

Bill D. Wills

Department of Biological Sciences
101 Life Sciences Building
Auburn University, AL 36849

Dept. Office Phone: 344-844-4830
Email: willsbd@auburn.edu

EDUCATION

- Ph.D. in Biology**, University of Illinois Urbana-Champaign 2013
Dissertation: “The Implications of Ecology on Body Size Distributions in Social Insects”
Advisor: Andrew V. Suarez
- B.S. in Evolution, Ecology, and Biodiversity**, University of California, Davis 2006
University Regents Scholar, High Honors

ACADEMIC APPOINTMENTS

- Assistant Research Professor** August 2018 - Present
Department of Biological Sciences
Auburn University
- Assistant Professor** August 2017 – July 2018
Department of Biology
DePauw University
- Postdoctoral Research Associate** October 2014 - August 2017
Michigan State University
Supervisor: Douglas A. Landis
- Co-Instructor of Record** January 2016 - May 2016
Lyman Briggs College – Michigan State University
- Postdoctoral Research Associate** December 2013 - September 2014
University of Illinois Urbana-Champaign
Supervisor: Andrew V. Suarez

PUBLICATIONS

7. Kim TN, Bartel S, **Wills BD**, Landis DA, and Gratton C. 2018. Disturbance differentially affects alpha and beta diversity of ants in mixed prairie-grasslands. *Ecosphere*. 10.1002/ecs2.2399
6. **Wills BD**, Powell S, Rivera MD, and Suarez AV. 2018. Correlates and consequences of worker polymorphism in ants. *Annual Reviews of Entomology*. 63:575-598.
5. **Wills BD** and Landis DA. 2018. The role of ants in north temperate grasslands: A review. *Oecologia*. 186: 323-338.
4. Kim TN, Fox AF, **Wills BD**, Meehan TD, Landis DA, and Gratton C. 2017. Harvesting biofuel grasslands has mixed effects on natural enemy communities and no effects on biocontrol services. *Journal of Applied Ecology*. 54: 1365-2664.

3. **Wills BD**, Chong CD*, Wilder SM, Eubanks MD, Holway DA, and Suarez AV. 2015. Influence of nutrition on investment in worker number, size, and condition in a polymorphic social insect. *PLoS one*. 10: e0132440.
2. **Wills BD**, Moreau CS, Wray BD, Hoffman B, and Suarez AV. 2014. Body size variation in geographically distinct populations of the invasive ant *Pheidole megacephala* (Hymenoptera: Formicidae). *Biological Journal of the Linnaean Society*. 113: 423-438.
1. Tillberg CV, Edmonds B, Freauff A, Hanisch P, Paris C, Smith CR, Tsutsui ND, **Wills BD**, Wittman SE, and Suarez AV. 2014. Foraging and nesting ecology of the giant, queen-less ant *Dinoponera australis* (Hymenoptera: Formicidae). *Biotropica*. 46: 229-237.

*undergraduate co-author

FORTHCOMING PUBLICATIONS

Helms J, Haddad N, Ijelu S, **Wills B**, and Landis D. Ant biodiversity and ecosystem services in bioenergy landscapes. *Journal of Applied Ecology*. (Submitted 4-26-19)

Wills BD, Kim TN, Fox AF, Gratton C. and Landis DA. Arthropod communities and pest suppression response to reduction of native ant species in grasslands. *Environmental Entomology*. (In revision)

Wills BD, Hood N*, Wilder SM, Eubanks MD, Holway DA, and Suarez AV. Diet and investment in worker size, number, and condition of two ant species. (In Preparation)

*undergraduate co-author

TEACHING EXPERIENCE

Auburn University – Department of Biological Sciences

Biology (BIOL) – 1030 Organismal Biology	Fall 2018
Biology (BIOL) – 1030 Organismal Biology	Spring 2019

DePauw University – Department of Biology

Biology (BIO) 102 Evolution, Organisms, and Ecology	Spring 2018
BIO 346 Plant-Animal Interactions	Spring 2018
BIO 290 Insect Ecology	Fall 2017
BIO 342 Ecology	Fall 2017

