

GRACE M. WILKINSON

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PROFESSIONAL APPOINTMENTS

Assistant Professor University of Wisconsin – Madison Department of Integrative Biology Center for Limnology	2021 - present
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 (Advisor: Michael Pace) University of Virginia, Charlottesville, Virginia	2015
Bachelor of Arts Biology Major, Environmental Studies Minor Saint Olaf College, Northfield, Minnesota	2010

HONORS & AWARDS

Fellow of the Association for the Sciences of Limnology & Oceanography	2017
Maury Environmental Prize, University of Virginia	2015

EXTERNAL GRANTS & CONTRACTS

National Science Foundation – DEB (\$776,673) “CAREER: Control Points on Nutrient Cycling in Hypereutrophic Lakes” (PI: Wilkinson)	2020 – 2024
National Science Foundation – OAC (\$275,430 total, \$136,115 to ISU) “EAGER Collaborative Research: Synchronization between terrestrial & aquatic ecosystems” (Lead PI: Wilkinson, Co-PIs: J. Walter, M. Pace)	2018 – 2020
Iowa Department of Natural Resources (\$24,465) "Study of Green Valley Lake Stratification and Phosphorus Cycling"	2018 – 2019
Center for Global & Regional Environmental Research (\$35,000) "Developing early warning tools of harmful algal blooms in lakes"	2018 – 2019
Iowa Department of Natural Resources (\$459,138) "Quantifying phosphorus dynamics in shallow lakes" PI: Grace Wilkinson, Co-PI: Michael Weber (all funds to Wilkinson)	2018 – 2022

Iowa Department of Natural Resources (\$560,209) "Ambient Lake Water Quality Monitoring 2018-2020"	2018 – 2020
US Army Corps of Engineers, Rock Island District (\$705,438) "Water quality monitoring of the Des Moines & Iowa Rivers" Lead PI: Wilkinson, Co-PIs: W. Crumpton & C. Rehmann	2018 – 2022
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

FELLOWSHIPS TO PERSONNEL

Dr. Eric Moody – USDA NIFA Postdoctoral Fellowship (\$165,000)	2018 – 2020
Ellen Albright – NSF Graduate Research Fellowship (\$138,000)	2018 – 2021
Tyler Butts – NSF Graduate Research Fellowship (\$138,000)	2018 – 2021

PROPOSALS UNDER CONSIDERATION

National Science Foundation – DEB (\$257,618) "Understanding Complex Ecosystem Trajectories in a Changing World" (Lead PI: Wilkinson, Co-PIs: Walter, Pace)	2021 – 2023
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PUBLICATIONS

- | | |
|--|---------------------------------|
| <i>§Wilkinson Lab Graduate Student</i> | <i>*Undergraduate Co-Author</i> |
|--|---------------------------------|
31. Leung, T, **GM Wilkinson**, E Swanner. *Accepted*. The role of iron availability during to cyanobacteria dominance of algal blooms, as monitored by chlorophyll fluorescence. *Inland Waters*
 30. Brookfield, A, A Hansen, PL Sullivan, J Czuba, MF Kirk, L Li, M Newcomer, **GM Wilkinson**. *Accepted*. Predicting algal blooms: Are we overlooking groundwater? *Science of the Total Environment*
 29. **Wilkinson, GM**, JA Walter, CD Buelo, ML Pace. *In press*. No evidence of widespread algal bloom intensification in hundreds of lakes. *Frontiers in Ecology and the Environment*.
 28. Walter, JA, **GM Wilkinson**, J Castons, R Fleck, ML Pace. 2020. Temporal coherence between lake and landscape primary productivity. *Ecosystems*

