

Dr. Kylea Garces

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EDUCATION

2018-2023	PhD Biology, University of Louisville, Louisville, KY Dissertation: <i>Understanding Impacts of Global Change: From Students to Microbes</i>
2018	B.S. Environmental Sciences, University of Oregon, Eugene, OR Thesis: <i>Response of Tall Fescue and its Endophytic Community to an Extreme Drought Scenario</i>

PROFESSIONAL APPOINTMENTS

2023	Future Faculty Postdoctoral Research Fellow, Northeastern University
2018-2023	NSF Graduate Research Fellow, University of Louisville

GRANTS & AWARDS

2023	NSF Postdoctoral Research Fellowship in Biology, Broadening Participation of Groups Underrepresented in Biology. “Priority Effects Within and Between Guilds of Fungal Symbionts”	\$240,000
2023	Future Faculty Postdoctoral Fellowship, Northeastern University	\$65,000
2023	John Richard Binford Memorial Award, University of Louisville	\$250
2023	Graduate Dean’s Citation Award, University of Louisville	N/A
2023	Graduate School Inclusive Excellence Finalist, University of Louisville	N/A
2023	N.V. LeBre Award, University of Louisville Biology	\$2,000
2023	Carl Storm Underrepresented Minority (CSURM) Fellowship, Gordon Research Conference	\$950
2022	NSF 2217765. “When the host is the ecosystem: linking presence of a keystone fungal symbiont to mycobiome structure and function in a changing world” †	\$864,975
2022	Best Graduate Student Education Research Poster, NABT Conference	\$100
2022	Faculty Women of Color Travel Award, University of Louisville	\$1,000
2021	ComSciCon-SciWri, Council for Advancement of Science Writing	\$500
2021	Beechmont Garden Club Award, University of Louisville	\$1,000
2020	Graduate Research Fellowship, National Science Foundation	\$138,000
2020	Graduate Research Award, Kentucky Academy of Sciences	\$2,300
2020	Furnish Teaching Award for GTA’s, University of Louisville Biology	\$500
2019	Faculty Favorite Nomination, University of Louisville	N/A
2019	Climate Change Engagement, University of California Santa Cruz	\$600
2019	Inclusive Ecology Travel Award, Ecological Society of America	\$280
2019	Graduate Student Travel Award, Kellogg Biological Station	\$600
2019	Active-learning Lab Development Grant, University of Louisville	\$1,000
2019	Dept. Arts & Sciences Research Grant, University of Louisville	\$1,000

2019	Graduate Student Research Grant, Graduate Student Council	\$500
2018	Student Research Grant, Graduate Network in Arts & Sciences	\$250
2018	Undergraduate Research Award, University of Oregon	\$1,000

†Denotes Co-authorship

PUBLICATIONS

- Garces K.**, Sexton A., Hazelwood A.*, Steffens N., Fuselier L., Christian N., (2023). *It takes two: Online and in-person discussions offer complementary learning opportunities for students*. CBE-Life Sciences Education Journal. In Revision.
- Sexton A., **Garces K.**, Huber M.*, Emery S. (2023). *Urban grassland restorations have reduced plant fitness but not pollinator limitation*. Acta Oecologia Vol118:103898, <https://doi.org/10.1016/j.actao.2023.103898>
- Garces K.**, Bell-Dereske L., Rudgers J., Emery S., (2023) *Nitrogen addition and fungal endophyte mutualism influence succession in early successional dunes*. Oecologia. <https://doi.org/10.1007/s00442-023-05362-5>
- Garces K.**, Sage H.*, Christian N., Emery S., (2022). *Epichloë Increases Root Fungal Endophyte Richness and Alters Root Fungal Endophyte Composition in a Changing World*. Journal of Fungi, Invited submission for special edition on fungal endophytes of grasses. <https://doi.org/10.3390/jof8111142>
- Casper, A., Gonzalez W., **Garces K.**, Rubert K., (2021). *Extending the Vision: Highlighting the human dimensions of ESA, Journey and Future of the Inclusive Ecology Section*. Bulletin Ecology Society of America 102(3):e01880. <https://doi.org/10.1002/bes2.1880>

*Denotes undergraduate co-author

TEACHING EXPERIENCE

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| 2022 | Adjunct Professor, <i>Environmental Biology</i> , Spalding University, Louisville, KY |
| 2021 | Guest Lecturer, <i>DNA Replication & Principles of PCR</i> , Introduction to Biology, University of Louisville |
| 2021 | Guest Lecturer, <i>Theoretical Models of Competition</i> , Community Ecology, University of Louisville |
| 2020 | Guest Lecturer, <i>Eukaryotic Microbes</i> , Microbiology, University of Louisville |
| 2019 | Guest Lecturer, <i>Kingdom Fungi</i> , Introduction to Biology, University of Louisville |
| 2019-2020 | Lead Graduate Teaching Assistant, Undergraduate non-major Biology labs, University of Louisville |
| 2018-2019 | Graduate Teaching Assistant, Biology Labs, University of Louisville |
| 2017-2018 | Science Literacy Scholar, Science Literacy Program, University of Oregon |
| 2017-2018 | Teaching Assistant, Mycology, University of Oregon |
| 2017-2018 | Teaching Assistant, Introduction to Ecology, University of Oregon |

