

CURRICULUM VITAE

Amina I. Pollard

Office of Water, U.S. Environmental Protection Agency (participation in scientific societies in personal capacity only)

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ACADEMIC TRAINING

Ph.D. 2002 University of Wisconsin-Madison, Limnology and Marine Sciences

M.S. 1997 Wright State University, Biological Sciences

B.A. 1995 Lawrence University, Biological Sciences

1994 Boston University Marine Program

PROFESSIONAL EMPLOYMENT

2025 – present Senior Science Advisor, Office of Wetlands, Oceans, and Watersheds, Office of Water, U.S. Environmental Protection Agency, Washington, DC

2020 - 2025 Research Coordinator for EPA's National Water Program, Office of Science and Technology, Office of Water, U.S. Environmental Protection Agency, Washington, DC

2010 – 2020 Lead for U.S. National Lakes Assessment, Office of Wetlands, Oceans, and Watersheds, Office of Water, U.S. Environmental Protection Agency, Washington, DC

2006 – 2010 Ecologist, National Center for Environmental Assessment, Office of Research and Development, U.S. Environmental Protection Agency, Washington, DC

2003 – 2006 Ecologist, Postdoctoral Fellow, Office of Research and Development, U.S. Environmental Protection Agency, Washington, DC

PROFESSIONAL INTERESTS

Aquatic ecology, Freshwater landscape ecology, Human-environment interactions, Environmental science and policy

SELECT PROFESSIONAL ACTIVITIES, SERVICE, AND COMMITTEES

National Environmental Protection Agency – Tribal Science Council member, 2023 - present

Science Policy Career Panelist, Ecological Society of America's Katherine S. McCarter Graduate Student Policy Award event, 2024, 2023, 2022

Member at Large, Association for the Sciences of Limnology and Oceanography Board of Directors, 2021 – 2024, 2018 – 2021

Brazil – U.S. Water Quality Team member, 2018 - 2021

International Advisor, NESRC Canadian Lake Pulse Network Scientific Committee, 2016 - 2021

U.S. Embassy Science Fellow, Uruguay, 2015

AWARDS AND HONORS

Outstanding Alumna, Wright State University College of Science and Mathematics, 2025

Kaeser Visiting Scholar, University of Wisconsin- Madison's Center for Limnology, 2024

Sustaining Fellow, Association for the Sciences on Limnology and Oceanography, 2022

Friends of North American Lake Management Society Award, 2018

Association of Public Data Users Data Visualization Award, 2017

U.S. Environmental Protection Agency Awards:

Scientific and Technology Achievement Awards, 2025, 2017, 2016, 2014

EPA Gold medal for Exceptional Service, 2011

EPA Silver medal for Superior Service, 2021

Office of Water Bronze medal, 2016, 2010

Office of Water Achievement in Science and Technology, 2016, 2014

Office of Research and Development Bronze medal, 2010, 2010, 2007

Keynote or Plenary speaker:

Keynote speaker, Biological Seminar Series, Lawrence University, 2024

Plenary speaker, North American Lake Management Society (NALMS), 2018

Plenary speaker, Association for the Sciences of Limnology and Oceanography (ASLO), 2018

Keynote speaker, Spring Runoff Conference, Utah State University, 2018

Keynote speaker, NSERC Canadian Lake Pulse Network Annual General Meeting, 2017

Women in Science and Engineering Leadership Institute Earth Science Women's Network

Distinguished Speakers Series, University of Wisconsin-Madison, 2017

NSERC Canadian Lake Pulse Network, 2015

Ecology Program, Université du Québec à Montréal, 2012

PEER-REVIEWED PUBLICATIONS

Webb, J.A., Schofield, K.A., Cook, C.N., Fisher, J.R., Cheng, S.H., Christie, A., Cooke, S.J., Dubois, N.S., Frampton, G., Macura, B. and Nichols, S.J., 2026. A Standardized Definition of Rapid Evidence Assessment for Environmental Applications. *Conservation Letters*, 19(1), p.e70005.

