

Haley M Burrill, *Postdoctoral researcher*
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EDUCATION

July 2023 Ph.D. University of Kansas; Ecology and Evolutionary Biology, Bever/Schultz lab
June 2020 M.A. University of Kansas; Ecology and Evolutionary Biology, Bever/Schultz lab
June 2017 B.S. University of California, Santa Cruz; Plant Sciences

PUBLICATIONS

- H. Burrill**, E. Ralston, H. Dawson, B. A. Roy (2025). Litter decomposition in Pacific Northwest prairies depends on fire, with differential responses of saprotrophic and pyrophilous fungi. *Microorganisms* [13\(8\) 10.3390/microorganisms13081834](https://doi.org/10.3390/microorganisms13081834)
- C. Delavaux and **H. Burrill**, R. Menning, E. Duell, R. Bryant, T. Lubin, J. Bever (2025). Origin matters: mycorrhizal growth response and induced resistance to pathogens depends on mycorrhizal and pathogen source. *New Phytologist* [10.1111/nph.70358](https://doi.org/10.1111/nph.70358)
- H. Burrill**, S. Magnoli, J. Bever (2025). Soil microbiome composition is highly responsive to precipitation and plant composition manipulations in a field biodiversity experiment. *Frontiers in Microbiomes* [2813-4338\(4\) 10.3389/frmbi.2025.1460319](https://doi.org/10.3389/frmbi.2025.1460319)
- G. Wang, G. Ni, G. Feng, **H. Burrill**, J. Li, J. Zhang, F. Zhang (2024). Saline-alkali soil reclamation and utilization in China: progress and prospects. *Frontiers of Agricultural Science and Engineering* [11\(2\) 10.15302/J-FASE-2024551](https://doi.org/10.15302/J-FASE-2024551)
- L. Podzikowski, E. Duell, **H. Burrill**, J. Bever (2024). Home-field advantage, N-priming, and precipitation independently govern litter decomposition in a plant diversity manipulation. *Functional Ecology* [38\(4\) 10.1111/1365-2435.14515](https://doi.org/10.1111/1365-2435.14515)
- G. Wang, **H. Burrill**, L. Podzikowski, M. Eppinga, J. Bever (2023). Dilution of specialist pathogens drives feedback and yield advantage in plant mixtures. *Nature Communications* [14\(8417\):10.1038/s41467-023-44253-4](https://doi.org/10.1038/s41467-023-44253-4)
- H. Burrill**, G. Wang, J. Bever (2023) Rapid differentiation of microbial communities in response to prairie plant community manipulation field experiment. *ISME Communications* [3\(31\) 10.1038/s43705-023-00237-5](https://doi.org/10.1038/s43705-023-00237-5)
- H. Reynolds, R. Wagner, G. Wang, **H. Burrill**, J. Bever, H. Alexander (2020) Effects of the soil microbiome on the demography of two annual prairie plants. *Ecology and Evolution* [10\(13\) 10.1002/ece3.6341](https://doi.org/10.1002/ece3.6341)

IN REVIEW

- L. Podzikowski, **H. Burrill**, G. Wang, B. Foster, P. Schultz, J. Bever (PNAS 2025). Pathogen dilution, resource partitioning, and precipitation generate productivity benefits from plant diversity.

TEACHING EXPERIENCE

Fall 2024 Teaching Instructor, University of Oregon, *Mycology*
Fall 2021/2022 Graduate Teaching Assistant, University of Kansas, *Field Ecology lab*
Fall 2018-2020 Graduate Teaching Assistant, University of Kansas, *Introductory biology lab*

PRESENTATIONS/POSTERS

- H. Burrill**, E. Ralston, H. Dawson, B. Roy. *Litter decomposition in Oregon prairies depends on fire, with differential responses of saprotrophic and pyrophilous fungi and unexpected autoclave effects.* Mycology Society of America, June 2025

