

ERIC A. GRIFFIN
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EDUCATION AND PROFESSIONAL APPOINTMENTS

Assistant Professor (2022 – present), Warren Wilson College
Associate Researcher (2019 – present), Smithsonian Environmental Research Center
Assistant Professor (2019 – 2022), New Mexico Highlands University
Secretary's Distinguished Research Fellow (2017 – 2019), Smithsonian Institution
Adjunct Instructor (Fall 2018 – Summer 2019), Anne Arundel Community College
Adjunct Instructor (Summer 2018), University of Pittsburgh
Postdoctoral Research Fellow (2016 – 2017), Smithsonian Environmental Research Center
Doctor of Philosophy (2009 – 2016), University of Pittsburgh, Ecology and Evolutionary Biology
Bachelor of Science (2004 – 2008), *summa cum laude*, Berry College; Biology, Chemistry

RESEARCH EXPERIENCE

Assistant Professor, Warren Wilson College, Environmental Studies Department, present

- I am currently working on a tree restoration experiment in Edgewater, MD (BiodiversiTREE) on a National Science Foundation grant looking at the effects of tree diversity on trophic dynamics and ecosystem function.

Assistant Professor, New Mexico Highlands University, Biology Department, 2019 – 2022

- I assessed the distributions, diversity, and coexistence of tree communities, and how plant-associated fungi and bacteria influence these processes across forests in New Mexico. Coupled with field work, I conducted greenhouse and growth chambers to ask isolated questions about how fungi and bacteria regulate plant productivity and performance among coexisting tree and grassland species.

**Chair, Faculty Research Committee*, New Mexico Highlands University, 2020 – 2022

Postdoctoral Researcher, Smithsonian Environmental Research Center, 2016 – 2019

- I (1) evaluated the degree to which plant-associated fungi and bacteria mediated the effects of forest diversity on tree productivity relationship in a forest diversity experiment and (2) used growth chambers and greenhouse experiments to test how fungal endophyte diversity and community composition vary among mangrove species and populations. My ultimate goal was to link plant microbiomes to plant performance and community dynamics.

Doctoral Student, University of Pittsburgh, 2009 – 2016

- I (1) wrote a review paper on the ecology and natural history of plant-microbe communities in forests and agroecosystems. I managed field, lab, and greenhouse projects addressing (2) the impacts of microbial communities and soil nutrients on tree performance and trophic cascades in forest ecosystems; (3) how soil fertility and tree species structure foliar bacterial communities; (4) how bacteria and soil fertility interact to influence leaf chemistry and ultimately the diversity of higher trophic levels. Ultimately, my research demonstrated that microbes are critical components of entire plant communities, which have important implications for forest health, management, and sustainability particularly through the lens of global climate change.

*** Dissertation nominated for the Eduardo Lozano Memorial Dissertation Award, 2016**

SCHOLARSHIP

PUBLICATIONS

Griffin, E.A., English, A.R., Jeffrey, C.S. & W.P. Carson. *Accepted*. Foliar microbes as drivers of plant performance and trophic dynamics in forest biomes. In: *The First 100 Years of Research on Barro Colorado: Plant and Ecosystem Volume*.

Harrison, J. G., **E. A. Griffin**. 2020. The diversity and distribution of endophytes across biomes, plant phylogeny, and host tissues: how far have we come and where do we go from here? *Environmental Microbiology* 22: 2107-2123.

Griffin, E. A., J. G. Harrison, M. M. McCormick, K. T. Burghardt, J. D. Parker. 2019. Tree diversity reduces fungal endophyte richness and diversity in a large-scale forest experiment. *Diversity* 11: 234. Special Issue: symbioses and the biodiversity-ecosystem function relationship.

Media:

- New Mexico Highlands University front-page article, January 31, 2020 entitled: "Biology Prof's Paper - Sheds Light on Tree Diversity and Pathogen Resilience"
- Focus of piece in *Albuquerque Journal* on February 8, 2020 entitled "Little Things Make Big Difference in Plant Biology" by Margaret McKinney

Griffin, E. A., S. W. Kembel, A. A. Carrell, S. J. Wright & W. P. Carson. 2019. Soil macronutrients and plant host identity explain little variation in sapling endophyte community composition: disturbance as an alternative explanation? *Journal of Ecology* 107: 1876-1889.

