

Curriculum vitae

BLAINE D. MARTIN

Ph.D. Candidate

University of Illinois, Urbana-Champaign

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EDUCATION

- 2026-Present Ph.D. Candidate, Plant Biology – University of Illinois,
Urbana-Champaign (UIUC)
Area of Study: Plant-Fungal Interactions in Tropical Conifers
Committee: Drs. James Dalling, Katy Heath, Wendy Yang, Tony Yannarell
- 2024-2026 Ph.D. Student, Plant Biology – UIUC
Advisor: Dr. James Dalling
- 2020-2023 B.S. Environmental Biology (Honors) – Tulane University, New Orleans, LA
Thesis: “The Effect of Rooting Substrate on Liana Endophyte Communities”
Committee: Drs. Sunshine Van Bael (Advisor), Donata Henry, William Balee

RESEARCH EXPERIENCE

- 2023-2024 Research Assistant, Dr. Erin Spear – Smithsonian Tropical Research Institute,
Panama (STRI)
- 2022 Field Technician, Dr. Mareli Sanchez-Julia – STRI
- 2021-2023 Research Assistant, Dr. Sunshine Van Bael – Tulane University

TEACHING EXPERIENCE

- 2026 Teaching Assistant, Introduction to Plant Biology – UIUC
- 2025 Teaching Assistant, General Ecology – UIUC
- 2024 Teaching Assistant, Human Health & Evolution – UIUC
- 2021-2023 Undergraduate Teaching Fellow, Diversity of Life – Tulane University
- 2021-2023 Academic Tutor – Tulane University

GRANTS

- 2026 Short-Term Fellowship, Smithsonian Tropical Research Institute (\$6,550)
- 2026 Tinker Foundation Field Research Award, Center For Latin American &
Caribbean Studies, UIUC (\$3,361)
- 2026 Govindjee Award for Excellence in Biological Research, Dept. of Plant Biology,
UIUC (\$1,000)
- 2026 Rogerson Student Research Award, Mycological Society of America (\$1,000)
- 2026 Clark Research Grant, School of Integrated Biology, UIUC (\$1,000)
- 2025 Laughnan Award, Dept. of Plant Biology, UIUC (\$900)
- 2025 Tinker Foundation Field Research Award, Center for Latin American &
Caribbean Studies, UIUC (\$1,500)

- 2025 Underground Explorers Grant, Society to Protect Underground Networks – “Variation in Root and Soil Fungal Communities Associated with the Tropical Conifer, *Podocarpus*, in Panama”, A. Ferrer, J. Dalling, **B. Martin**, E. Lasso (\$9,830)
- 2023-2024 STRI Internship, Panama (\$16,000)
- 2023 Data Hub Research Grant, Tulane University (\$2,500)
- 2022 Jean Danielson Memorial Scholarship for Undergraduate Research, Tulane University (\$2,400)
- 2022 Summer Award for Undergraduate Research, Tulane Center for Engaged Learning and Teaching (\$1,400)
- 2022 Newcomb-Tulane College Summer Research Grant (\$800)

AWARDS & HONORS

- 2024-Present Graduate Research Fellowship, NSF (\$159,000)
- 2024-Present Graduate College Doctoral Merit Fellowship, UIUC (\$75,000)
- 2023 Gunning Memorial Award for Outstanding Senior in Ecology, Tulane University (\$250)
- 2023 Outstanding Service as a Teaching Fellow, Dept. of Ecology, Tulane University
- 2020-2023 Alumni Donor Award, Tulane University (\$20,000)
- 2020-2023 Phillip L. Darnell Scholarship, Tulane University (\$104,000)

SCIENTIFIC PUBLICATIONS

1. Sanchez-Julia, M., **Martin, B.D.**, Yturralde, I., Van Bael, S.A. (2026) Soil Properties and Plant Species Identity Independently Influence Arbuscular Mycorrhiza Fungal Composition Across Lowland Tropical Forests. *Biotropica*, 58(2).
<https://doi.org/10.1111/btp.70164>
2. Spear, E.R., Charalaghi, S., González, C.T., **Martin, B.D.**, Ballesteros, J.O. (2026) First Report of *Mycoleptodiscus suttonii* Causing Foliar Lesions on *Pouteria reticulata* in Panama. *Plant Disease*, Advanced online publication.
<https://doi.org/10.1094/PDIS-05-26-0898-PDN>
3. Ferrer, A., **Martin, B.D.**, Corrales, A., Dalling, J.W. (2026) Distinct root associated fungal communities may account for the persistence of *Podocarpus* conifers in tropical forests. *Ecology*, accepted

ANTICIPATED SCIENTIFIC PUBLICATIONS

All research projects in progress toward publication

- 2024-Present **Martin, B.D.**, Ferrer, A., Lasso, E., Dalling, J.W. Helotiales Characterize Root-Associated Fungal Communities in Nutrient-Poor Neotropical Forests: Evidence from Panamanian Podocarps. *New Phytologist*, **in prep**