- H. Burrill**, C. Delevich, H. Dawson, J. Collings, M. Caiafa, J. Conery, B. Roy, J. Diez, N. Arad, E. Arnold, S. Frey, P. Kennedy, J. Lodge, J. U'Ren, M. Smith, A. Wilson. *Fungal pathogen and saprotroph response to climate, fire, and vegetation types in North America*. Mycological Society of America, June 2024
- H. Burrill**, C. Delevich, J. Collings, H. Dawson, B. Roy, J. Diez. *Differential functional traits of fungi across climate types in north America*. Institute of Ecology and Evolution seminar, January 2024
- H. Burrill**, A. Nelson, L. Podzikowski, J. Bever. *Foliar pathogen dilution due to species richness and phylogenetic dispersion increases productivity in diverse grassland community*. Ecological Society of America, August 2023
- H. Burrill**, G. Wang, J. Bever. *Microbial community differentiation in response to plant community composition and precipitation manipulation in a prairie field experiment*. Ecological Society of America, August 2022 & High Altitude Revegetation (HAR) and Society for Ecological Restoration-Rocky Mountains Chapter (SER-RM), April 2022
- H Burrill**. *Rapid differentiation of soil-borne plant pathogen and bacteria communities in response to prairie plant community manipulation field experiment*. Ecological Society of America, August 2021; Midwest Ecology and Evolution Conference, March 2021
- H Burrill**. *Does plant biodiversity drive fungal pathogen composition?* KU Ecology and Evolutionary Biology Graduate Student Recruitment Banquet, February 2020
- H Burrill**. *How fungal pathogens shape prairie plant diversity*. Mycological Society of America, August 2019

PROFESSIONAL EXPERIENCE

- 2023-current Postdoctoral researcher, University of Oregon, NSF Macrosystems Ecology CliMush
- 2019-2023 Graduate Research, University of Kansas; Bever/Schultz lab; *current affiliated research*
- 2022 Planning committee, Midwest Ecology and Evolution Conference hosted by KU
- 2018 Botany Technician, Great Basin Institute; Spring Mountains, NV
- 2017 Conservation Technician, Utah Conservation Corps; Escalante, UT
- 2016-2017 Lab Technician, UC Santa Cruz; Dr. Greg Gilbert lab
- 2017 Continuous Forest Inventory Crew Lead, UC Santa Cruz; Campus Natural Reserves
- 2015-2016 Nursery Assistant, UC Santa Cruz Arboretum
- 2014-2016 Undergraduate Research Intern, UC Santa Cruz; Campus Natural Reserves

MENTORING

- 2024-current Kyla Schmidtt, *University of Oregon*, Undergraduate Honors Research
- 2023-current Ellen Ralston, *University of Oregon*, Undergraduate Honors Research
- 2023-current Robert Menning, *University of Kansas*, Undergraduate Independent Research
- 2021-current Audrey Nelson, *University of Kansas*, Undergraduate Research Apprentice
- 2022 Alex Hoffpauir, *University of Kansas*, Post-baccalaureate program
- 2019-2020 Sam Campbell, *University of Kansas*, Undergraduate Research Apprentice
- 2019-2023 Adeline Kelly, *University of Kansas*, Women in Stem (WoStem) mentee

OUTREACH ACTIVITIES

- 2024-2025 Mental Health in STEM workshop committee, University of Oregon
- 2020-2023 Nature Walks guide for local Girl Scout troops; Lawrence, KS
- 2018-2020 Elementary School Environmental Science Curriculum, NSF EPSCoR; Lawrence, KS
- 2018-2019 Tabling at community events, Kansas Biological Survey; Lawrence, KS

2019 University of Kansas – on campus Bioblitz; Lawrence, KS
2017 Campus Natural Reserve tours; Santa Cruz, CA

FELLOWSHIPS AND AWARDS

2023 \$1500, Arthur Mix Scholarship, demonstrating excellence in research in the study of Mycology
2022 \$500, KU Field Station Award – *Dissertation research*
2021 \$1000, J.E. Weaver Grant, The Nature Conservancy – *Using resident pathogen accumulation to inhibit invasive Lespedeza cuneata: a novel biocontrol approach*
2020 \$1000, KU Field Station Award – *Using native pathogen buildup to inhibit invasive Lespedeza cuneata: a novel biocontrol approach*
2020 \$500, Rachel Snyder Memorial Award, Grassland Heritage Foundation – *Using native pathogen buildup to inhibit invasive Lespedeza cuneata: a novel biocontrol approach*
2019 \$1000, KU Field Station Award – *How fungal pathogens shape prairie plant diversity*
2017 Honors Senior Thesis Research, UC Santa Cruz – *Internal moisture density analysis in trees affected by plant pathogen Sudden Oak Death*

INSTITUTION AND COMMITTEE SERVICE

2022-2023 Co-president, KU EEB Graduate Student Organization
2022 Committee member, Midwest Ecology Conference hosted at KU
2020-2023 Outreach committee, KU EEB Graduate Student Organization
2019- 2022 Co-president, KU Community Garden