Media:

<https://jecologyblog.com/2019/04/02/foliar-bacterial-endophytes-in-a-tropical-forest/>
<https://jecologyblog.com/2020/06/23/harper-prize-shortlist-2019-eric-a-griffin/>

- Shortlisted for the Harper Prize for Early Career Researchers, March, 2020
- Highlighted in the President's Weekly Update, New Mexico Highlands University, August 23, 2019

Griffin, E. A & W. P. Carson. 2018. Tropical tree endophytes: cryptic drivers of forest diversity, species composition, and ecosystem function. In Pirttila, A. M. & Frank, A. C., eds. *Endophytes of Forest Trees: Biology and Applications*, 2nd Ed. Springer. Pp. 63-103.

* **Invited author of book chapter**

S. J. Wright, B. L. Turner, J. B. Yavitt, K. E. Harms, M. Kaspari, J. Bujan, **E. A. Griffin**, J. Mayor, S. Pasquini, M. Sheldrake & E. V. J. Tanner. 2018. Limited plant responses to fertilization experiments in lowland, species-rich, tropical forests. *Ecology* 99: 1129-1138.

Griffin, E. A., S. J. Wright, P. J. Morin & W. P. Carson. 2017. Pervasive interactions between foliar microbes and soil nutrients mediate leaf production and herbivore damage in a tropical forest. *New Phytologist* 216: 99-112.

Griffin, E. A., M. B. Traw, P. J. Morin, J. N. Pruitt, S. J. Wright & W. P. Carson. 2016. Foliar bacteria and soil fertility mediate seedling performance: a new and cryptic dimension of niche differentiation. *Ecology* 97: 2998-3008.

* **Nominated for the Organization for Tropical Studies Outstanding Student Paper Award**

Griffin, E. A. & W. P. Carson. 2015. The ecology and natural history of foliar bacteria with a focus on tropical forests and agroecosystems. *The Botanical Review* 81: 105-149.

Griffin, E. A., R. Bendis, N. Brouwer, J. Hua, M. Koski, G. Meindl & W. P. Carson. 2011. Review of the book *Tropical Rain Forest Ecology, Diversity, and Conservation* by Ghazoul, J., & D. Sheil. *Plant Science Bulletin* 57 (2): 71-73.

Media:

Article, “The little things running the world?” *Marilandica*, Maryland Native Plant Society, Vol. 2, 2018.

NOTABLE GRANTS/FELLOWSHIPS AWARDED

- Co-PI, National Science Division of Environmental Biology (core programs), Title: “Microbiome mediation of multi-trophic interactions in a tree diversity experiment,” \$913,227 (2021 – 2025)
- Media: <https://www.nmhu.edu/nsf-grant-to-study-microbes-and-tree-diversity/>
- NM-INBRE (IDeA Networks of Biomedical Research Excellence) Grant entitled “Understanding the role of microbiomes in mediating the effects of grazing and disturbance on understory productivity and community diversity,” \$104,226 (2021 – 2024)
 - NIH/NM-INBRE Experiential Learning Development Program (ELDP), \$39,530, Title: “Improving Biomedical Sciences at New Mexico Highlands University using CUREs (Course-Based Undergraduate Research Experiences) and Bioinformatics Training,” (2020 – 2021)
 - New Mexico Highlands University FRC Grant, \$4,795 (2020 – 2022)
 - New Mexico INBRE early career grant, \$30,000 (2019 – 2020)
 - Maryland Native Plant Society Grant, \$600 (2018 – 2019)
 - Maryland Native Plant Society Grant, \$3,000 (2017 – 2018)
 - Washington Biologists’ Field Club Grant, \$2,000 (2017 – 2018)
 - Smithsonian Environmental Research Center Fellow, \$104,000 (2016 – 2018)
 - American Philosophical Society Lewis and Clark Fellowship, \$5,000 (2013 – 2014)
 - Smithsonian Tropical Research Institute Pre-Doctoral Fellowship, \$34,800 (2012 – 2013)
 - Sigma Xi Grant in Aid of Research, \$800 (2009 and 2012)
 - National Science Foundation Graduate Research Fellowship, \$91,000 (2010 – 2013)
 - Smithsonian Tropical Research Institute Short-term Fellowship, \$2,800 (2011)
 - Pymatuning Laboratory of Ecology Pape Award, \$1,901 (2011)
 - Pymatuning Laboratory of Ecology McKinley Award, \$1,469 (2011)
 - Pymatuning Laboratory of Ecology Pape Award, \$2,194 (2010)
 - Winshape Scholarship Fellow, \$34,000 (2004 – 2008)
 - Berry College Academic Scholarship, \$32,000 (2004 – 2008)

