerald DeWitt traveled to St. Louis, MO from July 8-10 to attend and make a presentation on sustainable agriculture at the annual meeting of the Soil and Water Conservation Society of America. He also traveled to Sioux City, IA, Beresford, SD, Concord, NJ, and Onawa and Denison, IA from July 19-21 to attend the ISU Crops Field Specialists Summer Tour. DeWitt traveled to St. Louis, MO from July 22-23 to make a presentation to the

Foundation for Environmental Agriculture Education on sustainable agriculture education. He then traveled to Washington, DC from August 11-20 to work at the United States Department of Agriculture on the Sustainable Agriculture project.

Justin Grodnitzky, Dong-Sik Park, Chris Peterson, and Shaohan Zhao traveled to Washington, DC from August 19-24 to attend and present at the National Meeting of the American Chemical Society.

Elwood Hart traveled to Portland, OR from September 22-28 to present one paper and two posters at the 21st Session of the International Poplar Commission, which is part of the Food and Agriculture Organization.

Bethzayda Matos-Carrion and Laura Weiser traveled to University of Illinois, Urbana, from July 23-28 to attend the Midwest Biological Control Institute Workshop on Insect Pathology.

Marlin Rice traveled to Polk County, MO from July 15-16 to conduct the 9th annual Fourth of July Butterfly Count in conjunction with the North American Butterfly Association on Buffalo Jump Prairie, MO. Rice also traveled to Houston, McAllen, and San Antonio, TX from September 12-13 to collect *Oncideres pustulatus* for an experiment on behavior and intraspecific competition.

Julie Todd traveled to Washington, DC from July 22-26 to attend the annual meeting of the Agricultural Communicators in Education (ACE) and to receive an editorial award.

Jon Tollefson traveled to Indianapolis, IN from September 25-27 to chair a special meeting of the North Central Corn Rootworm Research Committee (NCR-46) to review the Insect Resistance Management plan submitted by Monsanto for their corn rootworm transgenic registration.

International Travel

Thomas Baker traveled to Pocas de Caldas, Brazil from August 14-21 to chair a symposium on insect sensory physiology at the International Society of Chemical Ecology meeting. Baker also traveled to



Samos, Greece from September 22 through October 1 to present an invited talk at the 25th Jubilee Meeting of the International Organization for Biological Control's Western Palaearctic Regional Section Working Group "Use of Pheromones and Other Semiochemicals in Integrated Control."

Julie Coan traveled to San Jose, Costa Rica and the University of Costa Rica from August 5-11 to assist in collecting research data on *Aedes aegypti* dengue mosquito vectors.

Richard Hellmich attended the annual meeting of the Society for Invertebrate Pathology and International Conference on *Bacillus thuringiensis* from August 13-18 in Guanajuato, Mexico. He presented "Consequences for non-target insects: Monarch butterfly update."

Jennifer Remmers and **Wayne Rowley** traveled to San Jose, Costa Rica from August 26 through September 1 to continue the Dengue research project with scientists from the University of Costa Rica.

Marlin Rice traveled to Montreal, Canada from July 6-9 for the program planning committee meeting to organize the Entomological Society of America and Entomological Society of Canada joint annual meeting.

Wayne Rowley traveled to various locations in Costa Rica from July 14-19 to conduct research.

Jon Tollefson traveled to Croatia from September 10-19 to collaborate with the Croatian scientists concerning the management of the western corn rootworm in Croatia. He then traveled September 20-23 to Italy to discuss the Italian western corn rootworm eradication project.

The following individuals traveled to Iguassu Falls, Brazil from August 19-27 to attend the XXI International Congress of Entomology: **Thomas Baker**, **Bryony Bonning**, **Richard Hellmich**, **Marlin Rice**, and **Jon Tollefson**. Baker presented an invited paper in a symposium on pheromone mating disruption, Bonning presented two posters, Hellmich presented three papers, Rice gave an invited presentation on transgenic corn, and Tollefson presented a symposium and a paper.

Laura Hansen, **Russell Jurenka**, **Betsy Matos-Carrion**, and **John VanDyk**, who also planned to attend this meeting, fell victim to the United Airlines overtime strike.

Other News

Iowa State Fair

The Department of Entomology Insect Zoo was one of the most interactive and popular of the numerous College of Agriculture displays at the first day of the Iowa State Fair on August 10. **Tara Tinlin** and **Erica Simbro**, both Insect Zoo Interns, took responsibility for organizing, setting up, and tearing down, and worked a good portion of the all-day and evening event. **Chris Peterson**, **Laura Weiser**, **Donald Lewis**, **Wendy Wintersteen**, and **Joel Coats** helped with the display and provided interpretive assistance. **Rich Pope** also assisted with the event.

Insect Horror Film Festival

The Insect Horror Film Festival, organized by the Entomology Club and held on September 15, was an outstanding success. The Festival featured the Insect Zoo, a variety of insect edibles, introductory remarks by **Woody Hart**, and the film "Microcosmos." The attendance at the festival was estimated to be well over 200, and there was a high level of excitement among attendees. The President of the Entomology Club, **Erica Simbro**, coordinated the event, with strong support from many other Entomology Club members including: **Jennifer Mueller** (Vice President), **Gretchen Schultz** (Ag Council Representative), **Steve Thompson** (Treasurer), **Brian Beidle**, **Nathan Brockman**, **Carol Fassbinder**, **Oliver Highley**, **TJ Overhulser**, **Vanessa Ware**, **Brent Werner**, **Eric Whitted**; and several friends: **Jerod Bruner**, **Christine Swanson**, and **Melissa Weverka**. Support for the Insect Zoo was provided by Director **Greg Courtney**, Outreach Coordinator **Nanette Heginger**, **Tara Tinlin**, **Janessa Morgan**, and **Nathan Brockman**. **Patti Anderson** supplied monarchs and **Joel Gibson** supplied the film.

Outreach/Education

Betsy Matos-Carrion, **Carol Pilcher**, **Rich Pope**, and **Mark Shour** conducted two laboratory classes



for Agro-Ecology students at Dordt College, Sioux Center, IA on September 21 and 22. Students were introduced to biological control as a technique for managing insect pests. Information was provided on natural enemy identification, use of detection traps and collection techniques, and examining natural enemy presence in relation to crop diversity.

Julie Todd was a guest lecturer in the undergraduate course Plant Health and Protection for the Department of Plant Pathology, where she talked about developing scientific writing skills.

Extension Presentations

Rayda Krell spoke at three bean leaf beetle field days in Boone, Jasper, Marshalltown, and Nevada, IA in August. These presentations were given with John Kennicker, field crops extension specialist for Story County.

Below: "Millennium Bugs". This photograph produced by Tracey Pepper of the Bessey Microscopy Facility, Iowa State University won third place prize in the Annual Photography Competition of the Microscopy Society of America, and was featured on the cover of "Microscopy Today". Tracey produced the photograph by overlaying images of blepharicid larvae (kindly provided by Dr. Gregory Courtney) with that of a computer chip.

Rayda Krell presented her bean leaf beetle and bean pod mottle virus research, and **Jon Tollefson** presented the new root rating system for corn rootworm injury to corn at the Iowa Soybean Association Clinic, Field Extension Education Laboratory, held in Ames in July.

Rayda Krell, Larry Pedigo, and Marlin Rice participated in a panel discussion on bean leaf beetle and bean pod mottle virus at the Iowa State University field crop extension in-service, Field Extension Education Laboratory, held in Ames, on September 20.

