Andrew S. Mehring
Assistant Professor
Department of Biology
University of Louisville, Louisville, KY

(t) +1 502 852 2093
(e) andrew.mehring@louisville.edu
andrewmehring.com

Education

2005-2012	Ph.D. Ecology	University of Georgia, Athens, GA
2000-2003	M.S. Biology/Ecology	Shippensburg University, Shippensburg, PA
1994-1998	B.S. Biology / Environmental Science	Millersville University, Millersville, PA

Professional appointments

2020-present	Assistant Professor, Department of Biology, University of Louisville
2018-2021	Marie Curie Fellow, Doñana Biological Station, Spanish National Research Council (CSIC)
2018	Project Scientist, Scripps Institution of Oceanography, UCSD (supervisor: Lisa Levin)
2013-2017	Postdoctoral Scholar, Scripps Institution of Oceanography, UCSD (supervisor: Lisa Levin)

Publications

In Review

Naslund L.C., A.S. Mehring, N.J. Tomczyk, A.D. Rosemond, S.K. McKay, E.S. Bernhardt, S.J. Wenger. (202x) Consequences of dam removal for carbon storage and emissions. In review in *Journal of Environmental Management*.

Frommeyer, J.P., M.A. McGregor, J.T. Cooper, A.S. Mehring, J.E. Alexander, M.A. Kolmann. (202x) Host specificity and overlap in two common freshwater mussel species from Kentucky. In review in *Freshwater Mollusk Biology and Conservation*.

Published

2025

Earl, N.O., J.J.M. de Klein, A.S. Mehring. (2025) Black and white fire ash alter greenhouse gas emissions and temporarily reverse carbon source-sink status in aquatic mesocosms. *Environmental Science and Technology*.

Robbins, C.J., W.J. Matthaeus, R.A. Eckert, E. Bastias, A.K. Dodd, J. Jabiol, A.S. Mehring, D.W.P. Manning, A. Pastor. (2025) Revisiting k: Time-varying stream litter breakdown rates. *Limnology and Oceanography Letters.*

2024

Fausey, K., M.A. Rippy, G. Pierce, D. Feldman, B. Winfrey, A.S. Mehring, L.A. Levin, P.A. Holden, P.A. Bowler, R. Ambrose. (2024) Ecosystem service values support conservation and sustainable land development: Perspectives from four University of California campuses. *Ecological Engineering* 208: 107379.

Naslund, L.C., A.S. Mehring, A.D. Rosemond, S.J. Wenger. (2024) Toward more accurate estimates of greenhouse gas emissions from small reservoirs. *Limnology and Oceanography* 69(6): 1350-1364.

Kurylo, J.S., J. Le, A.S. Mehring, R.F. Ambrose. (2024) Management dampens seasonal variability in soil microclimates and alters its chemical and physical properties in a semi-arid region. *Journal of Urban Ecology* 10(1): juae001.

2023

Robbins, C.J., D.W.P. Manning, H.M. Halvorson, B.C. Norman, R.A. Eckert, A. Pastor, A.K. Dodd, J. Jabiol, E. Bastias, A. Gossiaux, A.S. Mehring. (2023) Nutrient and stoichiometry dynamics of decomposing litter in stream ecosystems: A global synthesis. *Ecology* 104(7): e4060.

Feraud, M., S.P. Ahern, E.A. Parker, S. Avasarala, M.B. Rugh, W. Hung, D. Li, L.C. Van De Werfhorst, T. Kefela, A. Hemati, A.S. Mehring, Y. Cao, J.A. Jay, H. Liu, S.B. Grant, P.A. Holden. (2023) Stormwater biofilter response to high nitrogen loading under transient flow conditions: ammonium and nitrate fates, and N_2O emissions. *Water Research* 230: 119501

Publications (continued)

2023

Robbins, C.J., B.C. Norman, H.M. Halvorson, D.W.P. Manning, E. Bastias, C. Biasi, A.K. Dodd, R.A. Eckert, A. Gossiaux, J. Jabiol, A.S. Mehring, A. Pastor. (2023) Nutrient and stoichiometric time series measurements of decomposing coarse detritus in freshwaters. *Ecology* 104(8): e4114.