27. Ortiz, DA§, J Palmer, **GM Wilkinson**. 2020. Detecting statistical early warning indicators of algal blooms in shallow eutrophic lakes. *Ecosphere* 11(10):e03200.
26. Weber, M, **GM Wilkinson**, M Balmer, MC Bevil. 2020. Environmental changes in eutrophic lakes following restoration. *Hydrobiologia* 847: 4469–4486.
25. Walter, JA, R Fleck, ML Pace, **GM Wilkinson**. 2020. Scaling relationships between lake surface area and catchment area. *Aquatic Science* 82: Article 47.
24. **Wilkinson, GM**, JA Walter, 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
23. Moody, E.K., E. Albright§, K. Cope*, R. Fleck, H. Grigel, D. Ortiz§, **G.M. Wilkinson**. 2019. Taxonomic and geographic gaps in the functional importance of imperiled fishes. *Fish and Fisheries* 20: 795-801
22. Moody, E and **GM Wilkinson**. 2019. Functional turnover of zooplankton communities in eutrophic lakes. *Freshwater Biology* 64: 608-616.
21. Pace, ML, SR Carpenter, **GM Wilkinson**. 2019. Long term studies and reproducibility: Lessons from whole lake experiments. *Limnology and Oceanography* 64: 22-33.
20. **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
19. **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.
 *Top 20 Most Read Paper in 2017-2018 for *Ecological Monographs*
18. 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
17. 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. 2017. Terrestrial support of lake food webs: synthesis reveals controls over cross-ecosystem resource use. *Science Advances* 3, e1601765.
16. 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.
15. **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
14. Greiner, JT, KE Emery, **GM Wilkinson**, KJ McGlathery. 2016. Identifying carbon source contributors to restored seagrass sediment. *Marine Ecology Progress Series* 551: 95-105.
13. 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
12. **Wilkinson, GM**, JJ Cole, ML Pace, RA Johnson, 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.

11. **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.
10. Emery, KA, **GM Wilkinson**, FG Ballard*, ML Pace. 2015. Use of allochthonous resources by zooplankton in reservoirs. *Hydrobiologia* 758: 257-269.
9. 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.
8. 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.
7. **Wilkinson, GM**, SR Carpenter, JJ Cole, ML Pace. 2014. Metalimnetic ¹³C addition reveals minor support of metalimnetic resources to pelagic consumers. *Limnology and Oceanography* 59: 986-996.
6. 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.
5. **Wilkinson, GM**, ML Pace, JJ Cole. 2013. Terrestrial dominance of organic matter in north temperate lakes. *Global Biogeochemical Cycles* 27: 43-51.
4. **Wilkinson, GM**, SR Carpenter, JJ Cole, ML Pace, C Yang*. 2013. Terrestrial support of pelagic consumers among lakes: Patterns and variability revealed from a multi-lake study. *Freshwater Biology* 58: 2037-2049.

BOOK CHAPTERS

3. **Wilkinson, GM**, EA Albright. Phosphorus Cycling in Lacustrine Ecosystems. In the Encyclopedia of Inland Waters, 2nd Edition (*in press*)
2. **Wilkinson, GM**. 2017. Eutrophication of Freshwater and Coastal Ecosystems. In the Encyclopedia of Sustainable Technologies, Springer.
1. 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*

UNDER REVIEW OR REVISION (drafts available upon request)

3. Albright, EA, R Fleck, Q Shingai, **GM Wilkinson**. *In review*. High inter- and intra-lake variation in sediment phosphorus pools in shallow lakes. *JGR-Biogeosciences*
2. Moody, EK, TJ Butts§, R Fleck, PD Jeyasingh, **GM Wilkinson**. *In review*. From Glycolysis to Green Lakes: Anthropogenic Evolution of a Keystone Herbivore (*Daphnia pulex*) Weakens Trophic Cascades. *Freshwater Biology*
1. Ortiz, DA, **GM Wilkinson**. *In review*. Understanding spatial heterogeneity: before, during, and after an algal bloom. *Freshwater Biology*

OPEN ACCESS DATA SETS

5. Albright, EA, **GM Wilkinson**, RA Fleck, Q Shingai. 2020. Analysis of Sediment Phosphorus Pools in Shallow Lakes. figshare. <https://doi.org/10.6084/m9.figshare.13362971.v1>

