

Rakim K. Turnipseed

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EDUCATION

University of California, Berkeley, CA May 2016 (Expected)
Doctor of Philosophy in Environmental Science, Policy and Management
Title: Consequences of aquatic plant invasions for a West Nile Virus culicine mosquito vector (Diptera: Culicidae)
Advisor: Georgia K. Roderick

Cornell University, Ithaca, NY August 2013
Master of Science in Entomology
Title: Comparing consequences of competition for invasive & native coccinellid beetles (Coleoptera: Coccinellidae)
Advisor: John E. Losey

University of Florida, Gainesville, FL May 2011
Bachelor of Science in Entomology and Nematology
Advisor: Philip G. Koehler

RESEARCH INTERESTS

Invasion ecology; consequences of biological invasions; citizen science

RESEARCH EXPERIENCE

Pathways Student Trainee – Biological Science (same as below) 2014 - Present
United States Department of Agriculture, Albany, CA

- Conduct experiments/field work to explore consequences of aquatic plant invasions for culicine mosquitoes
- Contribute to multi-disciplinary, area-wide USDA grant to evaluate impacts of invasive aquatic plants on mosquitoes and other aquatic invertebrate species
- Collaborate with USDA, UC Berkeley/Davis faculty, NASA, and Vector Control Districts

Graduate Research Fellow (same as above) 2013 - Present
University of California, Berkeley, CA

- Conduct experiments/field work to explore consequences of aquatic plant invasions for culicine mosquitoes
- Contribute to multi-disciplinary, area-wide USDA grant to evaluate impacts of invasive aquatic plants on mosquitoes and other aquatic invertebrate species
- Collaborate with USDA, UC Berkeley/Davis faculty, NASA, and Vector Control Districts

Research Entomologist 2013 – 2014

Sunview Vineyards of California, Inc., Bakersfield, CA

- Conducted experiments investigating consequences of exotic insect pest invasions for grape commodities
- Established efficacy of a biological control agent against the invasive vine mealybug
- Collaborated with coworkers and agencies; trained field technicians on sampling methods

Graduate Research Assistant 2011 – 2013

Cornell University, Ithaca, NY

- Conducted series of experiments exploring consequences of exotic lady beetle invasions for native congenics
- Contributed research to the Lost Ladybug Project, a multi-year funded NSF grant project
- Collaborated with citizen scientists to collect invasive and native lady beetles in NY and OR

Biological Science Aid 2010 – 2011

United States Department of Agriculture, Gainesville, FL

- Conducted lab experiment investigating consequences of exotic red imported fire ant invasions
- Assisted with field sampling and collecting of ant specimens
- Wrote research summary reports for use in grant proposals

TEACHING EXPERIENCE**Graduate Student Instructor – ESPM 113 Insect Ecology** Spring 2015

University of California, Berkeley, CA

- Prepared lectures introducing undergraduate and graduate students to the study of the ecology of insects, using these organisms as models to introduce general ecological theories
- Created rubrics used for grading class assignments and exams
- Received high semester rating for being able to motivate students

Graduate Teaching Assistant – ENTOM 4440 Integrated Pest Management Spring 2013

Cornell University, Ithaca, NY

- Prepared lectures and labs for undergraduate and graduate students integrating the principles of ecology, economics, and management of invasive insect pests across multiple systems
- Created rubrics used for grading class assignments and exams
- Received high semester rating for overall effectiveness in teaching and motivating students

Graduate Teaching Assistant – ENTOM 3350 Naturalist Outreach Practicum in Biology Fall 2012

Cornell University, Ithaca, NY

- Prepared pedagogic lectures for students on developing and presenting scientific inquiry-based presentations in environmental biology in different settings (e.g., classrooms settings, museum programs, large outreach events)
- Coordinated scientific outreach talks for Cornell students to give in local classrooms
- Assisted students in creating lesson plans for scientific outreach talks

EXTENSION AND OUTREACH EXPERIENCE

Project Director of Graduate Student Parent Advocacy, Graduate Assembly 2015 - Present
University of California, Berkeley, CA

- Advocate for graduate student parents on related policies at Graduate Assembly meetings
- Plan and oversee events to support graduate student parent experience (e.g., catered events, seminars, etc.)
- Coordinate with cross-functional departments (Student Parent Center, University Healthcare Coalition, etc.)