2022

Rippy, M.A., G. Pierce, D. Feldman, B.K. Winfrey, A.S. Mehring, P.A. Holden, R.F. Ambrose & L.A. Levin. (2022) Perceived services and disservices of natural treatment systems for urban stormwater: insight from the next generation of designers. *People and Nature* 4: 481-504.

2021

Mehring, A.S., R.M. Martin, C.S. Delavaux, E.B. James, J.J. Quispe, & D. Yaffar. (2021) Leaf-cutting ant (*Atta cephalotes*) nests may be hotspots of methane and carbon dioxide emissions in tropical forests. *Pedobiologia* 87-88: 150754.

Herzog, T.L., A.S. Mehring, B.E. Hatt, R.F. Ambrose, L.A. Levin & B.K. Winfrey. (2021) Pruning stormwater biofilter vegetation influences water quality improvement differently in *Carex appressa* and *Ficinia nodosa*. *Urban Forestry & Urban Greening* 59: 127004.

Pierce, G., K.S. Gmoser-Daskalakis, K. Jessup, S.B. Grant, A.S. Mehring, B.K.Winfrey, M.A. Rippy, D. Feldman, P. Holden, R.F. Ambrose, & L.A. Levin. (2021) University stormwater management within urban environmental regulatory regimes: Barriers to progressivity or opportunities to innovate? *Environmental Management* 67:12-25.

2019

Ge, B., A.S. Mehring & L.A. Levin. (2019) Urbanization alters belowground invertebrate community structure in semi-arid regions: a comparison of lawns, biofilters and coastal sage scrub. *Landscape and Urban Planning* 192: 103664

2018

Huang, X., M.A. Rippy, A.S. Mehring, B.K. Winfrey, S.C. Jiang, and S.B. Grant. (2018) Shifts in dissolved organic matter and microbial community composition are associated with enhanced removal of fecal pollutants in urban stormwater wetlands. *Water Research* 137:310-323

2017

Welti, N., M. Striebel, A.J. Ulseth, W.F. Cross, S. DeVilbiss, P.M. Glibert, L. Guo, A.G. Hirst, J. Hood, J.S. Kominoski, K.L. MacNeill, A.S. Mehring, J.R. Welter, H. Hillebrand (2017) Bridging food webs, ecosystem metabolism, and biogeochemistry using ecological stoichiometry theory. *Frontiers in Microbiology* 8, DOI: 10.3389/fmicb.2017.01298

Mehring A.S., P.L.M. Cook, V. Evrard, S.B. Grant & L.A. Levin (2017) Pollution-tolerant invertebrates enhance greenhouse gas flux in urban wetlands. *Ecological Applications* 27:1852-1861.

Parker, E., Rippy, M.A., A.S. Mehring, B. Winfrey, R.F. Ambrose, L.A. Levin, and S.B. Grant (2017) The predictive power of clean bed filtration theory for fecal indicator bacteria removal in stormwater biofilters. *Environmental Science & Technology* 51:5703-5712.

2016

Mehring A.S., B.E. Hatt, D. Kraikittikun*, B.D. Orelo, M.A. Rippy, S.B. Grant, J.P. Gonzalez, S.C. Jiang, R.F. Ambrose, & L.A. Levin (2016) Soil invertebrates in Australian rain gardens and their potential roles in storage and processing of nitrogen. *Ecological Engineering* 97: 138–143.

2015

Askarizadeh, A., M.A. Rippy, T.D. Fletcher, D. Feldman, J. Peng, P. Bowler, A.S. Mehring, B.K. Winfrey, J.A. Vrugt, A. AghaKouchak, S.C. Jiang, B.F. Sanders, L.A. Levin, S. Taylor and S.B. Grant (2015) From rain tanks to catchments: use of low impact development to address hydrologic symptoms of the urban stream syndrome. *Environmental Science & Technology* 49: 11264–11280.