4. **Wilkinson, GM**, W Crumpton, C Rehmann, B Noack, E Sandry. 2019. Monthly nitrate concentrations in the Des Moines River above Saylorville Reservoir, 1976 - 2016. Environmental Data Initiative. <https://doi.org/10.6073/pasta/62b9457797ba8a6470795c49ed315047>.
3. Ortiz, DA, J Palmer, **GM Wilkinson**. 2019. Hypereutrophic lake sensor data during summer algae blooms in Iowa, USA, 2014 - 2018. Environmental Data Initiative. <https://doi.org/10.6073/pasta/30070d41fbcdf36387f33d9108f570f8>.
2. Ortiz, DA, **GM Wilkinson**. 2019. Hypereutrophic lake spatial sensor data during summer bloom, Swan Lake, Iowa, USA 2018. Environmental Data Initiative. <https://doi.org/10.6073/pasta/2c0ca177438a3d422925811514e86cd8>.
1. Oreska, M., **G. Wilkinson**, and K. McGlathery. 2018. South Bay, VA, seagrass sediment and autotroph source stable isotope compositions, 2014 ver 2. Environmental Data Initiative. <https://doi.org/10.6073/pasta/e977df9c6a2b76d04e4116628d4fb976> (Accessed 2020-12-11).

INVITED SEMINARS

DEPARTMENTAL SEMINARS

- 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
- 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

PUBLIC & AGENCY ENGAGEMENT SEMINARS

- 2021 North Central Water Network Harmful Algal Bloom Symposium (attendees ~650)
- 2020 Iowa Nutrient Resource Center Seminar Series (attendees ~40)
- 2020 Association for the Preservation of Clear Lake Annual Meeting, keynote address (cancelled due to COVID pandemic)
- 2020 Iowa State Graduate & Professional Student Society Annual Conference
- 2019 Green Valley Lake State Park Annual Stakeholders Meeting (Creston, IA)
- 2018 EPA Region 7 Harmful Algal Blooms Working Group (Webinar)
- 2018 North Central Water Network (Webinar)
- 2018 NRCS Eldred Sherwood Annual Stakeholders Meeting (Goodell, IA)
- 2018 Iowa State Environmental Sciences Graduate Program Research Symposium
- 2017 Iowa Public Health Conference (Des Moines, IA)
- 2017 Iowa Water Resources Coordinating Council (Des Moines, IA)
- 2017 American Fisheries Society, Iowa Chapter (Ames, IA)
- 2016 Iowa Lakeside Laboratory Regents Seminar Series (Okoboji, IA)

CONFERENCE PRESENTATIONS

Invited talks noted at the beginning of the citation

2020 AGU Fall Meeting (San Francisco, CA, attended virtually)

1. Wilkinson, GM, JA Walter, CD Buelo, ML Pace. “No evidence of widespread algal bloom intensification in hundreds of lakes” (talk)
2. Albright, EA, R Fleck, **GM Wilkinson**. “Spatiotemporal complexity of internal phosphorus loading in temperate reservoirs.” (talk)
3. Butts, TJ, MJ Weber, **GM Wilkinson**. “Food web structure mediates ecosystem resilience in response to storm event pulses of nutrient loading” (poster)
4. Shingai, QK, **GM Wilkinson**. “Reframing the Microcystin Problem – A Biogeochemical Cycling Approach” (poster)
5. Johnson, RA, TJ Butts, S Hall, **GM Wilkinson**. “Response of GHG dynamics to pulse addition of nutrients in shallow lakes” (poster)

ASLO Aquatic Sciences Meeting (Madison, WI) – cancelled due to COVID-19 pandemic
I first author presentation, session co-organizer, co-author on 4 other presentations

2019 ASLO Aquatic Sciences Meeting (San Juan, Puerto Rico)

1. **Wilkinson, GM**, JA Walter, R Fleck, ML Pace “Synchronization among terrestrial and aquatic ecosystems” (talk)
2. Albright, EA, R Fleck, Q Shingai, **GM Wilkinson** "Identifying potential hotspots of internal phosphorus loading in Iowa lakes" (talk)
3. Ortiz, DA, **GM Wilkinson** "Detecting Early Warnings of Harmful Algal Blooms in Shallow Lakes"(talk)
4. Fleck, R, E Albright, H Grigel, E Moody, D Ortiz, J Walter, **GM Wilkinson** “Predicting toxic algal blooms in lakes located in a highly eutrophic landscape” (talk)
5. Moody, E, T Butts, R Fleck, P Jenasingh, **G Wilkinson** “From glycolysis to green lakes: Evolution of *Daphnia* alters ecosystem function in hypereutrophic lakes.” (talk)
6. Hansen, C, **GM Wilkinson**, S Burian “Developing and implementing an early warning system for HABs in Utah Lake” (talk)

