



## Awards and Honors

**Gregory Courtney** was appointed to the editorial board of the journal *Systematic Entomology*.

**Richard Hellmich** was elected chair of the NC205 regional research committee. NC205 oversees the project "Ecology and Management of European Corn Borer and Other Stalk-Boring Lepidoptera."

**Joyce Hornstein** received the Professional and Scientific Award for Achievement and Service from Iowa State University's College of Agriculture at the January 13 College of Agriculture spring convocation. The award is given for efforts that are timely and relevant to current priorities, innovative and creative, and that resulted in major contributions to the employee's unit or program. It also acknowledges reliability and dependability, continual personal and professional development, and high standards of public service.

**Wilmar Morjan** has been appointed the new Graduate Student Senate Representative for the Entomology Graduate Student Organization.

**Tim Nowatski** and **Anthony Boughton** were awarded first and second place prizes respectively in the PhD Student Research Presentation Competition at the North Central Branch Entomological Society of America (ESA) meeting held in Minneapolis in March.

The Extension publication "Integrated Pest Management of Alfalfa Insects in the Upper Midwest," **Giles, K., J. Obrycki, M. Rice, L. Pedigo, S. Barnhart, D. Hogg, T. DeGooyer, D. Kenney, & J. Munyaneza**, 2000 was selected for a 2000 Entomology Educational Project Award. This award was presented by the Board Certified Entomologists at the North Central Branch ESA meeting, Minneapolis, MN.

A newsletter article written by **Marlin Rice** "Monarchs and Bt corn: Questions and answers" was

## Arrival

**Mike Hensel**, a Microbiology major has joined the Bonning lab for the Spring and Summer as a laboratory assistant. Mike is working with **Bob Harrison** on sequencing a baculovirus genome.

selected for a 2000 Entomology Educational Project Award. This award was presented by the Board Certified Entomologists at the North Central Branch Entomological Society of America meeting in Minneapolis, MN.

**Marlin Rice** was elected Executive Member-at-Large for the North Central Branch of the Entomological Society of America.

The new officers for the Entomology Club are **Erica Simbro**, President; **Jennifer Mueller**, Vice President; **Steve Thompson**, Treasurer.

**Jon Tollefson** was awarded a Certificate of Appreciation by the National Area-wide Integrated Pest Management Program for Corn Rootworm Across the United States Corn Belt for recognition of a team effort resulting from a partnership with the Agricultural Research Service and other USDA Agencies, universities, and the private sector.

## Publishing Activity

**Abel, C.A. and R.L. Wilson**. 1999. Evaluation of 11 maize populations from Peru for mechanisms of resistance to leaf feeding by European corn borer. *J. Kan. Entomol. Soc.* 72:149-159.

**Brockhouse, A.C., H.T. Horner, T.F. Booth and B.C. Bonning**. 2000. Pericardial cell ultrastructure in the tobacco hornworm *Manduca sexta* L. (Lepidoptera: Sphingidae) *Intl. J. Insect Morphol. Embryol.* 28(4):261-271.



