

Katharine L. Stuble

Scientist
 The Holden Arboretum
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Education

2013	Ph.D., Ecology and Evolutionary Biology, University of Tennessee
2008	M.S., Ecology, University of Georgia
2004	B.A., Biology, St. Mary's College of Maryland

Professional Appointments

2016-present	Scientist, The Holden Arboretum
2016-present	Adjunct Faculty, Kent State University
2017-present	Adjunct Faculty, Case Western Reserve University
2014-2016	Postdoctoral Fellow, Plant Sciences, University of California, Davis
2013-2014	Postdoctoral Fellow, Oklahoma Biological Survey, University of Oklahoma

Publications

Stuble KL, S Ma, J Liang, Y Luo, AT Classen, L Souza (2019) Long-term impacts of warming drive decomposition and accelerate the turnover of labile soil carbon. *Ecosphere* 10(5): e02715.

Poe N, **KL Stuble**, L Souza (2019) Small mammal herbivores mediate the effects of soil nitrogen and invertebrate herbivores on grassland diversity. *Ecology and Evolution* 9: 3577-3587.

Young TP, **KL Stuble**, JA Balachowski, CM Werner (2017) Using priority effects to manipulate competitive hierarchies in restoration. *Restoration Ecology* 25: 114-123.

Stuble KL, SE Fick, TP Young (2017) Every restoration is unique: testing year effects and site effects as drivers of initial restoration trajectories. *Journal of Applied Ecology* 54: 1051-1057.

Brudvig LA, RS Barak, JT Bauer, TT Caughlin, DC Laughlin, L Larios, JW Matthews, **KL Stuble**, NE Turley, CR Zirbel (2017) Interpreting variation to advance predictive restoration science. *Journal of Applied Ecology* 54: 1018-1027.

Stuble KL, E Zefferman, K Wolf, KJ Vaughn, TP Young (2017) Outside the envelope: rare events disrupt the relationship between climate factors and species interactions. *Ecology* 98: 1623-1630.

Souza L, **KL Stuble**, MA Genung, AT Classen (2017) Plant genotype identity and intra-specific diversity trump soil nutrient availability to shape old-field structure and function. *Functional Ecology* 31(4): 965-974.

Stuble KL, I Jurić, X Cerdá, NJ Sanders (2017) Dominance hierarchies are a dominant paradigm in ant ecology, but should they be? And what is a dominance hierarchy, anyway? *Myrmecological News* 24: 71-81.

Werner CM, KJ Vaughn, **KL Stuble**, K Wolf, TP Young (2016) Persistent asymmetrical priority effects in a California grassland restoration experiment. *Ecological Applications* 26(6): 1624-1632.

Stuble KL, L Souza (2016) Priority effects: natives, but not exotics, pay to arrive late. *Journal of Ecology* 104(4): 987-993.

Pelini SL, SE Diamond, LM Nichols, **KL Stuble**, AM Ellison, NJ Sanders, RR Dunn, NJ Gotelli (2014) Geographic differences in effects of experimental warming on ant species diversity and community composition. *Ecosphere* 5: art125.

Stuble KL, CM Patterson, MA Rodriguez-Cabal, RR Ribbons, RR Dunn, NJ Sanders (2014) Ant-mediated seed dispersal in a warmed world. *PeerJ* 2: e286.

Bewick S, **KL Stuble**, J-P Lessard, RR Dunn, FR Adler, NJ Sanders (2014) Predicting future coexistence in a North American ant community. *Ecology and Evolution* 4(10): 1804-1819.

Resasco J, SL Pelini, **KL Stuble**, NJ Sanders, RR Dunn, SE Diamond, AM Ellison, NJ Gotelli, DJ Levey (2014) Using historical and experimental data to reveal warming effects on ant communities. *PLoS One* 9(2): e88029.

Stuble KL, MA Rodriguez-Cabal, GL McCormick, I Jurić, RR Dunn, NJ Sanders (2013) Tradeoffs, competition, and coexistence in eastern deciduous forest ant communities. *Oecologia* 171(4): 981-992.

Stuble KL, SL Pelini, SE Diamond, DA Fowler, RR Dunn, NJ Sanders (2013) Foraging by forest ants under experimental climatic warming: a test at two sites. *Ecology and Evolution* 3(3): 482-491.

Stuble KL, LD Chick, MA Rodriguez-Cabal, J-P Lessard, NJ Sanders (2013) Fire ants are drivers of biodiversity loss: a reply to King and Tschinkel (2013). *Ecological Entomology* 38(6): 540-542.

Rodriguez-Cabal MA, **KL Stuble**, B Guénard, RR Dunn, NJ Sanders (2012) Disruption of ant-seed dispersal mutualisms by the invasive Asian Needle Ant (*Pachycondyla chinensis*). *Biological Invasions* 14(3): 557-565.

Stuble KL, LK Kirkman, CR Carroll, NJ Sanders (2011) Relative effects of disturbance on the red imported fire ant and native ant species in a longleaf pine ecosystem. *Conservation Biology* 25(3): 618-622.