Great Plains Limnology Conference (Ames, Iowa)

1. **Wilkinson, GM**, JA Walter, R Fleck, ML Pace “Beyond the trends: The need to incorporate multiannual dynamic thinking in a wavy world” (talk)
2. Albright, EA, R Fleck, **GM Wilkinson** (2019) “*Ex situ* measurements of gross internal phosphorus loading for shallow lakes and reservoirs” (talk)
3. Butts, T, E Sandry, M Weber, **GM Wilkinson** (2019) “Does food web structure mediate ecosystem response to perturbations? A preliminary experiment” (talk)
4. Ortiz, DA, J Palmer, **GM Wilkinson** (2019) “The Swan Lake story: regime shift prediction and detection in both space and time” (talk)
5. Shingai, QK, A Le Compte, **GM Wilkinson** “Reframing the microcystin problem: A biogeochemical cycling approach” (poster)
6. Rosenboom, H, Q Shingai, **GM Wilkinson** “Native and invasive macrophyte degradation rates and implications for nutrient availability” (poster)
7. Rasmussen, J, E Albright, R Fleck, **GM Wilkinson** “Spatial variability in equilibrium P release from sediments in a hypereutrophic reservoir” (poster)
8. Wernsing, K, E Moody, DA Ortiz, CD Buelo, **GM Wilkinson** “*Daphnia* adaptation to changing phosphorus conditions” (poster)

9. Barbour, R, T Butts, **GM Wilkinson** “Top-down grazing control of phytoplankton in a hypereutrophic lake” (poster)
10. Sandry, E, T Butts, M Simonson, MJ Weber, **GM Wilkinson** “Commercial harvest of bigmouth buffalo as a biomanipulation strategy” (poster)
11. Amos, E Albright, R Fleck, **GM Wilkinson** “Rising Algae and sinking phosphorus: Spatial variability of sediment phosphorus” (poster)

2018 ASLO Annual Meeting (Victoria, British Columbia)

Wilkinson, GM, J Walter, R Fleck, H Grigel, E Moody “Predicting toxic algal blooms in eutrophic recreational lakes” (talk)

Geological Society of America – North Central Chapter (Ames, Iowa)

Wilkinson, GM, E Albright, R Fleck “Spatial variability of sediment phosphorus fractions in eutrophic shallow lakes” (talk)

Society for Freshwater Science (Detroit, Michigan)

Moody, EK and **GM Wilkinson** "Zooplankton stoichiometric trait responses to hypereutrophication" (talk)

Desert Fishes Council Annual Meeting (Death Valley, California)

Moody, EK, E Albright, K Cope, R Fleck, H Grigel, D Ortiz, **GM Wilkinson** "Severely underestimated impacts of fishes in North America’s aridland aquatic ecosystems" (talk)

Prairie Lakes Conference (Okoboji, Iowa)

[invited] **Wilkinson, GM** “Predicting Harmful Algal Blooms” (talk)

Iowa Water Conference (Ames, Iowa)

[invited] **Wilkinson, GM** “Lake and Reservoir Water Quality” (talk & panel)

Great Plains Limnology Conference (Lawrence, Kansas)

1. Moody, EK* and **GM Wilkinson**. (2018) "Eutrophication Elicits Evolution: Variation in *Daphnia* Traits Links Glycolysis to Green Lakes" (talk)
2. Albright, EA*, R Fleck*, Q Shingai*, and **GM Wilkinson**. (2018) "Identifying potential hotspots of internal phosphorus loading in Iowa lakes" (talk)
3. **Wilkinson, GM**, J Walter, E Albright, R Fleck, H Grigel*, E Moody*, D Ortiz*, A Zmich (2018) “Predicting toxic blooms in eutrophic lakes” (talk)
4. Butts, TJ, **GM Wilkinson** "Changes in Zooplankton Communities Following Fishery Renovations" (poster)
5. Ortiz, DA, **GM Wilkinson** "Detecting Early Warnings of Harmful Algal Blooms in Shallow Lakes" (poster)