- Courtney, G.W., B. Sinclair and R. Meier. 2000. 1.4. Morphology and terminology of Diptera larvae. pp. 85-161. In L. Papp & B. Darvas (editors) *Manual of Palaearctic Diptera, Volume 1*. Science Herald, Budapest. 978 pp.
- Courtney, G.W. 2000. A.1. Family Blephariceridae. pp. 7-30. In L. Papp & B. Darvas (editors) *Manual of Palaearctic Diptera, Appendix*. Science Herald, Budapest. 604 pp.
- Edgar, K., F.G. Noriega, B.C. Bonning and M.A. Wells. 2000. Recombinant juvenile hormone esterase, an effective tool to modify juvenile-hormone dependent gene expression in mosquitoes. *Insect Molec. Biol.* 9(1):27-31.
- Harrison, R.L. and B.C. Bonning. 2000. Genetic engineering of biocontrol agents for insects. Chapter 9 In: *Biological and Biotechnological Control of Insect Pests*. Lewis Publishers/CRC Press/ACS Edited by J. Rechigl. pp. 243-280.
- Harrison, R.L. and B.C. Bonning. 2000. Use of scorpion neurotoxins to improve the insecticidal activity of *Rachiplusia ou* multicapsid nucleopolyhedrovirus. *Biol. Control* 17(2):191-201.
- Hu, R. and W.A. Rowley. 2000. Relationship between weights of the engorged nymphal stage and resultant sexes in *Ixodes scapularis* and *Dermacentor variabilis* (Acari:Ixodidae) ticks. *J. Med. Entomol.* 37(1):198-200.
- Jurenka, R.A. and M. Subchev. 2000. Identification of cuticular hydrocarbons and the alkene precursor to the pheromone in hemolymph of the female gypsy moth, *Lymantria dispar*. *Arch Insect Biochem Physiol* 43:108-115.
- Lam, W.F. and L.P. Pedigo. 2000. Cold tolerance of overwintering bean leaf beetles. *Environ. Entomol.* (in press).
- Lam, W.F. and L.P. Pedigo. 2000. A predictive model for the survival of overwintering bean leaf beetles (Coleoptera:Chrysomelidae). *Environ. Entomol.* (in press).
- Lee, J.H., W.A. Rowley and K.B. Platt. 2000. Longevity and spontaneous flight activity of *Culex tarsalis* (Diptera:Culicidae) infected with an Iowa strain of western equine encephalomyelitis virus. *J. Med. Entomol.* 37(1):187-193.
- Lee, J.H., W.A. Rowley and K.B. Platt. 2000. Vector competence of *Culex tarsalis* (Diptera:Culicidae) for a sympatric strain of western equine encephalomyelitis (WEE-7738) virus. *J. Med. Entomol.* 37(1):194-197.
- Lee, J.H. and W.A. Rowley. 1999. 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. Alfalfa stand-tolerance of potato leafhopper (*Empoasca fabae* Harris) and its effect on the economic injury level. *Agron. J.* (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. *Agron. J.* (in press).
- Morisseau, C., J.K. Beetham, F. Pinot, S. Debernard, J.W. Newman and B.D. Hammock. 2000. Cress and potato soluble epoxide hydrolases: purification, biochemical characterization and comparison to mammalian enzymes. *Arch. Biochem. Biophys.* (in press).
- Park, K.C., D. Elias, B. Donato and J. Hardie. 2000. Electroantennogram responses of different forms of the bird cherry-oat aphid, *Rhopalosiphum padi*, to sex pheromone and a plant volatile. *J. Insect Physiol.*, 46:597-604.
- Rice, M.E. 2000. Fried green cicadas and a young African hunter. *Amer. Entomol.* 46:6-7.
- Rice, M.E. and E.G. Riley. 2000. Biodiversity and rarity of Phyllophaga (Coleoptera:Scarabaeidae) in a temperate hardwood forest. *Ann. Entomol. Soc. Amer.* 93:277-281.
- Shanmugavelu, M., A. Baytan, J.D. Chesnut and B.C. Bonning. 2000. A novel protein that binds juvenile hormone esterase in fat body and pericar-



dial cells of the tobacco hornworm *Manduca sexta*  
L. J. Biol. Chem. 275(3):1802-1806.

**VanDyk, J.K.** Impact of the Internet on Extension Entomology. Annu. Rev. Entomol. 2000, Vol. 45:795-802.

**Watson, B. and W.A. Rowley.** 2000. Scanning electron microscope studies of the larval antennae of selected species of mosquitoes. J. Med. Entomol. (in press).

**Wilson, R.L., C.A. Abel and M.E. Brothers.** 2000. Comparing species of bees for controlled pollination of *Helianthus petiolaris* in field cages. J. Iowa Acad. Sci. 107:1-2.

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## Extension, Educational, and Technical Publications

**D.R. Lewis.** 2000. Household Insect Pest Management, IC 472.

**R. Hartzler,** Agronomy; Pest Management and the Environment program contact, **R. Pope.** Right-of-Way Iowa Commercial Pesticide Applicator Manual, 2000. CS 18.

**Rice, M.E.** 2000. Of monarchs and men: Reflections on Bt corn for 2000. Proceedings Illinois Crop Protection Technology Conference, pg. 85-91. University of Illinois, Urbana-Champaign.

**Rice, M.E.** 2000. 2000 Insect Pest Management Guide for Iowa Field and Forage Crops. IPM-60. Iowa State University Extension, Iowa State University, Ames.

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## Patents/Intellectual property

**J. VanDyk.** *Opilio*, cross-platform categorical search engine software. More information is at <http://opilio.ipm.iastate.edu>.

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## Out-of-state Travel

**Thomas Baker** traveled to Gainesville, FL on February 8-10 to attend the USDA/Department of Defense Research Review and present an invited talk.