Stuble KL, LK Kirkman, CR Carroll (2010) Are red imported fire ants facilitators of native seed dispersal? *Biological Invasions* 12(6): 1661-1669.

Rodriguez-Cabal MA, **KL Stuble**, MA Nuñez, N.J. Sanders (2009) Quantitative analysis of the effects of the exotic Argentine ant on seed dispersal mutualisms. *Biology Letters* 5: 499-502.

Stuble KL, LK Kirkman, CR Carroll (2009) Patterns of abundance of fire ants and native ants in a native ecosystem. *Ecological Entomology* 34: 520-526.

Grants, Awards, and Honors

2012	NSF Doctoral Dissertation Improvement Grant, \$12,881
2011	Travel Award, European Science Foundation, \$420
2009-11	Summer Research Grant, UTK EEB, cumulative: \$3400
2010	EPA Science to Achieve Results (STAR) Fellowship, \$111,000
2009	DOE Graduate Research Environmental Fellowship, \$87,600 (declined after one year of funding)

Mentoring

Graduate Students

Alexa Wagner, Case Western Reserve University (2018 – present)

Graduate Committees

Aaron Yilmaz, Case Western Reserve University (2018 – present)

Undergraduate / High School

Rory Schiafo, SUNY New Paltz (2019) • Emma Dawson-Glass, McGill University (2019) • Sasha Brennan, Laurel School (2018 – 2020) • Juliana Metz, Hawkin School (2019) • Danijela Doncevic, Hawkin School (2019) • Mira Getrost, Hawkin School (2019) • Emily Brown, Cleveland State (2018) • Sadie Jones, Ursaline College (2018) • Adele Metres, Hawkin School (2018) • Teba Saleh, Ohio State (2017-2018) • Catherine Ruis, SUNY Binghamton (2018) • Sergio Sabat Bonilla, University of Central Oklahoma (2017-present) • Andrea Maxwell, University of Rio Grande (2017) • Jessica Langguth, Mentor High School (2017), Ohio University (2018) • Nicole Kump,

Norman High School (2014) • Martina Schartz, University of Oklahoma (2013-2014) • Kaitlin Bacon, University of Oklahoma (2013-2014) • Mark Morrison, University of Oklahoma (2013) • Courtney Patterson, University of Tennessee (2011-2012) • David Fowler, University of Tennessee (2010-2011) • Carissa Chambers, University of Tennessee (2010-2011) • Laura Ellis, University of Tennessee (2010) • Gail McCormick, University of Michigan (2009)

Outreach Publications and Activities

Stuble KL and J Miller (2019) Working Woods: improving the health of Ohio’s forests. *Forests & Gardens*. Spring Issue.

Stuble KL (2017) Every Restoration is Unique. Blogpost in The Applied Ecologist’s Blog, a blog by the Journal of Applied Ecology. July 27, 2017.

<https://jappliedecologyblog.wordpress.com/2017/07/27/toward-prediction-stuble/>

Young TP, **KL Stuble**, JA Balachowski, ME Lulow, CM Werner, K Wolf (2017) Experimental approaches to addressing the climate change challenges in prairie restoration. *Grasslands* 27(2): 10-15.

Stuble KL (2017) Studying the impact of climate change. *Forests & Gardens*. Spring Issue.

Stuble KL (2015) Myrmecochory. Access Science, McGraw-Hill. DOI:

<https://doi.org/10.1036/1097-8542.442750>.

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| 2019 | Developed and deployed science communication and outreach content <i>Welcome to the Underground</i> at The Holden Arboretum’s Goblins in the Garden event |
| 2018, 2019 | Science communication and outreach at the Cleveland Museum of Natural History’s Women in Science Day. |
| 2019 | Developed science communication and outreach content on spring ephemerals and ant-mediated seed dispersal for The Cleveland Botanical Garden’s Easter egg hunt event. |
| 2018 | Developed and deployed science communication and outreach content <i>Welcome to the Underground</i> at The Holden Arboretum’s Goblins in the Garden event and The Cleveland Botanical Garden’s Boo-tanical Bash event to educate visitors about the biodiversity in our forest’s soils. |
| 2018 | <i>Assembling communities in a changing world: how changing climates and invading species are reshaping our ecosystems</i> – Sustainability Lecture Series at Lake Erie College, Painesville, OH |
| 2018 | Guest Instructor for the “The Arboretum Camp Experience”. Summer day camp for grades 5-7. Hands-on instruction in local invertebrates, hypothesis testing, and invertebrate collection. |

- 2017 Instructor for *Climate Change: The Science and the Connections Between Your Community and Your Classroom*, a professional development workshop for teachers run jointly between The Holden Arboretum, Lake Erie Nature and Science Center, and Cleveland Botanical Garden.
- 2017 Presentation on climate change and community assembly – Holden Arboretum’s Volunteer Lunch and Learn series
- 2017 *Tiny Ants and the Big Job of Moving Plants* – Scientist Lecture Series at the Holden Arboretum, Kirtland, OH
- 2015 *Plants and the Ants They Depend On* – public seminar at The Holden Arboretum, Kirtland, OH
- 2015 Presentation on restoration of native California grasslands at Hopland Research and Extension Center
- 2012 Kids U, University of Tennessee (presentation on the ecology of ants to elementary school kids)
- 2007 Assistant Instructor, Environmental Education Research Academy, J.W. Jones Ecological Research Center (providing grade school teachers with tools for teaching science and the scientific process in an ecological conservation context)

Select Presentations

KL Stuble (invited). *Presentation*. Community dynamics and restoration in a warmer and more invaded world. Scientist Lecture Series, Archbold Biological Station. November 2019.

