

Kasey N. Kiesewetter

University of Waikato

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Professional Appointments

Adjunct Lecturer

March 2024 - present

College of Science and Engineering
Flinders University, Adelaide, Australia

Postdoctoral Research Fellow

January 2023 - present

People, Cities, and Nature Programme
University of Waikato, Hamilton, New Zealand

Education

Ph.D., Biology

August 2016-May 2023

University of Miami, Coral Gables, FL, USA
Committee: Michelle E. Afkhami (advisor), Kenneth J. Feeley, Jennifer E.
Possley, Christopher A. Searcy, Susan R. Whitehead

B.S., Biology

August 2012-May 2016

Case Western Reserve University, Cleveland, OH, USA
Magna Cum Laude
Honors Thesis Advisors: Jean H. Burns, Karen C. Abbott

Publications

[♂]co-first authors, *postgraduate mentee, **undergraduate mentee

Brachmann, S.* **K.N. Kiesewetter**, C. Liddicoat, K.J. Wallace, M.F. Breed, N. Eisenhauer, and A.D. Barnes. (In Revision) Urban forest restoration plantings enhance soil microbial multifunctional potential and functional insurance via shifts in β -diversity. *Environmental Microbiome* (Impact factor = 5.4).

Fickling, N.W.*; C. Cando-Dumancela, T. Davies, R. Hodgson, **K.N. Kiesewetter**, C. Liddicoat, J.M. Robinson, A.F. Taylor, and M.F. Breed. (In Review) Habitat fragmentation shifts soil microbial composition but not richness. *Applied Soil Ecology* (Impact factor = 5.0).

Brachmann, S.* **K.N. Kiesewetter**, C. Liddicoat, K.J. Wallace, M.F. Breed, and A.D. Barnes. (In Review) Local and interregional drivers of microbial community assembly during urban forest restoration. *Functional Ecology* (Impact factor = 5.1).

Kiesewetter, K.N., A.H. Rawstern, E. Cline, F. Santamaria, C. Coronado, F.H. Sklar, and M.E. Afkhami. (2025) Microbes in reconstructive restoration: Divergence in constructed and natural tree island soil fungi affects tree growth. *Ecological Applications* 35(1): e70007. (Impact factor = 5.1)

Hernandez, D.J.[♂], **K.N. Kiesewetter**[♂], B.K. Almeida, D.P. Revillini, M.E. Afkhami. (2023) Multidimensional specialization and generalization are pervasive in soil prokaryotes. *Nature Ecology and Evolution* 7(9):1408-1418. (Impact factor = 19.1)

Kiesewetter, K.N., L. Otano Velazco**, M.E. Afkhami. (2023) Fragmentation disrupts microbial effects on native plant community productivity. *Journal of Ecology* 111(6): 1292-1307. (Impact factor = 6.4; Selected for "Best Papers of 2023" on 12th Annual Best Papers list by Stanford faculty -- <https://web.stanford.edu/~fukamit/papers2023.htm>).

Moore, C.M, A.K. Shaw, B. Bruninga-Socular, E.M. Caves, A.T. Karnish, **K.N. Kieseewetter**, A.S. Nelson, E.G. Pringle (2023) The Movement Ecology of Mutualism (CSEE/ESA 2022, OOS17). *Bulletin of the Ecological Society of America* 104(2): 1-7.

Kieseewetter, K.N. and M.E. Afkhami (2021) Microbiome-mediated effects of habitat fragmentation on native plant performance. *New Phytologist* 232(4): 1823-1838. (Impact factor = 10.2)

Afkhami, M.E., B.K. Almeida, D.J. Hernandez, **K.N. Kieseewetter**, and D.P. Revillini. (2020) Tripartite mutualisms as models for understanding plant-microbial interactions. Special Issue on “Biotic Interactions” in *Current Opinion in Plant Biology* 56: 28-36. (Impact Factor = 7.8; equal contribution by all authors -order alphabetical)

Hernandez, D.J.^φ, **K.N. Kieseewetter**^φ, S. Palakurty, J.R. Stinchcombe, and M.E. Afkhami. (2019) Synergism and symbiosis: unpacking complex mutualistic species interactions using transcriptomic approaches. *The Model Legume Medicago truncatula*. Ed. Frans J. de Bruijn. Wiley Publishers.

