

Joshua J. Hannam

Abbreviated Curriculum Vitae

Education:

University of Arkansas, Fayetteville, AR; M.S. Student, 2007-present

Cornell University, Ithaca, NY; Graduated with B.S. January 2006

Oklahoma State University, Stillwater, OK; Attended 2001-2002

Professional Experience:

Research Assistant, Univ. of Arkansas, D. C. Steinkraus's lab (August 2007 to present) – My work includes field sampling for tarnished plant bug parasitoids and pathogens as well as laboratory assays with entomopathogenic fungi isolated from tarnished plant bug. I assisted with both field sampling and laboratory studies on Japanese beetle. I have also assisted with research on honeybee pest control.

Teaching Assistant for Insect Morphology, Univ. of Arkansas (Fall 2009) – I assisted course instructor D. C. Steinkraus. In addition to helping students, I was responsible for all laboratory preparations including numerous dissections. I gave one class lecture and one laboratory presentation.

Laboratory Mgr./Asst., Cornell University, A. E. Hajek's lab (May 2003 to July 2007) – I began as an undergraduate lab assistant but eventually was hired as a lab manager. I worked on many projects learning a wide range of skills in both the field and the laboratory. I did direct sampling for gypsy moth, soybean aphid, and foliar predators in soybean. I sampled for carabids with pitfalls and sweep-net. I learned to identify numerous pathogens including 8 fungal species found on aphids, nucleopolyhedrosis virus in gypsy moth, and the fungal pathogens of other field collected insects. I also did species identification of insects including aphids, parasitoids, and carabids. I worked often under sterile conditions including the isolation of fungal pathogens from field collected insects and maintaining fungal cultures. I inoculated various insects with fungal pathogens from culture through microinjection, conidial showering, and dipping. I was involved in behavioral studies of ants, carabids, and birds. Laboratory bioassays included many tests on the effects of various environmental factors on fungi, testing pathogen host range, and recovering entomopathogenic fungi from soil. I helped maintain colonies of gypsy moth, soybean aphid, and Asian long-horned beetle, and I worked in three different arthropod quarantine facilities.

Teaching Assistant for Applied Entomology, Cornell University (Spring 2005) – I assisted course instructor W. M. Tingey. In addition to helping students in the laboratory, I gave 3 lectures.

Field Assistant (January 2005) – I assisted a graduate student, Andrew Short (Now Asst. Prof. @ Univ. of Kansas), with his work on the Hydrophilidae of Costa Rica. In cloud forest and lowland rainforest sites, we collected hydrophilids by Burlese funnel, mercury-vapor light, stirring debris into water, pyrethroid fogging on seeps, but also collected from carcasses, scat, and water-collecting epiphytes.

Independent Study (Fall 2004 and Spring 2005) – As an undergraduate, I developed my own experiment from applying for funding, to methods, and data analysis with the help of A. E. Hajek and C. Nielsen. Title: "Infection in soybean aphids (*Aphis glycines* M.) by overwintering fungal pathogens in the center and margin of the soybean field."

Refereed Publications:

- Hannam, J. J., and D. C. Steinkraus. 2010. The natural occurrence of *Pandora heteropterae* (Zygomycetes: Entomophthorales) infecting *Lygus lineolaris* (Hemiptera: Miridae). *Journal of Invertebrate Pathology*. 103: 96-102.
- Pell, J. K., J. Hannam, and D. C. Steinkraus. 2010. Conservation biological control using fungal entomopathogens. *BioControl*. 55: 187-198.
- Hajek, A. E., A. E. Burke, C. Nielsen, J. J. Hannam, L. S. Bauer. 2008. Nondormancy in *Entomophaga maimaiga* azygospores: effect of isolate and cold exposure. *Mycologia*. 100: 833-842.
- Hannam, J. J., J. K. Liebherr, and A. E. Hajek. 2008. Climbing behavior and aphid predation by *Agonum muelleri* (Coleoptera: Carabidae). *Canadian Entomologist*. 140: 203-207.
- Hajek, A. E., J. J. Hannam, C. Nielsen, A. J. Bell., and J. K. Liebherr. 2007. Distribution and abundance of Carabidae (Coleoptera) associated with soybean aphid (Hemiptera: Aphididae) populations in central New York. *Annals of the Entomological Society of America*. 100: 876-886.