Meyer, M.F., Kraemer, B.M., Barbosa, C.C., Cunha, D.G., Dodds, W.K., Hampton, S.E., Ordóñez, C., Pilla, R.M., Pollard, A.I., Culpepper, J.A. and Fremier, A.K., 2025. Clarifying the trophic state concept to advance macroscale freshwater science and management. *Ecosphere*, 16(9), p.e70392.

Le Noac'h, P., Cremella, B., Kim, J., Soria-Píriz, S., del Giorgio, P.A., Pollard, A.I., Huot, Y. and Beisner, B.E., 2024. Nutrient availability is the main driver of nanophytoplankton phago-mixotrophy in North American lake surface waters. *Journal of Plankton Research*, 46(1), pp.9-24.

Meyer, M.F., Topp, S.N., King, T.V., Ladwig, R., Pilla, R.M., Dugan, H.A., Eggleston, J.R., Hampton, S.E., Leech, D.M., Oleksy, I.A. and Ross, J.C., 2024. National-scale remotely sensed lake trophic state from 1984 through 2020. *Scientific data*, 11(1), p.77.

Nord, M.A., Maier, M.A., Bijak, A.L., Crane, J.L. and Pollard, A.I., 2024. Assessment of recent lake sediment conditions in the conterminous US. *Science of The Total Environment*, 956, p.177315.

Smucker, N.J., Pilgrim, E.M., Nietch, C.T., Gains-Germain, L., Carpenter, C., Darling, J.A., Yuan, L.L., Mitchell, R.M. and Pollard, A.I., 2024. Using DNA metabarcoding to characterize national scale diatom-environment relationships and to develop indicators in streams and rivers of the United States. *Science of The Total Environment*, p.173502.

Yuan, L.L., Carlisle, D.M., Mitchell, R.M. and Pollard, A.I., 2024. Using models of local environmental conditions for biological assessment. *Freshwater Science*, 43(3), pp.325-339.

- Nietch, C., Gledhill, P., Smucker, N., Heberling, M.T., Pilgrim, E., Mitchell, R., Pollard, A. and Yuan, L., 2023. TMDL Development in a SW Ohio Watershed. *Lakeline*, 4, 45-49.
- Yuan, L. L., Mitchell, R. M., Pollard, A. I., Nietch, C. T., Pilgrim, E. M., & Smucker, N. J., 2023. Understanding the effects of phosphorus on diatom richness in rivers and streams using taxon–environment relationships. *Freshwater Biology*, 68(3), 473-486.
- Carlisle, D.M., Spaulding, S.A., Tyree, M.A., Schulte, N.O., Lee, S.S., Mitchell, R.M. and Pollard, A.I., 2022. A web-based tool for assessing the condition of benthic diatom assemblages in streams and rivers of the conterminous United States. *Ecological Indicators*, 135, p.108513.
- Fergus, C.E., Brooks, J.R., Kaufmann, P.R., Pollard, A.I., Mitchell, R., Geldhof, G.J., Hill, R.A., Paulsen, S.G., Ringold, P. and Weber, M., 2022. Natural and anthropogenic controls on lake water-level decline and evaporation-to-inflow ratio in the conterminous United States. *Limnology and oceanography*, 67(7), pp.1484-1501.
- Fergus, C.E., Brooks, J.R., Kaufmann, P.R., Pollard, A.I., Herlihy, A.T., Paulsen, S.G. and Weber, M.H., 2021. National framework for ranking lakes by potential for anthropogenic hydro-alteration. *Ecological Indicators*, 122, p.107241.
- Fergus, C.E., Brooks, J.R., Kaufmann, P.R., Herlihy, A.T., Pollard, A.I., Weber, M.H. and Paulsen, S.G., 2020. Lake water levels and associated hydrologic characteristics in the conterminous US. *JAWRA Journal of the American Water Resources Association*, 56(3), pp.450-471.
- Papenfus, M., Schaeffer, B., Pollard, A.I. and Loftin, K., 2020. Exploring the potential value of satellite remote sensing to monitor chlorophyll-a for US lakes and reservoirs. *Environmental Monitoring and Assessment*, 192(12), pp.1-22.
- Doubek, J.P., C.C. Carey, M. Lavender, A.K. Winegardner, M. Beaulieu, P.T. Kelly, A.I. Pollard, D. Straile, and J.D. Stockwell. 2019. Calanoid copepod zooplankton density is positively associated with water residence time across the continental United States. *PLoS one* 14: e0209567.
- King, K., K.S. Cheruvilil, and A. Pollard. 2019. Drivers and spatial structure of abiotic and biotic properties of lakes, wetlands, and streams at the national scale. *Ecological Applications* 00 (00):e01957. [10.1002/eap.1957](https://doi.org/10.1002/eap.1957)
- Sprague, L.A., R.M. Mitchell, A.I. Pollard, and J.A. Falcone. 2019. Assessing water-quality changes in US rivers at multiple geographic scales using results from probabilistic and targeted monitoring. *Environmental monitoring and assessment* 191: 348. <https://doi.org/10.1007/s10661-019-7481-5>
- Tausz, C.E., Beaver, J.R., Renicker, T.R., Klepach, J.A., Pollard, A.I. and Mitchell, R.M., 2019. Biogeography and co-occurrence of 16 planktonic species of Keratella Bory de St. Vincent, 1822 (PLOIMA, BRACHIONIDAE) in lakes and reservoirs of the United States. *Zootaxa*, 4624(3), pp. zootaxa-4624.
- Wickland, K.P. and A.I. Pollard. 2019. The ASLO Awards Program primer: How it works, historical trends, and how you can get involved. *Limnology and Oceanography Bulletin*.
- Yuan, L.L. and A.I. Pollard. 2019. Combining national and state data improves predictions of microcystin concentration. *Harmful Algae* 84: 75-83. <https://doi.org/10.1016/j.hal.2019.02.009>

