Tara L.E. Trammell

John Bartram Associate Professor of Urban Forestry
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EDUCATION

2010	Ph.D.	Biology	University of Louisville, Louisville, KY
2001	M.S.	Biology	University of Louisville, Louisville, KY
1996	B.A.	Mathematics	Berea College, Berea, KY

APPOINTMENTS

2021 – present	John Bartram Associate Professor of Urban Forestry, Plant and Soil Sciences, University of Delaware
2015 – 2021	John Bartram Assistant Professor of Urban Forestry, Plant and Soil Sciences, University of Delaware
2012 – 2014	Post-Doctoral Fellow, Department of Biology, University of Utah
2011 – 2012	Research Associate, Department of Biology, University of Louisville

ACADEMIC HONORS AND AWARDS

Soil Science Society of America, Urban and Anthropogenic Soils Division, Chair 2019
Doctoral Dissertation Completion Award, 2010
Clay Memorial Biology Scholarship Fund, 2010
US – International Association for Landscape Ecology Student Travel Award, 2009
Biology Graduate Student Research Presentation Award, 2008
Biology Graduate Student Research Publication Award, 2005
University Graduate Fellowship, University of Louisville, 2004-2006
Beechmont Garden Club Award for Outstanding Research, 2001
Phi Mu Epsilon, Math Honor Society, inducted May 1995
Vincit Qui Patitur, Junior Honor Society, inducted December 1993
Presidential Academic Fitness Award, 1992

PUBLICATIONS (2019 – present)

Total publications = 44

Trammell lab members are shown in **bold**
‡ graduate students, † undergraduate students, * postdoctoral researchers

Rosier*, C.L., Polson, S., D'Amico, V., Kan, J., and T.L.E. Trammell (2021) Urbanization pressures alter tree rhizosphere microbiomes. *Nature – Scientific Reports* 11(1): 1-12

Blanchett‡, A., **Trammell**, T.L.E., Pataki, D., Endter-Wada, J., and M.L. Avolio (2021) Plant biodiversity in residential yards is influenced by people's preferences for variety but limited by their income. *Landscape and Urban Planning* 214: 104149

Lerman, S., Narango, D., Avolio, M., Bratt, A., Engebreston, J., Groffman, P., Hall, S., Heffernan, J., Hobbie, S., Larson, K., Locke, D., Neill, C., Nelson, K., Padulles Cubino, J., and T.L.E. **Trammell** (2021) Residential yard management and landscape cover affect urban bird community diversity across the continental US. *Ecological Applications*

Trammell, T.L.E., Pouyat, R.V., and V. D'Amico (2021) Soil chemical properties in forest patches across multiple spatiotemporal scales in mid-Atlantic U.S. metropolitan areas. *Urban Ecosystems* 27:1-16

Ladin*, Z., Ferrell, B., Dums, J., Moore, R., Shriver, W.G., Levia, D.F., D'Amico, V., **Trammell**, T.L.E., Setubal, J.C., and E. Wommack (2021) Assessing the efficacy of eDNA within throughfall to measure forest biodiversity. *Nature – Scientific Reports* 11(1):1-14

Inamdar, S., Peipoch, M., Gold, A.J., Lewis, E., Hripto, J., Sherman, M., Addy, K., Merritts, D., Kan, J., Groffman, P.M., Walter, R., and T.L.E. **Trammell** (2021) Ghosts of landuse past: legacy effects of milldams for riparian nitrogen (N) processing and water quality functions. *Environmental Research Letters* 16:035016

Avolio, M.L., and T.L.E. **Trammell** (2021) The analysis of cities as ecosystems. In Douglas, I. (ed.). Routledge Handbook of Urban Ecology, 2nd Edition. Routledge Press. ***Invited book chapter***

Sonti‡, N.F., Hallett, R.A., Griffin, K.L., **Trammell**, T.L.E., and J.H. Sullivan (2021) Chlorophyll fluorescence parameters, leaf traits, and foliar chemistry of white oak and red maple trees in urban forest patches. *Tree Physiology* 41(2):269-279

Larson, K., Andrade, R., Nelson, K.C., Wheeler, M.M., Engebreston, J.M., Hall, S.J., Avolio, M.L., Groffman, P.M., Grove, M., Heffernan, J.B., Hobbie, S.E., Lerman, S.B., Locke, D.H., Neill, C., Roy Chowdhury, R., and T.L.E. **Trammell** (2020) Municipal regulation of residential landscapes across US cities: Patterns and implications for landscape sustainability. *Journal of Environmental Management* 275:111132

McDermot‡, C., Minocha, R., D'Amico, V., Long, S., and TLE. **Trammell** (2020) Red maple (L.) trees demonstrate acclimation to urban conditions in deciduous forests embedded in cities. *PLOS ONE* https://doi.org/10.1371/journal.pone.0236313

Engebretson, J., Nelson, K., Ogden, L., Larson, K., Grove, J.M., Hall, S., Locke, D., Pataki, D., Roy Chowdhury R., **Trammell**, T.L.E., and P. Groffman (2020) How the nonhuman world influences homeowner yard management in the American residential macrosystem. *Human Ecology* 48:347-356.

