

GRACE M. WILKINSON

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PROFESSIONAL APPOINTMENTS

Associate Professor University of Wisconsin - Madison Department of Integrative Biology, Center for Limnology	2023 - present
Assistant Professor University of Wisconsin - Madison Department of Integrative Biology, Center for Limnology	2021 - 2023
Assistant Professor Iowa State University (Ames, Iowa) Department of Ecology, Evolution & Organismal Biology Department of Natural Resource Ecology & Management	2017 - 2020
Postdoctoral Researcher Department of Environmental Science University of Virginia, Charlottesville, Virginia	2015 - 2016

EDUCATION

Doctor of Philosophy Environmental Science, University of Virginia	2015
Bachelor of Arts Biology, Saint Olaf College	2010

HONORS & AWARDS

Vilas Associate (2024 - 2025)	2024
Early Career Fellow of the Ecological Society of America (2022 - 2026)	2022
Fellow, Association for the Sciences of Limnology & Oceanography	2017
Environmental Sciences Excellence Award, University of Virginia	2015

FUNDING

EXTERNAL GRANTS

National Science Foundation - DEB (\$1,010,521 total, \$611,389 to Wilkinson) Collaborative Research: Comparison of Resilience Using Whole-Ecosystem Manipulations (Lead PI: Wilkinson, co-PIs: Pace, Carpenter)	2023 - 2026
National Science Foundation - DEB (\$8,368) Research Experience for Teachers Supplement to "Collaborative Research: Comparison of Resilience Using Whole-Ecosystem	2025 - 2026

Manipulations" (PI: Wilkinson)

National Science Foundation - DEB*

2024 - 2026

"LTER: Comparative Study of a Suite of Lakes in Wisconsin"

North Temperate Lakes Long-Term Ecological Research Program

(Lead PI: Stanley)

**Wilkinson added as cover page PI in 2024, co-lead of the project. Did not contribute to proposal development*

Iowa Department of Natural Resources (\$73,942)

2021 - 2022

"Internal P Loading in Iowa Lakes: Causes, Consequences, and Management Recommendations" (PI: Wilkinson)

National Science Foundation - DEB (\$776,673)

2020 - 2024

"CAREER: Control Points on Nutrient Cycling in Hypereutrophic Lakes" (PI: Wilkinson), Abstract: <https://bit.ly/38lhCUc>

National Science Foundation - OAC (\$275,430 total, \$136,115 to

2018 - 2020

Wilkinson) "EAGER Collaborative Research: Synchronization between terrestrial & aquatic ecosystems" (Lead PI: Wilkinson, Co-PIs: Walter, Pace), Abstract: <https://bit.ly/3wQ7Lze>

Iowa Department of Natural Resources (\$459,138)

2018 - 2022

"Quantifying phosphorus dynamics in shallow lakes"

PI: Grace Wilkinson, Co-PI: Michael Weber (all funds to Wilkinson)

Iowa Department of Natural Resources (\$24,465)

2018 - 2019

"Study of Green Valley Lake Stratification and Phosphorus Cycling"

Center for Global & Regional Environmental Research (\$35,000)

2018 - 2019

"Developing early warning tools of algal blooms in lakes"

INTERNAL GRANTS

WARF STEM Initiative (\$897,000)

2023-2025

"Methane emissions from freshwaters"

Lead PIs: McMahon, Stanley, co-PIs: Dugan, Wilkinson

Research Forward - Wisconsin Alumni Foundation (\$476,632)

2023 - 2025

"A Fresh Look at Lake Biophysics: Wave-Driven Processes Across Scales and Seasons"

Lead PI: Pujara, Co-PIs: Bertram, Dugan, Franck, Wagner, Wilkinson, Zoet

Research Forward - Wisconsin Alumni Foundation (\$393,774)

2023 - 2025

"LakeView: New Understanding of Lake Water Quality through Integrated Earth Observing Systems"

Lead PI: Hanson, Co-PIs: McMahon, Townsend, Holz, Wilkinson

CONTRACTS

Iowa Department of Natural Resources (\$560,209)

2018 - 2020

"Ambient Lake Water Quality Monitoring 2018-2020"

US Army Corps of Engineers, Rock Island District (\$705,438)

2018 - 2022

"Water quality monitoring of the Des Moines & Iowa Rivers"

Lead PI: Wilkinson, Co-PIs: W. Crumpton & C. Rehmann	
Iowa Department of Natural Resources (\$26,858) "Analytical Support of Shallow Lakes Monitoring Program"	2018 - 2019
Iowa Department of Natural Resources (\$188,465) "Ambient Lake Water Quality Monitoring 2017"	2017 - 2018
Iowa Department of Natural Resources (\$28,873) "Analytical Support of Shallow Lakes Monitoring Program"	2017 - 2018
Iowa Department of Natural Resources (\$24,150) "Plankton Analysis for Ambient Water Quality Monitoring 2016"	2017 - 2018
Iowa Department of Natural Resources (\$6,731) "Analytical Support of Wetland Monitoring Program"	2017 - 2018
Iowa Department of Natural Resources (\$4,500) "Sediment Core Analysis of Lake Geode, Iowa"	2017

