# Louise M. Stevenson, Ph.D.

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## A. Professional Preparation

Amherst College, Amherst, MA
University of California, Santa Barbara

# **B.** Appointments

2020-present	Associate R&D Staff Member (Researcher), Biodiversity and Ecosystem
	Health Group, Environmental Sciences Division, Oak Ridge National Lab,
	Oak Ridge, TN
2018-2020	Assistant Professor of Environmental Toxicology, Department of Biological
	Sciences, Bowling Green State University, Bowling Green, OH
2016-2018	Postdoctoral researcher, Ecology, Evolution & Marine Biology, University of
	California, Santa Barbara

#### C. Selected Publications

- 1. He, X., **Stevenson, L. M.,** Kumara, C., Mathews, T. J., Luo, H., & Qu, J. (2024). Comparison of Eco-Friendly Ionic Liquids and Commercial Bio-Derived Lubricant Additives in Terms of Tribological Performance and Aquatic Toxicity. *Molecules*, 29(16), 3851.
- 2. Chele, F. S., **Stevenson, L.,** Salvador, C. M., Dolislager, F., & Mathews, T. (2024). Toward a life cycle approach for classifying the toxicity of refrigerants. *Integrated Environmental Assessment and Management*, 20(4), 908-911.
- 3. He, X., Luo, H., Mathews, T. J., **Stevenson, L.,** Geeza, T. J., Kumara, C., ... & Qu, J. (2024). Minimizing Toxicity and Optimizing Lubricity of Ionic Liquids for Eco-Friendly Lubrication. *ACS Sustainable Chemistry & Engineering*, 12(11), 4344-4355.
- 4. **LM Stevenson**, EB Muller, D Nacci, BW Clark, A Whitehead, and RM Nisbet. (2023) Connecting suborganismal data to bioenergetic processes: killifish embryos exposed to a dioxin-like compound. *Environmental Toxicology and Chemistry, Special Issue on Ecological Theory*.
- 5. Flanigan, K. A., Czuba, M. I., Riesgo, V. R., Rúa, M. A., **Stevenson, L. M.**, & Willing, J. (2023). Developmental exposure to corn grown on Lake Erie dredged material: a preliminary analysis. *Frontiers in Behavioral Neuroscience*, *17*, 987239.
- 6. Rúa, M. A., Julian, A. N., & **Stevenson, L**. (2023). Dredged sediments contain potentially beneficial microorganisms for agriculture and little harmful cyanobacteria. *Journal of Sustainable Agriculture and Environment*, 2(1), 45-57.