- Alexander, L. C., K.M. Fritz, K.A. Schofield, B.C. Autrey, J.E. DeMeester, H.E. Golden, ... & S.D. LeDuc. 2018. Featured Collection Introduction: Connectivity of streams and wetlands to downstream waters. *JAWRA Journal of the American Water Resources Association*. 54: 287–297.
- Beaver, J.R., C.E. Tausz, K.C. Scotese, A.I. Pollard, and R.M. Mitchell. 2018. Environmental factors influencing the quantitative distribution of microcystin and common potentially toxigenic cyanobacteria in U.S. lakes and reservoirs. *Harmful Algae* 78: 118–28.
<https://doi.org/10.1016/j.hal.2018.08.004>.
- Fritz, K. M., K.A. Schofield, L.C. Alexander, M.G. McManus, H.E. Golden, C.R. Lane, ... & A.I. Pollard. 2018. Physical and chemical connectivity of streams and riparian wetlands to downstream waters: A synthesis. *JAWRA Journal of the American Water Resources Association*. 54: 323-345.
- Leech, D.M., A.I. Pollard, S.G. Labou, and S.E. Hampton. 2018. Fewer blue lakes and more murky lakes across the continental U.S.: Implications for planktonic food webs. *Limnology and Oceanography* 0 (0). <https://doi.org/10.1002/lno.10967>.
- Mantzouki, E., Beklioğlu, M., Brookes, J.D., de Senerpont Domis, L.N., Dugan, H.A., Doubek, J.P., Grossart, H.P., Nejstgaard, J.C., Pollard, A.I., Ptacnik, R. and Rose, K.C., 2018. Snapshot surveys for lake monitoring, more than a shot in the dark. *Frontiers in ecology and evolution*, 6, p.201.
- Mushet, D.M., L.C. Alexander, M. Bennett, K. Schofield, J.R. Christensen, G. Ali, A. Pollard, K. Fritz, and M.W. Lang. 2018. Differing modes of biotic connectivity within freshwater ecosystem mosaics. *JAWRA Journal of the American Water Resources Association* 0 (0). <https://doi.org/10.1111/1752-1688.12683>.
- Pollard, A.I, S.E. Hampton, & D.M. Leech. 2018. The promise and potential of continental-scale limnology using the U.S. Environmental Protection Agency’s National Lakes Assessment. *Limnology and Oceanography Bulletin*. 27: 36-41.
- Schofield, K. A., L.C. Alexander, C.E. Ridley, M.K. Vanderhoof, K.M. Fritz, B.C. Autrey, ... & A.I. Pollard. 2018. Biota connect aquatic habitats throughout freshwater ecosystem mosaics. *JAWRA Journal of the American Water Resources Association*. 54: 372-399.
- Yuan, L.L., and A.I. Pollard. 2018. Changes in the relationship between zooplankton and phytoplankton biomasses across a eutrophication gradient. *Limnology and Oceanography*.
<https://doi.org/10.1002/lno.10955>.
- Soranno, P.A., L.C. Bacon, M. Beauchene, K.E. Bednar, E.G. Bissell, C.K. Boudreau, M.G. Boyer, M.T. Bremigan, S.R. Carpenter, J.W. Carr, and K.S. Cheruvilil, ...et al. 2017. LAGOS-NE: a multi-scaled geospatial and temporal database of lake ecological context and water quality for thousands of US lakes. *GigaScience*, 6(12), pp.1-22.
- Yuan, L.L. and A.I. Pollard. 2017. Using national-scale data to develop nutrient–microcystin relationships that guide management decisions. *Environmental Science & Technology*, 51(12), pp.6972-6980.
- Stoddard, J.L., J. Van Sickle, A.T. Herlihy, J. Brahney, S. Paulsen, D.V. Peck, R. Mitchell, and A.I. Pollard. 2016. Continental-scale increase in lake and stream phosphorus: Are oligotrophic systems disappearing in the United States? *Environmental science & technology* 50: 3409-3415.
- Yuan, L. L. and A.I. Pollard. 2015. Deriving nutrient targets to prevent excessive cyanobacterial densities in U.S. lakes and reservoirs. *Freshwater Biology* 60: 1901–1916.
- Beaver, J.R., E.E. Manis, K.A. Loftin, J.L. Graham, A.I. Pollard and R.M. Mitchell. 2014. Land use patterns, ecoregion, and microcystin relationships in U.S. lakes and reservoirs: A preliminary evaluation. *Harmful Algae*, 36: 57-62.