PUBLICATIONS

GS = Grad Student **UG** = Undergrad **PD** = Postdoc **LM** = Lab Manager

BOOK CHAPTERS, TECHNICAL REPORTS

61. Wilkinson, GM, RA Johnson (2024) Eutrophication of Freshwater and Coastal Ecosystems. In the Encyclopedia of Sustainable Technologies, 2nd Edition, Springer.
60. ^{PD} Albright, EA, ^{GS} J Briggs, H Schlimm, GM Wilkinson (2023) Internal phosphorus loading in Iowa lakes: Causes, consequences, and management recommendations. Prepared for the Lake Restoration group of the Iowa Dept of Natural Resources.
59. Wilkinson, GM, ^{GS} EA Albright (2022). Phosphorus Cycling in Lacustrine Ecosystems. In the Encyclopedia of Inland Waters, 2nd Edition
58. Wilkinson, GM (2019) Report on the Study of Green Valley Lake Stratification and Phosphorus Cycling. Submitted to the Lake Restoration Program, Iowa Department of Natural Resources.
57. Wilkinson, GM (2017) Eutrophication of Freshwater and Coastal Ecosystems. In the Encyclopedia of Sustainable Technologies, Springer.
56. Emery, KA, JA Gephart, GM Wilkinson, AF Besterman, ML Pace (2016) Modeling drivers of trophic cascades and food-web alterations in a lake ecosystems. *Learner-Centered Teaching Activities for Environmental and Sustainability Studies*.
https://link.springer.com/chapter/10.1007/978-3-319-28543-6_13

JOURNAL ARTICLES

55. Wilkinson, GM, ^{GS} M McCarthy, B Bertolet, N Lottig, ^{GS} D Szydlowski, ML Pace, S Jones (2026) Eutrophication and ice phenology influence patterns of within season methane accumulation in north temperate lakes. *Limnology and Oceanography Letters* e70136, <https://doi.org/10.1002/lol2.70136>
54. Brock, WA, SR Carpenter, ML Pace, GM Wilkinson (2026) Ecosystem Experiments:

How Does Manipulation Rate Affect Responses and Dynamic Indicators of Resilience? *Ecosystems* 29, <https://doi.org/10.1007/s10021-025-01042-y>

53. Johnson, RA, JA Walter, ^{GS} TJ Butts, S Hall, GM Wilkinson (2026) Experimental evaluation of weather-driven emissions of greenhouse gases from ponds. *Limnology and Oceanography Letters* e70121, <https://doi.org/10.1002/lol2.70121>
52. Gorsky, A, HA Dugan, EH Stanley, GM Wilkinson, MJ Vander Zanden, R Lathrop (2026) Decadal persistence of the macrophyte-dominated state in a shallow eutrophic lake following carp removal. *Ecosystems* 29, <https://doi.org/10.1007/s10021-025-01040-0>
51. ^{GS} Butts, TJ, RA Johnson, M Simonson, MJ Weber, GM Wilkinson (2026) Food web complexity alters phytoplankton resistance and resilience to nutrient pulses in experimental ecosystems. *Limnology and Oceanography* 71: e70319, <https://doi.org/10.1002/lno.70319>
50. Stukel, MR, AE Allen, KA Barbeau, P Chabert, S Dovel, S Gangrade, SA Kranz, RH Lampe, MR Landry, P Marrec, M Messié, AJ Miller, GM Wilkinson, MD Ohman. (2025) Disturbance ecology in a pelagic upwelling biome: Lagrangian frameworks for studying succession. *Bioscience*, biaf144: <https://doi.org/10.1093/biosci/biaf144>
49. ^{GS} Szydlowski, D, ^{UG} K Bollini, ML Pace, GM Wilkinson (2025) Aquatic heatwaves increase surface chlorophyll concentrations in experimental and reference lakes. *Limnology and Oceanography Letters* 10: 453-463, <https://doi.org/10.1002/lol2.70024>
48. ^{PD} Gushulak, CAC, TH Bertram, HA Dugan, JA Franck, MN Rogers, S Salemink-Harry, BJ Smith, TJW Wagner, LK Zoet, N Pujara, GM Wilkinson (2025) The role of surface water waves on cyanobacterial blooms in lakes. *Limnology and Oceanography Letters* 10: 602-618, <https://doi.org/10.1002/lol2.70044>
47. ^{GS} Butts, TJ, M Simonson, MJ Weber, GM Wilkinson (2025) Investigating changes to food web structure after fish removal using size spectra analysis. *Ecosphere* 16: e70240, <https://doi.org/10.1002/ecs2.70240>
46. Amos, P, W Crumpton, D Eads, GM Wilkinson, B Jovanovic (2025) Microplastics in 132 Iowa lakes and variability in relation to abiotic, biotic, and anthropogenic factors. *Environmental Pollution* 369: 125839, <https://doi.org/10.1016/j.envpol.2025.125839>
45. Salemink-Harry, S, BJ Smith, HA Dugan, JA Franck, TJW Wagner, GM Wilkinson, LK Zoet, N Pujara (2025) Light attenuation due to preferential orientation of particles in waves and shear flow: from bacteria to algae and microplastics. *Limnology and Oceanography* 70: 3592-3606, <https://doi.org/10.1002/lno.70227>
44. Smith, BJ, TJW Wagner, HD Dugan, N Pujara, GM Wilkinson, LK Zoet, JA Franck (2025) How Ice Composition Controls Radiatively Driven Convection under Lake Ice. *Geophysical Research Letters* 52: e2025GL117454, <https://doi.org/10.1029/2025GL117454>
43. ^{GS} Butts, TJ, B Martin, J Mrnak, G Sass, MJ Vander Zanden, C Warden, GM Wilkinson (in review) Changes in energy flux and food web stability following shifts in apex predator dominance and species invasion of spiny water flea (*Bythotrephes*