2017 Ecological Society of America Annual Meeting (Portland, Oregon)

[invited] **Wilkinson, GM**, SR Carpenter, JJ Cole, ML Pace, RD Batt, CD Buelo, JK Kurtzweil “Ecosystem Alarms: Early warnings of cyanobacterial blooms in lakes” (talk)

ASLO Aquatic Sciences Meeting (Honolulu, Hawaii)

1. **Wilkinson, GM**, SR Carpenter, JJ Cole, ML Pace, RD Batt, CD Buelo, JKurtzweil “Statistical early warning indicators predict algal blooms in lakes” (talk)
2. Pace, ML, **GM Wilkinson**, SR Carpenter. (2018) "Long term ecological research and reproducibility: Lessons from whole-lake experiments" (talk)

3. Besterman, A, **Wilkinson, GM**, CD Buelo, J Gephart, ML Pace “Comparing modern carbon burial in aquatic ecosystems” (poster)

Great Plains Limnology Conference (Columbus, Missouri)

1. **Wilkinson, GM**, A Besterman, JA Gephart, CD Buelo, ML Pace “A synthesis of modern organic carbon burial rates in coastal and inland ecosystems” (talk)
2. Moody, EK, **GM Wilkinson** "Zooplankton stoichiometric trait responses to hypereutrophication" (talk)
3. Fleck, R, **GM Wilkinson** "Water quality effects of dredging in Iowa Lakes" (poster)
4. Albright, E, **GM Wilkinson** "Intra-lake variability in internal phosphorus loading potential" (poster)
5. Ortiz, D, **GM Wilkinson** "De-stratification from aeration: oxygen redistribution or metabolic reduction?" (poster)
6. Grigel, H, **GM Wilkinson** "What explains the sudden decrease of percent cyanobacteria in Iowa lakes?" (poster)

2016 ASLO Annual Meeting (Santa Fe, New Mexico)

1. **Wilkinson, GM**, C Buelo, JJ Cole, ML Pace “Exogenous CO₂ doubles emissions from three small north temperate lakes” (talk)
2. Pace, ML, SR Carpenter, JJ Cole, RD Batt, **GM Wilkinson**, CD Buelo, J Kurtzweil "A whole-lake test of early warnings: Reversal of a cyanobacteria bloom" (talk)

ASLO Ocean Sciences Meeting (New Orleans, Louisiana)

Wilkinson, GM, K Emery, V Camacho-Ibar, M Pace, K McGlathery, J Sandoval Gil, J Hernandez-Lopez “Resource use of an aquacultured shellfish in the reverse estuary Bahía San Quintín, Baja California, México” (poster)

Prairie Lakes Conference (Okoboji, Iowa)

[invited] **Wilkinson, GM** “Ecosystem alarms: Searching for early warnings of large changes in lakes” (talk)

2015 ASLO Aquatic Sciences Meeting (Granada, Spain)

1. **Wilkinson, GM**, JJ Cole, ML Pace, RA Johnson, M Kleinhans “The contribution of biological and physical processes to metalimnetic oxygen maxima in lakes” (talk)
2. Pace, ML, RD Batt, C Buelo, SR Carpenter, JJ Cole, JJ Kurtzweil, **GM Wilkinson** "Early warnings of phytoplankton blooms? A whole lake experiment" (talk)

Ecological Society of America (Baltimore, Maryland)

Carey, CC, JP Doubek, AB Gerling, KD Hamre, ZW Munger, **GM Wilkinson**, PA Gantzer, JC Little, ML Pace, ME Schreiber "Whole-ecosystem oxygenation demonstrates that episodic anoxic events promote internal loading of metals and carbon burial in a eutrophic reservoir" (talk)

2014 Joint Meeting of the British & French Ecological Societies (Lille, France)

1. [invited] **Wilkinson, GM**, SR Carpenter, JJ Cole, ML Pace “Use of deep algal resources by zooplankton: Results of a metalimnetic addition of ¹³C to a small lake” (talk)
2. Pace, ML, **GW Wilkinson**, JJ Cole, SR Carpenter "Watershed inputs, aquatic food webs, and ecosystem stability" (talk)

Joint Aquatic Sciences Meeting (Portland, Oregon)