**Edwin Berry, Anthony Boughton, Joel Coats, Carol Fassbinder, Joel Gibson, Rayda Krell, Wilmar Morjan, Rachel Newman, Tim Nowatzki, John Obrycki, Jim Oleson, Yong-Lak Park, Chris Peterson, Marlin Rice, Erica Simbro, Jon Tollefson, Laura Anne Weiser, Richard Wilson and Ted Wilson** traveled to Minneapolis, MN on March 25-29 to attend the North Central Branch Meeting of the Entomological Society of America.

**Edwin Berry, Tim Nowatzki, Jim Oleson, Yong-Lak Park, Marlin Rice, Jon Tollefson and Ted Wilson** traveled to Madison, WI on January 25-27 to participate in the annual meeting of the regional corn rootworm technical committee (NCR-46) and European Corn Borer Resistance Management meeting.

**Joel Coats** traveled to Cincinnati, OH on January 21-24 to attend the North Central Administrators meeting and the Entomology Exhibit at the Cincinnati Zoo. He also traveled to Stilwell, KS on February 9 to visit the Bayer Corporation and pick up donated instruments for chemical analysis. Coats traveled to Washington, DC on February 2-4 to serve as a member of a grant proposal review panel for the US Environmental Protection Agency.

**Joel Coats and Justin Grodnitzky** traveled to San Francisco, CA on March 25-27 to attend and present research at the national meeting of the American Chemical Society.

**Gregory Courtney** traveled to the Southern Appalachians Mountains on March 11-18 to take the Ecology and Evolutionary Biology course field trip (EEB 585) and to attend a Biodiversity Symposium at Western Carolina University.

**Jerry DeWitt** traveled to Jeckyll Island, GA on January 19-23 to present a lecture on sustainable agriculture at the Southern Sustainable Ag Workshop and to attend the Professional Development Workshop on Sustainable Ag. He also traveled to Washington, DC on December 30, 1999 through January 10, 2000 to work on sustainable agriculture program development at the United States Department of Agriculture. In addition, DeWitt traveled to Purdue University on February 22-24 to meet with Purdue faculty on a sustainable agricul-



ture project. He also traveled to Portland, OR on March 6-8 to present at the Sustainable Agriculture and Research Education 2000 Conference. Then DeWitt traveled to Santa Cruz, CA on March 9-15 to attend the Organic Farming Research Foundation Board Meeting.

**Laura Hansen and Colothdian Tate** traveled to Kansas City, MO on February 23-25 to attend and present at the Monarch workshop conference.

In March **Richard Hellmich** gave invited talks “Insect Resistance Management: Problems and Solutions for Field Corn” at the International Plant Resistance to Insects – 14th Biennial Workshop, Fort Collins, CO; “Impact of Bt Transgenic Crops on Nontarget Organisms” at the American Chemical Society annual meeting in San Francisco, CA; “Insect Resistance Initiatives and Monarch Butterfly Research” to Secretary of Agriculture’s Biotechnology Advisory Committee, Washington, DC.

**Elliot Krafur** traveled to Kissimmee, FL on February 10-12 to participate in an Multi-State Project S-274, “Integrated Management of Arthropod Pests of Livestock and Poultry.”

**Wai-Ki Frankie Lam** traveled to the University of Nebraska in Lincoln, NE on February 15 to present a seminar on Winter Survival and Population Dynamics of the Bean Leaf Beetle (Coleoptera: Chrysomelidae).

**Donald Lewis** gave invited talks at the Nebraska Pest Management Conference, Lincoln, NE on January 19 and at the Presto-X-Company Technical Conference, Omaha, NE on March 3.

**Marlin Rice** presented “Of monarchs and men: Reflections on Bt corn for 2000” at the Illinois Crop Protection Technology Conference to the University of Illinois in Champaign, IL on January 5-6 and at Pennsylvania State University in University Park, PA on January 18-19 at the Penn State University’s Lime, Fertilizer and Pesticide Conference. He also traveled to Madison, WI on January 22-26 to attend the regional research meeting (NC-205) on stalk-boring insects. On February 22-23 Rice traveled to Washington, DC to attend a program committee planning meeting for the Entomological Society of America at ESA head-

quarters. Rice also traveled to Kansas State University on March 2-3, 2000 to give two invited seminars “A photographic essay on Zimbabwe from ants to elephants” and “Macro photography and techniques for the entomologist” in the Entomology Department.