cederstroemi). *Freshwater Biology*

42. Wilkinson, GM, JA Walter, ^{GS}EA Albright, ^{GS}DA Ortiz, ^{PD}E Moody (2024) Evaluating the accuracy of cyanotoxin detection models for lakes in a nutrient-rich landscape under varying climate conditions. *Harmful Algae*: 102679, doi: <https://doi.org/10.1016/j.hal.2024.102679>
41. Gorsky, AL, HA Dugan, GM Wilkinson, EH Stanley (2024) Under-ice oxygen depletion and greenhouse gas supersaturation in north temperate urban ponds. *Journal of Geophysical Research: Biogeosciences* 129: 6, e2024JG008120, <https://doi.org/10.1029/2024JG008120>
40. Walter, JA, GM Wilkinson, RA Johnson, JW Atkins, ^{GS}DA Ortiz (2023) Toward a standardized method for quantifying ecosystem hot spots and hot moments. *Ecosystems* 26, 1367–1378 (2023). <https://doi.org/10.1007/s10021-023-00839-z>
39. Simonson, M, GM Wilkinson, A Annear, MJ Weber (2023) Annual changes in water quality and sportfish community structure following commercial harvest of common carp and bigmouth buffalo. *Lake and Reservoir Management*
38. ^{GS}Shingai, QK, GM Wilkinson. (2023) The microcystin biogeochemical cycle: Pools, fluxes, and fates in inland waters. *Limnology & Oceanography Letters*, doi:
37. Beal, MJW, GM Wilkinson, PJ Block (2022) Large scale seasonal forecasting of peak season algae metrics in the Midwest and Northeast US. *Water Research* 229: 119402, doi: <https://doi.org/10.1016/j.watres.2022.119402>
36. Carpenter, SR, ML Pace, GM Wilkinson. (2022) DOC, grazers, and resilience of phytoplankton to enrichment. *Limnology & Oceanography Letters* 7: 466-474. doi: <https://doi.org/10.1002/lol2.10280>
35. ^{GS}Butts, TJ, ^{PD}EK Moody, GM Wilkinson. (2022) Contribution of zooplankton nutrient recycling and effects on phytoplankton size structure in a hypereutrophic reservoir. *Journal of Plankton Research* 44: 839-853. <https://doi.org/10.1093/plankt/fbac045>
34. ^{GS}Albright, EA, ^{LM}R Fleck, ^{GS}Q Shingai, GM Wilkinson. (2022) High inter- and intra-lake variation in sediment phosphorus pools in shallow lakes. *Journal of Geophysical Research – Biogeosciences* 127: e2022JG006817 <https://doi.org/10.1029/2022JG006817>
33. ^{GS}Albright, EA and GM Wilkinson. (2022) Sediment phosphorus speciation controls hot spots and hot moments of internal loading in a temperate reservoir. *Ecosphere* 13: e4201. <https://doi.org/10.1002/ecs2.4201>
32. Wilkinson, GM, JA Walter, CD Buelo, ML Pace (2022) No evidence of widespread algal bloom intensification in hundreds of lakes. *Frontiers in Ecology and the Environment* 20(1): 16-21. <https://doi.org/10.1002/fee.2421>
31. ^{PD}Moody, EK, ^{GS}TJ Butts, ^{LM}R Fleck, ^{PD}Jeyasingh, GM Wilkinson (2022) Eutrophication-driven eco-evolutionary dynamics indicated by differences in stoichiometric traits among populations of *Daphnia pulex*. *Freshwater Biology* 67: 353-364. <https://doi.org/10.1111/fwb.13845>
30. ^{GS}Ortiz, DA, GM Wilkinson. (2021) Capturing the spatial variability of algal bloom

- development in a shallow temperate lake. *Freshwater Biology* 66: 2064-2075.
<https://doi.org/10.1111/fwb.13814>
29. Leung, T, GM Wilkinson, E Swanner. (2021) The role of iron availability during to cyanobacteria dominance of algal blooms, as monitored by chlorophyll fluorescence. *Inland Waters* 11: 417-429. <https://doi.org/10.1080/20442041.2021.1904762>
 28. Brookfield, A, A Hansen, PL Sullivan, J Czuba, MF Kirk, L Li, M Newcomer, GM Wilkinson. (2021) Predicting algal blooms: Are we overlooking groundwater? *Science of the Total Environment* 769: 144442.
<https://doi.org/10.1016/j.scitotenv.2020.144442>
 27. Walter, JA, GM Wilkinson, J Castons, ^{LM}R Fleck, ML Pace (2021) Temporal coherence between lake and landscape primary productivity. *Ecosystems* 24: 502-515.
<https://doi.org/10.1007/s10021-020-00531-6>
 26. ^{GS}Ortiz, DA, J Palmer, GM Wilkinson (2020) Detecting statistical early warning indicators of algal blooms in shallow eutrophic lakes. *Ecosphere* 11(10):e03200.
<https://doi.org/10.1002/ecs2.3200>
 25. Weber, M, GM Wilkinson, M Balmer, MC Bevil (2020) Environmental changes in eutrophic lakes following restoration. *Hydrobiologia* 847: 4469-4486.
<https://doi.org/10.1007/s10750-020-04310-1>
 24. Walter, JA, ^{LM}R Fleck, ML Pace, GM Wilkinson (2020) Scaling relationships between lake surface area and catchment area. *Aquatic Science* 82: Article 47.
<https://doi.org/10.1007/s00027-020-00726-y>
 23. Wilkinson, GM, JA Walter, ^{LM}R Fleck, ML Pace (2020) Beyond the trends: The need to understand multi-annual dynamics in aquatic ecosystems. *Limnology and Oceanography Letters* 5: 281-286. <https://doi.org/10.1002/lol2.10153>
 22. ^{PD}Moody, EK, ^{GS}EA Albright, ^{UG}K Cope, R Fleck, H Grigel, ^{GS}DA Ortiz, GM Wilkinson. (2019) Taxonomic and geographic gaps in the functional importance of imperiled fishes. *Fish and Fisheries* 20: 795-801. <https://doi.org/10.1111/faf.12376>
 21. ^{PD}Moody, E and GM Wilkinson (2019) Functional turnover of zooplankton communities in eutrophic lakes. *Freshwater Biology* 64: 608-616.
<https://doi.org/10.1111/fwb.13246>
 20. Pace, ML, SR Carpenter, GM Wilkinson (2019) Long term studies and reproducibility: Lessons from whole lake experiments. *Limnology and Oceanography* 64: 22-33.
<https://doi.org/10.1002/lno.11012>
 19. Wilkinson, GM, A Besterman, CD Buelo, JA Gephart, ML Pace (2018) A synthesis of modern organic carbon burial rates in coastal and inland ecosystems. *Scientific Reports* 8: 15736. <https://www.nature.com/articles/s41598-018-34126-y>
 18. Wilkinson, GM, SR Carpenter, JJ Cole, ML Pace, RD Batt, CD Buelo, J Kurtzweil. (2018) Early warning signals precede cyanobacterial blooms in multiple whole-lake experiments. *Ecological Monographs* 88: 188-203. <https://doi.org/10.1002/ecm.1286>
 17. Oreska, M, GM Wilkinson, KJ McGlathery, M Bost, BA McKee (2018) Non-seagrass carbon contributions to seagrass sediment blue carbon. *Limnology and*