Michigan State University (MSU) – Lyman Briggs College

Lyman Briggs 144 Organismal Biology, Co-Instructor	Spring 2016
--	-------------

University of Illinois Urbana-Champaign (UIUC) – School of Integrative Biology

Integrative Biology (IB) 203 Ecology, Teaching Assistant	Fall 2009, Fall 2010*, Fall 2013*
IB 105 Environmental Biology, Teaching Assistant	Fall 2011, Spring 2012*
IB 496 Foundations in Ecology, Course Creator/Coordinator	Spring 2012
IB 202 Anatomy and Physiology, Teaching Assistant	Spring 2011*
IB 150 Organismal and Evolutionary Biology, Teaching Assistant	Fall 2007, Spring 2009*
IB 429 Animal Behavior, Teaching Assistant	Fall 2009

Guest Lecturer:

ENT 848 Biological Control, <i>MSU</i>	Spring 2017
LB 144 Organismal Biology <i>MSU</i>	Fall 2016
IB 105 Environmental Biology, <i>UIUC</i>	Spring 2012

*Listed: Teacher Ranked as Excellent by Their Students

MENTORING

Undergraduate Independent Research Projects

Newton Hood , Co-author on manuscript in preparation M.S. in Biological Science, California State Fullerton University Ph.D. University of California, Irvine	2012-2014
Cody Chong , Co-author on manuscript	2010-2012
Amanda Robinson Graduated with Distinction Awarded: Harriet Long Research Award for Outstanding Research M.S. of Medicine: Physician's Assistant Studies, Midwestern University 2016	2009-2010
Stephanie Tham , Awarded: Mildred Award for Outstanding Achievement M.S. in Human Resources, UIUC	2009-2010
Corrine Fischer (Binghamton University) Summer Undergraduate Research Program Great Lakes Bioenergy Research Center	Summer 2017

Former Undergraduate Assistants (minimum two semesters):

Adam Skrekut
Akins, Sam (M.S. in Statistics, University of Chicago)
Andy Wszalek
Catherine Choi
Chase Robinson
Ellie Phillips
Erin Forster
Henry Zheng
Jenifer Ferchau
Jessica Kalin (M.S. in Entomology, University of Idaho)
Kristen. Wong (D.V.M. Ross University School of Veterinary Medicine)
Lindsey Hawkins
Lisa Hannah (M.S. in Biology, Wayne State),
Mallory Hinz
Margaret Duffy (M.S. in Earth Systems, Society, and Environmental Sustainability, UIUC)
Marisa Tucker
Paige Welborn
Samantha Hines
Tyler DeAnda
Zachary Budde
Zachary Wolfe (M.S. in Entomology, Purdue University)

RESEARCH GRANTS, FELLOWSHIPS, AWARDS

AgBioResearch – Generating Research to meet Economic and Environmental Needs, <i>Michigan State University (MSU)</i> (Co-Author, \$30,000)	2016
--	------

International Union for the Study of Social Insects – North American Section Travel Award, <i>IUSSI</i> (\$1,500)	2014
Summer Research Grant, <i>Univ. of Illinois (UIUC), Dept. of Animal Biology</i> (\$1,000)	2008, 2011, & 2012
Edwin R. Banks Memorial Award, <i>UIUC, Dept. of Animal Biology</i> (\$500)	2009 & 2012
Tinker Fellowship, <i>UIUC, School of Latin American Studies</i> (\$1,450)	2009 & 2011
Dissertation Travel Grant Fall, <i>UIUC, Graduate College</i> (\$3,125)	2011
Clark Research Award, <i>UIUC, School of Integrative Biology</i> (\$1,250)	2009
Sigma Xi Grants-in-Aid of Research Program Grant, <i>Sigma Xi</i> (\$400)	2009
Phillip Smith Memorial Fund, <i>UIUC</i> , (\$750) <i>Dept. Natural Resources and Environmental Sciences</i>	2009
Organization for Tropical Studies Grant, <i>Universidad de Costa Rica</i> (\$1,500)	2008
Graduated with High Honors, University of California Davis (<i>UC Davis</i>)	2006
Departmental Citation for Outstanding Academic and Research Achievement, <i>UC Davis</i>	2006
Recipient of Regents Scholarship, <i>UC Davis</i> (\$15,000)	2004-2006