Wilkinson, GM, SR Carpenter, JJ Cole, ML Pace “Use of deep algal resources by zooplankton: Results of a metalimnetic addition of ¹³C to a small lake” (talk)

2013 Ecological Society of America (Minneapolis, Minnesota)

1. **Wilkinson, GM**, SR Carpenter, JJ Cole, ML Pace, C Yang “Terrestrial support of pelagic consumers among lakes: Patterns and variability revealed from a multi-lake study” (talk)
2. Batt, RD, SR Carpenter, JJ Cole, M.L. Pace, RA Johnson, JK Kurtzweil, **GM Wilkinson** "Altered energy flow in the food web of an experimentally darkened lake" (talk)

ASLO Aquatic Sciences Meeting (New Orleans, Louisiana)

1. **Wilkinson, GM**, JJ Cole, ML Pace “Terrestrial dominance of organic matter in north temperate lakes” (talk)
2. Pace, ML, JJ Cole, SR Carpenter, **GM Wilkinson** "Are inputs of terrestrial organic carbon to lakes large or small relative to primary production" (talk)

2012 American Geophysical Union (San Francisco, California)

[invited] **Wilkinson, GM**, JJ Cole, ML Pace (2012) “Terrestrial dominance of organic matter in north temperate lakes” (talk)

2011 Ecological Society of America (Austin, Texas)

Welter, JR, PC Furey, JA Cormier, AJ Rosendahl, BL Weigel, **GM Wilkinson** "Abiotic and biotic constraints on nitrogen fixation and producer species assemblages in an N limited river ecosystem" (talk)

2010 Joint Meeting of ASLO and NABS (Santa Fe, New Mexico)

Wilkinson, GM, S Dunn, AP Hinrich, M Marty, SN Schmidt, J Schade “Nitrogen dynamics along a moisture gradient in a restored wetland” (poster)

2009 Ecological Society of America (Albuquerque, New Mexico)

Carpenter, LM, DWP Manning, EC Seybold, **GM Wilkinson**, JD Schade “Winter snowpack effects on biogeochemical processes in a restored tallgrass prairie” (poster)

TEACHING EXPERIENCE

- 2017-2020 **Aquatic Ecology** – Iowa State University
3 credits, upper level undergraduate and graduate students every fall semester
- 2017-2020 **Aquatic Ecology Lab** – Iowa State University
1 credit, upper level undergraduate and graduate students every fall semester
- 2018 **Principles of Biology I** – Iowa State University (co-taught)
3 credits, undergraduate majors and non-majors
- 2019 **Science Communication** – Iowa State University
1 credit, EEB Graduate Seminar

MENTORING

Postdoctoral Researchers

- 2020 Dr. Hannah Carroll
2017-2019 Dr. Eric Moody

Graduate Students, Major Professor – In Progress

- 2017 – 2019 David Ortiz, MS, Environmental Science at Iowa State University
2017 – Ellen Albright, PhD student, Freshwater and Marine Sciences
2018 – Tyler Butts, PhD student, Freshwater and Marine Sciences
2019 – 2021 Quin Shingai, MS student, Environmental Science at Iowa State University
2021 – Daniel Szydłowski, PhD student, Freshwater and Marine Sciences

Member of Program of Study Committee

- 2021 – Laura Bates, Nelson Institute (PhD)
2020 – Angelo Cozzola, UW Freshwater & Marine Science (MS)
2020 – David Ortiz, UW Freshwater & Marine Science (PhD)
2020 – Krystyn Kibler, UW Freshwater & Marine Science (PhD)
2017 – 2019 Anya Belyaeva, ISU Environmental Science (PhD), *Completed*
2017 – Tania Leung, ISU Environmental Science (PhD)
2017 – Martin Simonson, ISU Environmental Science (PhD)
2017 – 2020 Derek Ballard, ISU Environmental Science (MS), *Completed*
2018 – Holly Rich, ISU Environmental Science (PhD)
2018 – Blake Mitchell, ISU Environmental Science (MS)
2019 – Jerilyn Calaor, ISU Ecology and Evolutionary Biology (PhD)
2019 – Xuewei Liang, ISU Environmental Science (MS)
2019 – Katelyn Miller, ISU Environmental Science (MS)