Mehring, A.S. and L.A. Levin (2015) Potential roles of soil fauna in improving the efficiency of rain gardens used as natural stormwater treatment systems. *Journal of Applied Ecology* 52: 1445–1454.

Tant, C.J., A.D. Rosemond, A.S. Mehring, K.A. Kuehn and J.M. Davis (2015) The role of aquatic fungi in transformations of organic matter mediated by nutrients. *Freshwater Biology* 60: 1354–1363.

Publications (continued)

2015

Mehring, A.S., K.A. Kuehn, A. Thompson, C.M. Pringle, A.D. Rosemond, M.R. First, and R.R. Lowrance and G. Vellidis (2015) Leaf litter nutrient uptake in an intermittent blackwater river: Influence of tree species and associated biotic and abiotic drivers. *Functional Ecology* 29(6): 849–860.

Levin, L.A. and A.S. Mehring (2015) Optimization of bioretention systems through application of ecological theory. *WIREs Water* 2: 259-270.

2014

Mehring, A.S., K.A. Kuehn, C.M. Pringle, C.J. Tant, R.R. Lowrance and G. Vellidis (2014) Contribution of surface leaf-litter breakdown and forest composition to benthic oxygen demand and ecosystem respiration in a South Georgia blackwater river. *Freshwater Science* 33(2): 377-389.

2013

Mehring, A.S., R.R. Lowrance, A.M. Helton, C.M. Pringle, D.D. Bosch and G. Vellidis (2013) Inter-annual drought length governs dissolved organic carbon dynamics in blackwater rivers. *Journal of Geophysical Research: Biogeosciences* 118(4): 1636-1645.

Hopkinson, C.S., A. Covich, C.B. Craft, T.W. Doyle, N. Flanagan, M. Freeman, E. R. Herbert, A. Mehring, J. Mohan, C. Pringle. C. J. Richardson (2013) The effects of climate change on natural ecosystems of the Southeast. Pp. 237-270 In K.T. Ingram, K. Dow, L. Carter, and J. Anderson [eds.], Climate of the Southeast United States: Variability, Change, Impacts, and Vulnerability. Island Press, Washington, D.C. ISBN 978-1-61091-509-0.

2011

Mehring, A.S. and T.J. Maret (2011) Red maple dominance enhances fungal and shredder growth and litter processing in temporary ponds. *Limnology and Oceanography* 56(3): 1106-1114.

Mehring, A.S. (2011) Experimental Design and Statistical Analysis, Pp. 7-35. In G.W. Barrett, T.L. Barrett, S.J. Connelly, A.S. Mehring and J.O. Moree [eds.], Ecology Exercise Book: An Ecosystem Approach. Kendall Hunt Publishing Company, Dubuque, IA. ISBN: 978-0-7575-8718-4.

2010

Allgeier, J.E., A.D. Rosemond, A.S. Mehring and C.A. Layman (2010) Synergistic nutrient colimitation across a gradient of ecosystem fragmentation in subtropical mangrove-dominated wetlands. *Limnology and Oceanography* 55(6): 2660-2668.

Grants and Fellowships

FY2023 USGS 104b Grant Program, award Number: 3200004323-24-059 — $37,500
- active 9/1/2023-8/31/2024 (co-PI with Dr. Andrea Gaughan)

Wageningen Institute for Environ. & Climate Research (WIMEK) fellowship — €7,900
- Awarded March 15, 2023, project active June-August 2023

FY2022 USGS 104b Grant Program, award Number: 3200004323-23-095 — $39,812
- active 9/1/2022-8/31/2023 (co-PI with Dr. Andrea Gaughan)

FY2021 USGS 104b Grant Program, award Number: 3200004323-22-066 — $29,436
- active 9/1/2021-8/31/2022 (sole PI)