AWARDS AND ACCOLADES

- Environmental Education Association of New Mexico Fellow, 2020 – 2021
- Nominated for the Harper Prize for Early Career Researcher, 2019
- Selected as the Smithsonian Institution’s Distinguished Research Fellow, 2017 – 2018
- Nominated for the Organization for Tropical Studies Outstanding Student Paper Award, 2016
- Winner: Best Poster Presentation, University of Pittsburgh Grad Student Expo, 2015
- Winner: Three Minute Thesis Competition, Natural Sciences, University of Pittsburgh, 2015
- Winner: Best Poster Presentation, University of Pittsburgh, Dpt. of Biol. Sciences Retreat, 2014
- Chosen to serve on the National Association of Biology Teachers Global Perspectives Committee, 2014 – 2015

- Winner: Stanton Crawford Teaching Award at the University of Pittsburgh, 2014 – 2015
- Smithsonian Tropical Research Pre-Doctoral Fellow, 2012 – 2013
- National Science Foundation Graduate Research Fellow, 2010 – 2013
- Winshape Foundation Fellow, Berry College, 2004 – 2008

TEACHING EXPERIENCE, DEVELOPMENT, MENTORSHIP AND OUTREACH

Assistant Professor, Warren Wilson College

- Forest Biology (BIO/ENS 2330), Fall 2022
- Forest Pests and Pathogens (ENS 3701), Fall 2022
- Perspectives in Environmental Studies (ENS 1150), Fall 2022

Assistant Professor, New Mexico Highlands University

- Plant Physiology (BIOL 4220/5220), Spring 2022
- Plant Physiology lab (BIOL 4220L/5220L), Spring 2022
- Applied Biological Research (BIOL 4980/5980), Spring 2022
- Advanced Topics in Tropical Ecology (BIOL 6200), Spring 2022
- Ecology lecture (BIOL 3890), Fall 2021
- Ecology lab (BIOL 3890L), Fall 2021
- Research Methods in Life Sciences (BIOL 6000), Fall 2021
- Graduate Seminar in Life Sciences (BIOL 6500), Fall 2021
- Field Ecology (BIOL 4350/5350), Summer 2021
- Ecology and Evolution lecture (BIOL 2620), Spring 2021
- Ecology and Evolution lab (BIOL 2620L), Spring 2021
- Advanced Ecology (BIOL 6890), Spring 2021
- Ecology and Evolution lab (2 sections; BIOL 2620L), Fall 2020
- Ecology and Evolution lecture (2 sections; BIOL 2620), Spring 2020
- Ecology and Evolution lab (2 sections; BIOL 2620L), Spring 2020
- Ecology and Evolution lecture (2 sections; BIOL 2620), Fall 2019
- Ecology and Evolution lab (2 sections; BIOL 2620), Fall 2019

Adjunct Faculty, Anne Arundel Community College

- Biology 101 lecture, Spring 2019
- Biology 101 lab, Spring 2019
- Biology 101 lecture, Fall 2018
- Biology 101 lab, Fall 2018
- *Model Course Developer (**Goal: To close equity gaps and culturally responsible teaching techniques**)
- *Sciences Professional Development Committee member

