

# Ashley B. Bennett

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## EDUCATION

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**Ph.D.**, Entomology, University of Wisconsin-Madison, WI, December 2009.  
Advisor: Dr. Claudio Gratton.

**M.S.**, Entomology, University of Illinois at Urbana-Champaign, Urbana, IL,  
December 2003. Advisor: Dr. L. M. Hanks

**B.S.**, Biology with minors in Chemistry and Political Science, *summa cum laude*, Millikin University, Decatur, IL, 2000.

### *Intensive Training*

- Midwest Institute for Biological Control: Biology of parasitic hymenoptera: Implications for biological control. Illinois Natural History Survey and the University of Illinois, Champaign, IL. 2002.
- Parasitic Hymenoptera Training Session XII. The Maryland Center for Systematic Entomology, Department of Entomology, University of Maryland, College Park, MD. 2002.
- Certificate in Business Administration Program. College of Business, University of Illinois at Urbana-Champaign. 2004.
- The Bee Course. Southwestern Research Station, Portal, Arizona. 2011.

## PROFESSIONAL HISTORY

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Postdoctoral Research Associate. Department of Crop Sciences, University of Illinois at Urbana-Champaign, Urbana, IL. Dr. Sarah Lovell, mentor.  
February 2010 – May 2012.

- Evaluation of native bees and pollination services in urban agricultural sites

Postdoctoral Research Associate. Great Lakes Bioenergy Research Center and Department of Entomology, Michigan State University, East Lansing, MI. Dr. Rufus Isaacs, mentor. May 2012 – April 2014.

- Implication of bioenergy crops and landscape context on pollinators and pollination services

Research and Development Scientist. Syngenta, Biological Data Analytics Group, Greensboro North Carolina. Dr. Robert Wurz, Supervisor. April 2014 – April 2016.

- As a scientist in the Biological Data Analytics groups, my primary role is to assist in development of experimental protocols for field and greenhouse trials as well as facilitate the analysis and interpretation of trial results.
- Develop training materials on research trial design and analysis
- Consult on sustainability projects such as Operation Pollinator and the development of agronomic tools that measure habitat suitability for pollinators

Assistant Professor. New Mexico State University, Los Lunas, New Mexico. May 2016 - present.

## **PUBLICATIONS**

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Spiesman, B. Bennett, A., Isaacs, R. I, and C. Gratton. Harvest of grasslands for biomass differentially affects bees in varying nesting guilds. In review at Ecological Applications.

Spiesman, B. Bennett, A., Isaacs, R. I, and C. Gratton. 2017. Bumble bee colony growth and reproduction depend on local flower dominance and natural habitat in the surrounding landscape. *Biological Conservation* 206: 217-223.

Gibbs, J., Bennett, A. B., R. Isaacs, and J. Landis. 2015. Bees of the North Central region and the wildflowers to support them: A guide for farmers, gardeners, and landscapers. Michigan State Extension.

Bennett, A.B. and R. Isaacs. 2014. Landscape context influences pollinators and pollination services in perennial biofuel plantings. *Agriculture, Ecosystems, and Environment* 193: 1-8.

- Bennett, A.B., T. Meehan, C. Gratton, and R. Isaacs. 2014. Modeling pollinator abundance and diversity under contrasting bioenergy scenarios. Accepted PLoS ONE 9(11): e110676. doi:10.1371/journal.pone.0110676
- Bennett, A. B. and S. T. Lovell. 2014. A comparison of arthropods and biological control services in urban green spaces. *Insect Conservation and Diversity* 7: 405-412.
- Bennett, A. B. and C. Gratton. 2013. Floral diversity increases diversity and decreases variability in beneficial arthropod assemblages. *Ecological Applications* 23: 86-95.
- Bennett, A.B. and C. Gratton. 2012. Local and landscape scale variables differentially impact natural pest suppression of two aphids. *Environmental Entomology* 41: 1077-1085.
- Bennett, A. B. and C. Gratton. 2012. Local and landscape variables impact parasitoid assemblages across an urbanization gradient. *Landscape and Urban Planning* 104: 26-33.
- Ellis, J.A., A.D. Walter, J.F. Tooker, M.D. Ginzl, P.F. Reagel, E.S. Lacey, A.B. Bennett, E.M. Grossman, L.M. Hanks. 2005. Conservation biological control in urban landscapes: Manipulating parasitoids of bagworms (Lepidoptera: Psychidae) with flowering forbs. *Biological Control* 34: 99-107.

