

Gabriella L. Pardee, Ph.D.

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EDUCATION

NORTH CAROLINA STATE UNIVERSITY, RALEIGH, NC 2015-2018

- Ph.D. in Biology
- Advisor: Dr. Rebecca Irwin
- NSF Graduate Research Fellow (2016-2018)
- NC State Global Change Fellow (2015-2016)

DARTMOUTH COLLEGE, HANOVER, NH 2013-2015

- Ph.D. student in Ecology and Evolutionary Biology Program
- Advisor: Dr. Rebecca Irwin (*transferred to NC State with graduate advisor*)
- NSF Graduate Research Fellow (2014-2015)

UNIVERSITY OF TOLEDO, TOLEDO, OH 2007-2011

- B.S. Environmental Science
- B.A. Spanish
- Advisor: Dr. Stacy Philpott
- NSF Undergraduate Research and Mentorship Program fellow (2009-2011)
- *magna cum laude*

ACADEMIC POSITIONS

POSTDOCTORAL RESEARCHER, UNIVERSITY OF TEXAS AT AUSTIN MARCH 2020-PRESENT

Diet breadth and foraging dynamics in bee communities across urbanizing habitats (collaborator: Dr. Shalene Jha)

POSTDOCTORAL RESEARCHER, UNIVERSITY OF MINNESOTA, TWIN CITIES MAY 2018-FEBRUARY 2020

Pollination function in restored tallgrass prairies in Western MN (collaborator: Dr. Daniel Cariveau)

TEACHING, MENTORING, AND RESEARCH EXPERIENCE

UNDERGRADUATE AND GRADUATE MENTOR | UNIVERSITY OF TEXAS AT AUSTIN AND UNIVERSITY OF MINNESOTA | 2020-PRESENT

Train 2-5 undergraduates during each school year on lab skills related to insect, plant, and pollen identification and museum curation. Mentor 1-3 undergraduates each summer on independent research projects through REU programs and participate in year- and summer-long mentoring programs to talk with students about graduate school and career opportunities. The majority of the I mentor are women and from underrepresented groups in STEM. Work with graduate students to develop and implement projects as part of their thesis.

GUEST LECTURER | UNIVERSITY OF TEXAS AT AUSTIN | 8 NOVEMBER 2022

Led a three-hour CV building course to first year graduate students. Most of students in the class were women.

PHD STUDENT | DARTMOUTH COLLEGE AND NORTH CAROLINA STATE UNIVERSITY | 2013-2018

Used both manipulative experiments and a long-term bee monitoring dataset, to examine on how climate induced changes in abiotic conditions affected flowering phenology, plant growth and reproduction, plant-pollinator interactions, and bee communities based on their life history traits.

GUEST LECTURER | ROCKY MOUNTAIN BIOLOGICAL LABORATORY | 3 AUGUST 2016

Co-taught a 4-hour class on invasive species to a group of high schoolers. The class consisted of a lecture followed by an experiment to determine whether pollinators preferred to visit invasive plants over native plants.

RESEARCH MENTOR | ROCKY MOUNTAIN BIOLOGICAL LABORATORY | SUMMER 2014, 2015, 2016

Mentored an undergraduate for 10 weeks each summer on a research project by helping him/her design and implement a project, analyze data, report his/her findings in a scientific manuscript, and give an oral presentation on the project. Three of my mentors are currently in grad school.

UNDERGRADUATE WORKSHOPS LEADER | ROCKY MOUNTAIN BIOLOGICAL LABORATORY | JUNE 2014

Assisted with two undergraduate workshops with ~20 students per workshop. The first workshop I led was on the history and life traits of native bees. For the second workshop, I sat on a panel with two other grad students to answer questions and give advice on the process of applying to grad school.

TEACHING ASSISTANT | DARTMOUTH COLLEGE | FALL 2013 AND SPRING 2014

Taught an ecology lab and evolution lab to undergraduates, graded papers, gave feedback on writing assignments, led discussion groups, helped students design experiments

FIELD ASSISTANT AND LAB MANAGER | RUTGERS UNIVERSITY | MARCH 2012-AUGUST 2013

Assisted a graduate student (Dr. Faye Benjamin), post-doc (Dr. Daniel Cariveau), and Dr. Rachael Winfree with data collection, identification of bees and plants, and data entry on three research projects in NJ and PA

UNDERGRADUATE RESEARCHER | UNIVERSITY OF TOLEDO | OCT. 2008-MAY 2011

Point mounted, labeled, and photographed insects, posted photos to BugGuide.net for identification, organized insect collections, and conducted independent research on biological control and bee diversity in tropical and urban ecosystems, respectively. Mentor: Dr. Stacy Philpott

PROFESSIONAL DEVELOPMENT

REVIEWER FOR HELLER GRANT | UNIVERSITY OF CALIFORNIA SANTA CRUZ | 2014- PRESENT

Serve on the annual review committee for the Center of Agroecology and Sustainable Food Systems Heller Grant. Read and provide feedback on both undergraduate and graduate proposals.