Oceanography 63 (S1): S3-S18. <https://doi.org/10.1002/lno.10718>

16. Tanentzap, AJ, BW Kielstra, GM Wilkinson, M Berggren, N Craig, PA del Giorgio, J Grey, JM Gunn, SE Jones, J Karlsson, CT Solomon, ML Pace (2018) Terrestrial support of lake food webs: synthesis reveals controls over cross-ecosystem resource use. *Science Advances* 3, e1601765. <https://doi.org/10.1126/sciadv.1601765>
15. Pace, ML, RD Batt, CD Buelo, SR Carpenter, JJ Cole, J Kurtzweil, GM Wilkinson. (2017) Reversal of a Cyanobacterial Bloom in Response to Early Warnings. *Proceedings of the National Academy of Sciences USA* 114: 352-357. <https://doi.org/10.1073/pnas.1612424114>
14. Wilkinson, GM. (2017) How Many Limnologists Does It Take to Fix the Plumbing? The Arising Researcher. *Bulletin of the Ecological Society of America* 98: 99-100. <https://doi.org/10.1002/bes2.1317>
13. Wilkinson, GM, C Buelo, JJ Cole, ML Pace (2016) Exogenously produced CO₂ more than doubles the flux of greenhouse gases from three north temperate lakes. *Geophysical Research Letters* 43: 1996-2003. <https://doi.org/10.1002/2016GL067732>
12. Greiner, JT, KE Emery, GM Wilkinson, KJ McGlathery (2016) Identifying carbon source contributors to restored seagrass sediment. *Marine Ecology Progress Series* 551: 95-105. <https://doi.org/10.3354/meps11722>
11. Carpenter, SR, JJ Cole, ML Pace, GM Wilkinson (2016) Response of plankton to nutrients, planktivory, and terrestrial organic matter: A model analysis of whole-lake experiments. *Ecology Letters* 19: 230-239. <https://doi.org/10.1111/ele.12558>
10. Wilkinson, GM, JJ Cole, ML Pace, RA Johnson, ^{UG} M Kleinhans (2015) The contribution of biological and physical processes to the formation and persistence of oxygen maxima in lakes. *Limnology and Oceanography* 60: 242-251. <https://doi.org/10.1002/lno.10022>
9. Wilkinson, GM, JJ Cole, ML Pace (2015) The sensitivity of deuterium based allochthony estimates to the dietary water correction and lipid content. *Limnology and Oceanography: Methods* 13(5): 213-223. <https://doi.org/10.1002/lom3.10019>
8. Emery, KA, GM Wilkinson, ^{UG}FG Ballard, ML Pace (2015) Use of allochthonous resources by zooplankton in reservoirs. *Hydrobiologia* 758: 257-269. <https://doi.org/10.1007/s10750-015-2338-6>
7. Emery, KA, GM Wilkinson, VF Camacho-Ibar, ML Pace, KJ McGlathery, JM Sandoval-Gil, J Hernández-López (2015) Resource use of a cultured oyster (*Crassostrea gigas*) in the reverse estuary Bahía San Quintín, Baja California, Mexico. *Estuaries and Coasts* 39:866-874. <https://doi.org/10.1007/s12237-015-0021-9>
6. Wilkinson, GM (2015) "The President's Speech". *Frontiers in Ecology and the Environment* 13: 283. <https://doi.org/10.1890/1540-9295-13.5.283>
Essay contest winner for ESA's 100th Anniversary Celebration
5. Batt, RD, SR Carpenter, JJ Cole, ML Pace, RA Johnson, JK Kurtzweil, GM Wilkinson. (2015) Altered energy flow in the food web of an experimentally darkened lake. *Ecosphere* 6: Article 33. <https://doi.org/10.1890/ES14-00241.1>

4. Wilkinson, GM, SR Carpenter, JJ Cole, ML Pace (2014) Use of deep autochthonous resources by zooplankton: Results of a metalimnetic addition of ^{13}C to a small lake. *Limnology and Oceanography* 59: 986-996. <https://doi.org/10.4319/lo.2014.59.3.0986>
3. ^{UG} Yang, C, GM Wilkinson, JJ Cole, SA Macko, ML Pace (2014) Determining the isotopic values of resource end members in freshwater food web studies. *Inland Waters* 4: 233-242. <https://doi.org/10.5268/IW-4.2.700>
2. Wilkinson, GM, ML Pace, JJ Cole (2013) Terrestrial dominance of organic matter in north temperate lakes. *Global Biogeochemical Cycles* 27: 43-51. <https://doi.org/10.1029/2012GB004453>
1. Wilkinson, GM, SR Carpenter, JJ Cole, ML Pace, ^{UG} C Yang (2013) Terrestrial support of pelagic consumers among lakes: Patterns and variability revealed from a multi-lake study. *Freshwater Biology* 58: 2037-2049. <https://doi.org/10.1111/fwb.12189>