- 7. **Stevenson, L.**, Krattenmaker, K., McCauley, E., & Nisbet, R. (2022). Extrapolating contaminant effects from individuals to populations: a case study on nanoparticle toxicity to Daphnia. *Archives of Environmental Contamination and Toxicology, Special Issue:* 83 (4), 361-375.
- 8. Coy, CO, ..., **Stevenson, LM**, & Moore, PA. (2022). Differing behavioral changes in crayfish and bluegill under short-and long-chain PFAS exposures: Field study in Northern Michigan, USA. *Ecotoxicology and Environmental Safety*, 247, 114212.
- 9. Matson, PG, **Stevenson**, **LM**, Efroymson, RA, Jett, RT, Jones, MW, Peterson, MJ, & Mathews, TJ. (2022). Variation in natural attenuation rates of polychlorinated biphenyls (PCBs) in fish from streams and reservoirs in East Tennessee observed over a 35-year period. *Journal of Hazardous Materials*, 438, 129427.
- 10. Pouil, S., **Stevenson, L. M.**, Goñez-Rodríguez, L., & Mathews, T. J. (2022). Stannous chloride as a tool for mercury stripping in contaminated streams: Experimental assessment of toxicity in an invertebrate model species. *Chemosphere*, 296, 133762.
- 11. PG Matson, **Stevenson LM**...TJ Mathews (2021). Multidecadal Biological Monitoring and Abatement Program assessing human impacts on aquatic ecosystems within the Oak Ridge Reservation in eastern Tennessee, USA, *Hydrological Processes*. Accepted.
- 12. Pouil, S., Hills, A., **Stevenson**, L., & Mathews, T. J. (2021). Allometric relationships in the filtration rates of the Asian clam Corbicula fluminea fed two phytoplankton species. *Aquatic Ecology*, 1-9.
- 13. A Peace... **LM Stevenson**, Hao Wang. 2021. Stoichiometric Ecotoxicology for a Multisubstance World, *BioScience*, Volume 71, Issue 2, pg 132–147, https://doi.org/10.1093/biosci/biaa160
- 14. TJ Mathews, **LM Stevenson**, CA Murphy, RM Nisbet, P Antczak, N Garcia-Reyero, PC Pickhardt. 2020. The effect of dietary exposure to coal ash and food ration on growth and reproduction in Daphnia magna. *Environmental Toxicology and Chemistry*, 39(10), 1998-2007.
- 15. CA Murphy, RM Nisbet, P Antczak, N Garcia-Reyero, A Gergs, K Like, T Mathews, EB Muller, D Nacci, A Peace, CH Remien, IR Shultz, **LM Stevenson**, and KH Watanabe. 2018. Incorporating sub-organismal processes into dynamic energy budget models for ecological risk assessment. *Integrated Environmental Assessment and Management*, DOI: 10.1002/jeam.4063
- 16. **LM Stevenson**, AS Adeleye, Y Su, Y Zhang, AA Keller, and RM Nisbet. 2017. Remediation of cadmium toxicity by sulfidized nano-iron: The importance of organic material. *ACS nano*, *11*(10), 10558-10567.
- 17. **LM Stevenson**, KE Krattenmaker, E Johnson, AJ Bowers, AS Adeleye, E McCauley, and RM Nisbet. 2017. Standardized toxicity testing may underestimate ecotoxicity: Environmentally-relevant food rations increase the toxicity of silver nanoparticles to *Daphnia. Environmental toxicology & chemistry*, DOI: 10.1002/etc.3869.
- 18. AS Adeleye, **LM Stevenson**, Y Su, RM Nisbet, Y Zhang, and AA Keller. 2016. Influence of phytoplankton on fate and effects of modified zero-valent iron nanoparticles. *Environmental science & technology*, 50: 5597–5605.
- 19. AC Brown, **LM Stevenson**, HM Leonard, K Nieves-Puigdoller, and ED Clotfelter. 2014. Phytoestrogens β-Sitosterol and Genistein Have Limited Effects on Reproductive Endpoints in a Female Fish, *Betta splendens*. *BioMed Research International*, vol. 2014, Article ID 681396.

- 20. **LM Stevenson**, H Dickson, T Klanjscek, AA Keller, E McCauley, and RM Nisbet. 2013. Environmental Feedbacks and Engineered Nanoparticles: Mitigation of Silver Nanoparticle Toxicity to *Chlamydomonas reinhardtii* by Algal Produced Organic Compounds. *PLoS ONE*, 8(9): e74456.
- 21. **LM Stevenson**, AC Brown, TM Montgomery, and ED Clotfelter. 2011. Reproductive consequences of exposure to waterborne phytoestrogens in male fighting fish *Betta splendens*. *Archives of Environmental Contamination and Toxicology*, 60:501-510.