Adjunct Faculty, University of Pittsburgh

- Honors Field Studies in Wyoming (Honors 1540), Summer 2018

Teaching Assistant, University of Pittsburgh

- Conservation Biology (BIOSC 1610), Summer 2016
- Foundations of Biology Research (BIOSC 0067), Spring 2016
- Microbiology Laboratory (BIOSC 1860), Fall 2015
- Conservation Biology (BIOSC 1610), Summer 2015

- Genetics (BIOSC 0350), Spring 2015
- Microbiology Laboratory (BIOSC 1860), Fall 2014
- Ecology of the Napo Valley, Ecuador (BIOSC 0825), Spring 2014
- Field Botany (BIOSC 1340), Summer 2010, Pymatuning Laboratory of Ecology
- Forest Ecology (BIOSC 1160), Summer 2010, Pymatuning Laboratory of Ecology

Teaching Assistant, Penn State University

- CHANCE (Connecting Humans and Nature through Conservation Experiences): A field practicum in Panama (Biology 2971/4971), Summer 2013

Teaching Assistant, Berry College

- Principles of Zoology (BIO 202), 2007 - 2008
- Biological Inquiry (BIO103), 2007 - 2008

Environmental Educator, Wahsega 4-H Center, University of Georgia Cooperative Extension, Dahlonega, GA, 2008 - 2009

- Taught over 25 academic field-based courses to enhance student environmental awareness and increase student achievement in science.
- Developed curricula for existing as well as new courses, including Field Botany and Forest Ecology.

Professional Development and Training

New Mexico Highlands University, 2019 – present

- Attended NMHU’s Center for Teaching Excellence’s workshop entitled “High-Impact Practices Institute on Diversity and Global Learning,” Fall of 2021 and Spring of 2022
- Attended NMHU’s Center for Teaching Excellence’s book discussion group on how to better serve our diverse student body with the book *Becoming Hispanic-Serving Institutions* by Gina Ann Garcia, Fall 2021
- NMHU CURE faculty mentor, 2021 – 2022
- Instructional Coaching, NMHU, Center for Teaching Excellence, November 17, 2021
- NM-INBRE Annual Symposium, August 22-24, 2021, Bernalillo, NM
- Attended, served on a panel, and presented at the Student Leadership Institute Conference, November 5-7, 2020.
- New Mexico Research Symposium, November 9-13, 2020
- Smithsonian Tropical Research Institute Terrestrial and Marine Microbial Symposium, March 24-25, 2021.
- Attended the Introduction to Bioinformatics: Theory and Application course with the National Institute of Health (NIH), April 13-16, 2021.
- Attended ESCALA’s High Impact Practice workshop through the Center for Teaching Excellence (CTE) on how to put culturally responsible instruction for Hispanic students into practice, week of May 11, 2020
- Attended CYVERSE’s “Metabarcoding and Microbiomes in the Classroom” workshop, hosted by the Cold Spring Harbor Laboratory, Feb. 26, 2020.
- Attended the Data Carpentry Workshop, hosted by EPSCoR at New Mexico Highlands University, March 8-9, 2020.
- Attended a book club discussion series with faculty from New Mexico Highlands University on *The Slow Professor* by Barbara Seeber and Maggie Berg from January – March, 2020.
- Attended the Environmental Education Association of New Mexico Retreat, Albuquerque, NM, February 14-15, 2020.

- Attended EPSCoR's "Early Career Leadership Workshop" at the Sevilleta Field Station in Socorro, NM from January 5-7, 2020. I attended workshops including "Successful Proposal Writing," "Incorporating Broader Impacts Into Your Research," "Data Management," and "Communicating Science to the Media."
- Attended Drs. Jennifer Rudgers and Kenneth Whitney's All Hands Meeting at UNM on January 16, 2020, which included a full afternoon meeting and poster session.