PLENARIES & SEMINARS

INVITED PLENARIES

- 2025 Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting (Charlotte, NC)
- 2024 Social Cost of Water Symposium, Atkinson Center, Cornell University
- 2024 Mississippi River Research Conference, Keynote Speaker
- 2023 Center for Ecology and the Environment Fall Symposium, UW-Madison
- 2022 31st Annual GRIL Symposium - Groupe de recherche Interuniversitaire en Limnologie (Montreal, Canada)
- 2022 US Symposium on Harmful Algae
- 2021 North Central Water Network Harmful Algal Bloom Symposium
- 2018 Iowa State Environmental Sciences Graduate Program Research Symposium

DEPARTMENTAL SEMINARS

- 2024 John Carroll University, Department of Biology
- 2024 University of Wisconsin - La Crosse
- 2024 USGS Upper Midwest Environmental Sciences Center - La Crosse
- 2024 Large Lake Observatory, University of Minnesota - Duluth
- 2022 University of Wisconsin - Madison, Climate, People, Environment Seminar Series
- 2022 University of Wisconsin - Madison, Department of Integrative Biology Colloquium
- 2020 University of California Santa Barbara, Ecology, Evolution and Marine Science
- 2020 University of Wisconsin - Madison, Center for Limnology
- 2020 Cornell University, Department of Ecology and Evolutionary Biology
- 2019 Drake University, Environmental Sciences Seminar Series
- 2018 University of Notre Dame, Department of Biological Sciences Seminar Series
- 2018 University of Kansas, Ecology & Evolutionary Biology Seminar Series
- 2018 University of Iowa, Civil and Environmental Engineering Seminar Series
- 2017 Duke University, River Center in the Nicholas School Seminar Series
- 2017 University of California Santa Barbara, Marine Science Institute Seminar Series
- 2017 Iowa State, Civil & Environmental Engineering Water Resources Seminar Series
- 2016 University of Vermont, Rubenstein School of the Environment

2016 Iowa State University, Ecology, Evolution & Organismal Biology
 2016 Longwood University, Biology Department Seminar Series
 2016 University of Notre Dame Environmental Research Center Seminar Series
 2015 Cary Institute of Ecosystem Studies Seminar Series
 2014 Université du Québec à Montréal, GRIL Seminar Series
 2014 University of Virginia, Dept. of Environmental Sciences Seminar Series

CONFERENCE PRESENTATIONS (past 3 years only)

- ^{GS}Szydlowski, D, SR Carpenter, D Ha, ^{GS}M McCarthy, ^{LM}H Schlimm, ML Pace, GM Wilkinson (2026) Resilience of a dystrophic lake during five whole-lake fertilization experiments. ASLO-SIL Joint Meeting (Montreal, Canada)
- ^{UG}Ledin, E, M McCarthy, GM Wilkinson (2026) Changes in methanogenesis potential in whole-lake nutrient enrichment. ASLO-SIL Joint Meeting (Montreal, Canada)
- ^{GS}McCarthy, M, D Ha, N Lottig, ML Pace, SR Carpenter, GM Wilkinson (2026) Within-season changes in methane oxidation rates in a lake undergoing enrichment. ASLO-SIL Joint Meeting (Montreal, Canada)
- Wilkinson, GM, SR Carpenter, ML Pace, D Ha, ^{GS}M McCarthy, ^{GS}D Szydlowski (2026) Whole-lake Manipulation of Resilience of Cyanobacteria to Nutrient Enrichment. ASLO-SIL Joint Meeting (Montreal, Canada)
- Hua, J, Z Gajewski, I Velasquez, M Campbell, H Dugan, GM Wilkinson (2026) Pathogens in a Polluted World: How Multiple Factors Shape Ecosystem processes via Host-Mediated Nutrient Cycling. ASLO-SIL Joint Meeting (Montreal, Canada)
- Stanley, EH, R Lathrop, SR Carpenter, M Gahler, K McMahon, GM Wilkinson (2026) Long-term variation in springtime inorganic nitrogen availability in eutrophic Lake Mendota, Wisconsin, USA. ASLO-SIL Joint Meeting (Montreal, Canada)
- Skoglund, S,...GM Wilkinson, PC Hanson (2026) Hyperspectral remote sensing of coupled water quality variables over time and space enables lake ecosystem understanding. ASLO-SIL Joint Meeting (Montreal, Canada)
- Rogers, M...GM Wilkinson, T Bertram (2025) Investigating the Role of Lake Spray Droplets as a Mechanism for Cyanobacteria Cell Aerosolization during Harmful Algal Blooms. AGU25 (San Francisco, CA)
- Pace, ML, SR Carpenter, D Ha, ^{GS}M McCarthy, ^{GS}D Szydlowski, GM Wilkinson (2025) measuring resilience and stability with dissolved oxygen and ph data from whole lake nutrient additions. *ASLO Aquatic Sciences Meeting* (Charlotte, NC)
- ^{GS}Briggs, J, ^{LM}H Schlimm, GM Wilkinson (2024) Storms as drivers of abrupt ecological change in algal biomass in urban pond ecosystems. *ASLO Summer Meeting* (Madison, WI)
- ^{LM}Schlimm, H, ^{GS}J Briggs, GM Wilkinson (2024) Deepening community participation in urban pond research using a tiered approach to science engagement. *ASLO Summer Meeting* (Madison, WI)
- ^{GS}Szydlowski, DS, ^{UG}K Bollini, ML Pace, GM Wilkinson (2024) Aquatic heatwaves increase

primary production in three north temperate lakes. *ASLO Summer Meeting (Madison, WI)*

