

# Katherine Holmes

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## Education

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<b>PhD Student</b> in Ecology and Evolutionary Biology Cornell University, Ithaca, NY	2015 - Current
<b>Bachelor of Science in Zoology, Bachelor of Arts in English</b> University of Florida, Gainesville, FL. Overall GPA: 3.70 Thesis Title: Social and vegetative environments determine habitat use in the Cactus Bug ( <i>Chelinidea vittiger</i> ).	2012
<b>Semester Study Abroad</b> University of Nottingham, Nottingham, England	2010

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## Research Experience

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<b>Project Manager</b> , <i>Fletcher Lab, Ordway-Swisher Biological Station, University of Florida</i> <ul style="list-style-type: none"><li>Planned and conducted a large-scale mark-recap field experiment with Cactus Bugs</li><li>Trained and supervised 10 undergraduate students</li></ul>	2013-2015
<b>Intern</b> , <i>Smithsonian Tropical Research Institute, Panama</i> <ul style="list-style-type: none"><li>Designed a research project on Barro Colorado Island with Dr. William Weislo, testing <i>Trachymyrmex cornetzi</i> use of mycelia in brood care</li></ul>	Aug-Nov 2013
<b>Project Supervisor</b> , <i>Miller Lab, University of Florida</i> <ul style="list-style-type: none"><li>Helped design and coordinate a greenhouse experiment on interspecific mating behavior and parasitism, and supervised 5 undergraduates</li></ul>	April-June 2013
<b>Field Research Technician</b> , <i>University of St. Andrews, Scotland</i> <ul style="list-style-type: none"><li>Helped Dr. Nathan Bailey collect crickets from Sydney to Cairns in Australia in a study of reproductive isolation</li></ul>	Mar-April 2013
<b>Field Research Technician</b> , <i>The Guppy Project, Trinidad</i> <ul style="list-style-type: none"><li>Hiked to streams, captured, and processed marked fish in a long-term field experiment</li></ul>	Sept-Dec 2012
<b>Lab Research Technician</b> , <i>Miller Lab, University of Florida</i> <ul style="list-style-type: none"><li>Evaluated behavior and husbandry records to resolve inconsistencies in data for over 4,000 individual insects</li></ul>	2012 & 2013
<b>Undergraduate Volunteer</b> , <i>Miller Lab, University of Florida</i> <ul style="list-style-type: none"><li>Assisted in insect care in two genotype-by-environment experiments, and organized preservation of all insects</li><li>Planned and led an outreach event for high school visitors</li></ul>	2010 – 2012
<b>University of Florida Honors Intern</b> , <i>Everglades National Park</i> <ul style="list-style-type: none"><li>Collected, identified, and processed lichen samples, and revised a database for lichen species identification.</li></ul>	June – Aug 2009
<b>Volunteer</b> , <i>University of Florida Tropical Research and Education Center</i> <ul style="list-style-type: none"><li>Assisted in field work and processed samples in the Soil and Water Science Laboratory</li></ul>	July - Aug 2007

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## Publications

Miller, C.W., J. Hamel, K. D. Holmes, W.L. Helmey Hartman, and D. Lopatto (2013). Expanding your research team: learning gains when a laboratory partners with a classroom. *Bioscience* 63: 754-762.

Holmes, K. D., C. W. Miller, and J. A. Hamel. (2013). Social and Vegetative Environments Determine Habitat Use in the Cactus Bug (*Chelinidea vittiger*). *University of Florida Journal of Undergraduate Research* 14:1-7. [PDF](#)

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## Teaching

**Co-instructor in “Morphometrics,”** *University of Florida* Spring 2012  
One of five co-instructors in a research experience-based undergraduate course

**Certificate:** “The Practice of Inclusive Teaching in STEM” workshop Spring 2016  
Cornell Center for Teaching Excellence

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## Presentations

Ecology and Evolutionary Biology Symposium, Cornell University Jan 2015  
**Talk:** “Places to go, cactus to eat: how cactus bugs move through a patchy landscape”

Society for the study of Evolution, Annual meeting, Raleigh, North Carolina June 2014  
**Talk:** “Symbiotic partnership in brood protection: use of mycelial cover in a fungus-farming ant” [YouTube](#)

ENY 3005 Principles of Entomology, University of Florida Jan & Nov 2013  
**Talks:** Guest lectures on how to engage in research as an undergraduate

University of Florida Teaching Enhancement Symposium Aug 2012  
**Talk:** “Bringing research into the undergraduate classroom”

Society for the study of Evolution, Animal Behavior Society, and Society for Integrative and Comparative Biology. Jan, June, and July 2012  
**Poster:** “The relationship between vegetation structure and social group composition in the cactus bug, *Chelinidea vittiger*”

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## Volunteer Experience

**Volunteer,** Bug Fair June 2016  
• Presented 7<sup>th</sup> grade students with insects and explained natural history

**Volunteer,** Expanding Your Horizons  
• Explained how scientists use phylogenies to understand species to middle school girls

**Volunteer,** Cornell Insectapalooza Oct 2015  
• Explained plant-insect interactions to young children, took tickets and directed guests

**Active Member,** *Circle K International, University of Florida* 2009 – 2012  
• Volunteered over 20 hours each semester in a Kiwanis service organization

**Volunteer Docent,** *Miami Science Museum* Jun-Aug 2009  
• Explained exhibits to large groups of K-12 students

**Intern,** *DuMond Conservancy, Monkey Jungle, Miami, FL* 2007-2008  
• Coordinated primate care and wrote for Conservancy newsletter and science poster

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## Grants and Awards

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- Cornell Graduate School Conference Grant 2016
- NSF Graduate Research Fellowship: Honorable Mention 2016
- Cornell Fellowship 2015
- Animal Behavior Society Turner Program 2012
- University Scholars Program Scholarship 2011-2012
- National Merit Scholarship 2008-2012
- UF College of Liberal Arts and Sciences, McLaughlin Scholarship 2011
- Best Paper Award, University of Florida Graduate Student Council Interdisciplinary Research Conference 2009