*In preparation*

- Bennett, A. B. and S. T. Lovell. Local site variables differentially influence pollinators but not pollination services in urban agricultural sites. In preparation for PLOS ONE.

**GRANTS RECEIVED**

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- Master's Thesis Research Grant, Graduate College, University of Illinois Urbana- Champaign, Spring 2002.
- Conference Travel Grant, Graduate College, University of Illinois Urbana- Champaign, Fall 2003.
- Native Plant Society Research Fund, Illinois Native Plant Society, Spring 2004.

Vilas Travel Grant, Graduate College, University of Wisconsin, Fall 2008, 2009.

University of Illinois, Hatch Grant. S. Lovell and A. B. Bennett. "Evaluating the impact of local and landscape scale variables on the provision of ecosystem services in urban agricultural sites." 2010-2015. \$3,500.

University of Illinois, Research Board Grant. A. B. Bennett and S. T. Lovell. "Comparison of different green space types based on ecosystem services provided by arthropods." Spring 2011. \$10,000.

North Central IPM Center. A. B. Bennett and S. Lovell. Evaluating the impact of local scale variables on the provision of ecosystem services in urban green space. Spring 2011. \$10,000.

Project GREEN. A. B. Bennett and R. Isaacs. A pocket guide to the bees of Michigan identification and conservation. 2014-2015: \$50,000.

New Mexico State Forestry, Energy, Minerals, and Natural Resources Department. A. B. Bennett. Pocket Guide to Insect Pests and Urban Trees and Shrubs in New Mexico. 2017-2018: \$15,000.

## **INVITED PRESENTATIONS**

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Bennett, A.B., L.M. Hanks, and C.S. Sadof. 2003. Conservation biological control of pine needle scale. Annual meeting of the Entomological Society of America North Central Branch, Madison, WI.

Bennett, A.B. and C. Gratton. 2007. Effects of urbanization on natural enemy populations. Ecological Landscaping Conference, Cleveland, OH.

Bennett, A. B. 2011. Flower diversity increases diversity and decreases variability in arthropod community composition. University of Illinois Postdoctoral Research Symposium, Urbana, IL.

Bennett, A. B. 2011. Manipulating broad and local scale landscape variables to improve arthropod conservation in residential landscapes. Annual meeting of the Entomological Society of America North Central Branch, Minneapolis, MN.

Bennett, A.B. and R. Isaacs. 2013. How contrasting bioenergy scenarios affect pollinators and the potential for pollination services. Entomological Society of America, Austin, TX.

Bennett, A. B. and R. Isaacs. 2013. Augmenting beneficial arthropods with habitat manipulations. Great Lakes Fruit, Vegetable, and Farm Market EXPO. Grand Rapids, MI.

Bennett, A. B. 2013. Augmenting beneficial insects in human-modified landscapes: the role of local and landscape variables. Dept. of Entomology. Michigan State University.

Bennett, A. B. 2015. Applying IPM strategies in urban landscapes: the effect of scale on management. Bartlett Tree Research. Charlotte, NC.

Bennett, A.B. 2015. Applying IPM strategies in urban farms and landscapes: how to conserve natural enemies and pollinators. Dept. of Extension Plant Sciences. New Mexico State University. Los Lunas, NM.

Bennett, A. B. 2016. Conserving beneficial insects in the urban landscape as part of an IPM program. Dept. of Entomology, Plant Pathology, Weed Science. New Mexico State University.

Bennett, A. B. 2017. Applying IPM Principles to Improve the Health of Urban Trees. Think Trees Conference. Albuquerque, NM

## **CONTRIBUTED PRESENTATIONS**

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Bennett, A.B., J.F. Tooker, M.D. Ginzel, L.M. Hanks, and C.S. Sadof. 2001. Manipulating natural enemies in ornamental landscapes with flowering forbs. Entomological Society of America annual meeting, San Diego, CA.

Bennett, A.B., L.M. Hanks, and C.S. Sadof. 2002. Manipulating floral density in ornamental landscapes to encourage natural enemies of herbivorous insects. Entomological Society of America annual meeting, Fort Lauderdale, FL.