- 2023-Present **Martin, B.D.**, Spear, E.R. Description of a New *Agaricus* Species From the Lowland Tropical Forest of Barro Colorado Island, Panama. *Mycological Progress*, **in prep**
- 2022-Present **Martin, B.D.**, Sanchez-Julia, M., Soria, R., Wheeler, D., Aponte-Rolon, B., Van Bael, S.A. Rooting Substrate Drives Fungal Community Composition, Diversity, and Mycorrhizal Colonization in Neotropical Lianas. *Biotropica*, **in prep**
- 2025-Present **Martin, B.D.**, Winter, K., Dalling, J.W. *Podocarpus guatemalensis* Growth and Soil Response after Inoculation with Root-Associated Helotiales Fungi Isolated from Sympatric Panamanian Podocarps. (greenhouse work in progress).
- 2023-Present Spear, E.R., **Martin, B.D.**, Schmidt, L., Insler, C., Cha, K., Sosa-Belendez, M.T., Ballesteros, J.O. How Are Phytopathogenic Fungi Distributed Across Hosts and Ontogeny? Implications for Forest Diversity Maintenance, **in prep**
- 2023-Present **Martin, B.D.**, Schmidt, L., Insler, C., Spear, E.R. Inter and Intra-seasonal Effects on *Anacardium excelsum* Seedling Demographics and Their Foliar Fungal Community. (fieldwork and labwork completed)
- 2022-Present Sanchez-Julia, M., **Martin, B.D.**, Yturalde, I., Van Bael, S.A. Unraveling the Phosphorus-acquisition Strategies and Mycorrhizal-associated Carbon Costs of Tropical Trees. (field and labwork completed)

ORAL PRESENTATIONS

- 2026 Mycological Society of America – “Environmental Gradients and Host Identity Structure Root Fungal Communities of Panamanian *Podocarpus spp.*, Revealing Helotiales Dominance”
- 2026 STRI, Bambi Talk – “Environmental Gradients and Host Identity Structure Root Fungal Communities of Panamanian *Podocarpus spp.* and Co-Occurring Plants”
- 2025 STRI, Bambi Talk – “Growing Pains: Seasonal Drivers of Seedling Mortality in *Anacardium excelsum*”
- 2023 STRI, Bambi Talk – “The Effect of Rooting Substrate on Liana Endophyte Communities”

POSTER PRESENTATIONS

- 2026 STRI, Fellows and Interns Symposium – “Helotiales Characterize Root Fungal Communities in Nutrient-Poor Neotropical Forests: Evidence from Tropical Podocarps”
- 2026 Midwest Microbiome Symposium — “Environmental Gradients and Host Identity Structure Root Fungal Communities of Panamanian *Podocarpus spp.*, Revealing Helotiales Dominance”
- 2026 UIUC, Plant Biology Recruitment — “Environmental Gradients and Host Identity Structure Root Fungal Communities of Panamanian *Podocarpus spp.*, Revealing Helotiales Dominance”

- 2025 Mycological Society of America– “Rooting Substrate Drives Fungal Community Composition, Diversity, and Mycorrhizal Colonization in Tropical Lianas”
- 2024 Plant Science Symposium, UIUC – “The Effect of Substrate on Root-Associated Fungal Communities of Tropical Lianas”
- 2023 ESA, Late-breaking Poster – “The Effect of Rooting Substrate on Liana Endophyte Communities”
- 2023 STRI, Fellows and Interns Symposium – “The Effect of Rooting Substrate on Liana Endophyte Communities”
- 2023 Newcomb Tulane College, Honors Thesis Summit – “The Effect of Rooting Substrate on Endophyte Communities”
- 2023 Tulane Research, Innovation, and Creativity Symposium – “The Effect of Rooting Substrate on Liana Endophyte Communities”
- 2022 Newcomb Tulane College, Undergraduate Research Symposium “The Effect of Rooting Substrate on Liana Endophyte Communities”

PROFESSIONAL DEVELOPMENT & SERVICE

- 2026 Session Chair, “Patterns and Mechanisms of Fungal Community Assembly”, MSA
- 2026 Biology Judge, Undergraduate Research Symposium, UIUC
- 2025 Microbiology Judge, Illinois Junior Academy of Science State Exposition
- 2025 Biology Judge, Undergraduate Research Symposium, UIUC
- 2024 Graduate Teaching Academy, UIUC
- 2023 Young Voices of Science Program, Hubbard Brook Research Foundation
- 2022 Arkansas Summer Research Institute, Arkansas NSF EPSCoR

OUTREACH & ENGAGEMENT

- 2023-Present Research Consulting Panel, Arkansas Summer Research Institute
- 2023-Present Graduate and Postdoctoral Panel, Arkansas Summer Research Institute
- 2024 STRI lab tours, presentations, and visiting committee discussions
- 2023 Peer Support Panel, GSS RaMP-UP Fellowship Orientation, STRI
- 2023 Mentor Panel, Dept. of Ecology, Tulane University
- 2023 Fund Your Dreams Workshop, Newcomb Tulane College

STUDENT MENTORSHIP

- 2020-Present Science Mentor, Arkansas School for Math, Science, and Art
- 2024-2026 Plant Biology Mentor, Illinois Science and Technology Coalition
- 2023-2025 Peer Support Mentor, STRI
- 2023-2025 Planting Science Mentor, Botanical Society of America

PROFESSIONAL MEMBERSHIPS

2025-Present Mycological Society of America
2024-Present Science Associate, Society for the Protection of Underground Networks (SPUN)
2023-Present Inclusion, Diversity, Equity, and Accessibility Community Group, Smithsonian
Tropical Research Institute
2023-Present Ecological Society of America