# **D.** Synergistic Activities

- 1. Member of the Editorial Board for Integrated Environmental Assessment and Management (2021-2024)
- 2. Invited participant in two National Institute for Mathematical and Biological Synthesis (NIMBioS) working groups on Ecotoxicological Stoichiometry and Dynamic models to link molecular perturbations to individual impacts for ecological risk assessment
- 3. Served and am current serving on the multiple national committees for the Society for Environmental Toxicology and Chemistry (SETAC) including the Student Advisory Committee, Early Career Committee, multiple North America national meeting planning committees and on multiple regional chapter Boards of Directors.
- 4. Member of a doctoral student's committees at Michigan State University (MSU)
- 5. Adjunct faculty status at Bowling Green State University, Wright State University, and MSU.
- 6. Mentor for programs focused on women in STEM through Amherst College and the Girls Advancing in Science, Technology and Mathematics (GAINS) Network

#### E. Invited seminars

- 2024 MSU's Center for PFAS Research Annual Symposium, Panel on One Health: Toxicity of complex mixtures. Host: Dr. Cheryl Murphy
- 2023 Syngenta Crop Protection, LLC, Science Seminar Series. Host: Dr. Maxime Vaugeois
- 2021 Society for Environmental Toxicology and Chemistry (SETAC) National North America Meeting, invited lightning talk in session on "Fate and Effects of Metals: Mechanisms of Bioavailability and Toxicity"
- The Ohio State University in Columbus, OH. Ecology, Evolution, and Organismal Biology departmental seminar. Host: Dr. Roman Lanno.
- 2020 University of Minnesota in Saint Paul, MN. Ecology, Evolution, and Behavior departmental seminar. Host: Dr. Valery Forbes.
- 2020 Wright State University in Dayton, OH. Biological Sciences departmental seminar. Host: Dr. Megan Rua.
- Oak Ridge National Laboratory. Oak Ridge, TN. Invited to give seminar to Aquatic Sciences research group. Host: Dr. Theresa Mathews.
- 2018 SETAC Ohio Valley Regional Chapter Meeting. Columbus, OH. Invited abstract for session. Platform talk: "Extrapolating the effects of food and silver nanoparticle stress on individuals to populations of Daphnia: an empirical and theoretical approach"
- 2018 SETAC, Europe. Rome, Italy. Invited abstract for session. Platform talk: "Connecting suborganismal and organismal responses using Dynamic Energy Budget Modeling and the ecological model species Fundulus heteroclitus"

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2024	ORNL Benefits Advisory Committee Member, organized by Lab Director
2023	Chair of the Women in Science and Engineering Resource Group at ORNL
2022-2024	ORNL Laboratory Directed Research and Development Seed Money Review
	Committee, Environmental Sciences Division committee member
2021-pres.	Member of the Editorial Board for Integrated Environmental Assessment and
	Management
2023-2024	SETAC National Meeting Planning Committee
2022-2023	SETAC National Meeting Planning Committee
2021-2022	Reviewer for Small Business Innovation Research
2021	Reviewer for California Sea Grant
2018-2023	SETAC Student Advisory Committee
2018-2023	SETAC Inclusive Diversity Committee member
2018-2023	SETAC Early Career Committee member
2019-2020	SETAC National Meeting Planning Committee, Community Engagement
	Subcommittee, Abstract Review Committee
2019-2020	Research Committee, Department of Biological Sciences, BGSU
2018-2020	Social Committee, Department of Biological Sciences, BGSU
2018-2020	SETAC Ohio Valley Regional Chapter, Member of Board of Directors
2017-2020	SETAC Early Career Committee member, Senior Resource Group Liaison
2013-2015	SETAC, North America Student Advisory Council, Outreach Subcommittee chair
2013-2015	SETAC, Southern California Regional Chapter, Member of Board of Directors

# Journal peer reviewer

Applied Sciences Integrated Environmental Assessment and

Bulletin of Mathematical Biology Management

Chemosphere Journal of Environmental Management Ecology Letters Journal of Nanoparticle Research

Ecotoxicology Methods in Ecology and Evolution

Ecotoxicology and Environmental Safety PeerJ Environmental Pollution Processes

Environmental Science and Technology Science of the Total Environment

Environmental Sciences – Nano Toxic

Environmental Toxicology and Chemistry Water Environment Research