



New Appointments/Personnel

Anthony Boughton completed a postdoctoral research appointment and left the Bonning laboratory in June. This fall, Anthony will start a postdoctoral position at Pennsylvania State University with Dr. Kelli Hoover to work on tritrophic interactions between baculoviruses, lepidopteran larvae, and plants.

Joel Gibson successfully defended his M.S. thesis entitled "Systematics of the net-winged midge *Horaia Tonnoir* (Diptera: Blephariceridae)."

Hailing Jin completed her Masters research and left the Bonning laboratory in June. Hailing is working at the Iowa State University Proteomics Facility, under the direction of Dr. Pat Schnable.

Karen Parian, an undergraduate from the University of Nevada, Reno, joined the Bonning laboratory in June for 2 months as part of the College of Agriculture Summer Minority Research Internship Program for Minority Students at Iowa State University. Karen is working on recombinant baculovirus insecticides.

Brendon Reardon is working with with Les Lewis and Rick Hellmich, USDA-ARS, as a Ph.D. student and biological science laboratory technician. Brendon received a B.S. degree from the University of Vermont and an M.S. degree from Texas A&M University.

Publications

Alverson, A.J. and G.W. Courtney (2003) Temporal patterns of diatom ingestion by larval net-winged midges (Diptera: Blephariceridae: *Blepharicera*). *Freshwater Biology* (in press).

Binning, R.R., and M.E. Rice (2002) Effects of transgenic Bt corn on growth and development of the stalk borer, *Papaipema nebris*. *Journal of Economic Entomology* 95: 622-627.

Awards and Honors

Tom Baker, John Obrickyi, and Junwei Zhu were honored by the Iowa State University Research Foundation for their invention of predatory insect attractants (Benallure).

Russell Jurenka received an award from ISU for Outstanding Organization Advising as an advisor to the EGSO.

Royce J. Bitzer, Lamar D. Buckelew, and Larry P. Pedigo. 2002. Effects of transgenic herbicide-resistant soybean varieties and systems on surface-active springtails (Entognatha: Collembola). *Environmental Entomology* 31: 449-461.

Bruck, D.J., L.C. Lewis, and R.D. Gunnarson (2001) Interaction of *Nosema pyrausta* and temperature on *Ostrinia nubilalis* egg production and hatch. *Journal of Invertebrate Pathology* 78: 210-214.

Bruck, D.L., and L.C. Lewis (2002) Whorl and pollen-shed stage application of *Beauveria bassiana* for western corn rootworm. *Entomologia Experimentalis et Applicata* (in press).

Bruck, D.J., and L.C. Lewis (2002) Rainfall and residue on soil dispersion and *Beauveria bassiana* spread to corn. *Applied Soil Ecology* (in press).

Coates, B.S., R.L. Hellmich, and L.C. Lewis (2002) Nuclear small subunit rRNA group I intron variation among *Beauveria* spp. provide tools for strain identification, and evidence of horizontal genetic transfer. *Current Genetics* (in press).

Krafsur, E.S. and Endsley, M.A. (2002). Microsatellite diversities and gene flow in *Glossina morsitans*. *Medical and Veterinary Entomology* (in press).

Lewis, L.C., D.J. Bruck, and R.D. Gunnarson (2002) On-farm evaluation of *Beauveria bassiana* for control



of *Ostrinia nubilalis* in Iowa, USA. *Biocontrol* 47: 167–176.

Lewis, L.C., D.J. Bruck, and R.D. Gunnarson (2002) Measures of *Bacillus thuringiensis* persistence in the corn whorl. *Journal of Invertebrate Pathology* (in press).

Löfstedt, C., Junwei Zhu, M.V. Kozlov, V. Buda, E. Jirle, S. Hellqvist, J. Lofqvist, E. Plass, S. Francke, and W. Francke (2002) Identification of the sex pheromone of the current shoot borer *Lampronia capitella*. *Journal of Chemical Ecology* (in press).

Marquez, J.G. and E.S. Krafur. (2002). Gene flow among geographically diverse house fly populations (*Musca domestica* L.): a worldwide survey of mitochondrial diversity. *Journal of Heredity* (in press).

Marquez, J.G. and E.S. Krafur (2002). Mitochondrial diversity in New World house flies (Diptera: Muscidae). *Journal of Medical Entomology* (in press).

Nowatzki, Timothy M., Jon J. Tollefson, and Theodore B. Bailey (2002) Effects of row spacing and plant density on corn rootworm (Coleoptera: Chrysomelidae) emergence and damage potential to corn. *Journal of Economic Entomology* 95: 570–577.

Ochieng S.A., K.C. Park, and T.C. Baker (2002) Host plant volatiles synergize responses of ex pheromone-specific olfactory receptor neurons in male *Helicoverpa zea*. *Journal of Comparative Physiology A* 188: 325–333.

Ochieng S.A., P.S. Robbins, W.L. Roelofs, and T.C. Baker (2002) Sex pheromone reception in the scarab beetle *Phyllophaga anxia* (Coleoptera: Scarabaeidae). *Annals of the Entomological Society of America* 95: 98–102.

Park, Kye Chung and T.C. Baker (2002) Improvement of signal-to-noise ratio in electroantennogram responses using multiple insect antennae. *Journal of Insect Physiology* (in press).