Center for Instructional Development & Education Workshops, University of Pittsburgh, 2014 - 2016

- The Role of the TA
- Getting Started in the Classroom
- Developing a Lesson Plan
- Syllabus Construction
- Teaching with Powerpoint
- Developing a Teaching Portfolio
- Encouraging Student Participation

Undergraduate/Graduate Mentor

- Mentored two NMHU undergraduate interns, Spring 2020, Mariah Sandoval and Preciosa America Chavez
- Mentored a NISE (New Mexico INBRE Summer Experience) intern and work study intern for research at the Rio Mora Wildlife Refuge, summer 2020, Mariah Sandoval and Preciosa America Chavez
- Currently mentoring two INBRE interns, Akira Martinez Crook and Mariah Sandoval, fall 2020
- Currently mentoring and serving as Committee Chair for James Parker, master's student in Natural Sciences (concentration: Biology), August 2020 – current
- Currently serving as advisor to National Science Foundation Alliance for Minority Participation (AMP) fellow, Faith Lovato, August 2021 – present
- Currently mentoring Savannah Sanchez in Independent Research (BIOL 4990), fall 2021

SERVICE AND SOCIETY MEMBERSHIP

- Ecological Society of America (2010 - present), Sigma Xi (2009 – present), Organization of Tropical Biology and Conservation (2011 – present), National Association of Biology Teachers (2014 – present), Environmental Education Association of New Mexico (2019 – present)

ORAL PRESENTATIONS, GUEST SEMINARS AND LECTURES

*Indicates undergraduate student authors

Griffin, E.A. *Integrating Cannabis into the curriculum: Scaffolding CURE laboratories (Course-based Undergraduate Research Experiences) to address scientific questions*. NMHU Research Day, April 9, 2022.

Griffin, E.A. *Drivers of biodiversity*. Ecology (BIO 2020) lecture. Warren Wilson College, Environmental Studies Department, March 13, 2022.

Griffin, E.A. *What can ecology teach us about environmental issues?* Invited lecture. Regis University, Biology Department, January 19, 2022.

Griffin, E.A. *It's a small world after all: the impacts of plant-associated microbes on grassland and forest ecosystems*. **Invited speaker**. Northern New Mexico College, Biology Department, December 2, 2021.

Griffin, E.A. *It's a small world after all: the impacts of plant-associated microbes*. **Invited speaker**. Department of Plant and Environmental Sciences, New Mexico State University, October 29, 2021.

Griffin, E.A., Rose, K., Harrison, J.G., Sandoval, M.*, Martinez-Crook, A.*, & P.A. Chavez*. *The little things that run the world: the role of foliar microbiomes in mediating ecosystem processes in grassland (and understory) communities*. NM-INBRE Annual Symposium, Bernalillo, NM, August 22-24, 2021.

Griffin, E.A., *Sandoval, M. *Using results from a global plant endophyte review to develop a long-term grassland experiment at the Rio Mora Wildlife Refuge*. **Invited Speaker**, Rio Mora Seminar Series, April 22nd, 2021. *This seminar will be rescheduled for the spring of 2022.

Griffin, E.A., Harrison, J.G., Sandoval, M. *, Martinez Crook, A. *, Chavez, P.A*. *The little things that run the world: do plant microbes structure entire ecosystems?* NMHU Research Day, April 9, 2021.

Griffin, E.A. *Lessons from long-term plant-microbiome experiments in the field*. Invited speaker and discussion panelist, Smithsonian Tropical Research Institute Terrestrial and Marine Microbial Symposium, March 24-25, 2021.

Griffin, E.A. *Microbiomes: the great unseen*. Invited lecture, BIOL 3010, NMHU, November 18, 2020.

Griffin, E.A. *The little things that run the world: plant microbiomes*. **Invited speaker**, Department of Biology, University of New Mexico, November 12, 2020.

Griffin, E.A. *The little things that run the world: the good, the bad, and the ugly microbes that affect us all*. HU: Learning Happens Here, Tuesday, November 10, 2020

Villarreal, B.J., Black, V., Bustos, L., & E.A. Griffin. *(Re)imagining your future: a focus group discussion*. Presentation and panelist. Student Leadership Institute Conference, November 5-7, 2020.

Griffin, E.A. *The little things that run the world*. **Invited speaker by President Minner**, HU: Learning Starts Here seminar series, New Mexico Highlands University, October, 22, 2020.

Griffin, E.A. *The little things that run the world: plant microbiomes*. **Invited speaker**, Department of Biology, New Mexico State University, October 1, 2020.

