

## **Timothy J. Kring**

Professor

University of Arkansas, Fayetteville

**Current Appointment: 70% Research; 15% Teaching; 15% Service.**

### **Education**

B.A.	1979	Quinnipiac College, Hamden, Connecticut
M.S.	1981	Texas A&M University, College Station, Texas
Ph.D.	1984	Texas A&M University, College Station, Texas



Biology  
Entomology  
Entomology

### **Professional Experience**

University of Arkansas, Fayetteville, Department of Entomology	
Professor of Entomology	1994-present
Associate Professor, Entomology	1989-1994
Assistant Professor, Entomology	1985-1989

### **Awards and Honors**

President, *International Organization for Biological Control, NRS*, 1997-1999  
President, *Arkansas Entomological Society*, 1992

### **Areas of Research/Extension Specialization**

Primary area of research is biological control of insect pests using predators and parasitoids, with a new program in biological control of weeds in development. Also responsible for research on small grains. Biological control research has been largely applied, with a focus on decreasing insecticide use in various systems. The goal of several project was to evaluate the efficacy of beneficial insects in selected agroecosystems. Recent research efforts have concentrated on development and implementation of a new cotton aphid threshold that explicitly relies on the control afforded by beneficial insects. This is the first full-scale deployment of such a threshold in row crops. The goal of our wheat research has been to eliminate unnecessary inputs for insect management. Successful cooperative research-extension projects have dramatically altered treatment recommendations and have essentially eliminated insecticide applications targeting armyworm and aphids as virus vectors.

### **Selected Publications** (Author or coauthor of more than 90 publications)

- Abney, M. R., J. R. Ruberson, G. A. Herzog, T. J. Kring, D. C. Steinkraus and P. M. Roberts. 2007. Suppression of cotton aphid (Homoptera: Aphididae) populations by natural enemies in southeastern cotton production systems. *J. Econ. Entomol.* Accepted.
- Simelane, D. O, D. C. Steinkraus and T. J. Kring. 2007. Predation rate and development of *Coccinella septempunctata* L. influenced by *Neozygites fresenii*-infected cotton aphid prey. *Biological Control.* Accepted.
- Conway, H. E., D. C. Steinkraus, J. R. Ruberson and T. J. Kring. 2006. Experimental treatment threshold for the cotton aphid (Homoptera: Aphididae) using natural enemies in Arkansas cotton. *J. Entomol. Sci.* 41(4): 361-373.
- Conway, H. E. and T. J. Kring. 2004. Wing formation and reproduction from insecticide-treated cotton aphids (Homoptera: Aphididae). *J. Entomol. Sci.* 39(3): 407-416.
- Studebaker, G. E. and T. J. Kring. 2003. Effects of various insecticide residues in cotton on gender and developmental stage of the insidious flower bug (Hemiptera: Anthocoridae). *J. Entomol. Sci.* 38(3): 409-419.
- Studebaker, G. E. and T. J. Kring. 2003. Effects of insecticides on *Orius insidiosus* (Hemiptera: Anthocoridae), measured by field, greenhouse and Petri dish bioassays. *Florida Entomol.* 86(2): 178-185.

- Stuebaker, G. E., T. J. Kring and E. Gbur. 2003. Lambda-cyhalothrin, imidacloprid and spinosad impacts on movement of predatory arthropods in cotton. *J. Entomol. Sci.* 38(4): 711-713.
- Conway, H. E. and T. J. Kring. 2003. Effect of imidacloprid on wing formation in the cotton aphid (Homoptera: Aphididae). *Florida Entomol.* 86(4): 474-476.
- Ruberson, J. R., Y. J. Shen and T. J. Kring. 2000. Photoperiodic sensitivity and diapause in the predator *Orius insidiosus* (Heteroptera: Anthocoridae). *Ann. Entomol. Soc. Amer.* 93(5): 1123-1130.
- Atwood, D. W., S. Y. Young and T. J. Kring. 1999. *Microplitis croceipes* (Hymenoptera: Braconidae) development in tobacco budworm (Lepidoptera: Noctuidae) larvae treated with *Bacillus thuringiensis* and thiodicarb. *J. Entomol. Sci.* 34(2): 249-259.
- Mackay, A. I. and T. J. Kring. 1998. Acceptance and utilization of diapausing *Helicoverpa zea* (Lepidoptera: Noctuidae) pupae by *Ichneumon promissorius* (Hymenoptera: Ichneumonidae). *Environ. Entomol.* 27(4):1006-1009.
- Obrycki, J. J. and T. J. Kring. 1998. Predaceous Coccinellidae in Biological Control. *Ann. Rev. Entomol.* 43: 295-321.
- Krafsur, E.S., T. J. Kring, J. C. Miller, P. Nariboli, J. J. Obrycki, J. R. Ruberson, and P. W. Schaefer. 1997. Gene flow in the exotic colonizing ladybeetle *Harmonia axyridis* in North America. *Biol. Control* 8: 207-214.
- Ruberson, J. R. and T. J. Kring. 1993. Parasitism of developing eggs by *Trichogramma pretiosum* (Hymenoptera: Trichogrammatidae): Host age preference and suitability. *Biological Control.* 3: 39-46.

### ***Contracts and Grants***

Over the past 5 years, principal or co-investigator on 16 grants totaling \$339,000. Funding agencies include: USDA National Research Initiative Competitive Grants Program, USDA Southern Regional Competitive Grants Program, USDA-APHIS Cooperative Agreements, USDA Invasive Species Initiative, USDA Biological Control Institute, Cotton Incorporated, Arkansas Cotton State Support Committee, and Arkansas Wheat Research and Promotion Board

### ***Professional Service***

International Organization for Biological Control (IOBC)  
 Nearctic Regional Section, Past President  
*The Practice of Biological Control*, International Conference Organizer, Bozeman MT, 2001  
 IOBC / Biocontrol Network Canada Joint Symposium Co-Organizer,  
 Symposium in honor of Mike Rose, Magog, Quebec, 2005  
*Biological Control: Theory and Application of Pest Management*: Editorial Board  
 Entomological Society of America  
 Member Awards, Past Chair  
 Editorial Board, Past Chair (*Arthropod Management Tests*)  
 Section Symposium Co-Organizer: 2000, 2005  
 Entomology Society of America, Southeastern Branch  
 Governing Board Member 1997-2006

### ***Teaching Experience***

I developed and taught graduate courses in Biological Control (which I currently teach) and Research Methods in Ecological Entomology. I have served as major advisor to 15 M.S. and Ph.D. students and currently am major advisor to 1 M.S. student.

August 20, 2007