Preparing Future Faculty Mentor

- 2019 Xuewei Liang, Environmental Science
Ling Men, Environmental Science

Undergraduate Students

- 2017-2020 **Iowa State University Students** – *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 Hoepfner*, 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

- 2020 – present Associate editor, *Limnology and Oceanography*
- 2020 Panelist, National Science Foundation (DEB)
Ad hoc Reviewer, National Science Foundation (DEB)
- 2019 – present Subject-Matter editor, *Ecosphere*

- 2019 Chair of the 2019 Great Plains Limnology Conference, Ames, Iowa
Co-organizer special session, "Brave New World: The Ecology of Highly Impacted Water Bodies" at the ASLO Aquatic Sciences Meeting (San Juan, PR)
Chair of Contributed Session on "Regime Shifts", ASLO Meeting (San Juan, PR)
- 2018 Technical Advisory Board, Silver Lake Restoration Group
Ad hoc Reviewer, National Science Foundation (DEB)
- 2017 Panelist, National Science Foundation (DEB)
Ad hoc Reviewer, National Science Foundation (DEB)
ASLO Multicultural Program Mentor at ASLO Meeting (Honolulu, Hawaii)
- 2016 *Ad hoc* Associate Editor, *Ecological Applications*
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, New Mexico)
- 2014 – 2017 Elected to the Board of Directors of ASLO
ASLO Meeting Mentor Program co-organizer and participant
Co-chair, ASLO Student Activities Committee
- 2014 University of Virginia Delegation, Association of Environmental Research Centers
Congressional Briefing Day (Washington DC)

Peer Review Activity – average 6-8 manuscripts per year in addition to Associate Editor duties
Aquatic Sciences, Biology Letters, Biogeochemistry, Canadian Journal of Fisheries & Aquatic Sciences, Chinese Journal of Oceanology & Limnology, Ecology, Ecology Letters, Ecosystems, Environmental Monitoring and Assessment, Frontiers in Ecology and the Environment, Geophysical Research Letters, Global Change Biology, Hydrobiologia, Journal of Animal Ecology, JGR- Biogeosciences, Journal of Hydrology, Limnology & Oceanography, Limnology and Oceanography Letters, Limnology & Oceanography: Methods, Proceedings of the National Academy of Sciences USA, Oecologia, Oikos, Science of the Total Environment, Water, Air and Soil Pollution

UNIVERSITY SERVICE

- 2020 *Chair*, Ecology & Evolutionary Biology Graduate Curriculum Committee (ISU)
- 2020 Diversity, Equity & Inclusion Committee, EEOB Department (ISU)
- 2020 COVID Response Leadership Team, EEOB Department (ISU)
- 2018 – 2020 Ecology & Evolutionary Biology Graduate Curriculum Committee (ISU)
- 2018 – 2019 EEOB Strategic Hiring Planning Committee member (ISU)
- 2018 – 2020 *Chair*, Fobes Ronald Lecture Series Committee Chair (ISU)
- 2018 – 2020 *Faculty Advisor*, Iowa Women in Natural Resources (IWINR), student club (ISU)
- 2017 – 2020 EEOB Space Committee (ISU)

OUTREACH ACTIVITIES

**Note the Public and Agency Outreach and Engagement seminars listed in "Invited Seminars"*

- 2020 Travel Grant and Abstract Review for the Society for the Advancement of Chicano and Native American Scientists (SACNAS)

- 2019 Panelist for “How to Find Funding for Early Career Scientists” at ASLO Aquatic Sciences Meeting (San Juan, Puerto Rico)
- 2018 Mentor for the ISU Chapter of the Society for the Advancement of Chicano and Native American Scientists (SACNAS) Grant Writing Workshop
- Mentor for the Resume vs. CV workshop for undergraduate STEM Scholars, a learning community for under-represented minority students at ISU
- 2016 Central Caribbean Marine Institute NSF REU Workshop Series:
How to write a scientific paper
- 2016 – present Co-host of Major Revisions, an ecology podcast for early career scientists. Our show reaches more than 400 subscribers, with each episode averaging 400-500 listens.
www.majorrevisionsshow.com