Bennett, A.B., L.M. Hanks, and C.S. Sadof. 2003. Manipulating floral density in ornamental landscapes to encourage natural enemies of herbivorous insects. Annual meeting of the Ecological Society of America, Savannah, GA.

Bennett, A.B., L.M. Hanks, and C.S. Sadof. 2003. Manipulating natural enemies in ornamental landscapes. Entomological Society of America annual meeting, Cincinnati, OH.

Bennett, A.B and L.M. Hanks. 2004. Evaluation of native plant species as floral resources for parasitoids and other pollinators. Entomological Society of America annual meeting, Salt Lake City, UT.

- Bennett, A.B. and C. Gratton. 2006. Attractiveness of native prairie species to beneficial insects. Entomological Society of America annual meeting, Indianapolis, IN.
- Bennett, A.B. and C. Gratton. 2007. Changes in beneficial insect populations across an urban to rural gradient. Entomological Society of America annual meeting, San Diego, Ca.
- Bennett, A.B. and C. Gratton. 2008. Changes in natural enemy populations across an urban to rural landscape gradient. 23<sup>rd</sup> Annual Landscape Ecology Symposium. Madison WI.
- Bennett, A.B. and C. Gratton. 2008. Changes in natural enemy assemblages across an urban to rural landscape gradient. Ecological Society of America annual meeting, Milwaukee, WI.
- Bennett, A.B. and C. Gratton. 2008. Flower plantings offset the negative effects of urbanization on beneficial insects. Entomological Society of America annual meeting, Reno, NV.
- Bennett, A.B. and S. Lovell. 2011. Evaluating the impact of local and landscape scale variables on native pollinators in urban agricultural sites. Ecological society of America annual meeting, Austin, TX.
- Bennett, A.B. and R. Isaacs. 2012. Does landscape context influence pollination services in biofuel crops? Entomological Society of America annual meeting, Knoxville, TN.
- Bennett, A.B. and R. Isaacs. 2013. Does landscape context influence pollination services in biofuel crops? Great Lakes Bioenergy meeting, Hickory Corners, MI.
- Bennett, A.B. and D. Jorgenson, 2015. Mendeleev Project: Using historical data to refine design and sample size. Syngenta planning meeting, San Diego, CA.
- Isaacs, R., A.B. Bennett, T. Meehan, and C. Gratton. 2015. Modelling pollinators and their ecosystem services to predict biofuel policy implications in southern Michigan landscapes. Kellogg Biological Station Long Term Ecological Research Anniversary Symposium. East Lansing, MI.
- Bennett, A.B. and S. Lovell. 2016. Pollinator response to local and landscape scale variables in urban agricultural sites. Penn State Pollinator Conference. State College, PA.

Bennett, A.B. and S. Lovell. 2016. Pollinators but not pollination services vary across urban agricultural sites. Entomological Society of America annual meeting, Orlando, FL.

Bennett, A.B. 2017. Urban Tree IPM. Think Trees Conference, Albuquerque, NM.

Bennett, A.B. 2017. What urban and small farmers need to be successful in New Mexico. New Mexico Crop Production Association Annual Conference. Ruidoso NM.

Bennett, A.B. 2017. Beneficial Bugs in your Crops. New Mexico Organic Conference. Albuquerque, NM.

## **RESIDENT INSTRUCTION**

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Laboratory teaching assistant at University of Illinois, Biology 104: Animal Biology. Fall 2000, Fall 2001.

Laboratory teaching assistant at University of Illinois, Biology 120: Genetics, Evolutions and Biodiversity. Spring 2001.

Quiz writer at University of Illinois, Biology 120: Genetics, Evolution and Biodiversity. Spring 2002.

Exam grader at University of Illinois, Integrated Biology 385: Toxic Substances in the Environment. Spring 2003.

Guest lecturer at University of Illinois, Integrated Biology 385: Toxic Substances in the Environment: "Water Pollutions, Persistence, and Bioaccumulation" and "Hazardous Waste Disposal". Spring 2003.

Laboratory teaching assistant at University of Illinois, Entomology 319: Fundamentals of Insect Pest Management. Fall 2003.

