



Department of Ecology and Evolutionary Biology  
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## EDUCATION

- 2010 – present **University of Connecticut**, Storrs, CT.  
Ph.D. Candidate in Ecology and Evolutionary Biology  
Dissertation Title: *Selection for Merosity: Does Petal Number Matter in the Polemoniaceae?*  
Advisor: Dr. Carl Schlichting
- 2008 – 2010 **Stony Brook University**, Stony Brook, NY  
Master of Arts in Ecology and Evolution  
Advisor: Dr. Jessica Gurevitch
- 2004 – 2008 **Kalamazoo College**, Kalamazoo, MI  
Bachelor of Arts in Biology, Magna Cum Laude  
Undergraduate Advisor: Dr. E. Binney Girdler
- 2006 – 2007 **Curtin University**, Perth, Western Australia, Australia  
Study Abroad through Kalamazoo's Study Abroad Program

## PUBLICATIONS

- In prep. **Mickley, J.** Heritability of Variation in Petal Number in *Phlox drummondii*.
- In prep. Rico-Guevara A., and **J. Mickley**. An inexpensive, versatile, and portable triggering system for scientific research: An example filming hummingbirds in the wild.
- 2015 Ferson, S., J. O'Rawe, A. Antonenko, J. Siegrist, **J. Mickley**, C. C. Luhmann, K. Sentz, and A. M. Finkel. Natural language of uncertainty: numeric hedge words. *International Journal of Approximate Reasoning*. 57:19-39.  
doi: [10.1016/j.ijar.2014.11.003](https://doi.org/10.1016/j.ijar.2014.11.003)
- 2013 Lowry, E., E. J Rollinson, A. J. Laybourn, T. E. Scott, M. E. Aiello-Lammens, S. M. Gray, **J. Mickley**, and J. Gurevitch. Biological Invasions: A Field Synopsis, Systematic Review, and Database of the Literature. *Ecology and Evolution* 3(1):182-196. doi: [10.1002/ece3.431](https://doi.org/10.1002/ece3.431)
- 2011 Ferson, S., **J. Mickley**, and W. McGill. Uncertainty Arithmetic on Excel Spreadsheets: Add-In for Intervals, Probability Distributions, and Probability Boxes. *Vulnerability, Uncertainty, and Risk*. pp. 70-77. doi: [10.1061/41170\(400\)9](https://doi.org/10.1061/41170(400)9)

2008 **Mickley, J.** Tree density and fire scarring in Minnesota Oak Savanna: Implications for Restoration. Undergraduate Thesis. Kalamazoo College Biology Department. 46 pp. doi: [10920/24324](https://doi.org/10.920/24324)

#### AWARDS, GRANTS, & FELLOWSHIPS

- 2015 **\$2,000** **Doctoral Dissertation Fellowship.** The Graduate School, University of Connecticut, Storrs, CT. \$2,000.
- 2015 **\$600** **Departmental Service Award.** Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT. Received for developing an online database and map of the campus arboretum.
- 2015 *Nominated*, **Departmental Excellence in Student Teaching Award.** Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT.
- 2014 **\$1,460** **Ronald Bamford Research Grant,** Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT. *Pollination Syndrome as a Driver of Variation in Petal Number: Do Pollinators Impose Stabilizing Selection?*
- 2010 – 2013 **\$30,500** **Outstanding Scholar Fellowship,** Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT. Three years.
- 2008 – 2010 **\$4,000** **Presidential Fellowship,** Department of Ecology and Evolution, Stony Brook University, Stony Brook, NY. Two years.
- 2008 – 2010 **\$20,000** **Graduate Council Fellowship,** The Graduate School, Stony Brook University, Stony Brook, NY. Two years.
- 2008 **\$100** **Ronald O. Kapp Undergraduate Award** for best undergraduate paper, Annual Conference of the Michigan Academy of Sciences, Arts, and Letters. *Tree density and fire scarring in Minnesota oak savanna: Implications for restoration.*

#### CONTRIBUTED PRESENTATIONS

\* denotes undergraduate co-authors

6/2015 **Mickley J.,** M. Benedict\*, G. Nuttall\*, C. Hill\*, D. Vine\*, E. Mason\*, & T. Jordan\*. *Why does Phlox vary in petal number? Heritability, Species, and Population Differences.* New England Botanical Club 120<sup>th</sup> Anniversary Research Conference, Northampton, MA.

- 6/2015 Yung, J.\*, G. Nuttall\*, H. Holt\*, & **J. Mickley**. *Meristem diameter as a Predictor of Petal Number: Floral Development in Phlox*. New England Botanical Club 120<sup>th</sup> Anniversary Research Conference, Northampton, MA.
- 4/2010 Hasan, F. N.\*, K. Wojtas\*, D. Atashsokhan\*, **J. Mickley**, E. Lowry, & J. Gurevitch. Assessing the Invasive Threat of the Plant *Centaurea stoebe* in New York State. 2010 URECA, Stony Brook, NY.
- 3/2008 **Mickley, J.** *Tree Density and Fire Scarring in Minnesota Oak Savanna: Implications for Restoration*. Michigan Academy of Sciences, Arts, and Letters Annual Meeting. 2008. Kalamazoo, MI.

