

Elyse M. Talley

Rutgers University
Graduate Program in Ecology & Evolution
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EDUCATION

Rutgers University

PhD Candidate, 2023-Present
4.0 GPA, Graduate Program in Ecology and Evolution
Advisor: Dr. Rachael Winfree

University of Evansville

B.S. in Biology and Minor in Ethics, 2019-2023
4.0 GPA, Honors College, *summa cum laude*
Advisor: Dr. Cris Hochwender

PUBLICATIONS

E Talley and R Winfree. 2026. Island area and floral host plant availability drive bee species richness and occurrence across the Boston Harbor Islands. In prep.

Hochwender, CG, EA Powell, **E Talley**, C Caldwell, D Smith, A Dillman, J Lachowecki, CH Guetling. 2025. Quality varies among host species, but diet mixing provides no benefit to the generalist parasite, *Cuscuta gronovii*. *Plant Ecology* 226:969-978

Kim, IT, C Farb, M Hou, S Prasad, **E Talley**, S Cook, VD Campese. 2022. General and specific aversive modulation of active avoidance require central amygdala. *Frontiers in Behavioral Neuroscience* 16:879168

Talley, EM*, CT Watts*, S Aboyer, MG Adamson, HA Akota, *et al.* 2021. Genetic mapping and phenotypic analysis of *shot*^{H.3.2} in *Drosophila melanogaster*. *MicroPublication Biology* 2021:10.17912. (*co-first authors)

PRESENTATIONS

E Talley. Investigating patterns and drivers of wild bee biodiversity across the Boston Harbor Islands. Invited oral presentation for the Integrated Behavioral Research Group at Princeton University, Princeton, NJ

E Talley and R Winfree. Patterns and drivers of wild bee biodiversity in an urban island system. Invited oral presentation at the 2025 Entomological Society of America Meeting, Portland, OR

E Talley and R Winfree. Investigating drivers of bee species richness and community composition across the Boston Harbor Islands. Oral presentation at the 2025 Annual Meeting of the Ecological Society of America, Baltimore, MD

Hochwender, CG, EA Powell, **EM Talley**, C Caldwell, D Smith. Diet mixing has a limited benefit for the generalist holoparasite, *Cuscuta gronovii*. Poster presentation at the 2022 Annual Meeting of the Ecological Society of America, Montreal, Canada

AWARDS AND HONORS

- 2024 NSF Graduate Research Fellowship Program Honorable Mention
- 2023 Changemaker of the Year, University of Evansville, Center for Innovation and Change
- 2023 Charles and Patricia Robertson Senior Biology Award, University of Evansville, Department of Biology
- 2023 Community Development Award, Vanderburgh County Soil & Water Conservation District; in recognition of work promoting native plants and pollinators in community

GRANTS AND SCHOLARSHIPS

- 2026 Buell Award, Rutgers University, \$3,500
- 2025 Ecology & Evolution Small Grant, Rutgers University, \$1,000
- 2025 Ted Stiles Award for Ecological Research and Conservation, Rutgers University, \$500
- 2024 Ecology & Evolution Small Grant, Rutgers University, \$1,000
- 2024 Ted Stiles Award for Ecological Research and Conservation, Rutgers University, \$500
- 2024 Caroline Thorn Kissel Summer Environmental Studies Scholarship, Garden Club of America, \$3,000
- 2023 SEBS Excellence Fellowship, Rutgers University, \$34,000
- 2021 UExplore Undergraduate Research Grant, University of Evansville, \$16,500
- 2019 Baccalaureate to Doctor of Medicine Scholarship, University of Evansville, \$120,000 (across 4 years)

TEACHING EXPERIENCE

- Fall 2026 Teaching Assistant for Principles of Biology, Rutgers University
- Spring 2025 Teaching Assistant for Fundamentals of Evolution Lab, Rutgers University; designed course material with instructor, led all lab activities
- 2022-2023 Writing Mentor for Ecology & Evolution, University of Evansville; met with students to provide comments on manuscript drafts for course assignments
- 2021-2023 Supplemental Instructor for Biology Department, University of Evansville; held open tutoring sessions for students to review material and ask questions
- Spring 2021 Teaching Assistant for Introduction to Biology: Molecular Perspectives, University of Evansville; assisted course instructor with lab activities and student questions

PROFESSIONAL EXPERIENCE

- Summer 2023 Hawthorne Valley Farmscape Ecology Program Intern, Ghent, NY; collected and identified insects for several ongoing agroecology studies, conducted biodiversity surveys for public and private landowners across Columbia County, NY
- 2021-2022 Research Technician, University of Evansville (with Dr. Cris Hochwender and Dr. Ann Powell); managed a study assessing the benefit of diet mixing for the

- parasitic plant *Cuscuta gronovii*; grew the parasite on host plants from different plant families, harvested seeds of parasite, aided in data analysis and writing
- Summer 2021 Research Technician, Bijagual Ecological Reserve, Costa Rica; measured growth rates and survival of a plot of 200 native trees; collected and sorted insects to aid in study measuring level of arthropod diversity in reforested lands
- 2019-2021 Research Technician, University of Evansville (with Dr. Vincent Campese); ran Pavlovian instrumental transfer and avoidance learning trials for a study examining the role of the central amygdala in fear circuits in rats; learned surgical cannulation techniques, performed muscimol infusions, assisted with brain extraction and perfusion, cared for animals

MENTORSHIP

- 2026-Present Gina Vaynshteyn, Rutgers University, Honors College; data analysis in R and ArcGIS, data management, specimen curation
- 2026-Present Maximillian Hadden, Rutgers University, Honors College; data analysis in R and ArcGIS, data management, specimen curation
- Summer 2026 Miraan Pagganwala, Rutgers University, Honors College; data management and specimen curation
- Summer 2025 Ryan Jaconski, Rutgers University; barcoding and sorting bees
- Summer 2025 Baylee Foreman, Rutgers University; barcoding and sorting bees
- Fall 2024 Avanti Drain, Rutgers University; pinning bees and entering data
- Fall 2024 Penelope Day, Rutgers University; pinning bees and entering data

SERVICE AND OUTREACH

- 2026-Present Seminar Chair for Ecology & Evolution Graduate Student Association, Rutgers University; set up seminar room and provide snacks for weekly meetings
- 2023-Present Rutgers Science Explorer Fellow, Rutgers University; travel to middle schools throughout New Jersey and teach interactive science lessons
- 2024-2026 Secretary for Ecology & Evolution Graduate Student Association, Rutgers University; kept meeting minutes and facilitated communication between GSA officers and student body
- July 2024 Taught students how to differentiate bees, flies, and wasps in the field for a summer program on Thompson Island for the National Park Service
- 2022-2023 Program Director of People for Pollinators; designed, implemented, and oversaw a pollinator outreach initiative in collaboration with local and state-wide conservation organizations; coordinated and hosted 6 outreach events
- 2022-2023 Seton Harvest volunteer; part of a team of student volunteers helping to build pollinator beds throughout property of a community farm
- 2022-2023 Indiana Native Plant Society Southwest Chapter volunteer; helped run fall and spring native plant sales