Griffin, E.A. *The importance of microbiomes in plant community ecology*. **Invited speaker**, NMHU BIOL 6200 Disease Ecology class, August 26, 2020.

Griffin, E.A. Invited speaker for New Mexico Wildlife Federation's "10 Coolest Conservationist Careers Camp" with Nature Ninos, June 22-26, 2020.

Griffin, E.A. *Plants of northern New Mexico and their potential uses*. Las Vegas Middle School Virtual Science and Health Career Camp, June 15-19, 2020.

Burghardt, K., Griffin, E. A., & J. Parker. *Hidden players in forests and old fields: microbes both respond to and shape plant/insect interactions*. Annual Conference, Entomology, St. Louis, MO, November 7-10, 2019.

Griffin, E.A. *The little things that run the world*. **Invited Speaker**, Maryland Native Plant Society Meeting, Kensington, MD, April 30, 2019.

Griffin, E.A. *The microbiome: the true hidden component of plant community dynamics*. **Invited Speaker**, Department of Biology, McDaniel College, February 22, 2019.

Griffin, E. A. *More foe than friend: plant-associated microbes in nature*. Ecology (BIOSC 0370), University of Pittsburgh, October 6, 2018.

Griffin, E. A., J. H. Harrison, A. A. Carrell, S. W. Kembel, S. J. Wright, & W. P. Carson. Soil macronutrients and plant host identity fail to explain bacterial endophyte community composition: is disturbance a key driver? Annual Conference, Ecological Society of America, New Orleans, LA, August 5-10, 2018 (**Invited Speaker to Organized Session**).

Griffin, E. A. *Losing the forest for the microbes*. **Invited Speaker**, Department of Biology, University of Nevada at Reno, Reno, NV, November 9, 2017.

Griffin, E. A. *Microbial endophytes: cryptic drivers of forest diversity?* Advanced Ecology Graduate Course (BIOSC 2361), University of Pittsburgh, September 22, 2017.

Griffin, E. A. *Plant pests in a world of change*. Ecology (BIOSC 0370), University of Pittsburgh, September 21, 2017.

Griffin, E. A. *Pervasive interactions between foliar microbes and soil nutrients mediate leaf traits in a tropical forest*. Duquesne University, Pittsburgh, PA, June 29, 2017.

Griffin, E. A. *Climate change: plants, pests, and production*. Rhodes College. Memphis, TN, May 8, 2017.

Griffin, E. A. *Foliar bacteria and soil fertility mediate seedling performance: a new and cryptic dimension of niche differentiation*. Smithsonian Environmental Research Center. Edgewater, MD, November 10, 2016.

Griffin, E. A. *Foliar bacteria and soil fertility mediate seedling performance: a new and cryptic dimension of niche differentiation*. **Invited Speaker**, Smithsonian Tropical Research Institute Microbial Symposium. Panama City, Panama. October 27, 2016.

Griffin, E. A. *The greater unseen: on the identities, distribution, and impacts of foliar bacteria among tropical arboreal species*. Ph.D. defense. Department of Biological Sciences. University of Pittsburgh, PA, April 20, 2016.

Griffin, E. A. *Soil fertility mediates seedling responses to foliar bacteria in a tropical forest: experimental evidence for a new dimension of niche differentiation*. Advanced Ecology Graduate Course (BIOSC 2361), University of Pittsburgh, November 17, 2015.

Griffin, E. A. *Microbes: The unseen majority in nature*. Ecology (BIOSC 0370), University of Pittsburgh, September 24, 2015.

Griffin, E. A. *Foliar bacteria as key drivers of tree diversity in a tropical forest*. Microbiology (BIOSC 1860), University of Pittsburgh, September 18, 2015.

Griffin, E. A. *More foe than friend: foliar bacteria decrease plant performance among seedlings in a tropical forest*, Disease Ecology (BIOSC 1220), Pymatuning Laboratory of Ecology, July 7, 2015.

Griffin, E. A. *Soil fertility mediates seedling responses to foliar bacteria in a tropical forest: evidence for a new axis of niche differentiation*, Conservation Biology (BIOSC 1610), Pymatuning Laboratory of Ecology, May 26, 2015.