Rice, M. E. (2002) William B. Peck, obituary. *American Arachnology* 64: 11.

Extension, Educational, Technical Publications

The first *Integrated Pest Management in Schools* newsletter (PM 70, June 2002) was released by **Mark Shour** and **Julie Todd**, with contributing authors from the departments of Agronomy, Entomology, Forestry, and Horticulture.

Out-of-State Travel

Thomas Baker traveled to State College, PA, April 23–27, to present a seminar in the Department of Entomology at Pennsylvania State University, and also to visit with faculty and students and consult with potential research collaborators in other programs of study at the University Park campus.

Bryony Bonning, Robert Harrison, Russell Jurenka, and Man Yeon Choi traveled to Tucson, Arizona, May 28–June 2, to participate in the Fourth International Symposium on Molecular Insect Science.

Joel Coats was in Orlando, FL, April 6–10, to present a paper at the National Meeting of the American Chemical Society and to serve as Councilor for the Agrochemicals Division.

Joel Coats, Jason Belden, Keri Henderson, Todd Phillips, and Bryan Clark traveled to Omaha, NE, May 16–18 to attend and present research at the regional Ozark-Prairie Society of Environmental Toxicology and Chemistry meeting.

Greg Courtney was invited speaker at the Coweeta Long-Term Ecological Research Meeting held June 18–19 at the University of Georgia, Athens. He presented a paper entitled “Biosystematics of rheophilic flies: taxonomic and ecological studies in the southern Appalachians.”

Bob Harrison visited a colleague at the University of Wyoming in Laramie and gave a seminar to the Department of Molecular Biology entitled “Use of proteases to enhance the insecticidal potential of baculoviruses.”

Russell Jurenka traveled to Washington, DC, May 14–17, to serve on the USDA-NRI suborganismal grant panel.



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Les Lewis traveled to Beltsville, MD, in April to serve on a panel for training of new research leaders in the USDA-ARS.

Donald Lewis participated in the Tri-State Master Gardener Convention in Green Bay, WI, June 19-22.

Bethzayda Matos and Susan Moser traveled to Urbana-Champaign, IL, June 22-26, attend a workshop at the University of Illinois on the biology of parasitoid Hymenoptera.

John Obrycki and Jon Tollefson traveled to Amboy, IL, May 21-23, to meet with individuals from the University of Illinois and Purdue University to review a jointly taught course.

John Obrycki presented a workshop with Kirk Moloney at the University of Potsdam in Germany, June 26-July 12.

Samuel Ochieng attended the annual meeting of the Association for Chemoreception Sciences in Sarasota, FL, April 24-28.

Rich Pope hosted a stakeholders meeting for the North Central Pest Management Center in Bloomington, IL, June 26-28.

Marlin E. Rice lead a group of 20 Iowa State undergraduate students on an International Field Trip in Biology (BIOL 394) to Kenya and Tanzania, May 11-31.

Oscar Rocha traveled to the University of Costa Rica to conduct research, April 4-15.

Jon Tollefson and Yong-Lak Park visited the Northern Grain Insects Research Laboratory in Brookings, SD, May 29-30, to discuss research and view the *Diabrotica* rearing facilities.

Jon Tollefson participated in the annual meeting of the North Central Integrated Pest Management Research Technical Committee (NCR-201) and met jointly with the North Central Pest Management Center Directors. The meeting took place at the Kellogg Conference Center in East Lansing, MI, April 1-4.

Miscellaneous

Royce Bitzer and Kenneth Shaw have been doing weekly butterfly surveys and collecting pitfall trap samples of Collembola at Hallett's Quarry as part of the Hallett's Quarry Biological Inventory, a project to obtain a baseline species inventory at the quarry before the area is converted to prairie and wetland in preparation for the new Ada Hayden Conservation Heritage Park. Some others involved in the project are Jason O'Brien, Stephanie Black, and Erwin Klaas, all in the Department of Animal Ecology.

On March 29, **Royce Bitzer** and Patrick Brown (ISU Geographic Information Systems Facility) launched the 2002 Vanessa Butterfly Migration Project, which is an Internet citizen science program to collect first springtime sightings and migration observations of butterflies in the genus *Vanessa*, including red admirals, painted ladies, American ladies, and west coast ladies, throughout North America. As of June 30, they had collected >80 red admiral, painted lady, and American lady sightings throughout the United States and southern Canada during spring and early summer 2002. More information, including the latest maps from 2002, is available on the Red Admiral and Painted Lady Research sites at www.public.iastate.edu/~mariposa/ and www.public.iastate.edu/~mariposa/Vanessaproject.htm

Jerry DeWitt, Joyce Hornstein, Carol Pilcher, Rich Pope, Jane Punke, Mark Shour, and Julie Todd developed the program and hosted the 2002 North Central Region Pesticide Education and Certification Workshop in Des Moines, June 10-12. Sixty people, representing cooperative extension and regulatory agencies, attended the workshop, which included plenary and breakout sessions along with educational tours of a viticultural site, regional collection center, commercial greenhouse, and field extension laboratory. One announcement made during the workshop was the Agricultural Health Study's release of new information on the effects of pesticides on agricultural workers. These fact sheets (available fall 2002) will be a valuable tool for pesticide safety and certification training efforts. Please visit their website at www.aghealth.org for more information about this study and its findings.