PEER REVIEWER | NORTH CAROLINA STATE UNIVERSITY AND UNIVERSITY OF MINNESOTA | 2017 - PRESENT

Completed peer reviews for the scientific journals: *Journal of Forest Ecology, Plant Ecology, Journal of Applied Ecology, Arctic, Antarctic, and Alpine Research, Proceedings of the Royal Society B, Global Change Biology, Ecosphere, and Agriculture, Ecosystems, and the Environment*

GRAD STUDENT REPRESENTATIVE | NORTH CAROLINA STATE UNIVERSITY | 2016-2017

Selected for the Applied Ecology department's job search committee. My duties included organizing the grad student lunches, attending job talks, collecting feedback on each candidate from the graduate students, and providing input on behalf of the graduate students during faculty meetings

SCIENCE COMMUNICATION WORKSHOP | DARTMOUTH COLLEGE | WINTER 2015

Attended a workshop to learn how to communicate my research with a diverse audience using improvisation techniques

GRFP WRITING WORKSHOP | DARTMOUTH COLLEGE | FALL 2014

Invited to attend the workshop to give advice on how to write a successful proposal for the NSF GRFP. I also read 10 students' proposals and gave feedback on each one

THE BEE COURSE | AMERICAN NATURAL HISTORY MUSEUM | 23 AUG. - 4 SEPT 2014

Attended a 10-day course at the Southwestern Research Station in Portal, AZ. to learn about bee identification, collection, and conservation

GRFP WRITING WORKSHOP | DARTMOUTH COLLEGE | FALL 2014

Invited to attend the workshop to give advice on how to write a successful proposal for the NSF GRFP. I also read 10 students' proposals and gave feedback on each one

PUBLICATIONS (15 published, 1 in review, and 4 in prep for publication)

*Indicates work done while the author was an undergraduate, + indicates a graduate student

16. Kazenel, M.R., I. Breckheimer, S.R. Griffin, B.D. Inouye, D.W. Inouye, W. Lovecky, J.E. McLaughlin, J.E. Ogilvie, **G.L. Pardee**, M. Stemkovski, N. Underwood, and R.E. Irwin (*in review*). Climate and floral availability drive solitary bee sex ratios in a montane ecosystem.
15. **Pardee, G.L.**, K. M. Ballare, J.L. Neff, L.Q. Do*, D Ojeda*, E.J. Bienenstock, B.J. Brosi, T.H. Grubestic, J.A. Miller, D. Tong, and S. Jha. 2023. Local and landscape factors influence plant-pollinator networks and bee foraging behavior across an urban corridor. *Land*. 12:362 (invited as part of a special issue "Rural-Urban gradients: Landscape and Nature Conservation").
14. Siviter, H, **G.L. Pardee**, N. Baert, S. McArt, S. Jha, and F. Muth 2023. Wild bees are exposed to low levels of pesticides in urban community gardens and wildflower plantings. *Science of the Total Environment*. 858: 159839.
13. Stemkovski+, M. R.G. Dickson, S.R. Griffin, B.D. Inouye, D.W. Inouye, **G.L. Pardee**, N. Underwood, and R.E. Irwin 2023. Skewness in bee and flower phenological distributions. *Ecology*. 104:e3890.
12. **Pardee, G.L.**, S.R. Griffin, M. Stemkovski*, T. Harrison, Z.M. Portman, M. Kazenel, J.S. Lynn, D.W. Inouye, and R.E. Irwin. 2022. Life history traits predict responses of wild bees to climate variation. *Proceedings of the Royal Society B*. 289: 20212697.
11. Lane, I.G+, Z.M. Portman, C. Herron-Sweet, **G.L. Pardee**, and D.P. Cariveau. 2022. Differences in bee community composition between restored and remnant prairies are more strongly linked to forb community differences than landscape differences. *Journal of Applied Ecology*. 59: 129-140.
10. Stemkovski, M+, W.D. Pearse, S.R. Griffin, **G.L. Pardee**, J. Gibbs, T. Griswold, J.L. Neff, R. Oram, M.G. Rightmyer, C.S. Sheffield, K. Wright, B.D. Inouye, D.W. Inouye, and R.E. Irwin. 2020. Bee phenology is predicted by climatic variation and functional traits. *Ecology Letters*. 23: 1589-1598.
9. Portman, Z.M., I.G. Lane+, **G.L. Pardee**, and D.P. Cariveau. 2020. Reinstatement of

Andrena vernalis Mitchell (Hymenoptera: Andrenidae) from synonymy with *A. ziziae* Robertson. *Great Lakes Entomologist*. 53: 25-40.