Griffin, E. A. *The ecology of invasive species*, Conservation Biology (BIOSC 1610), Pymatuning Laboratory of Ecology, May 15, 2015.

Griffin, E. A. *Soil fertility mediates seedling responses to foliar bacteria in a tropical forest: evidence for a new axis of niche differentiation*. Department of Biological Sciences. University of Pittsburgh, Pittsburgh, PA, April 9, 2015.

Griffin, E. A. *Why are tropical forests so diverse? Evidence for foliar bacteria as critical determinants of tree species coexistence*. Three-Minute Thesis Competition, University of Pittsburgh, February 25, 2015. ***First Place Winner (Natural Sciences)**.

Griffin, E. A. *Microbes: "The great unseen" and the last frontier of biodiversity*, Ecology (BIOSC 0370), University of Pittsburgh, September 25, 2014.

Griffin, E. A. *More friend or foe: how do foliar bacteria impact seedling performance in a tropical forest?* Microbiology (BIOSC 1860), University of Pittsburgh, September 5, 2014.

Griffin, E. A., Pruitt, J. N., Wright, S. J., & W. P. Carson. *More foe than friend: Foliar bacteria change rank order performance across fertility treatments and tree species in a tropical forest*. Annual Conference, Ecological Society of America Sacramento, CA, August 10-15, 2014.

Griffin, E. A. *Tropical ecology: an introduction to tropical rainforests*, Ecology of the Napo Valley, Ecuador, March 11, 2014.

Griffin, E. A. *The importance of microbes: a new frontier of ecology*, Ecology (BIOSC 0370), University of Pittsburgh, November 7, 2013.

Griffin, E. A., Wright, S. J., Traw, M. B., & W. P. Carson. *Do foliar bacteria and resource supply impact seedling performance: results from a long-term fertility experiment in a tropical forest in Panama*. Association for Tropical Biology and Conservation & Organization for Tropical Studies Meeting. San Jose, Costa Rica. June 23-27, 2013.

Griffin, E. A. *Unseen but not unimportant: bacteria and fungi in natural communities*. Environmental Science, Pittsburgh Science and Technology Academy, October 4, 2012.

Griffin, E. A. *The distribution and impact of foliar bacteria among tropical arboreal trees*. Smithsonian Tropical Research Institute tour guide and intern training, Smithsonian Tropical Research Institute, Barro Colorado Island, Panama, May 21, 2012.

Griffin, E. A. *The great unseen: On the distribution and impact of foliar bacteria on tropical arboreal species*. Department of Biological Sciences. University of Pittsburgh, Pittsburgh, PA, February 15, 2012.

Griffin, E. A. *Microbes: the last frontier of ecology*, Ecology (BIOSC 0370), University of Pittsburgh, November 14, 2011.

Griffin, E. A. *Dead but still kicking: the effect of plant litter on colonization between invasive- and native-dominated communities*. Pymatuning Laboratory of Ecology, Linesville, PA, June 29, 2011.

Griffin, E. A. *Impacts of foliar bacteria among tropical trees in Panama*. Smithsonian Tropical Research Institute, Barro Colorado Island, Panama. March 14, 2011.

Griffin, E. A. *Using purple loosestrife to understand species invasion*, **Keynote speaker**, Pittsburgh Science and Technology Academy, Science Forum, December 16, 2010.

Griffin, E. A. *On the biodiversity and impact of microbes in nature*, Ecology (BIOSC 0370), University of Pittsburgh, November 20, 2010.

Griffin, E. A. *Does a drought disturbance reinforce an invaded community? Using purple loosestrife and broad-leaf cattail to understand dynamics of invasion*. Pymatuning Laboratory of Ecology, Linesville, PA, June 16, 2010.

POSTER PRESENTATIONS

*Sanchez, S. Griffin, E.A. *Building exclosures to test the effects of fire, grazing, and microbes on *P. ponderosa* understories in northern New Mexico*. Poster Presentation, New Mexico Highlands University Research Day, December 2, 2021.