Marie Sklodowska-Curie Actions Individual Fellowship 799434-FLAMMINGGOS — €158,121
- H2020-MSCA-IF-2017. Awarded April 18, 2018, project active 2018-2021

Courses taught

University of Louisville - six courses

Ecosystem Ecology (BIOL 562/662*); Global Change Ecology (BIOL 440/644*); Biostatistics (BIOL 350); Diversity of Life (BIOL242, large enrollment); Graduate Biol Seminar (BIOL 689); Undergraduate Honors Biol Seminar (BIOL 388)

Organization for Tropical Studies, Costa Rica

Tropical Field Ecology† (Jan. 2017, graduate field research course)

Courses taught (continued)

University of Georgia, Costa Rica

Tropical Field Ecology, Tropical Ecology Laboratory (ECOL 3100†, 3510†, May-June 2013, 2017)

Undergraduate NSF PIRE Program Down Under†

USA (UCSD, UCI, UCLA) and Australia (U of Melbourne, Monash U), June-July 2013-2016

* = course developed by me † = field research course

Students mentored

University of Louisville, Louisville, KY, USA – Ph.D. students

Zack Moats (PhD student)	– August 2025 – present
Erin Brennan (PhD student, co-advised)	– January 2024 – present
Nathan Earl (PhD student)	– August 2022 – present
Jonathan Frommeyer (PhD student, co-advised)	– August 2020 – July 2025
Mark Tierney (PhD student)	– October 2020 – present

University of Louisville, Louisville, KY, USA – M.S. students

Josh Snipes (MS, non-thesis)	– January 2024 – December 2024
Vincent Cafazo (MS, non-thesis)	– August 2023 – May 2024
Blake Hudson (MS, thesis)	– January 2023 – July 2024
Brennan Molique (MS, non-thesis)	– August 2020 – Dec. 2022

University of Louisville, Louisville, KY, USA – undergraduate students

Andrew Olson	– August 2025 – present
McKenzie Goodwyn	– August 2023 – present
Taylor Cowles	– August 2023 – December 2023
Jacob Webb	– January 2023 – May 2023
John Swartz	– June – August 2022
Danielle Roney	– January 2021 – May 2022

Doñana Biological Station, Seville, Spain (in collaboration with Third Sector International)

Seven Erasmus+ interns mentored for three months each (2018-2019) – Robert Andrew, Lucy Stockton, Noa Ratia, Katey Fisher, Matthew Holroyd, Amy Ferguson, Jaime Carvalho

Scripps Institution of Oceanography, UCSD

Spring 2016, undergraduate student: Jimmy Luong

Fall 2015, undergraduate student: Barbara D. Orelo

Spring 2014, undergraduate student: Diana Kraikittikun

Monash University, Melbourne, Australia

Topic/final paper: "Influence of plant biomass harvest and soil fauna on stormwater biofilter performance", Fall 2015, undergraduate student: Daniel I. Guttman

---

Teaching Awards

University of Louisville

Student Champion (2023, University-wide), Faculty Favorite (nominee, 20/21 AY, 21/22 AY)

University of Georgia

2009 Odum School of Ecology Distinguished Graduate Student Teaching Award (nominated by J. Bruce Wallace in Aquatic Entomology)

Conference presentations

2025

Earl, N.O., M. Goodwyn, A.S. Mehring. 2025. Emergent vegetation (*Typha* spp.) synergistically enhances methane emissions in small, peri-urban wetlands dominated by floating vegetation (*Lemna*, *Wolffia* spp.). KWRI Symposium. Lexington, KY, USA, September 12, 2025.

Conference presentations (continued)

2025

Goodwyn, M., N.O. Earl, A.S. Mehring. 2025 Effects of duckweed (*Lemna* and *Wolffia* spp.) on decomposition rates in small, peri-urban wetlands. KWRI Symposium. Lexington, KY, USA, September 12, 2025.