## RESEARCH EXPERIENCE

- 2010 – present **Doctoral Thesis**, University of Connecticut, Storrs CT.  
 Performed research on natural variation in floral petal number in the Polemoniaceae, including greenhouse experiments to measure correlated selection on multiple floral traits, fieldwork in Texas and California to quantify patterns of variation between species and populations, compared field populations in a greenhouse common garden, and conducted pollinator visitation experiments.  
 Committee: Dr. Carl Schlichting, Dr. Gregory Anderson, Dr. Pamela Diggle, & Dr. Elizabeth Jockusch.
- 2010 – 2011 **Research Assistant**, University of Connecticut, Storrs, CT.  
 Helped digitize the CONN herbarium, including databasing and geo-referencing specimens and connecting the CONN database to GBIF.  
 Supervisor: Dr. Robert Capers
- 2009 **Graduate Assistant**, Stony Brook University, Stony Brook, NY.  
 Designed and established field sites throughout New York to measure demographic parameters of the invasive plant *Centaurea stoebe*, and co-mentored undergraduate researchers recruited for the project.  
 Supervisor: Dr. Jessica Gurevitch
- 2008 **Site Botanist**, Cedar Creek Ecosystem Science Reserve (UMN), Bethel, MN.  
 Conducted and supervised experiments involving plant identification including measurements of percent cover, and identifying clipped biomass, trained four interns as botanists, taught plant species to University of Minnesota graduate students, visiting scientists, and other Cedar Creek interns, and assisted in experimental design and logistics.  
 Supervisors: Troy Mielke, Dr. Clarence Lehman, & Dr. David Tilman
- 2007 – 2008 **Senior Thesis**, Kalamazoo College, Kalamazoo, MI.  
*Tree density and fire scarring in Minnesota oak savanna: implications for restoration*.  
 Supervisors: Dr. Clarence Lehman and Dr. Binney Girdler.

- 2007            **Intern**, Cedar Creek Ecosystem Science Reserve (UMN), Bethel, MN.  
Appointed as a botanist and general intern at the research area, worked on percent cover and identified clipped biomass for numerous experiments, conducted tree surveys in oak savanna plots, assisted in modeling savanna tree populations in the C language.  
Supervisors: Troy Mielke, Dr. Clarence Lehman, Dr. Peter Reich
- 2006            **Intern**, Eneabba Field Site (Curtin University), Western Australia, Australia.  
Studied the effects of fire on ant-mediated seed dispersal in the genus *Rhytidoponera* in Western Australia.  
Supervisors: Dr. Aaron Gove, Neil McCoy, and Dr. Rob Dunn
- 2005            **Research Assistant**, Kalamazoo College, Kalamazoo, MI.  
Conducted plant surveys and identified plants for a project on the allelopathic effects of *Centaurea maculosa* on invertebrate diversity.  
Supervisor: Dr. Ann Fraser
- 2004 – 2008    **Research Assistant**, Kalamazoo College, Kalamazoo, MI.  
Renovated and maintained the college greenhouse, competition and plant neighborhoods in *Arabidopsis thaliana*, relative importance of neutral and habitat factors in structuring Lake Michigan shoreline plant communities, the effects of spatial competition, herbivory, and dispersal on the population dynamics of the threatened dune thistle *Cirsium pitcheri*, plasticity in leaf stomatal density, the effects of urban sprawl on wetlands, and plant identification for numerous projects.  
Supervisor: Dr. Binney Girdler

## TEACHING EXPERIENCE

- 2016            **Teaching Assistant**, EEB 2202 – Evolution and Human Diversity, UConn.  
2014 – 2015    **Lab Coordinator**, EEB 2244 – General Ecology, UConn.  
Managed 3-5 TAs and designed labs, exams, and other course material.
- 2013            **Teaching Assistant**, BIOL 1110 – Introduction to Botany, UConn.  
2013            **Teaching Assistant**, BIOL 1108 – Principles of Biology II, UConn.  
2012            **Teaching Assistant**, BIOL 1102 – Foundations of Biology, UConn.  
2011; 2014    **Teaching Assistant**, EEB 2244 – General Ecology, UConn.  
2008            **Teaching Assistant**, BIO 150 Lecture – Introductory Biology: The Living World, Stony Brook University.  
2008            **Teaching Assistant**, BIOL 232 – Plant Biology, Kalamazoo College.