Datasets

Barnes, A.D., **K.N. Kieseewetter**, S. Brachmann*, K.J. Wallace, G. Jacobsen, P. Romera, N. Fickling*, C. Liddicoat, and M.F. Breed (2024). People Cities and Nature 2023 soil microbial datasets from urban forest restoration (Project ID:NZ-00045). *Aotearoa Genomics Data Repository* (AGDR).

Government Reports/White Papers

Kieseewetter, K.N., M.E. Afkhami, A.H. Rawstern, E. Cline, F. Santamaria, C. Coronado, and F.H. Sklar. (2024) Diverging soil microbiomes from constructed and natural tree islands in the Everglades mediate tree growth under hydrological stress. In **South Florida Environmental Report**. (produced by South Florida Water Management District)

Completed and In Prep Drafts

Kieseewetter, K.N., S.* Brachmann, C. Liddicoat, K.J. Wallace, M.F. Breed, and A.D Barnes. (*In Prep*) Drivers of fungal diversity in urban restored forests. Target Journal: ***Journal of Ecology***. (*Submission expected: Jan-Feb 2025*)

Kieseewetter, K.N. and M.E. Afkhami. (*In Prep*) Fragmentation generated edge effects shape microbiome diversity, composition, and functional roles. Target Journal: ***Ecology***. (*Submission expected: April 2026*)

Fellowships, Grants, and Awards

2025	Lead Supervisor, University of Waikato Summer Student Scholarship (\$8,000) Invitation for full proposal, Royal Society of New Zealand Marsden Fast-Start, “ <i>Harnessing microbial stress legacies for restoring resilient ecosystems</i> ” (rank in top 21.4% of submitted grants)
2022	Dean’s Academic Year Dissertation Award (\$30,000) ESA Soil Ecology Travel Award (\$400)
2021	Kushlan Fund, Department of Biology, University of Miami (\$1,500)
2020	Best Poster Award, Mycological Society of America (\$200) Constantine J. Alexopoulos Travel Award, Mycological Society of America (\$750)
2019	Endowment Research Grant Award, Florida Native Plant Society (\$1,500) Forest Fungal Ecology Award, Mycological Society of America (\$1,250) Julia Morton Invasive Plant Research Program, Florida Exotic Pest Plant Council (\$2,000) Kushlan Fund, Department of Biology, University of Miami (\$800)

2018	National Science Foundation Graduate Student Research Fellowship (\$138,000) Dean's Summer Research Fellowship Award (\$5,000)
2017	Evoy Fund, Department of Biology, University of Miami (\$400)
2016	Lisa D. Anness Fellowship in Tropical Plant Biology (\$35,000) Ralph A. Spengler, Jr. Award for excellence in plant science (\$400) Biology Honors, Case Western Reserve University

Presentations

bold = invited talks

2024 - New Zealand Ecology Society, Symposium: Environmental Change in Belowground Ecosystems, Rotorua, NZ
2023 - Victoria University of Wellington, SBS Seminar Series, Wellington, NZ
2022 - Ecological Society of America, Organized Session: The Movement Ecology of Mutualism, Montreal, QC, CA
2022 - *Mycological Society of America*, Gainesville, FL, USA
2022 - *American Society of Microbiology*, Washington DC, USA
2022 - *Fairchild Tropical Botanic Garden Graduate Symposium*, Coral Gables, FL, USA
2020 - *Mycological Society of America*, Virtual (Poster)
2020 - *Florida Exotic Pest Plant Council*, Daytona Beach, FL, USA (Cancelled due to COVID-19)
2020 - *Fairchild Tropical Botanic Garden Graduate Symposium*, Coral Gables, FL, USA
2019 - *Ecological Society of America*, Louisville, KY, USA
2018 - *Pine Rockland & Tropical Botany Conference*, Miami, FL, USA (Poster)
2018 - *Southeastern Ecology and Evolution Conference*, Coral Gables, FL, USA (Poster)
2018 - *Ecological Society of America*, New Orleans, LA, USA (Poster)
2016 - *Ecological Society of America*, Fort Lauderdale, FL, USA

Teaching and Mentor Experience

Guest Lectures 2025 - Terrestrial Ecology (BIOEB303), University of Waikato
2024 - Terrestrial Ecology (BIOEB303), University of Waikato

Teaching Assistant 2018 - HHMI Evolution and Ecology Laboratory (BIL162), University of Miami
2017 - HHMI Introductory Biology Laboratory (BIL153), University of Miami
2017 - HHMI Evolution and Ecology Laboratory (BIL162), University of Miami
2016 - General Biology Laboratory (BIL151), University of Miami