Griffin, E.A., Harrison, J.G., *Sandoval, M., *Martinez Crook, A., *Chavez, P. A. *The little things that run the world: using results from a global plant endophyte review to develop a long-term grassland experiment at a National Wildlife Refuge in northern New Mexico*. Poster Presentation, New Mexico Research Symposium, November 9-13, 2020.

Griffin, E. A., Kembel, S. W., Carrell, A. A., Wright, S. J. & W. P. Carson. *Soil resources and tree hosts shape foliar bacterial endophyte communities among seedlings in a mature tropical forest*. Poster Presentation, Science 2015: Unleashed! Pittsburgh, PA, October 8-10, 2015.

Griffin, E. A., Pruitt, J. N., Wright, S. J. & W. P. Carson. 2015. *Soil fertility determines seedling responses to foliar bacteria in a tropical forest: evidence for a new axis of niche differentiation*. Poster Presentation, Grad Student Expo, University of Pittsburgh, March 19, 2015.

***Winner: Best Poster Presentation**

Griffin, E. A., Pruitt, J. N., Wright, S. J. & W. P. Carson. 2014. *Foliar bacteria decrease tree seedling performance in a tropical rain forest: research in tandem with the CHANCE undergraduate program in Panama*. Poster Presentation, National Association of Biology Teachers Professional Development Conference. Cleveland, OH, November 12-15, 2014.

Griffin, E. A., Pruitt, J. N., Wright, S. J. & W. P. Carson. 2014. *Foliar bacteria and soil resource supply mediate rank order performance of seedlings of five competing tree species in a tropical forest*. Poster Presentation, Science 2014: Sustain It! Pittsburgh, PA, October 1-3, 2014.

Griffin, E. A., Pruitt, J. N., Wright, S. J., Traw, M. B. & W. P. Carson. *Soil fertilization exacerbates the negative impact of foliar bacteria among tree species in a tropical forest*. Poster Presentation, Department of Biological Sciences Annual Retreat, Pymatuning Laboratory of Ecology. Linesville, PA, September 12-14, 2014. ***Winner: Best Poster Presentation**.

Griffin, E. A., Traw, M. B., and W. P. Carson. *Do foliar bacteria maintain tropical forest diversity? Evidence for host-specific pathogens among tree species in a tropical forest in Panama*. Poster Presentation, Science 2012: Translation. Pittsburgh, PA, October 3-5, 2012.

Griffin, E. A., Wright, S. J., Traw, M. B., and W. P. Carson. *How do herbivore damage and bacterial abundance among arboreal species respond to resource supply in a tropical forest?* Poster Presentation, Science 2011: Next Gen. Pittsburgh, PA, October 6-7, 2011.

Griffin, E. A., Wright, S. J., Traw, M. B., and W. P. Carson. *Do foliar bacteria loads differ among tree species in a tropical forest? Insights into the last frontier of ecology.* Poster Presentation, Department of Biological Sciences Annual Retreat, Pymatuning Laboratory of Ecology. Linesville, PA, September 23-25, 2011.

Griffin, E. A., Wright, S. J., Traw, M. B., and W. P. Carson. *Are herbivore damage and bacterial presence related to resource supply: results from a long-term fertility experiment in a tropical forest.* Poster Presentation, Annual Conference, Ecological Society of America. Austin, TX, August 7-12, 2011.

PEER REVIEW SERVICE

- Reviewed papers for *Journal of Ecology* (3 reviews), *Ecology* (2 reviews), *Oecologia*, *Oikos*, *Environmental Microbiology*, *Journal of Ecology and the Natural Environment*, *Axios Reviews*, *Trees*, *Plant-Arthropod Interactions*, *PeerJ* (2 reviews), *FEMS Microbiology Ecology*, *Current Microbiology*, *Agronomy* (3 reviews), *Journal of Fungi*, *European Journal of Plant Pathology*; ad-hoc reviewer for National Science Foundation Career Award, 2017; ad-hoc reviewer for NSERC – Discovery Grant Program, 2020

SOFTWARE PROFICIENCY

R, SAS, JMP, arcGIS, SPSS, QIIME, mothur