

# Katharine L. Stuble

Scientist  
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## Education

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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

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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

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**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

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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

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### 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

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

**Stuble KL** (2017) Every Restoration in 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

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**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

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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