**Jon Tollefson** traveled to Washington, DC on February 27-28 to discuss requirements for the registration of transgenic corn for control of the corn rootworm with the Environmental Protection Agency. He also traveled to Irvin, TX on March 21-22 to meet with representatives of the United States Department of Agriculture-Agriculture Research Service Areawide Management Project and Trece, Inc. to plan 2000 research for the Area-Wide Management of Corn Rootworms project.

**Richard Wilson** attended the workshop on International Plant Resistance to Insects held in Fort Collins, CO, February 28-March 2.

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## International Travel

**Thomas Baker** traveled to Lund, Sweden on March 10-15, 2000 to present an invited seminar at the University of Lund and to complete the writing of a joint manuscript on harmonic radar tracking of moths in the field.

**Gregory Courtney** traveled to Thailand and Nepal on March 29 to perform National Geographic Research and to do research collaboration with Kasetsart University, Bangkok, and Chiang Mai University in Thailand. He will return June 9.

**Kye Chung Park** traveled to South Korea on January 11-26 to visit and give seminars in Seoul National University, Andong National University and Korea Research Institute of Biotechnology and Bioscience.

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## Other

On March 7 more than 45 exhibits from land grant universities from across the U.S. were displayed on Capitol Hill in Washington, DC. The National Association of State Universities and Land Grant Colleges sponsored the event, “Agricultural Research & Education - Serving the Nation: A University Science and Education Exhibition on



Capitol Hill.” ISU had a display on the North Central Integrated Pest Management Research and Education Program. The display was put together by **Jerry DeWitt, Joyce Hornstein, Rich Pope,** and **Brent Pringnitz.** **Wendy Wintersteen,** interim executive associate dean, staffed the display. The event was well attended by members of Congress and their staff.

A conference sponsored by the Interdepartmental Program in Genetics on “The Science and Controversy of Genetically Modified Organisms in Agriculture” was held on campus on March 3-4. The department was well represented with **Laura Hansen** presenting a talk on the potential risk of pollen from Bt corn to monarch butterflies. **Bryony Bonning** was a co-organizer of the event. Four posters were presented by members of the department:

**Harrison, R.L. and B.C. Bonning.** Use of proteases to enhance the pesticidal potential of baculoviruses.

**Harrison, R.L. and B.C. Bonning.** Genetic engineering of *Rachiplusia ou* nucleopolyhedrovirus for enhanced insecticidal performance.

**Rice, M.E. and C.D. Pilcher.** Bt corn and insect resistance management: farmer perceptions and educational opportunities.

**Pilcher, C.D., M.E. Rice, R.A. Higgins and R. Bowling.** Pollen drift from Bt corn: efficacy against European corn borer on adjacent rows of nonBt corn.

**Richard Hellmich** co-organized an NC205/NCR46-sponsored Insect Resistance Management Meeting to address corn insect resistance to transgenic corn hybrids. EPA, USDA, growers and industry participated. The meeting was held in Madison, WI in January. Rick also organized a workshop that was held in February in Kansas City, MO to prioritize information and research needs on nontarget Lepidoptera, primarily monarch butterfly, as it relates to Bt transgenic corn. EPA, USDA and 35 scientists participated.

**Amy Wiebe** presented “Biological Control of Purple loosestrife in Iowa” on March 2 at the Iowa

Weed Commissioners Annual Meeting.

The North Central Branch ESA meeting held March 26-29 in Minneapolis, MN was well attended by members of the department. Talks were given by **Tim Nowatzki, Anthony Boughton, Rada Krell** and **John Obrycki.** Seven posters from the department were presented by **Ted Wilson, Laura Weiser, Carol Fassbinder, Chris Peterson, Rachel Newman,** and **Marlin Rice.** In addition, **Rayda Krell** co-organized and moderated two symposia on “You mean there’s more than doing research? Improving the *other* skills for graduate students” and “Site-specific IPM.” **Marlin Rice** served as Games Master for the Linnaean Games. ISU Entomology Team 1, composed of **Rayda Krell, Wilmar Morjan, Chris Peterson** and **Tim Nowatzki** won two of the three games played and lost by only 10 points (1 question). Team 2, **Laura Anne Weiser, Ted Wilson, Joel Gibson** and **Yong-Lak Park** won one of two games played and also lost by only 10 points.