Postgraduate Mentees: Nicole Fickling (Associate Supervisor, PhD, Flinders University, 2024-current), Stella Brachmann (Associate Supervisor, PhD, University of Waikato, 2023-current)

Post-Baccalaureate Mentees: Lillian Balfour (2025-current, University of Waikato)

Undergraduate Mentees: *denotes student went on to postgrad study in ecology/biology field
Gwendolyn Pohlmann* (2021-2022), Jillian Cary* (2021-2023), Jordan Busch (2022), Kyle Kirejevas* (2021-2022), Alex Cassis (2020), Cameron Herter* (2019-2022), Alyssa Wood (2019-2020), Osmaray Morales Casano* (2019), Marissa Rao (2019), Ozette Ostrow (2019), Kira Fullerton (2018), Chris Dorizas (2018), Christina Villar (2018), Leydiana Otano (2017-2020; paper in *Journal of Ecology*), Diego Aguirre-Aguilar (2017)

Professional Service and Outreach

2025-Speaker, Thriving Cities Webinar Series, People, Cities, and Nature Programme
2024-Co-chair, New Zealand Ecological Society Conference Special Symposium
2023-Organizing Committee, People, Cities, and Nature Annual Meeting, Wellington, NZ

2022-Native Plant Sale Volunteer, Tropical Audubon Society
 2022-Judge, Fairchild Challenge Panel, Challenge: Fairchild's Million Orchid Project
 2022-Judge, Fairchild Challenge Panel, Challenge: School Garden – A Sense of Calm
 2021-Invasive species removal and pine rockland restoration, Tropical Audubon Society
 2021-Judge, Fairchild Challenge Panel, Challenge: Green Cuisine Cooking Show/Cookbook
 2021-Graduate Student Representative, Graduate Activity Fee Allocation Committee
 2020-Organizer of invasive species removal and pine rockland restoration, Tropical Audubon Society
 2020-Judge, Fairchild Challenge Panel, Challenge: Connect to Protect Network Short Story/Film
 2020-Judge, Fairchild Challenge Panel, Challenge: Botanical Breakthroughs
 2020-Graduate Student Representative, Graduate Activity Fee Allocation Committee
 2020-Organizing Committee, Graduate School Advice Committee
 2020-Judge, Fairchild Challenge Panel, Challenge: Shade Our Schools-Leaves are Cool!
 2020-Graduate Student Representative, Biology Animal Behavior Search Committee
 2019-Department of Biology Seminar Speaker Nominator/Host for Dr. Susan Whitehead
 2019-Judge, Fairchild Challenge Panel, Challenge: Growing Beyond Earth
 2019-Judge, Fairchild Challenge Panel, Challenge: Fairchild's Rare Plants
 2019-BioReach Program, Talk to a Scientist Module
 2019-Graduate Student Representative, Biology Animal Behavior Search Committee
 2019-Panelist, UConnect Women in STEM
 2018-Graduate Student Representative, Biology Graduate Admissions and Advisory Committee (GAAC)
 2018-Organizing Committee, Southeastern Ecology and Evolution Conference
 2018-BioReach Program, Microscopy Module
 2018-Co-president, Biograd Peer Mentoring Program
 2017-Office of Undergraduate Research Newsletter Contribution
 2017-Co-president, Biograd Peer Mentoring Program
 2017-Gifford Arboretum Newsletter Contribution
 2017-BioReach Program, Microscopy Module

Professional Society Memberships and Workshops

Recent/Current Professional Societies and Organizations: International Society of Microbial Ecology (ISME), New Zealand Ecological Society (NZES), Ecological Society of America (ESA), Mycological Society of America (MSA), Botanical Society of America (BSA), American Society for Microbiology (ASM)

Workshops Attended: Genomics Aotearoa - RNA-seq (2024), Genomics Aotearoa - Metagenomics Summer School (2023), Genomics Aotearoa - Intermediate Shell for Bioinformatics (2023), Genomics Aotearoa - Introduction to Bash Scripting and HPC Job Scheduler (2023), University of Miami - Analyses in R (2022), UK/KY-INBRE Next Generation Sequencing workshop (2021), Organization of Tropical Studies -Tropical Biology: An Ecological Approach (2017)

Referee Activity

Microbiome	Journal of Ecology
Science of the Total Environment	Annals of Botany Plants
Environmental Microbiome	Ecology Letters
Ecology	Fungal Ecology