Tierney, M., A.E. Gaughan, J. Marion, A.S. Mehring. 2025. Impact of adjacency effects and CDOM on the accurate estimation of Chl-a in small ponds. Ecological Society of America Annual Meeting. Baltimore, MD. USA, August 10-15th.Earl, N.O., L. Cai, J. Xu, and A.S. Mehring. 2025.

Earl, N.O., L. Cai, J. Xu, A.S. Mehring. 2025. Can Biofilters Serve as Records of Heavy Metal Pollution in an Urban Ecosystem? Symposium on Urbanization and Stream Ecology. San Jan, Puerto Rico, USA, May 13-16, 2025.

Mehring, A.S. 2025. Ecosystem service tradeoffs in urban waters. Symposium on Urbanization and Stream Ecology. San Jan, Puerto Rico, USA, May 13-16, 2025.

2024

Mehring, A.S., M.C. Tierney, N.O. Earl, M. Goodwyn, J. Snipes and A.E. Gaughan. 2024. The roles of aquatic plant communities in determining the carbon source-sink status of Kentucky wetlands and ponds. Kentucky Academy of Sciences, Frankfort, KY, USA, November 1-2, 2024.

Snipes, J.A. and A.S. Mehring. 2024. Impacts of duckweed (*Lemna* and *Wolffia* spp.) on carbon storage and decomposition in small ponds. KWRI Symposium. Lexington, KY, USA, September 27, 2024.

Mehring, A.S., M.C. Tierney, N.O. Earl, M. Goodwyn and A.E. Gaughan. 2024. Can urban and peri-urban constructed ponds serve as carbon sinks? KWRI Symposium, Lexington, KY, USA, September 27, 2024.

Gaughan, A.E., S. Hutchins, D. Brown, M.C. Tierney and A.S. Mehring. 2024. A remote sensing application for characterizing small wetland ponds and their surrounding landscapes in Louisville, KY. KWRI Symposium, Lexington, KY, USA, September 27, 2024.

Venkatasubramanian, K., A.E. Gaughan and A.S. Mehring. 2024. Community perceptions on urban wetland health and use in Louisville, KY. KWRI Symposium. Lexington, KY, USA, September 27, 2024.

Naslund, L.C., A.S. Mehring, A.D. Rosemond, S.K. McKay, E.S. Bernhardt and S.J. Wenger. 2024. The gas they passed: Carbon costs of dam removal from large reservoirs. Annual Meeting of the Society for Freshwater Science. Philadelphia, PA, USA, June 2-6, 2024.

Tierney, M.C., J.H. Loughrin, S.W. Antle, C. Jalink, J.J.M. de Klein and A.S. Mehring. 2024. Duckweed enhances carbon emissions but slows the aerobic decomposition of organic matter in small ponds. Annual Meeting of the Society for Freshwater Science. Philadelphia, PA, USA, June 2-6, 2024.

Earl, N.O., J.J.M. de Klein, A.S. Mehring. 2024. Fire ash temporarily reverses the carbon source-sink status of wetland mesocosms. Annual Meeting of the Society for Freshwater Science. Philadelphia, PA, USA, June 2-6, 2024.

Naslund, L.C., A.D. Rosemond, S.K. McKay, A.S. Mehring and S.J. Wenger. 2024. Short burps, tall trees: trajectories of landscape carbon balance after dam removal. Network for Engineering with Nature (N-EWN) Partner Symposium, St. Augustine, FL, USA, May 22-24, 2024.

Tierney, M.C., J.H. Loughrin, S.W. Antle, C. Jalink, J.J.M. de Klein and A.S. Mehring. 2024. Duckweed cover enhances pond carbon emissions but may slow aerobic decomposition rates by inducing hypoxia. Salt River Watershed Watch Annual Conference, Louisville, KY, February 29, 2024.

Haynes, K., A.E. Gaughan, A.S. Mehring, and M.C. Tierney. 2024. It's Not Easy Being Green: Assessing the Health of Small Wetland Ponds. Salt River Watershed Watch Annual Conference, Louisville, KY, February 29, 2024.