MENTORING EXPERIENCE

University of Louisville

Since beginning my graduate career at UofL in 2018, I have advised 13 undergraduate students and 1 Master’s student on various research aspects, both lab and field work. Eight of those students conducted independent research projects. Three students obtained independent research grants, six presented their findings at university-wide research symposiums, three are co-authors on peer-reviewed manuscripts, and one successfully defended a senior honors thesis.

Alexandra Matthews (2022): Mentored Undergraduate Research Grant “Root Endophyte Biomass on a Resource Availability Gradient”	\$1,500
Haley Sage (2020-2022): Summer Research Opportunity Program Fellow “Root Endophyte Community Response to Nitrogen Availability”	\$4,000
Griffin McHugh (2018-2020): Undergraduate Research Scholar Grant “Competitive Hierarchy in Root Endophytes”	\$1,500

Undergraduate Senior Honors Thesis: Sage H., **Garces K.**, Christian N., (2022). *Nitrogen Availability in Dune Systems and Its Effect on Root Fungal Endophyte Communities*. University of Louisville, Louisville KY.

DIVERSITY, EQUITY & INCLUSION SERVICE

2022	Invited Panel Speaker, Faculty Women of Color, The Office of Diversity, Equity and Inclusion, University of Louisville, Louisville, KY
2022	Attendee Faculty Women of Color Conference, Virginia Tech, Arlington VA
2019-Present	Student Member, Inclusive Ecology Section, Ecological Society of America

OUTREACH SERVICE

2022	Midwest Ecology & Evolution Conference Organizing Chair, Louisville, KY
2022	Invited Speaker, Graduate Teaching Orientation, University of Louisville
2021	Invited Guest Speaker, She Became, Louisville, KY
2021	Graduate Representative on Faculty Search Committee, University of Louisville
2021	Invited Career Panel, Kentucky Academy of Sciences
2020	Invited Career Panel, Environmental Leadership Program, University of Oregon
2020-2022	Peer-mentor, Biology Department, University of Louisville, Louisville, KY
2019-2020	Climate Engagement Fellow, University of California Santa Cruz
2019-Present	Student Member, Microbial Ecology Section, Ecological Society of America
2018-Present	Student Member, Mid-Atlantic Mycological Society
2018	Volunteer Mycologist, Mega Cavern, Louisville, KY
2017-2018	Organizer, Science Policy Initiative, University of Oregon, Eugene, OR
2016-2018	Volunteer, Cascade Mycological Society, Eugene, OR
2016-2018	Volunteer Crew Leader, Friends of Trees, Eugene, OR

SCIENCE COMMUNICATION

Garces K. (2021). *Journalists and researchers share challenge of spotlighting connections between health and racism*. News Article. Council for the Advancement of Science Writing.

