

Curriculum Vitae

Kendall K. Beals, PhD

Postdoctoral Research Fellow

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[Research Gate Profile](#) | [Website](#)

Education

2022 Ph.D., Ecology & Evolutionary Biology, University of Tennessee
2013 B.S., Biology, Dickinson College

Research Experience

2022-Present Postdoctoral Research Fellow, Barber lab, San Diego State University
2016-2022 Graduate Teaching Assistant, Schweitzer lab, University of Tennessee
2015 Lab manager, Rudgers and Whitney labs, University of New Mexico
2014 Project manager and research technician, Poulsen lab, Duke University

Publications

1. **Beals, K.K.**, Lebeis, S.L., Bailey, J.K., Schweitzer, J.A. (2022). Conditionality of soil microbial mediation of *Solidago* plant phenotype: indicator taxa within complex microbiomes influence some, but not all *Solidago* traits. *Plant and Soil*. <https://doi.org/10.1007/s11104-022-05828-0>
2. **Beals, K.K.**, Searce, A.E., Swystun, A.T., Schweitzer, J.A. (2022). Belowground mechanisms for oak regeneration: interactions among fire, soil microbes and plant community alter oak seedling growth. *Forest Ecology and Management*. <https://doi.org/10.1016/j.foreco.2021.119774>
3. Kivlin, S.N., Harpe, R.V., Turner, J.H., Moore, J.A.M., Moorhead, L.C., **Beals, K.K.**, Hubert, M.M., Papes, M., Schweitzer, J.A. (2021). Arbuscular mycorrhizal fungal response to fire and urbanization in the Great Smoky Mountains National Park. *Elementa: Science of the Anthropocene*. <https://doi.org/10.1525/elementa.2021.00037>
4. Dickey, J.R., Swenie, R.A., Turner, S.C., Winfrey, C.C., Yaffar, D., Padukone, A., **Beals, K.K.**, Sheldon, K.S., Kivlin, S.N. (2021). The utility of macroecological rules for microbial biogeography. *Frontiers in Ecology and Evolution*. <https://doi.org/10.3389/fevo.2021.633155>
5. **Beals, K.K.**, Moore, J.A., Kivlin, S.N., Bayliss, S.L.J., Lumibao, C.Y., Moorhead, L.C., Patel, M., Summers, J.L., Ware, I.M., Bailey, J.K., Schweitzer, J.A. (2020). Predicting plant-soil feedback in the field: meta-analysis reveals that competition and environmental stress differentially influence PSF. *Frontiers in Ecology and Evolution*. <https://doi.org/10.3389/fevo.2020.00191>
6. Rosin, C., **Beals, K.K.**, Belovtich, M.W., Harrison, R.E., Pendred, M., Sullivan, M.K., Yao, N., Poulsen, J.R. (2020). Assessing the effects of elephant foraging on the structure and diversity of an Afrotropical forest. *Biotropica*. <https://doi.org/10.1111/btp.12758>
7. Van Nuland, M.E., Vincent, J.B., Ware, I.M., Mueller, L., Bayliss, S.L., **Beals, K.K.**, Schweitzer, J.A., Bailey, J.K. (2020). Intraspecific trait variation across elevation predicts a widespread tree species' climate niche and range limits. *Ecology and Evolution*. <https://doi.org/10.1002/ece3.5969>
8. Ware, I.M., Fitzpatrick, C.R., Senthilnathan, A., Bayliss, S.L.J., **Beals, K.K.**, Mueller, L.O., Summers, J.L., Wooliver, R.C., Van Nuland, M.E., Kinnison, M.T., Palkovacs, E.P.,

Schweitzer, J.A., Bailey, J.K. (2018). Feedbacks link ecosystem ecology and evolution across spatial and temporal scales: Empirical evidence and future directions. *Functional Ecology*. <https://doi.org/10.1111/1365-2435.13267>

9. Kivlin, S.N., Lynn, J.S., Kazenel, M.R., **Beals, K.K.**, Rudgers, J.A. (2017). Biogeography of plant-associated fungal symbionts in mountain ecosystems: A meta-analysis. *Diversity and Distributions*. <https://doi.org/10.1111/ddi.12595>

Grants and Awards

- 2022 Outstanding Dissertation by a Graduate Student, Dept. of Ecology and Evolutionary Biology, UTK (\$500)
- 2021 Outstanding Scholarly Achievement by a Graduate Student, Division of Biology, UTK (\$1,000)
- 2020 Extraordinary Professional Promise, Chancellor's Honors Award, UTK
- 2019 Hesler Herbarium Student Research Award, UTK (\$1,100)
- 2018 Ecological, Evolutionary, and Conservation Genomics Award, American Genetic Association (\$9,927)
- 2018 Graduate Student Training Fellowship, Torrey Botanical Society (\$1,000)
- 2018 Student-Faculty Research Award, UTK (\$4,800)
- 2017 Hesler Herbarium Student Research Award, UTK (\$500)

Conference and Invited Presentations

Beals, K.K., Schweitzer, J.A. 2022. Fire-induced shifts in microbial community composition influence rates of carbon degradation. Soil Ecological Society. Oral presentation.