KL Stuble (invited). *Presentation*. Assembling communities in a changing world: how changing climates and invading species are reshaping our ecosystems. Biology Seminar, Lake Erie College. September 2018.

KL Stuble, S Bewick, L Fox, A Latimer. *Presentation*. The promise and the perils of resurveying historical data to understand global change. Ecological Society of America Annual Meeting. August 2018, New Orleans, LA.

KL Stuble (invited). *Presentation*. Assembling communities in a changing world: how changing climates and invading species are reshaping our ecosystems. Biology Seminar, John Carroll University. October 2017.

KL Stuble (invited). *Presentation*. It’s about time: Mary Talbot’s contributions to ant community ecology. Ecological Society of America Annual Meeting. August 2017, Portland, OR.

KL Stuble *Presentation*. The promise and the perils of resurveying historical data to understand climate change impacts. Institute for the Study of Ecological and Evolutionary Climate Impacts. May 2017. San Ynez, CA.

KL Stuble (invited). *Presentation*. Climate change, species interactions, and implications for the restoration of native communities. Biology Seminar, Cleveland State University. April 2017.

KL Stuble (invited). *Presentation*. Species dynamics and the effects of climate change. Chicago Botanic Garden. November 2015.

Young, TP, **KL Stuble***, EP Zefferman, S Fick, KJ Vaughn (invited). *Presentation*. Every restoration is unique: testing priority effects, year effects, and site effects as determinants of initial restoration trajectories. Ecological Society of America Annual Meeting. August 2015, Baltimore, MD. *presenting author.

Stuble, KL (invited) *Presentation*. Species dynamics and the effects of climate change. Center for Population Biology Seminar, University of California, Davis. April 2015, Davis, CA.

Stuble, KL (invited) *Presentation*. The effects of global change on biotic interactions in terrestrial ecosystems. Plant Biology Seminar, University of Oklahoma. October 2013, Norman, OK.

Stuble, KL, CM Patterson, SL Pelini, MA Rodriguez-Cabal, RR Dunn, NJ Sanders. *Presentation*. Foraging behavior and seed dispersal mutualisms in a warmed world: the effects of experimental warming on ant assemblages and the processes they mediate. Ecological Society of America Annual Meeting. August 2012, Portland, OR.

Stuble, KL, DA Fowler, RR Dunn, NJ Sanders. *Poster*. Experimental warming of an entire assemblage alters foraging behavior in ants. European Science Foundation ThermAdapt Workshop, September 2011, Helsinki, Finland.

Stuble, KL, MA Rodriguez-Cabal, G McCormick, RR Dunn, NJ Sanders. *Poster*. Tradeoffs, competition, and coexistence in eastern deciduous forest ant communities. International Society for the Study of Social Insects Congress. August 2010, Copenhagen, Denmark.

Professional Service

2018-present *Scientific Advisory Committee*: SESYNC

2017-present *Subject editor*: Ecological Monographs

2017-present *Subject editor*: Ecology

2017-present *Academic editor*: PeerJ

2016 *Hiring committee*: adult education coordinator at Holden Forests and Gardens

2015 *Leadership Team*: UC Davis Women in Science Group

2015 *Panel Organizer*: UC Davis Women in Science (WiSci): Parenting in Academia

2011 *Panel Member*: Program for Excellence & Equity in Research: Successfully Navigating Graduate Life

- 2011-2012 *President:* Graduate Researchers in Ecology, Behavior, and Evolution, University of Tennessee
- 2010-2011 *Vice President:* Graduate Researchers in Ecology, Behavior, and Evolution, University of Tennessee
- 2010 *Faculty search committee:* community ecologist, University of Tennessee

Journals refereed for: Annals of the Entomological Society of America • Applied Vegetation Science • Basic and Applied Ecology • Biodiversity and Conservation • Biological Invasions • Biology Letters • Canadian Journal of Forest Resources • Ecography • Ecological Entomology • Ecological Indicators • Ecological Monographs • Ecology • Ecology Letters • Ecosphere • Environmental Entomology • Functional Ecology • Global Change Biology • Insect Science • Journal of Animal Ecology • Journal of Applied Ecology • Journal of Ecology • Journal of Vegetation Science • Myrmecological News • Nature Plants • Naturwissenschaften • Oecologia • Oikos • Plant Ecology • Restoration Ecology