Guest lecturer at University of Illinois, Entomology 319: Fundamentals of Insect Pest Management: "IPM of Christmas Trees." December 2003.

Laboratory teaching assistant at University of Illinois, Integrated Biology 202: Form and Function. Spring 2004.

Laboratory teaching assistant at University of Wisconsin-Madison, Biocore 302: Ecology, Genetics, and Evolution. Fall 2009.

Guest Lecturer at University of Illinois, CPSC 590: Professionalism and Ethics, how to be a successful postdoctoral researcher. Fall 2010.

Guest Lecturer at University of Illinois, IB 482: Conservation Biological Control: Current and Future Applications. Fall 2011.

Guest Lecturer at University of Illinois, Hort 255: Biodiversity and Native Plant Communities. Fall 2011.

Guest Lecturer at University of Illinois, Hort 456: Designing urban agricultural sites for ecosystem services. Spring 2012.

Guest Lecturer at New Mexico State University. Economic Entomology: Bee of New Mexico and their value. Spring 2017.

Guest Lecturer at New Mexico State University. Economic Entomology: Designing Ecological Functional Landscapes. Spring 2017.

Guest Lecturer at New Mexico State University. Economic Entomology: Pollination Services: Urban vs Agricultural Landscapes. Spring 2017.

## **PROFESSIONAL SERVICE**

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Symposium organizer with E. Rebeck. Annual meeting of the Entomological Society of America North Central Branch: "Conservation Biological Control in Ornamental and Agricultural Landscapes." Spring 2004.

Moderator, contributed presentations. Entomological Society of America annual meeting, San Diego, CA. Fall 2007

Volunteer, AV support. 23<sup>rd</sup> Annual Landscape Ecology Symposium, Madison, WI. Spring 2008

Volunteer, media contact. 23<sup>rd</sup> Annual Landscape Ecology Symposium, Madison, WI. Spring 2008.

Volunteer, interviewer. College of ACES Jonathan Baldwin Turner Scholarship Interviews. Urbana, IL. Spring 2012.

Symposium organizer with J. Peterson. Annual meeting of the Entomological Society of America: "Biofuel cropping systems: connecting beneficial arthropods, ecosystem services, and landscape effects." Fall 2013

Committee Member, WERA 1017. Regional IPM coordinating committee. Summer 2016.

Volunteer, poster judge. Annual meeting of the Entomological Society of America: Arthropod vectors of animals and plant disease. Fall 2016.

Panel Member. USDA NIFA grant review panel. Spring 2017.

#### Reviewer

- Journal manuscript, *Landscape and Urban Planning*
- Journal manuscript, *Biological Control*
- Journal manuscript, *Agriculture, Ecosystems, and Environment*
- Journal manuscript, *Ecological Applications*
- Journal manuscript, *Environmental Entomology*

## **EXTENSION SERVICE**

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Workshop presenter. Grasshopper IPM. Kewa Veterans Center Santo Domingo Pueblo, NM. Summer 2016.

Alcalde Field Day, presenter. Emerging fruit pests of New Mexico. Alcalde Research Station, Alcalde NM. Summer 2016

Workshop presenter. Creating pollinator habitat for New Mexico. NRCS Cuba NM. Fall 2016.

Panel member. Master Gardener Conference, stump the expert. Santa Fe, NM. Fall 2016.

Presenter, Albuquerque Food Festival. How to conserve beneficial insect in backyard gardens. Albuquerque, NM. Fall 2016.

Tour, presenter. Garden tour at the University of New Mexico; supporting natural enemies and pollinators in gardens. Albuquerque, NM. Fall 2016.

Presenter, UNM bee keepers. How to conserve pollinators in backyard gardens? Albuquerque, NM. Fall 2016.

Presenter, San Juan Master Gardeners. Lectures included: 1) Principles of IPM, 2) Conserving beneficial insects in backyard gardens, 3) Common Garden pests. Aztec, NM. Fall 2016.

Presenter, Pesticide Training. Principles of IPM. Roswell, NM. Fall 2016

Presenter, Pesticide Training. Principles of IPM. Albuquerque, NM. Fall 2016

Presenter, Pesticide Training. Principles of IPM. Clovis, NM. Fall 2016

Presenter, Albuquerque Bee Keepers Association. New Mexico Native Bees. Albuquerque NM. Spring 2017.