2023

Tierney, M.C., C. Jalink, J.H. Loughrin, S.W. Antle, A.S. Mehring. 2023. Floating vegetation as a driver of greenhouse gas emissions in small ponds. Kentucky Water Resources Annual Symposium. Lexington, KY, USA, September 15, 2023.

Conference presentations (continued)

2023

Gaughan, A.E., A.S. Mehring, M. Tierney, M. Cicha, K. Haynes and D. Brown. 2023. Characterizing Louisville wetlands from above and below to better predict wetland carbon sink-source status. Kentucky Water Resources Annual Symposium. Lexington, KY, USA, September 15, 2023.

Mehring, A.S., and J.J.M. de Klein. 2023. Synergistic enhancement of sediment methane flux *by Tubifex tubifex* (Annelida: Oligochaeta) and green algae (Chlorella sp.). 9th International Symposium on Non-CO_2 Greenhouse Gases (NCGG9). June 21-23, 2023, Amsterdam, The Netherlands.

Tierney, M.C., J.A. Swartz, J.H. Loughrin, S.W. Antle and A.S. Mehring. 2023. How does sediment organic matter content mediate the effects of chironomid larvae on benthic greenhouse gas fluxes? 9th International Symposium on Non-CO_2 Greenhouse Gases (NCGG9). June 21-23, 2023, Amsterdam, The Netherlands.

Naslund, L.C., A.S. Mehring, A.D. Rosemond and S.J. Wenger. 2023. Characterizing fine-scale spatial and temporal variability in greenhouse gas emissions from small reservoirs. Annual Meeting of the Society for Freshwater Science. Brisbane, Australia, June 3-7, 2023.

2022

Tierney, M.C., J.A. Swartz, J.H. Loughrin, S.W. Antle and A.S. Mehring. 2022. How does sediment organic matter content mediate the effects of chironomid larvae on benthic oxygen uptake and nitrous oxide flux? Ohio River Basin Consortium for Research and Education Virtual Symposium, October 6-7, 2022

Tierney, M.C., J.A. Swartz, J.H. Loughrin, S.W. Antle and A.S. Mehring†. 2022. Does sediment organic matter content mediate the effects of chironomid larvae on benthic nitrous oxide flux? Kentucky Water Resources Annual Symposium. Lexington, KY, USA, September 19, 2022. †=presenter

Tierney, M.C., J.A. Swartz, J.H. Loughrin, S.W. Antle and A.S. Mehring†. 2022. An assessment of three pathways of greenhouse gas flux in small Kentucky wetlands. Kentucky Water Resources Annual Symposium. Lexington, KY, USA, September 19, 2022.

2021

Mehring, A.S., J.J.M. de Klein, E. Huertas, I. Reche, A.J. Green. 2021. FLAMMINGGOS: The roles of waterbirds and invertebrates in modulating wetland greenhouse gas emissions. *ASLO 2021 Aquatic Sciences Virtual Meeting*. Palma de Mallorca, Spain, 22–27 June 2021 (virtually).

2012-2020

Mehring, A.S., I. Reche, J.J.M. de Klein, N.A. Ratia, L.E. Stockton, A.J. Green. **2019**. The role of predation by waterbirds in moderating wetland greenhouse gas emissions. *Ecological Society of America 104th Annual Meeting*. Louisville, KY, U.S.A.

Mehring, A.S., B.E. Hatt, M.J. Burns, J. Luong, L.A. Levin. **2017**. Factors influencing heavy metal accumulation in urban Australian biofilters. *4th Symposium on Urbanization and Stream Ecology*. Browns Summit, NC, U.S.A.

Mehring, A.S., P.L.M. Cook, V. Evrard, S.B. Grant, L.A. Levin. **2016**. Enhancement of carbon dioxide, methane, and nitrous oxide flux by oligochaetes and chironomids in urban wetlands. *Association for the Sciences of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting.* Santa Fe, NM, U.S.A.