^{GS}Albright, EA, R Ladwig, RA Johnson, GM Wilkinson (2024) Influence of macrophytes on stratification, dissolved oxygen, and greenhouse gases in ponds. *ASLO Summer Meeting (Madison, WI)*

Gorsky, A, HA Dugan, EH Stanley, J Vander Zanden, GM Wilkinson, R Lathrop (2024) two decades of monitoring reveal an abrupt change to a clear-water state of a shallow lake with unexpected consequences. *ASLO Summer Meeting (Madison, WI)*

Hua, J, B Tuthill, P Thompson, I Gutierrez, M Campbell, Z Gajewski, A Gorsky, H Dugan, GM Wilkinson (2024) Salty parasites: Can salinization modify the role of parasites in nutrient cycling? *ASLO Summer Meeting (Madison, WI)*

Wilkinson, GM, JA Walter, ^{GS}EA Albright, ^{LM}R King, ^{PD}EK Moody, ^{GS}DA Ortiz (2024) Evaluating microcystin detection models for lakes in a nutrient-rich landscape applied under varying climate conditions. *ASLO Summer Meeting (Madison, WI)*

Rogers, M, GM Wilkinson, N Pujara, T Bertram (2024) statistical transfer of cyanobacterial cells, aggregates, and toxins from the water column to the atmosphere; aerosolization as a function of wave breaking. *ASLO Summer Meeting (Madison, WI)*

Salemink-Harry, S, B Smith, T Bertram, H Dugan, J Franck, T Wagner, GM Wilkinson, L Zoet, N Pujara (2024) Light attenuation by particles under water waves. *ASLO Summer Meeting (Madison, WI)*

Skoglund, S, M Oo, B Heberlein, K Kibler, H Schlimm, J Sustachek, B McAfee, K McMahon, P Townsend, R Holz, GM Wilkinson, P Hanson (2024) Lakeview: New understanding of lake water quality through integrated earth observing systems. *ASLO Summer Meeting (Madison, WI)*

Smith, B, T Bertram, H Dugan, J Franck, T Wagner, GM Wilkinson, L Zoet, N Pujara (2024) impact of ice quality on radiatively driven convection during seasonal ice cover on lakes. *ASLO Summer Meeting (Madison, WI)*

TEACHING

UNDERGRADUATE COURSES

2021-2026 **Limnology: Conservation of Aquatic Resources** - UW-Madison
2 credits, upper-level undergraduate lecture course

2021-2026 **Limnology: Conservation of Aquatic Resources Lab** - UW-Madison
3 credits, upper-level undergraduate lab-based course

2017-2020 **Aquatic Ecology** - Iowa State University
3 credits, upper level undergraduate and graduate students

2017-2020 **Aquatic Ecology Lab** - Iowa State University
1 credit, upper level undergraduate and graduate students

2018 **Principles of Biology I** - Iowa State University (co-taught)
3 credits, undergraduate majors and non-majors

GRADUATE COURSES

- 2023, 2025 **Ecosystem Concepts** - UW-Madison
3 credits, Zoology
- 2026 **Translational Limnology**
1 credit, Freshwater & Marine Sciences Graduate Seminar
- 2022 **Research Synthesis for Aquatic Science** - UW-Madison
1 credit, Freshwater & Marine Sciences Graduate Seminar
- 2019 **Science Communication** - Iowa State University
1 credit, Ecology & Evolutionary Biology Graduate Seminar

MENTORING

POSTDOCTORAL RESEARCHERS

- 2023 - 2024 Dr. Cale Gushulak (now Assistant Professor, University of Manitoba)
- 2022 Dr. Ellen Albright (now UW Extension, Discovery Farms)
- 2017 - 2019 Dr. Eric Moody (now Associate Professor at Middlebury College)

GRADUATE STUDENTS, MAJOR PROFESSOR

- 2017 - 2019 **David Ortiz** (MS) Environmental Science at Iowa State University
"Evaluation of temporal and spatial indicators of regime shifts in shallow lakes"
- 2017 - 2022 **Ellen Albright** (PhD) Freshwater & Marine Sciences, UW-Madison
"Mechanisms of internal phosphorus loading in lentic ecosystems"
- 2018 - 2023 **Tyler Butts** (PhD) Freshwater & Marine Sciences, UW-Madison
"Food web dynamics as a driver of shallow aquatic ecosystems"
- 2019 - 2021 **Quin Shingai** (MS) Environmental Science at Iowa State University
"Investigating Microcystin Dynamics in Freshwater Ecosystems and Factors that Influence Nutrient Limitation of Phytoplankton Growth"
- 2021 - 2025 **Jessica Briggs** (MS) Freshwater & Marine Sciences, UW-Madison
"Control points of carbon cycling under extreme nutrient enrichment"
- 2021 - 2026 **Daniel Szydlowski** (PhD) Freshwater & Marine Sciences, UW-Madison
"Ecosystem resilience to external perturbations"
- 2024 - **Moira McCarthy** (PhD) Freshwater & Marine Sciences, UW-Madison
"Methane dynamics in changing environmental conditions"

GRADUATE COMMITTEE MEMBER

UW-Madison

- 2026 - Abby Buzdon, Freshwater and Marine Science (MS)
- 2025 - 2026 Martina Rogers, Chemistry (PhD)
- 2025 - 2026 Emma Marchisin, Freshwater and Marine Science (MS)
- 2025 - 2026 Cody Quiroz, Freshwater and Marine Science (MS)
- 2024 - Sophia Skoglund, Freshwater and Marine Science (PhD)
- 2024 - Peter Conowall, Freshwater and Marine Science (PhD)
- 2023 - Jeremy Abel, Integrative Biology (PhD)