University Committees, Activities, and Projects

- Isely-Baerg Entomology Club (2007-present). University of Arkansas.
-*President* (2009-2010)
- Linnaean Games Team (2009). University of Arkansas.

Outreach:

- Fayetteville Elementary's Fall Festival. 30 October 2009. Fayetteville, AR
- Fayetteville Farmer's Market. 8 August 2009. Fayetteville, AR
- University of Arkansas Insect Festival. 9 October 2008. Fayetteville, AR
- Van Buren County Plant Sale. 3 May 2008. Fairfield Bay, AR
- Insetapalooza. 14 October 2006. Ithaca, NY

Relevant Course Work:

Course Name (credit hours)	Instructor(s)	University
<i><u>Courses in Entomology</u></i>		
Applied Molecular Genetics (3)	Allen Szalanski	Univ. of Arkansas
Insect Toxicology (3)	Paul McLeod	Univ. of Arkansas
Seminar: Chemical Ecology (1)	Don Johnson	Univ. of Arkansas
Seminar: Insect Diapause (1)	Timothy Kring	Univ. of Arkansas
Seminar: Research Ethics (1)	Robert Wiedenmann	Univ. of Arkansas
Biological Control (2)	Jan Nyrop & Ann Hajek	Cornell University
Comparative Insect Morphology (5)	Bryan Danforth	Cornell University
Insect Behavior (3)	Linda Rayor	Cornell University
Insect Biology (4)	Todd Blackledge	Cornell University
Insect Conservation Biology (3)	John Losey	Cornell University
Insect Ecology (3)	Jennifer Thaler	Cornell University
Insect Physiology (4)	Cole Gilbert	Cornell University
Insect Systematics (4)	Quentin Wheeler	Cornell University
Integrated Pest Management (4)	Antonio DiTommaso	Cornell University
Natural Enemies Managing Pests (2)	Ann Hajek	Cornell University
Spider Biology (2)	Linda Rayor	Cornell University
Stream Ecology (4)	Barbara Peckarsky	Cornell University
The Naturalist Way (2)	Thomas Eisner	Cornell University
<i><u>Courses in Statistics</u></i>		
Principles of Experimentation (3)	Andy Mauromoustakos	Univ. of Arkansas
Experimental Design (4)	Andy Mauromoustakos	Univ. of Arkansas
Statistical Reasoning I (3)	Paul Velleman	Cornell University
Statistical Reasoning II (3)	Daniel Fink	Cornell University
<i><u>Other Relevant Courses</u></i>		
Soil Microbiology (4)	Duane Wolf	Univ. of Arkansas
Taxonomy of Flowering Plants (4)	Johnnie Gentry	Univ. of Arkansas
Forest Ecology (4)	Steven Stephenson	Univ. of Arkansas
General Microbiology	Timothy Kral	Univ. of Arkansas
Evolutionary Biology (3)	Myra Shulman	Cornell University
Ecology and the Environment (4)	Chabot, Dhondt, & Hairston	Cornell University
Organic and Biological Chemistry (3)	David Usher	Cornell University
Mycology (3)	Kathy Hodge	Cornell University
Genetics (5)	Ross MacIntyre & Debra Nero	Cornell University
Conservation Biology (3)	John Fitzpatrick	Cornell University
Agriculture, History, and Society	Margaret Rossiter	Cornell University
Plant Biology (4)	Ronald Tyrl	Okla. State Univ.
General Biology (4)	Arnon Rikin	Okla. State Univ.
General Chemistry I (4)		Okla. State Univ.
Honors General Chemistry II (5)		Okla. State Univ.