

Ash Zemenick

PhD Candidate, Ecology Graduate Group
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RESEARCH INTERESTS

Community Ecology; Ecological Networks; Plant-Insect-Microbe Interactions; Agroecology

EDUCATION

expected 2017 PhD in Ecology, Emphasis in Agricultural Ecology, University of California, Davis, CA

2011 BS in Ecology & Evolutionary Biology, High Honors, University of Michigan, Ann Arbor, MI

PUBLICATIONS

2016 Jackson, D., **A.T. Zemenick**, B. Malloure, C.A. Quandt, and T.Y. James. Fine-scale spatial genetic structure of a fungal parasite of coffee scale insects. *Journal of Invertebrate Pathology* 139:34-41.

2013 D.W. Jackson, and **K.A. Zemenick**. 2013. Indirect effects of a fungal entomopathogen, *Lecanicillium lecanii*, on a coffee agroecosystem ant community. *Environmental Entomology* 42(4):658-667.

2012 Jackson, D.W., **K.A. Zemenick**, and G. Huerta. 2012. Occurrence in the soil and dispersal of *Lecanicillium lecanii*, a fungal pathogen of the green coffee scale (*Coccus viridis*) and coffee rust (*Hemileia vastatrix*). *Tropical and Subtropical Agroecosystems* 15:389-401.

in review **Zemenick, A.T.** and J.A. Rosenheim. The influence of opportunistic visitors on flower visitor network structure.

in review **Zemenick, A.T.** Complex interactions surrounding two hemipteran-tending ant species (Hymenoptera: Formicidae) and their association with coffee yield.

in prep. **Zemenick, A.T.**, R. Kula, and J.A. Rosenheim. The structure of a parasitoid-plant interaction network.

in prep. **Zemenick, A.T.**, M. Bollinger, P. Campos, K. Chan, A. Chiono, K. Doherty, S. Glasser, A. Kruger, A. Levanduski, B. Moran, S. O'Brien, B. Wang, J. Whitney and K.A. Moore. Bottom-up effects of oak apple galls on plants, fungi, and fungal-associated arthropods.

PRESENTATIONS

*awarded best talk

2016 Zemenick, A.T., R.L. Vannette and J.A. Rosenheim. "A picture of nectar: do pollinators and nectar robbers vector unique microbe communities to columbine (*Aquilegia formosa*) nectar?" Oral Presentation. Ecological Society of America, Fort Lauderdale, FL.

2016 Zemenick, A.T. and K.A. Moore. "Experimental ecology and evolution in the field: a unique course for upper-level undergraduates and instructors." Poster. Ecological Society of America, Fort Lauderdale, FL.

*2016 Zemenick, A. "How do flower visitors shape floral microbe communities?" Oral Presentation. Graduate Student Symposium in Ecology, UC Davis.

2015 Zemenick, K.A., J.A. Rosenheim, R.L Vannette, and T. Fukami. "Do flower visitors introduce unique nectar microbial communities to strawberry flowers?" Oral Presentation. Ecological Society of America, Baltimore, MD.

2015 Zemenick, K.A. and J.A. Rosenheim. "The effects of opportunistic visitors on flower visitor network structure: implications for floral microbes." Poster Presentation. Bee Health Symposium, Davis, CA.

2014 Zemenick, K.A. and J.A. Rosenheim. "Promiscuous flowers attract high numbers of bees and even higher numbers of non-bee flower visitors." Oral Presentation.

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Entomological Society of America, Portland, OR.

- 2014 Zemenick, K.A. and J.A. Rosenheim. "Super-generalist flowers attract high numbers of bees and even higher numbers of non-bee flower visitors." Organized Oral Session: Probing the Microbial World of Flowers: Impacts on Plants and Animals. Ecological Society of America, Sacramento, CA.
- 2013 Zemenick, K.A. and J.A. Rosenheim. "The sweet tooth of parasitoids: a meta-analysis exploring the floral resources of hymenopteran parasitoids" Oral Presentation. Ecological Society of America, Minneapolis, MN.
- 2012 Zemenick, K.A. and J. Vandermeer. "The indirect effects of ant-hemipteran mutualism on host plant fitness: comparing the cascading effects of two ant species on coffee production" Oral Presentation. Entomological Society of America, Reno, NV.
- 2011 Zemenick, K.A. and J. Vandermeer. "The indirect effects of ant-hemipteran mutualisms on coffee berry load" Poster. Ecological Society of America, Austin, TX.

TEACHING EXPERIENCE

- Exp* Fall 2016 Grader, University of California, Davis
BUSP Biology Boot Camp
To guide group activities and grade assignments with thoughtful feedback for students in the Biology Undergraduate Scholars Program (BUSP), which supports underrepresented students in higher education.
- Spring 2016 Course Organizer, University of California, Davis
ECL 290: Gender and Sexuality in Nature
Organized syllabus and blog for graduate-level reading group (<https://gendersexandnature.wordpress.com/>)
- Spring 2016 Teaching Assistant, University of California, Davis
Microbiology 103L: General Microbiology Laboratory.
Guided laboratory activities for two sections
- Fall 2015 Guest Lecture, American River College, Sacramento, CA
Biology 303: Survey of Ecology
Gave an interactive overview of insect ecology with a focus on pollinators and natural enemies of crop pests.
- Spring 2015, Teaching Assistant, University of California, Davis
Winter 2015 Ecology and Evolution 180a&b: Experimental Ecology and Evolution in the Field.
Guided students in development of a field experiment from idea generation, to implementation, statistics, and scientific writing (ecology180.wordpress.com)
- Fall 2015, Teaching Assistant, University of California, Davis
Winter 2014 Biological Sciences 2b: Intro Biology: Principles of Ecology and Evolution
Lead laboratory sections
- Fall 2014, Teaching Assistant, University of California, Davis
Fall 2012 Science and Society 30: Mushrooms Mold and Society
Lecture on Fungus-Insect Interactions.
Guided students on group project investigating fungal ecology
- Fall 2010 Study Group Leader, University of Michigan, Ann Arbor
Biology 171: Introduction to Ecology and Evolutionary Biology

GRANTS & FELLOWSHIPS

- 2016 Dissertation Year Fellowship, UC Davis
- 2016,15,14 Jastro Shields Research Award, UC Davis
- 2015 National Science Foundation Doctoral Dissertation Improvement Grant
- 2015 Ecology Graduate Group Fellowship, UC Davis
- 2014 Robert van den Bosch Scholarship in Biological Control

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- 2014 Hardman Foundation Research Award, UC Davis
- 2013 Center for Population Biology Research Award, UC Davis
- 2011 National Science Foundation Graduate Research Fellowship
- 2009 Undergraduate Fellowships in the Program of Biology, U. Michigan
- 2009 Graham Sustainability Institute Field Experience Scholarship, U. Michigan

AWARDS

- 2011 American College Hockey Association Academic All-American
- 2010 American College Hockey Association Academic All-American
- 2007 William J. Branstrom Freshman Prize, University of Michigan
- 2007 Michigan Hockey Scholar Athlete of the Year

RESEARCH POSITIONS

- Summer 2012 Associate in Research, Duke University
Tom Mitchell Olds, Department of Biology
Performed detailed censuses of *Boechera* spp. populations in the Northern Rocky Mountains
- 2010-2011 Laboratory Assistant, University of Michigan
Tim James, Department of Ecology and Evolutionary Biology
Autoclave, media preparation, spore prints, spore isolation, DNA isolation using DNA mini-preps and other protocols, gel electrophoresis, PCR, RAPD PCR, light and fluorescence microscopy, nuclear dyes, microscope image capture.