Beals, K.K., Bailey, J.K., Schweitzer, J.A. 2021. Bouncing back from burn: examining asynchrony in soil microbial responses to wildfire over time. Ecological Society of America. Oral presentation.

Beals, K.K., Bailey, J.K., Schweitzer, J.A. 2021. Bouncing back from burn: examining asynchrony in soil microbial responses to wildfire over time. National Park Service (National Capital Area) Science Spillover. Invited oral presentation.

Beals, K.K., Bailey, J.K., Schweitzer, J.A. 2021. Bouncing back from burn: long-term monitoring of GSMNP soil microbial stability from Chimney Tops 2 wildfire. Great Smoky Mountains National Park Science Colloquium. Oral presentation.

Beals, K.K., Bailey, J.K., Schweitzer, J.A. 2020. Fire induced changes to the soil microbiome shift plant phenotype. Natural Areas Conference. Poster presentation.

Beals, K.K., Lebeis, S.L., Bailey, J.K., Schweitzer, J.A. 2020. Importance of soil microbiome for plant phenotype differs among traits and plant species. Ecological Society of America. Poster presentation.

Scarce, A., Swystun, A., **Beals, K.K.**, Franklin, J., Hughes, K., Schweitzer, J.A. 2020. Oak regeneration after Chimney Tops II fire is influenced by pine seedling neighbors and soil microbes. Great Smoky Mountains National Park Science Colloquium. Oral presentation.

Beals, K.K., Moore, J.A.M., Moorhead, L., Hubert, M., Kivlin, S.N., Schweitzer, J.A. 2020. Burning questions: How wildfire alters ecosystem dynamics in a Southeastern forest through disruptions of plant-soil interactions. National Ecological Observatory Network. Invited oral presentation.

Beals, K.K., Bailey, J.K., Schweitzer, J.A. 2019. Burning questions: Importance of plant-soil microbiome interactions and how the Chimney Tops fire affects this ecological internet. Science at Sugarlands, Great Smoky Mountains National Park. Oral presentation.

Beals, K.K., Bailey, J.K., Schweitzer, J.A. 2019. Burning questions: the role of wildfire severity on plant function through disruptions of plant-soil interactions. Ecological

Society of America. Oral presentation.

Beals, K.K., Bailey, J.K., Schweitzer, J.A. 2019. Hidden players of plant function: variation in soil microbiome conditioning source influences phenotypic variation in a common perennial. Soil Ecology Society. Oral presentation.

Beals, K.K., Bailey, J.K., Schweitzer, J.A. 2019. Understanding Chimney Tops 2 wildfire from the ground up: functional response of plant-soil interactions to fire. Great Smoky Mountains National Park Science Colloquium. Oral presentation.

Beals, K.K., Bailey, J.K., Schweitzer, J.A. 2018. Hidden players of plant function: the role of the soil microbiome on plant phenotype. Ecological Society of America. Oral presentation.

Teaching Experience

Plant Ecology (EEB 433), University of Tennessee, 4 semesters

Field Ecology (EEB 415), University of Tennessee, 1 semester

Skills of Biological Investigation Laboratory (BIOL 159), University of Tennessee, 6 semesters

Cell, Genetic, and Physiology Laboratory (BIOL 101), University of Tennessee, 1 semester

Natural History of Vertebrates (BIOL 332), Dickinson College, 1 semester

Mentorship (undergraduate students)

Alexandra Searce, 2019-2022

Currently a graduate student at University of Maine

Co-author of paper published in *Forest Ecology and Management*

Great Smoky Mountains National Park Science Colloquium, oral presentation, 2020

Exhibition of Undergraduate Research and Achievement Conference, poster presentation, University of Tennessee, 2020

Alex Swystun, 2018-2021

Currently a graduate student at University of North Carolina, Wilmington

Co-author of paper published in *Forest Ecology and Management*

Great Smoky Mountains National Park Science Colloquium, oral presentation, 2020

Terrell Carter, 2017

Currently a post-baccalaureate intern at University of South Carolina

Exhibition of Undergraduate Research and Achievement Conference, poster presentation, University of Tennessee, 2017

Professional Service

Journal Peer Reviewer

Plant and Soil

Soil Biology and Biochemistry

Frontiers in Forest and Global Change

Ecological Monographs

Co-organizer: Women in Soil Ecology (WiSE) network

Network aimed at connecting women scientists to build a strong professional community of mentorship and support

200+ members (including graduate students, and all career stages of academic faculty, federal scientists and non-governmental scientists)

2,600+ Twitter followers

<https://womeninsoilecology.github.io/>