Graduate Director and Logistics Manager, Naturalist Outreach Program 2012 - 2013
Cornell University, Ithaca, NY

- Coordinated talks for students of the Naturalist Speakers' Bureau to give in local K-12 classrooms
- Co-directed Insectapalooza, the largest campus outreach event (2,000 people) by Dept. of Entomology
- Supervised over 100 undergraduate and graduate student Insectapalooza volunteers

Graduate Extension and Outreach Assistant 2011 - 2012
Cornell University, Ithaca, NY

- Designed and distributed extension brochures and packets on various invasive insect pest species
- Updated educational materials in the Arthropod and Invertebrate Museum in the Dept. of Entomology
- Assisted with Insectapalooza outreach event in the Dept. of Entomology

PUBLICATIONS

Turnipseed RK, Uguine TA, Losey JE (2015) Egg predation by the introduced lady beetle, *Coccinella septempunctata* (Coleoptera: Coccinellidae), lowers mortality but raises relative risk for the native lady beetle, *Coccinella novemnotata*. **PLoS ONE** 10(6): e0118493. Doi:10.1371/ journal.pone.0118493

Turnipseed RK, Uguine TA, Losey JE (2014) Effect of prey limitation on competitive interactions between a native lady beetle, *Coccinella novemnotata*, and invasive lady beetle, *Coccinella septempunctata* (Coleoptera: Coccinellidae). **Environmental Entomology** 43(4):969-976

MANUSCRIPTS

Turnipseed RK and Moran PJ (in prep) Influence of invasive aquatic plants on the oviposition behavior of a West Nile Virus mosquito vector, *Culex pipiens* (Diptera: Culicidae): a caged study

Turnipseed RK and Moran PJ (in prep) Testing the microclimate hypothesis: influence of invasive aquatic plants on larva-to adult development time in *Culex pipiens* (Diptera: Culicidae), a primary West Nile virus mosquito vector

Turnipseed RK and Moran PJ (in prep) Mediated predator-prey interactions between Mosquitofish and a West Nile virus mosquito vector, *Culex pipiens* (Diptera: Culicidae), by invasive aquatic plants

CONFERENCE PRESENTATIONS

Losey JE, Hoki E, Smyth RR, **Turnipseed RK**, Uginé TA, Allee L. Invasive coccinellids force native species out of agricultural habitats. Entomological Society of America Annual Meeting. November 2014

Losey J, Allee L, Hoki E, Smyth R, Stellwag L, **Turnipseed R**, Uginé T. Competition, habitat compression, and hybridization: Evaluating mechanisms of invasive coccinellid impact on nearctic native species. 99th Ecological Society of America Annual Convention. August 2014

Turnipseed RK, Losey JE, Uginé TA. Interspecific versus intraspecific competition between a native and exotic lady beetle. Entomological Society of America Annual Meeting. November 2013

HONORS AND AWARDS

USDA Pathways Fellowship 2014

- Fully-paid tuition and salary to conduct dissertation research through USDA-ARS

Distinguished Chancellor's Fellowship for Graduate Study – UC Berkeley 2013

- Five-year full funding package awarded to top 4% of admitted PhD students across all fields

Carolyn D. Richardson Scholarship in Entomology – UF 2011

- Awarded to students exhibiting scholarship and leadership potential in entomology

Leland A. Davis Memorial Scholarship in Entomology – UF 2010

- Awarded to the top undergraduate student in the general entomology course

EXTRACURRICULARS

Vice President, Entomology Student Organization 2014 - 2015
University of California, Berkeley, CA

President, Jugatae Entomology Student Organization 2012 - 2013
Cornell University, Ithaca, NY

Treasurer, Entomology and Nematology Student Organization 2010 - 2011
University of Florida, Gainesville, FL

RELEVANT COURSEWORK

Principles of Entomology w/ Lab	Insect Ecology
Principles of Nematology	Insect Physiology
Insect Classification	Insect Behavioral Ecology and Systematics
Insect Molecular Genetics	Consequences of Biological Invasions

REFERENCES

Dr. George K. Roderick, Ph.D.

William Muriece Hoskins Professor and Department Chair
Department of Environmental Science, Policy, and Management
University of California, Berkeley
Phone: 510-643-3326
Email: roderick@berkeley.edu

Dr. John E. Losey, Ph.D.

Associate Professor
Department of Entomology
Cornell University
Phone: 607-255-7376
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Dr. Vernard R. Lewis, Ph.D.

Cooperative Extension Specialist
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