

EMILY R ERICKSON

Postdoctoral Scholar, Crone Laboratory
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Education

PhD, Entomology 2016 - 2021
Pennsylvania State University, University Park, PA.
Advisor: Christina M. Grozinger

B.S. International Agricultural Development 2010-2015
Minors: Community Nutrition, Insect Biology
University of California at Davis, Davis, CA

Research Experience

Postdoctoral Scholar in the Crone Lab January 2022-Present
Berkeley, CA

- Conducted intensive field surveys of monarch butterflies and milkweeds in urban gardens around the California East Bay
- Analyzed species occurrence data in QGIS to identify regions of conservation priority
- Collaborated with local non-profits, state and federal government agencies, and resource conservation districts to design experiments
- Applied for and maintained Scientific Collecting permits
- Performed experiments along the urban-rural gradient in the California East Bay to determine whether urban gardens are acting as either sources or sinks for the monarchs in the West

Postdoctoral Scholar in the Grozinger Lab May 2021-December 2021
University Park, PA

- Led a community science project to develop a 'Rapid Assessment Protocol' to evaluate plant attractiveness to pollinators
- Developed a prototype webtool targeted to stakeholders in the floriculture industry to efficiently analyze collected pollinator data
- Communicated complex technical information on pollinator conservation to diverse audiences including members of the green industry, researchers, and the public
- Published a peer reviewed scientific paper
- Applied for and successfully obtained research funding for this research from the Horticultural Research Institute

Graduate Research Assistant in the Grozinger Lab May 2016-May 2021
University Park, PA

- Conducted four years of field observations of pollinator visitation to ornamental plants
- Analyzed complex data using advanced statistical methods including in the R programming language
- Performed regular surveys of plant and pollinator communities using standard sampling methods
- Collected floral traits data using a variety of analytical tools such as GCMS and HPLC and correlated complex floral phenotypes to pollinator attraction
- Mentored four undergraduate researchers and served as the mentor for an undergraduate honors thesis
- Worked with diverse collaborators to produce high quality research
- Regularly presented topics in pollination ecology at research meetings and to special interest groups
- Developed lesson plans and outreach materials to teach children ages K-12 topics in pollination ecology
- Produced three peer reviewed research papers that were published in high-quality academic journals

Service

Graduate and Professional Student Association Community Service Chair May 2017-May 2018
State College, PA

Mentor for ENVISION Workshop for young women in STEM January 2018
State College, PA

President of the Penn State Entomology Graduate Student Association
State College, PA

May 2018-May 2019

Public Engagement

- 'Certificate in Native Plants' workshop for the Tennessee Valley Wild Ones** **September 2021**
(Delivered via Zoom)
- Webcast for the Plant Management Network** **April 2020**
Erickson, E., Patch, H.M., Wojcik, V., Adam, S., Grozinger, C.M.
"More than meets the eye? The role of annual ornamental plants in supporting pollinators"
- Presentation at the PSU Center for Science and the Schools APPL-Red teacher workshop** **June 2019**
"Co-radiation of flowers and bees"
State College, PA
- PolliNation Podcast Episode 78** **December 2018**
"Breeding the Attractiveness of Garden Plants"
- Coordinated the Butterfly Tent at the Great Insect Fair** **September 2017, 2018**
State College, PA
- Coordinated the Butterfly Tent at PSU Ag Progress Days** **August, 2018**
Pine Grove Mills, PA
- Talk with PA Master Gardeners** **March 2018**
"Co-evolution of flowers and bees"
- Talk with the Beaver Valley Beekeepers** **April 2017**
"Save the bees! Supporting pollinators from the field to floret"
Wexford, PA
- Talk at the Elk Country Visitor Center Pollinator Symposium** **March 2017**
"Save the bees! Protecting pollinators from the field to floret"
Benezette, PA