2023 - Cassandra Ceballos, Freshwater and Marine Science (PhD)
 2023 - Emily Adler, Integrative Biology (PhD)
 2023 - 2024 Hannah Curtis, Civil and Environmental Engineering (MS)
 2023 - 2024 Ian Hart, Integrative Biology (MS)
 2022 - 2024 Maxwell Beal, College of Engineering (PhD)
 2022 - 2025 Adrianna Gorsky, Freshwater and Marine Science (PhD)
 2022 - Ella Schmidt, Freshwater and Marine Science (PhD)
 2021 - 2021 Marissa Kneer, Water Sciences Engineering (PhD)
 2021 - 2022 Kathryn Schmidt, Microbial Doctoral Training Program (MS)
 2021 - 2024 Laura Bates, Nelson Institute (PhD)
 2020 - 2021 Angelo Cozzola, UW Freshwater & Marine Science (MS)
 2020 - 2025 David Ortiz, UW Freshwater & Marine Science (PhD)
 2020 - 2025 Krys Kibler, UW Freshwater & Marine Science (PhD)

Iowa State University

2022 - 2023 Psalm Amos, ISU Environmental Science (MS)
 2017 - 2019 Anya Belyaeva, ISU Environmental Science (PhD)
 2017 - 2021 Tania Leung, ISU Environmental Science (PhD)
 2017 - 2023 Martin Simonson, ISU Environmental Science (PhD)
 2017 - 2020 Derek Ballard, ISU Environmental Science (MS)
 2018 - 2022 Holly Curtinrich, ISU Environmental Science (PhD)
 2018 - 2021 Blake Mitchell, ISU Environmental Science (MS)
 2019 - 2024 Jerilyn Calaor, ISU Ecology and Evolutionary Biology (PhD)
 2019 - 2021 Xuewei Liang, ISU Environmental Science (MS)
 2019 - 2022 Katelyn Miller, ISU Environmental Science (MS)

UNDERGRADUATE STUDENTS

2021 - 2024 **UW-Madison** - **Independent Research Credits*
 Kelidy Ruth*, Zoe Stansbury*, Carly Steckler, Mercedes Hernandez-Natara,
 Nic Franchini, Emily Ledin*, Macey MacLean, Emma Squires, Avery Leigh,
 Katie Bollini*, Elizabeth Wix, Victoria Wright, Cami Schroeder, Logan
 Marion, Sofia Ferrer*, Kayleigh Winston*

2017 - 2020 **Iowa State University** - **Independent Research Credits*
 Kayla Wernsing*, Allison Abel*, Jean-Luc Del Valle*, Anna Zmich*, Kathryn
 Holmes*, Emma Califf*, Ashley Heins*, Katie Cope, Elena Sandry, Ryan
 Wagner*, Riley Barbour*, Halle Rosenboom*, Shania Walker*, Katherine
 Hoeppner*, Elizabeth Carlson*, Adrianna Le Compte*, Psalm Amos*, Jenna
 Rasmusson*, Quin Shingai*, Sara Meyer, Lucas Krakow, James Thompson,
 Katherine Luzier, Casey McConnell, Riley Nylin, Kala Rogers, Brittany
 Howes, Karianna Fiebelkorn, Julia Schneller, Michael Tarnow, Matthew
 Kremer, Laurie Dams, Matthan Kots

2016 **University of Notre Dame Practicum in Field Environmental Biology**
Research Advisor
 Audrey Thellman, Elizabeth McKay, Jonathan Stetler, Meredith Kadjeski

2011 - 2015 **University of Virginia** - Graduate Student Research Advisor
 Carol Yang, Maxwell Kleinhans, Joshua Whelan, Jonathan Torres, Flannery
 Ballard, Charles Hanley

PROFESSIONAL SERVICE

EDITORIAL BOARDS

2020 - 2026	Associate editor, <i>Limnology and Oceanography</i>
2019 - 2022	Subject-Matter editor, <i>Ecosphere</i>
2016	<i>Ad hoc</i> Associate Editor, <i>Ecological Applications</i>

PEER-REVIEW ACTIVITY

- *Aquatic Sciences*
- *Biology Letters*
- *Biogeochemistry*
- *Canadian Journal of Fisheries & Aquatic Sciences*
- *Chinese Journal of Oceanol & Limnology*
- *Ecology*
- *Ecology Letters*
- *Ecosphere*
- *Ecosystems*
- *Environmental Monitoring & Assessment*
- *Environmental Science & Technology*
- *Freshwater Biology*
- *Freshwater Sciences*
- *Frontiers in Ecology & the Environment*
- *Geophysical Research Letters*
- *Global Change Biology*
- *Hydrobiologia*
- *Journal of Animal Ecology*
- *JGR- Biogeosciences*
- *Journal of Hydrology*
- *Limnology & Oceanography*
- *Limnology & Oceanography Letters*
- *Limnology & Oceanogr: Methods*
- *Nature*
- *Nature Geosciences*
- *Proceedings of the National Academy of Sciences USA*
- *Oecologia*
- *Oikos*
- *Science*
- *Science of the Total Environment*
- *Water, Air and Soil Pollution*

GRANT REVIEW ACTIVITY

2024	Review Team, National Science Foundation
2023	Panelist, National Science Foundation (DEB)
2023	Panelist, NOAA NCOSS
2020	Panelist, National Science Foundation (DEB)
2017	Panelist, National Science Foundation (DEB)
2025	<i>Ad hoc</i> Reviewer, NSERC
2025	<i>Ad hoc</i> Reviewer, National Science Foundation (AON)
2023	<i>Ad hoc</i> Reviewer, National Science Foundation (ENG)
2019	<i>Ad hoc</i> Reviewer, National Science Foundation (DEB)
2018	<i>Ad hoc</i> Reviewer, National Science Foundation (DEB)
2017	<i>Ad hoc</i> Reviewer, National Science Foundation (DEB)