Trammell, T.L.E., D'Amico, V., Avolio, M.L., **Mitchell†**, J.C., and E. **Moore‡** (2020) Temperate deciduous forests embedded across developed landscapes: Younger forests harbour invasive plants and urban forests maintain native plants. *Journal of Ecology* 108(6):2366-2375. https://doi.org/10.1111/1365-2745.13400

Cubino, J.P., Cavender-Bares, J., Lerman, S., Groffman, P.M., Avolio, M.L., **Trammell**, T.L.E., Wheeler, M., Larson, K., Narango, D., Neill, C., Bratt, A., Hall, S.J. and S. Hobbie. (2020) Taxonomic, phylogenetic, and functional composition and homogenization of residential yard vegetation with contrasting management. *Landscape and Urban Planning* 202:103877

Trammell, T.L.E. (2020) Science and the importance of citizen science. In: Jenkins, M., Barton, S., (eds) Master Naturalist of Delaware. University of Delaware Press, Newark, DE, USA. ***Invited book chapter***

Johnson[1], L., **Trammell**[1], T.L.E., Bishop, T., Barth, J., Drzyzga, S., and C. Jantz (2020). Squeezed from all sides: Urbanization, invasive species, and climate change threaten riparian forest buffers. *Sustainability* 12(4), 1448, https://doi.org/10.3390/su12041448 [[1] denotes equal contribution] ***Invited article***

Cubino, J.P., Avolio, M.L., Wheeler, M., Larson, K., Hobbie, S., Cavender-Bares, J., Hall, S., Nelson, K., **Trammell**, T.L.E., Neill, C., Pataki, D., Grove, J.M., and P. Groffman. (2020) Linking yard plant diversity to homeowners' landscaping priorities across the U.S. *Landscape and Urban Planning* 196:103730

Avolio, M.L., Pataki, D.E., Jenerette, G.D., Pincetl, S., Clarke, L.W., Cavender-Bares, J., Gillespie, T.W., Hobbie, S.E., Larson K.L., McCarthy, H.R., and T.L.E. **Trammell**. (2020) Urban plant diversity in Los Angeles, California: Species and functional type turnover in cultivated landscapes. *Plants, People, Planet* 2:144-156.

Trammell, T.L.E., Pataki, D.E., Pouyat, R.V., **Rosier***, C., Avolio, M.L., Bettez, N., Cavender-Bares, J., Groffman, P.M., Grove, J., Hall, S.J., Heffernan, J., Hobbie, S.E., Larson, K.L., Morse, J.L., Neill, C. Nelson, K.C., O'Neil-Dunne, J., Polsky, C., Roy-Chowdhury, R., Steele, M., and M.M. Wheeler. (2020) Urban soil carbon and nitrogen converge at a continental scale. *Ecological Monographs* e01401

Pouyat, R.V., and T.L.E. **Trammell** (2019) Climate change and urban forest soils. In Developments in Soil Science Vol 36. Global Change and Forest Soils: Demands and Adaptions of a Finite Natural Resource. Busse, M., Dumroese, D., Morris, D., and C. Giardina (Eds.). Elsevier, NY. ***Invited book chapter***

Cubino, J.P., Cavender-Bares, J., Hobbie, S.E., Hall, S.J., **Trammell**, T.L.E., Neill, C., Avolio, M.L., Darling, L.E., and P.M. Groffman (2019) Contribution of non-native plants to the phylogenetic homogenization of U.S. yard floras. *Ecosphere* 10(3): e02638.

Trammell, T.L.E., Pataki, D.E., Still, C.J.., Ehleringer, J.R., Avolio, M.L., Bettez, N., Cavender-Bares, J., Groffman, P.M., Grove, J., Hall, S.J., Heffernan, J., Hobbie, S.E., Larson, K.L., Morse, J.L., Neill, C. Nelson, K.C., O'Neil-Dunne, J., Pearse, W.D., Roy-Chowdhury, R., Steele, M., and M.M. Wheeler. (2019) Climate and lawn management interact to control C_4 plant distribution in residential lawns across seven U.S. cities. *Ecological Applications* 29(4): e01884.

Cubino, J.P., Cavender-Bares, J., Hobbie, S.E., Pataki, D.E., Avolio, M.L., Darling, L.E., Larson, K.L., Hall, S.J., Groffman, P.M., **Trammell**, T.L.E., Steele, M.K., Grove, J.M., and C. Neill (2019) Drivers of plant richness and phylogenetic composition in urban yards at the continental scale. *Landscape Ecology* 34(1): 63-77.

PRESENTATIONS

Over 47 oral and 32 poster presentations at national and international meetings as author or coauthor, and 24 were invited oral presentations or seminars.

FUNDED RESEARCH GRANTS (Examples)

Total funding = $4,626,035; Funding as PI: $1,215,128

Multiple global change factors control forest nitrogen cycling – remote sensing and machine learning identify forest function across developed landscapes. PI: **Trammell**. NSF, EPSCoR RII Track-4. 2018 – present. Project budget: $203,346.

Collaborative Research: Macrosystems Biology-FRA: Alternative ecological futures for the American Residential Macrosystem. PI: **Trammell**. NSF. 2017 – present. Project budget: $265,782. Total project budget: $3,200,000. PI: Groffman, Cavendar-Bares, Grove, Hall, Hobbie, Larson, Lerman, Pataki, Nelson, Morse, Chowdury, Heffernan, Neill, Avolio.