SELECTED PRESENTATIONS

- Garces K.**, Sexton A., Steffens N., Hazelwood A.*, Christian N., (June 2023). *It takes two: Online and in-person discussions offer complementary learning opportunities for students. Invited Oral Presentation.* A New Vision for Change: Re-imagining Biology Education Through Social Justice, Gordon Research Seminar. Bates College, Lewiston, Maine.
- Garces K.**, Sexton A., Steffens N., Hazelwood A.*, Christian N., (June 2023). *Addressing student engagement and comprehension within online versus in-person discussions.* Poster Presentation. A New Vision for Change: Re-imagining Biology Education Through Social Justice, Gordon Research Conference. Bates College, Lewiston, Maine.
- Bryant G*, **Garces K.**, Christian N., Emery S., (April 2023). *Fungal Root Endophyte Growth Rates Along Nutrient Stress Gradient.* Poster Presentation. Midwest Ecology and Evolution Conference. Louisville, KY.
- Garces K.**, Sage H.*, Christian N., Emery S., (2023). *A key aboveground fungal symbiont increases root endophyte richness in a changing world.* Oral Presentation. Global Soil Biodiversity Conference. Dublin, Ireland.
- Garces K.**, Sexton A., Steffens N., Hazelwood A.*, Christian N., (2022). *Addressing student engagement and comprehension within online versus in-person discussions.* Poster Presentation. National Association of Biology Teachers Conference. Indianapolis, IN.
*Awarded 2nd place for graduate education research.
- Garces K.**, Sage H.*, Christian N., Emery S., (2022). *A key aboveground fungal symbiont increases root endophyte richness in a changing world.* Oral Presentation. Ecological Society of America & Canadian Society for Ecology and Evolution. Montreal, QB, Canada.
- Matthews A.*, **Garces K.**, Christian N. (2022). *Impact of Nitrogen Availability on Fungal Biomass.* Poster Presentation. Undergraduate Research Symposium. University of Louisville, Louisville, KY.
- Hazelwood A.*, **Garces K.**, Steffens N., Sexton A., Christian N. (2022) *Addressing Learning Comprehension of Online Versus Face-to-face Discussions.* Poster Presentation. Undergraduate Research Symposium. University of Louisville, Louisville, KY.
*Awarded 2nd place among biology undergraduate students at University of Louisville
- Garces K.**, Visser N. (2022). *The Fungi.* Kentucky Botanical Society. University of Louisville.
Invited Oral Presentation. Louisville, KY.
- Garces K.**, Emery S., Christian N. (2021). *Fungal Life-History Traits Vary Along a Resource Availability Gradient.* Oral Presentation. Kentucky Academy of Sciences. Virtual meeting.
- Garces K.**, Emery S. (2021). *Endophyte Symbiosis and Resource Addition Slow Primary Succession in Great Lakes Sand Dunes.* Oral presentation. Ecological Society of America. Virtual meeting.
- Sage H.*, Payne H.*, Huber M.*, Christian N., **Garces K.** (2021). *Root Endophyte Community Response to Increased Resource Availability.* Poster presentation. Summer Research Opportunity Program. University of Louisville, Louisville, KY.
- Commisong A.*, Huber M.*, Christian N., **Garces K.** (2021). *Does Resource Availability influence Traits of Root Endophytes in Native Dune Grasses?.* Poster Presentation. Undergraduate Research Symposium. University of Louisville, Louisville, KY.

- Payne H.*, Sage H.*, Huber M.*, Christian N., **Garces K.** (2021). *Root Endophyte Community Response to Increased Resource Availability*. Poster presentation. Undergraduate Research Symposium. University of Louisville, Louisville, KY.
- Garces K.**, Casper A. (2020). *Addressing the Challenges of Ecology's Human Dimensions: The Human Dimensions Collaborative*. Invited Oral Presentation. Ecological Society of America. **Invited oral presentation**. Salt Lake City, UT.
- Garces K.**, Sexton A. (2020). *Urbanization Influences Floral Reproductive Output but Not Floral Phenology*. Oral presentation. Graduate Student Regional Research Conference. University of Louisville, Louisville, KY.
- Garces K.**, Emery S. (2019). *Root endophytes increase in association with aboveground endophytes and nitrogen deposition*. Poster presentation. Ecological Society of America. Louisville, KY.
- Garces K.** (2018). *The Phenological Responses of Native Grasses and Forbs to Climate Change*. Poster presentation. Cascadia Prairie Oak Partnership Conference. Eugene, OR.
- Garces K.**, Griffiths W., Hughes B., Isreal-Mergerssa B., Potts K. (2018). *Invasives Monitoring at Newberry National Volcanic Monument*. Poster presentation. Environmental Leadership Program Presentation. University of Oregon, Eugene, OR
- Garces K.**, Good E., Hartmann A., & Hoffman S. (2017). *The Phenological Responses of Native Grasses and Forbs to Climate Change*. Oral presentation. Undergraduate Research Symposium. University of Oregon, Eugene, OR.

*Denotes Undergraduate Researcher

TECHNICAL REPORTS

- Garces K.**, Greenwald N., Griffiths W., Hughes B., Isreal-Mergerssa B., Kahn E., Potts K., Ralston E., Satterthwaite H., Walker T., & Wolfe A. (2018). *Invasive Species Surveys at Newberry Crater National Monument*. Technical report, United States Forest Service. University of Oregon, Eugene, OR.
- Garces K.**, Greenwald N., Griffiths W., Hughes B., Isreal-Mergerssa B., Kahn E., Potts K., Ralston E., Satterthwaite H., Walker T., & Wolfe A. (2018). *Survival and Growth of Whitebark Pine in the Deschutes National Forest*. Technical report, United States Forest Service. University of Oregon, Eugene, OR.

WORKSHOPS

- 2021 ComSciCon-SciWri, University of Colorado Boulder
- 2021 Mentoring Academy, University of Louisville
- 2019 Climate Engagement Program, University of California Santa Cruz
- 2019 Human Dimensions Collaborative, Ecological Society of America
- 2019 Enhancing Linkages between Math and Ecology, Kellogg Biological Station
- 2018 Innovative Strategies to Advance Teaching & Learning, University of Oregon