MEETING ORGANIZATION

2027	Co-organizer special session, "Shifting Feedbacks and Long-Term Change in Aquatic Ecosystems" ASLO Aquatic Sciences Meeting (San Juan, PR)
2026	Co-organizer special session, "Ecosystem Processes in a Changing World: Honoring the Career of Mike Pace" ASLO-SIL Joint Meeting (Montreal)
2024	Co-organizer special session, "The Changing Carbon Cycle of Inland Waters: A Special Session in Memory of Jonathan J. Cole" ASLO Summer Meeting

(Madison, WI)

- 2023 - 2024 Co-chair, ASLO Summer Meeting, Madison, WI
- 2019 Chair of the 2019 Great Plains Limnology Conference (Ames, IA)
- 2019 Co-organizer special session, "Brave New World: The Ecology of Highly Impacted Water Bodies" ASLO Aquatic Sciences Meeting (San Juan, PR)
- 2019 Chair of Contributed Session on "Regime Shifts" ASLO Aquatic Sciences Meeting (San Juan, Puerto Rico)
- 2016 Co-organizer special session, "Fixing the Plumbing in the Inland Carbon Cycle" at the ASLO Summer Meeting (Santa Fe, New Mexico)
- 2015 - 2016 Scientific Organizing Committee, ASLO Summer Meeting (Santa Fe, NM)

SCIENTIFIC SOCIETY LEADERSHIP

- 2014 - 2017 Member of the Board of Directors for the Association for the Sciences of Limnology and Oceanography (ASLO)
- 2014 - 2017 ASLO Meeting Mentor Program co-organizer and participant
- 2014 - 2017 Co-founder and Co-chair, ASLO Student Activities Committee

UNIVERSITY SERVICE

University of Wisconsin - Madison

- 2025 - 2026 Associate Chair, Department of Integrative Biology
- 2025 - 2026 Climate and Culture Committee, Integrative Biology
- 2025 - 2026 RISE-EARTH Search Committee, Integrative Biology
- 2024 - 2025 Student Awards Committee, Integrative Biology
- 2023 - 2025 Chair, Integrative Biology Climate and Diversity Committee
- 2023 - 2025 L&S DEI Lead, Integrative Biology Department
- 2023 - 2025 L&S DEI Lead, Center for Limnology
- 2021 - 2024 Member at Large, Water@UW Executive Committee
- 2021 - 2023 Integrative Biology Dept Climate and Diversity Committee
- 2021 CFL Assistant Director Search Committee

Iowa State University

- 2020 Chair, Ecology & Evolutionary Biology Grad Curriculum Committee
- 2020 Diversity, Equity & Inclusion Committee, EEOB Department
- 2020 COVID Response Leadership Team, EEOB Department
- 2018 - 2020 Ecology & Evolutionary Biology Graduate Curriculum Committee
- 2018 - 2019 EEOB Strategic Hiring Planning Committee member
- 2018 - 2020 Chair, Fobes Ronald Lecture Series Committee Chair
- 2018 - 2020 Faculty Advisor, Iowa Women in Natural Resources, student club

OUTREACH ACTIVITIES

GOVERNMENT AGENCY ENGAGEMENT

- 2025 Dane County Land Management

2023	HAB Action Team, North Central Water Network (Webinar, 618 attendees)
2023	Member of Middleton Land Conservancy Council
2022-25	Member of the Middleton Water Resources Management Commission
2021	Illinois Lake Management Association (presentation, 42 attendees)
2020	Iowa Nutrient Resource Center Seminar Series (presentation, ~40 attendees)
2018	EPA Region 7 Harmful Algal Blooms Working Group (Webinar)
2018	Member of Technical Advisory Board, Silver Lake Restoration Group
2018	North Central Water Network (Webinar)
2018	Iowa Water Conference (Ames, IA)
2017	Iowa Public Health Conference (Des Moines, IA)
2017	Iowa Water Resources Coordinating Council (Des Moines, IA)
2017	Iowa Chapter of the American Fisheries Society (Ames, IA)
2014	Delegate, US Congressional Visit Day for Science Funding

PUBLIC ENGAGEMENT

2025	Science on Tap Minocqua
2023	Radio interview - WROT on harmful algal blooms
2023	Interview with Capital Times on harmful algal blooms
2023	Interview with Wisconsin State Journal on harmful algal blooms
2023	Community Water Monitoring Network Spring Kick-Off Event
2022	Garden Club of America Legislative Action Committee Workshop on Lakes and the Landscape
2022	Grandparent's University Limnology Course (co-instructor)
2022	Rock River Coalition Yahara Watershed Volunteer Seminar
2022	Founded and launched the CFL Community Water Monitoring Network https://cflwaternetnetwork.weebly.com/ • Recruiting volunteers (n=27) to contribute to water monitoring of Madison urban waters as a part of ongoing NSF CAREER project • Continuing capacity building of community volunteer network
2022	Wisconsin PBS University Lecture Series on Harmful Algal Blooms
2022	Nelson Institute's Earth Day Celebration, Panel on Wisconsin Water Problems
2021	PLATO Madison (senior education community)
2021	Wisconsin Public Radio "Central Time" call-in segment on algal blooms (x2)
2021	SCUBA Diving for Aquatic Research, presentation to the Hoofers SCUBA club
2019	Green Valley Lake State Park Annual Stakeholders Meeting (Creston, IA)
2018	NRCS Eldred Sherwood Annual Stakeholders Meeting (Goodell, IA)
2016	Iowa Lakeside Laboratory Regents Seminar Series (public talk) (Okoboji, IA)