## UNDERGRADUATE MENTORING

\* 18 total, including ten women

- 2016 – present    Amber DeRobertis, University of Connecticut  
2015 – present    Miranda Squillace, University of Connecticut  
2015 – present    Max Engel, University of Connecticut

2015 Thomas Jordan, University of Connecticut (B.S. 2015)  
 2015 Jeffrey Hammond, University of Connecticut (B.S. 2015)  
 2014 – 2015 Connor Hill, University of Connecticut  
 2014 – 2015 Genevieve Nuttall, University of Connecticut (UConn IDEA grant recipient, accepted to UConn B.S./M.S. program)  
 2014 – 2015 Matt Benedict, University of Connecticut  
 2014 – 2015 Darren Vine, University of Connecticut (B.A. 2015)  
 2014 – 2015 Hillary Holt, University of Connecticut (B.S. 2015)  
 2014 – 2015 Emilia Mason, University of Connecticut  
 2014 – 2015 Jenny Yung, University of Connecticut  
 2011 Ellen Deering, University of Connecticut (B.S. 2013)  
 2010 – 2011 Lauren Abbott, University of Connecticut (B.S. 2013).  
 2009 – 2010 Faria Hasan, Stony Brook University (B.S. 2012)  
 2009 – 2010 Konrad Wojtas, Stony Brook University (B.S. 2012)  
 2009 – 2010 Daniel Atashsokhan, Stony Brook University (B.S. 2010)  
 2009 – 2010 Sun Man Ceng, Stony Brook University (B.S. 2011)

## COMMUNITY OUTREACH & SERVICE

2016 **Coordinator**, Connecticut State Bioblitz.

2016 **Science Fair Judge**, Talcott Mountain Academy Middle School Science Fair.

2015 **Bioblitz contributor**, UConn Bioblitz. Trained undergraduates to identify plant species and was the top contributor of species and observations at one of the largest bioblitzes in Connecticut.

2015 **Walk Leader**, Spring ephemeral plant walk, University of Connecticut.

2014 – present **iNaturalist contributor**. I frequently contribute observations of species to the website inaturalist.org, and actively use my plant identification expertise to identify plant specimens logged by other members the community.

## ACADEMIC & PROFESSIONAL SERVICES

2016 – present **Recording Secretary**, New England Botanical Club. In addition to secretarial duties and sitting on the NEBC executive council, I write summaries of the monthly meetings that are published in the journal *Rhodora*.

2013 – 2015 **Union Organizing Committee Member**, GEU-UAW, University of Connecticut. Formed a graduate employee union at UConn, helped win a first contract, and supervised 12 departmental leaders during organizing efforts.

2010 – present **Committee Member**, Arboretum Committee, University of Connecticut.

2009 to 2010 **Field Trip Chair**, Long Island Botanical Society.

- 2008 to 2010 **Committee Member**, Friends of the Ashley Schiff Park Preserve, Stony Brook University.
- 2005 to 2008 **Volunteer**, Cleanup and maintenance of the Lillian Anderson Arboretum, Kalamazoo College.
- 2004 to 2008 **Greenhouse Curator**, Department of Biology, Kalamazoo College.

## PROGRAMMING EXPERIENCE

- 2014 – 2015 **Graduate Assistant**, University of Connecticut, Storrs, CT.  
Collaborated on coding and designing a dynamic website for the Department of Ecology and Evolutionary Biology at the University of Connecticut.  
Supervisor: Dr. Paul Lewis
- 2012; 2014 **Database & Website Developer**, University of Connecticut, Storrs, CT.  
Created a database and interactive website to display data from a large collaborative effort to study biodiversity in South Africa.  
Supervisor: Dr. Carl Schlichting
- 2010 – 2013 **Programming Consultant**, Applied Biomathematics, Setauket, NY.  
Built an add-on platform for Excel to allow for work with mathematical uncertainty calculus and risk analysis. Conducted research on mathematical uncertainty and the importance and meaning of natural language expressions of uncertainty.  
Supervisor: Dr. Scott Ferson
- 2007 – 2008 **Programmer**, Monell Chemical Senses Center, University of Pennsylvania, Philadelphia, PA.  
Designed an interactive database application to provide a testing environment for human subjects involved in research on chemosensory stimuli.  
Supervisors: Amy Gordon, & Dr. Johan Lundström.

## ADDITIONAL SKILLS

- **Programming Languages:**
  - Highly proficient in Python, R, Unix, Visual Basic, PHP, MySQL, Javascript, HTML, and CSS.
  - Experience with C, C++, and Lua.
  - Experience in collaborative coding environments using Git and Subversion.
  - Experience with Arduino and ESP8266/NodeMCU microprocessor platforms and using associated environmental sensors in ecological research.
- **Languages:** German and Latin
- **Photography:** I have been an amateur and professional photographer since 2000 and won several regional awards and honorable mentions in international contests. My

specialty is photojournalism and nature, but I have worked with a variety of genres and media. Photography website: <http://www.mickleyphotography.com>.

## **PROFESSIONAL SOCIETIES**

- Botany Society of America
- Society for the Study of Evolution
- New England Botanical Society
- Long Island Botanical Society