Mehring, A.S., L.A. Levin, V. Evrard, S.B. Grant, P.L.M. Cook. **2015**. The contribution of aquatic invertebrates to benthic greenhouse gas flux in urban wetlands. *ASLO Aquatic Sciences Meeting.* Granada, Spain.

Mehring, A.S., R.R. Lowrance, A.M. Helton, G. Vellidis, C.M. Pringle, A. Thompson and D.D. Bosch. **2012**. Effects of drought on dissolved organic carbon (DOC) cycling: Implications of climate change for coastal plain blackwater rivers, USA. *ASLO* Summer Meeting. Otsu, Japan.

Conference presentations (continued)

2010-2011

Mehring, A.S., D.W. Kemp, D.D. Bosch, R.R. Lowrance, G. Vellidis and C.M. Pringle. **2011**. Another function for cypress knees? Extension of oxic periods in blackwater swamps by bryophytes growing on bald cypress (*Taxodium distichum*). *96th Annual Meeting of the Ecological Society of America*, Austin, TX, U.S.A.

Mehring, A.S., S.R. Davie, G. Vellidis, D.D. Bosch, C.M. Pringle and R.R. Lowrance. **2011**. Modeling dissolved oxygen dynamics in blackwater rivers: The importance of site-specific data and carbon flux parameter complexity. *59th Annual North American Benthological Society Meeting*, Providence, RI, U.S.A.

Mehring, A.S., R.R. Lowrance, A.M. Helton, G. Vellidis, C.M. Pringle and D.D. Bosch. **2010**. Elevated dissolved organic carbon in sub-tropical blackwater rivers may be a result of anoxia rather than an explanation for it. *58th Annual North Benthological Society Meeting*, Santa Fe, NM, U.S.A.

Invited presentations

Mehring, A.S. **2025.** "Ecosystem Ecology", "Zoogeochemistry and the effects of animals on soil and wetland greenhouse gas emissions" (two seminars). La Selva Research Station, Puerto Viejo de Sarapiquí, Costa Rica. July 8,9, 2025.

Mehring, A.S. **2025.** Carbon budget considerations of wetland and reservoir management and dam decommissioning. U.S. Army Corps of Engineers Louisville District, Louisville, KY. March 26, 2025.

Mehring, A.S., A.E. Gaughan, M.C. Tierney, M. Cicha, K. Haynes, D. Brown. **2023.** The carbon balance of ponds and wetlands. Wageningen University and Research Centre - AEW Seminar Series, July 6, 2023, Wageningen, Netherlands.

Mehring, A., A. Gaughan, M. Tierney+, M. Cicha*, K. Haynes*, and D. Brown. **2023.** The carbon balance of ponds and wetlands. Presented at the Salt River Watershed Watch Conference, February 23, 2023, Louisville, KY.

Mehring, A.S., **2023.** Zoogeochemistry and the effects of animals on wetland greenhouse gas emissions. Murray State University - Department of Biological Sciences Seminar Series. Murray, Kentucky, USA, April 14th, 2023.

Mehring, A.S., **2022**. Zoogeochemistry and the effects of animals on wetland greenhouse gas emissions. Eastern Kentucky University - Department of Biological Sciences Seminar Series. Richmond, Kentucky, USA, March 25th, 2022.

Mehring, A.S., J.J.M. de Klein, I. Reche, P. Hortas, E. Huertas, J.A. Carbonell, H.C. Liedtke, A.J. Green. **2021**. FLAMMINGGOS: The roles of waterbirds, invertebrates, and carbon and nutrient subsidies in modulating wetland greenhouse gas emissions. LIFE Wetlands4Climate Networking Event (online - hosted by Fundación Global Nature and Universitat de València, December 20, 2021).

Mehring, A.S. **2021**. FLAMMINGGOS: The roles of waterbirds and invertebrates in modulating wetland greenhouse gas emissions. *Winthrop University – Biology Departmental Seminar Series*, Rock Hill, SC, U.S.A. February 3, 2021.