Scientific Presentations and Conferences

- Talk at the Perennial Plant Association Meeting** **August 2022**
Erickson, E., Patch, H.M., Grozinger, C.M.
"Plants for pollinators: The ecological value of perennial garden flowers"
Lancaster, PA
- Talk at the Center for Pollinator Research Symposium** **November 2021**
Erickson, E., Junker, R.R., Ali, J., McCartney, N., Patch, H.M., Grozinger, C.M.
"Phenotypic variation between cultivars of ornamental flowers shapes pollinator attraction"
State College, PA
- Talk at the Entomological Society of America Conference** **November 2021**
Erickson, E., Junker, R.R., Ali, J., McCartney, N., Patch, H.M., Grozinger, C.M.
"Phenotypic variation between cultivars of ornamental flowers shapes pollinator attraction"
Denver, CO
- Invited talk at the Phipps Conservatory 'Gardening for Pollinators' short course** **July 2020**
Erickson, E., Patch, H.M., Wojcik, V., Adam, S., Grozinger, C.M.
"Planting for Pollinators: The role of ornamental flowering plants in supporting beneficial insects"
Pittsburgh, PA (Delivered via Zoom)
- Poster at the Scandinavian Association of Pollination Ecology meeting** **October 2019**
Erickson, E., Patch, H.M., Wojcik, V., Adam, S., Grozinger, C.M.
"Foraging preferences of pollinators on commercial ornamental plants"
Höör, Sweden
- Student talk competition at the Entomological Society of Pennsylvania** **October 2019**
"Pollinator preference to annual ornamental plant varieties"
Lebanon, PA
- Poster at the International Pollinator Conference** **July 2019**
Erickson, E., Patch, H.M., Wojcik, V., Adam, S., Grozinger, C.M.
"Foraging preferences of pollinators on commercial ornamental plants"
Davis, CA
- Invited talk at the Pennsylvania State Master Gardener Conference** **June 2018**
"Planting for Pollinators"
Seven Springs, PA
- Student talk competition at the Entomological Society of America Conference** **November 2018**
"Pollinator preference to annual ornamental plant varieties"

Vancouver, ON

Invited talk at the Entomological Society of America Conference **October 2017**
“Evaluating foraging preferences of pollinator species for commercial ornamental plant species”

Denver, CO

Poster at the Entomological Society of America Conference **October 2017**

Erickson, E., Patch, H.M., Wojcik, V., Adam, S., Grozinger, C.M.
“Foraging Preferences of Pollinators on Commercial Ornamental Plants”

Denver, CO

Poster at the Protecting Pollinators in Urban Landscapes Conference **October 2017**

Erickson, E., Patch, H.M., Wojcik, V., Adam, S., Grozinger, C.M.
“Foraging Preferences of Pollinators on Commercial Ornamental Plants”

Traverse City, MI

Invited talk at Penn State Flower Trial Field Day **July 2017**

“Pollinator foraging on ornamental plant species”

Manheim, PA

Elevator Pitch at the NAPPC Conference **October 2016**

Poster at the International Pollinator Conference **July 2016**

Erickson, E., Patch, H.M., Wojcik, V., Adam, S., Grozinger, C.M.

“Foraging Preferences of Pollinators on Commercial Ornamental Plants”

Publications

Erickson, E., Junker, R.R., Ali, J., McCartney, N., Patch, H.M., Grozinger, C.M. “Complex floral traits shape pollinator attraction to ornamental plants” *Annals of Botany* mcac082 (2022)

Erickson, E., Grozinger, C.M., Patch, H.M. “Measuring plant attractiveness to pollinators: methods and considerations” *Economic Entomology* toac066 (2022)

Erickson, E., Patch, H.M., Wojcik, V., Russo, L., Adam, S., Grozinger, C.M. “More than meets the eye? The role of annual ornamental plants in supporting pollinators” *Environmental Entomology* 49(1): 178-188 (2020)

Erickson, E., Patch, H.M., Grozinger, C.M. “Perennial ornamental plants can support complex pollinator communities” *Scientific Reports* 17352 (2021)

Notable Modules

Dialictus identification short course with Joel Gardner **May 2018**

Ithaca, NY

AMNH Bee Course **August 2017**

Portal, AZ

Awards & Distinctions

Postdoctoral Research Fellowship **February 2021**

Horticultural Research Institute

Student of the Year Award **October 2019**

Entomological Society of Pennsylvania

Sahakian Award **May 2017**

Department of Entomology, Penn State University

Grants in Aid of Research Fellowship **May 2017**

Sigma Xi

Yendol Award **May 2017**

Department of Entomology, Penn State University

Recipient of 2014-2015 UC Davis Community Service Award: Gold Level **April 17 2015**

University of California, Davis

Integrated Studies Honors Program **September 2010-June 2014**

University of California, Davis

Jastro Scholarship **September 2010-June 2014**

University of California, Davis