8. Cariveau, D.P., B. Bruninga-Socular, and **G.L. Pardee**. 2020. A review of the challenges and opportunities for restoring animal-mediated pollination of native plants. *Emerging Topics in Life Sciences*. 4: 99-109.
7. Vandermeer, J., and 29 other authors, including **G.L. Pardee**. 2019. The community ecology of herbivore regulation in an agroecosystem: Lessons from complex systems. *BioScience*. 69: 974-996.
6. **Pardee, G.L.**, I.O. Jensen*, D.W. Inouye, and R.E. Irwin, 2019. The individual and combined effects of snowmelt timing and frost exposure on the reproductive success of montane forbs. *Journal of Ecology*. 107: 1970-1981.
5. **Pardee G.L.**, D.W. Inouye, and R.E. Irwin. 2018. Direct and indirect effects of episodic frost on plant growth and reproduction in subalpine wildflowers. *Global Change Biology*. 24: 848-857.
4. **Pardee, G.L.**, and S.M. Philpott. 2014. Native plants are the bee's knees: Local and landscape predictors of bee richness and abundance in backyard gardens. *Journal of Urban Ecosystems*. 17: 641-659.
3. Philpott, S.M., **G.L. Pardee**, and D.J. Gonthier. 2012. Cryptic biodiversity effects: Importance of functional redundancy revealed through addition of food web complexity. *Ecology*. 93: 992-1001.
2. **Pardee, G.L.**, and S.M. Philpott. 2011. Cascading indirect effects in a coffee agroecosystem: Effects of a parasitic phorid fly on ants and the coffee berry borer in a high-shade and low-shade habitat. *Environmental Entomology*. 40: 581-588.
1. Gonthier, D.J., **G.L. Pardee**, and S.M. Philpott. 2010. *Azteca instabilis* ants and the defence of a coffee shade tree: an ant-plant association without mutual rewards in Chiapas, Mexico. *Journal of Tropical Ecology*. 26: 343-346.

Publications in Preparation- full drafts written

Pardee, G.L., K.M. Ballare, C. Cortina⁺, S.R. Griffin, B. Durrington, E. Lopez, and S. Jha. Examining the local and landscape drivers of bee communities within a rapidly urbanizing city across a 7-year period. In prep for *Global Change Biology*

Pardee, G.L., A. D. Ritchie⁺, I.G. Lane⁺, I. Bur^{*}, Z. Portman, and D.P. Cariveau. Assessment of pollinator effectiveness of two forbs in restored tallgrass prairie ecosystems. In prep for *American Journal of Botany*

Pardee, G.L., A. Asmus, J. Henning, M. Roswell, R. Winfree, and D. Cariveau. Pollinator plantings create predictable plant and pollinator communities across time and space. In prep for *Journal of Applied Ecology*

Pardee, G.L., D.W. Inouye, and R.E. Irwin. Snowmelt timing and frost shift flowering communities in montane regions without disrupting plant-pollinator networks. In prep for *Oikos*

PRESENTATIONS

Local and landscape factors influence plant-pollinator networks and bee foraging behavior across an urban corridor

- Oral presentation, Ecological Society of America (Montreal, Quebec) August 2022
- Invited oral presentation, Friends of Mueller Prairie Restoration (Austin, TX) June 2020

Functional diversity and plant-pollinator networks in restored prairies across an agriculturally dominated landscape

- Oral presentation, Ecological Society of America (Louisville, KY) August 2019

Bee functional traits determine response to climate in an alpine system

- Oral presentation, Entomological Society of America (Vancouver, B.C.) November 2018

Direct and indirect effects of episodic frost on plant growth and reproduction in subalpine wildflowers

- Invited oral presentation, Duke Pop Bio seminar (Durham, NC) April 2017
- Oral presentation, RMBL graduate student symposium (Gothic, CO) August 2015

Native plants are the bee's knees: Local and landscape predictors of bee richness and abundance in backyard gardens

Invited oral presentation, Oak Openings Region Chapter of Wild Ones Organization (Toledo, OH) May 2011

- Oral presentation, Northeast Natural History Conference, (Springfield, MA) April 2015

Cascading indirect effects in a coffee agroecosystem: Effects of a parasitic phorid fly on ants and the coffee berry borer in a high shade and low-shade habitat