Mehring, A.S. **2020**. FLAMMINGGOS: The roles of waterbirds, invertebrates, plants, and microbes in modulating wetland greenhouse gas emissions. *Missouri Western State University – Aquatic Ecology guest lecture*, St. Joseph, MO, U.S.A. September 23, 2020.

Invited presentations (continued)

Mehring, A.S., J.J.M. de Klein, I. Reche, N.A. Ratia, L.E. Stockton, A.J. Green. **2019**. FLAMMINGGOS: The roles of waterbirds and invertebrates in modulating wetland greenhouse gas emissions. *Wageningen University and Research Centre Seminar Series*, Wageningen, Netherlands. September 5, 2019.

Mehring, A.S. **2017**. Sources and loads of heavy metals, nitrogen, and phosphorus in urban environments, and the optimization of biofilters to treat them. *Reaching for Resilience: Imagining Regional Stormwater Neutrality*. San Diego Coastkeeper, San Diego, CA, U.S.A. December 11, 2017.

Mehring, A.S. **2016**. Greenhouse gas flux in constructed wetlands. *California Stormwater Quality Association (CASQA) 12th Annual Conference "Stormwater Evolution: Source to Resource"*. Panel member at the Stormwater Management Training Workshop entitled "Stormwater Management Through Natural Treatment Systems". San Diego, CA, USA. Sept. 12, 2016.

Mehring, A.S. **2015**. The ecology of natural stormwater treatment systems. *Southern California Coastal Water Research Project (SCCWRP) – Fall 2015 Seminar Series.* Costa Mesa, CA, USA. November 13, 2015.

Mehring, A.S. **2013**. Carbon, nutrient and oxygen dynamics in blackwater rivers of the western upper Suwannee River basin. *Scripps Institution of Oceanography – Ecology Seminar Series.* La Jolla, CA, USA. December 4, 2013.

Mehring, A.S. **2012**. The World Water Crisis. *ASLO, Aquatic Sciences Meeting – Opening Symposium on climate change.* Otsu, Japan. July 8, 2012.

Service and Outreach (since 2020)

Public

Louisville Metropolitan Sewer District – "Fall" in Love with Your Creek – Stream Macroinvertebrate Identification Station — Sept 28, 2025

WLKY TV – Interview on the urban greening/cooling project "GreenPrint" – link — Aug 21, 2025

Kentucky Watershed Watch – Stream biomonitoring Training (macroinvertebrates) — June 8, 2024

Local Schools

duPont Manual High School - mentored Khushi Pola in her junior research project on tree methane emissions in urban parks — Oct 2021-Oct 2022

Louisville Regional Science and Engineering Fair – poster and presentation judge — March 6, 2021

University of Louisville Biology Department

Graduate Program Committee (2022-present), Personnel Committee (21-22 a.y.)

University of Louisville (university-wide)

Sustainable Operations Committee (2022-present)
University Sustainability Council Education and Research Committee (2023-present)

Scientific Community

Workshop Organizer, 2025 Symposium on Urbanization and Stream Ecology. "Ecosystem Service Tradeoffs in Urban Waters" (link) — May 13-16, 2025

Special Session Organizer and Chair, *ASLO 2021 Aquatic Sciences Virtual Meeting*. "SS79 New perspectives on the functional roles of fauna in wetlands, lakes, and other aquatic ecosystems" 22–27 June 2021 — June 2021

Reviews for *Agronomy; Aquatic Ecology*; *Diversity*; *Ecological Engineering*; *Ecological Restoration*; *Entomologia Experimentalis et Applicata*; *Estuarine, Coastal and Shelf Science*; *Freshwater Biology*; *Freshwater Science*; *Journal of Environmental Quality*; *Journal of Sustainable Water in the Built Environment*; *Limnology & Oceanography*; *Pedosphere*; *PloS ONE*; *Scientific Reports*; *Science of the Total Environment*; *Soil & Tillage Research*; *Water, Air, & Soil Pollution*; *Water Research*