Presenter, Santa Fe Master Gardeners. Designing Ecologically Functional Landscapes for Beneficial insects. Santa Fe, NM. Spring 2017.

Presenter, Alcalde Fruit Growers Workshop. Growing fruit in New Mexico: How to manage insect pests with IPM. Alcalde NM. Spring 2107.

Presenter, Master Gardeners. Lectures included: 1) Principles of IPM, 2) Conserving beneficial insects in backyard gardens, 3) Common Garden pests. Rio Rancho, NM; Roswell, NM; Taos, NM, Albuquerque NM; Los Alamos, NM; Santa Fe, NM. Spring 2017.

Presenter, Cibola County Garden Series. Beneficial insects in your garden. Grants NM. Spring 2017.

Workshop presenter. Sampling for Grasshoppers developing an IPM Plan. Kewa Veterans Center Santo Domingo Pueblo, NM. Spring 2017.

Workshop presenter. Native plants and pollinators. Los Lunas, NM. Spring 2017.

## **HONORS AND RECOGNITIONS**

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List of teachers ranked excellent by their students, University of Illinois:

- Animal Biology. Fall 2000
- Animal Biology, Fall 2001
- Genetics, Evolution and Biodiversity. Spring 2001.
- Integrated Biology: Form and Function. Spring 2004.

Coppel Biological Control Scholarship, University of Wisconsin, Fall 2006.

Entomological Society of America Student Oral Competition, 2<sup>nd</sup> place, Fall 2008.

Kenney Merit Award, University of Wisconsin, Fall 2008.

## **PUBLIC SERVICE**

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Volunteer / Media coordinator, Insect Film Festival, Department of Entomology, University of Illinois. Spring 2002 and 2003.

Demonstration of research for the University of Illinois Turf Grass and Landscape Horticulture Field Day, Department of Natural Resources and Environmental Sciences. Champaign, Illinois. Summer 2002 and 2003.

Volunteer, Insect Ambassadors, Department of Entomology, University of Wisconsin-Madison. 2005.

Volunteer, Entomology Graduate Student Association, academic affairs committee member. Department of Entomology, University of Wisconsin-Madison. 2006- 2009.

Volunteer, Urban Horticultural Field Day. West Madison Agricultural Field Station, University of Wisconsin-Madison. Fall 2007.

Presentation of Prairie Insects and Plants, Prairie Day, West Middleton Elementary School, Middleton, Wisconsin. Fall 2007.

Volunteer, Designed a landscape plan for Thurber Park, Town of Blooming Grove, Madison, Wisconsin. Spring 2008.

Workshop leader, prairie bio-blitz. Urban ecology center, Milwaukee, Wisconsin. Summer 2008.

Presentation on native pollinators, Kellogg School, Chicago, Illinois. Spring 2010.

Presentation on landscaping with native plants, State Master Gardener Conference, Urbana, Illinois. Summer 2011.

Presentation on pollinator-friendly garden design. Bee-Palooza. Michigan State University, East Lansing MI. Summer 2012.

Presentation on Michigan native bees. Breakfast on the farm. Sparta MI. Summer 2012.

Presentation on home gardening for native bees. Great Lakes Folk Fest, East Lansing, MI. Summer 2012.

Presentation on gardening smartly for native bees. Michigan State extension presentation to Master Gardeners, Grand Rapids, MI. Spring 2013.

Presentation on pollinator gardening, Bee-Palooza, Michigan State University, East Lansing MI. Summer 2013.

Presentation on using native plants to attract and conserve native bees, Delta Waverly Garden Club. Lansing MI. Spring 2014.

Presentation on pollinators and prairie plants in the piedmont, Guilford County Master Gardeners, Greensboro NC, Fall 2015.

Volunteer, Brumley Forest Nature Preserve BioBlitz, Triangle Land Conservancy, Hillsborough NC, Fall 2015.

Expert advisor, Las Cruces City Council. Advising the City of Las Cruces on strategies for improving their IPM program. Fall 2016.

Presenter, Belen Schools. All about bees. Belen, NM. Fall 2016.

Presenter, 4-H Day. The value of bees. Los Lunas, NM. Spring 2017.