- Poster presentation, Ecological Society of America (Pittsburgh, PA) 2010
- Poster presentation, Posters at the Capitol (Columbus, OH) 2011
- Oral presentation, Entomological Society of America (Indianapolis, IN) 2009
- Oral presentation, Univ. of Toledo Sigma Xi Research Symposium (Toledo, OH) 2009
- Oral presentation, Univ. of Toledo Honors Thesis Symposium, (Toledo, OH) 2009

MEDIA COVERAGE

[The Wildflower Center Magazine](#)

[The Guardian](#)

[Inverse](#)

[UT Austin](#)

[Yale Climate Connections](#)

[NC State](#)

[High Country News](#)

[Phys.org](#)

[Earth.com](#)

AWARDS, GRANTS, AND FELLOWSHIPS (totaling over \$150,000)

- 2016 Rocky Mountain Biological Laboratory Graduate Research Grant (\$320)
- 2015 NC State Univ. Global Change Fellowship (\$12,000 stipend)
- 2015 Garden Club of America, Centennial Pollinator Fellowship (\$4,000)
- 2015 Colorado Native Plant Society Graduate Research Grant (\$500)
- 2015 Rocky Mountain Biological Laboratory Graduate Research Fellowship (\$500)
- 2014 Dartmouth College Jenks Prize to attend the annual Bee Course (\$700)
- 2014 Rocky Mountain Biological Laboratory Graduate Research Grant (\$400)
- 2013 National Science Foundation Graduate Research Fellowship Program (\$102,000 stipend)
- 2012 Univ. of Toledo Dept. of Environmental Sciences Outstanding Graduate of 2011-2012 (\$100 award)
- 2011 Univ. of Toledo Dean's list (also received for Fall 2007, Spring 2008, Fall 2009, Spring 2010, and Fall 2010)
- 2011 Univ. of Toledo Dept. of Environmental Sciences Jeffery Black Scholarship (\$2,500)
- 2011 Univ. of Toledo Phi Kappa Phi Honors Society Scholarship (\$500)
- 2010 Ohio Academy of Sciences Scholarship (\$2,000)
- 2010 National Science Foundation Undergraduate Research and Mentoring Program (\$24,000 stipend)
- 2010 Univ. of Toledo Dept. of Environmental Sciences Honors Program
- 2010 Univ. of Toledo Sigma Delta Pi Spanish Honors Society
- 2009 Univ. of Toledo Travel Grant (\$400)
- 2009 Univ. of Toledo Undergraduate Summer Research and Creative Arts Program (\$2,000 stipend)
- 2007 Univ. of Toledo Blue and Gold Scholarship (\$750 per semester for 4 years)

COMMUNITY ENGAGEMENT EVENTS

- 2023 Texas Science Festival (Austin, TX), plant and pollinator table

- 2022 Austin Public Library Roots and Wings Event (Austin, TX), pollinator table
- 2022 Lady Bird Johnson Wildflower Center Pollination Day (Austin, TX), pollinator table
- 2022 Lady Bird Johnson Wildflower Center Nature Night (Austin, TX), pollinator table
- 2019 University of Minnesota, Great Minnesota Show, pollinator table
- 2019 STEM Day at Gull Lake Middle School (Richland, MI), pollinator game
- 2018 Lacy Elementary School (Raleigh, NC) science fair judge
- 2017 Conservation Corridor, guest contributor for a blog post
- 2017 NCSU Zoology Graduate Student Association (Raleigh, NC), seminar series coordinator
- 2017 NC 4-H Science Competition (Raleigh, NC), judge
- 2017 Prairie Ridge Ecosystem Gnomes and Fairies Day (Raleigh, NC), pollination station volunteer
- 2017 Lacy Elementary School STEM Fair (Raleigh, NC), pollination station organizer
- 2016 North Carolina Museum of Natural Sciences Bug Fest (Raleigh, NC), pollination station organizer
- 2016 Lacy Elementary School (Raleigh, NC), science fair judge
- 2016 Crested Butte News (Crested Butte, CO), co-wrote an article on frost in alpine systems
- 2015 Rocky Mountain Biological Lab (Gothic, CO), Kids Nature Camp guest scientist (also in 2014 and 2016)
- 2014 Dartmouth College (Hanover, NH), EEB Program Annual Retreat, organizer
- 2014 Dartmouth College (Hanover, NH), Graduate Women in Science and Engineering Science Day event volunteer
- 2014 Dartmouth College (Hanover, NH), Graduate Student Journal Club, leader and organizer
- 2011 Univ. of Toledo (Toledo, OH) Earth Fest organizer (also in 2009 and 2010)
- 2011 Toledo Botanical Garden's Annual Seed Swap, pollinator table organizer
- 2010 Northwest Ohio District 2 Science Day judge