PRESENTATIONS

12. Ant suppression reduced biological control potential in grasslands. Entomological Society of America. Denver, CO. November 5-8, 2017.
11. The response and implications of ants to ecological disturbance. Earlham College (*Liberal Arts College*) Invited speaker. Richmond, IN. October 26, 2017.
10. Ants in restored grasslands. Stewardship Network Conference. East Lansing, MI. January 15, 2016.
9. The role of ants in temperate managed grasslands. Great Lakes Bioenergy Research Center Symposium. South Bend, IN. May 19, 2015.
8. Nutrition and colony investment in *Solenopsis invicta* workers. International Union for the Study of Social Insects, International Congress. Cairns, Australia. July 14, 2014
7. The causes and consequences in body size variation in ants. Saint Mary's University (*Liberal Arts College*) Invited Speaker. Winona, MN. March 13, 2014.
6. The influence of ecology on body size variation in ants. University of Illinois, Program in Ecology, Evolution and Conservation Biology Seminar. Urbana, IL. September 25, 2013.

5. Testing Lanchester's laws with a continuously polymorphic ant species. Entomological Society of America. Austin, TX. November 10-13, 2013.
4. The role nutrition on worker demography in an invasive social insect: *Solenopsis invicta*. Entomological Society of America. Knoxville, TN. November 11-14, 2012.
3. Considerations and preparation for graduate school: Where to start and how to move forward. School of Integrative Biology Career Development Series. Urbana, IL. October 11, 2012
2. Ecological influences on body size distribution in ants. International Union for the Study of Social Insects-North American Branch Meeting. Greensboro, NC. October 5-7, 2012.
1. Geographical variation in body size of the dimorphic invasive species: *Pheidole megacephala*. Entomological Society of America. San Diego, CA. December 12-15, 2011.

SERVICE

Journal Reviewer

Biological Invasions (2012)
 Ecological Entomology (2015, 2018)
 Insectes Sociaux (2016, 2018 x2, 2019)
 Biological Control (2017)
 Scientific Reports (2017)
 Nature (2018)
 Environmental Entomology (2018 x2, 2019)
 Oecologia (2018)
 Arthropod-Plant Interactions (2019)
 Myrmecological News (2019)

Board Member , Provost and Graduate College Advisory Board, <i>UIUC</i>	2012-2013
President Graduates in Ecology and Evolutionary Biology (GEEB) , <i>UIUC</i>	2010-2012
Workshop Coordinator GEEB , <i>UIUC</i>	2009-2010
Ecolunch Coordinator GEEB , <i>UIUC</i>	2008-2009
Member	
International Union for the Study of Social Insects	2010-Present
Entomological Society of America	2009-Present

PROFESSIONAL DEVELOPMENT

New Faculty Scholars Program	2018
Auburn University – Biggio Center	

Teaching Certificates:

Postdoctoral Teaching Scholar, <i>MSU</i>	2015
Teacher Scholar Certificate, <i>UIUC</i>	2012
Graduate Student Certificate, <i>UIUC</i>	2011

ADDITIONAL TRAINING

Ant Course – California Academy of Sciences	2009
Portal, Arizona	

Organization for Tropical Studies 2007
Tropical Biology: An Ecological Approach

OTHER PROFESSIONAL EXPERIENCE

Laboratory Assistant 2007
West Valley Mosquito and Vector Control, Ontario, CA

Entomology Intern 2006
USGS-BRD, Volcanoes National Park, HI

Endangered Species Intern 2005-2006
Fish and Wildlife Service, Sacramento, CA

Wildlife Biology Intern 2005
Santa Monica National Recreational Area, Thousand Oaks, CA