- McDonald, C.P., N.R. Lottig, J.L. Stoddard, A.T. Herlihy, S. Lehmann, S.G. Paulsen, D.V. Peck, A.I. Pollard and R.J. Stevenson. 2014. Comment on Bachmann et al. (2013): A nonrepresentative sample cannot describe the extent of cultural eutrophication of natural lakes in the United States. *Limnology and Oceanography* 59: 2226-2230.
- Yuan, L.L. and A.I. Pollard. 2014. Classifying lakes to improve precision of nutrient- chlorophyll relationships. *Freshwater Science* 33: 1184-1194.
- Yuan, L.L. and A.I. Pollard. 2014. Classifying lakes to quantify relationships between epilimnetic chlorophyll a and hypoxia. *Environmental management* 1-10.
- Yuan, L.L., A.I. Pollard, S. Pather, J.L. Oliver and L. D'Anglada. 2014. Managing microcystin: identifying national-scale thresholds for total nitrogen and chlorophyll a. *Freshwater Biology* 59: 1970–1981.
- Griffith M.B., S.B. Norton, L.C. Alexander, A.I. Pollard and S.D. LeDuc. 2012. The effects of mountaintop mines and valley fills on the physicochemical quality of stream ecosystems in the central Appalachians: A review. *Science of the Total Environment* 417: 1-12.
- Culp J.M., D.G. Armanini, M.J. Dunbar, J.M. Orlofske, N.L. Poff, A.I. Pollard, A.G. Yates and G.C. Hose. 2011. Incorporating traits in aquatic biomonitoring to enhance causal diagnosis and prediction. *Integrated Environmental Assessment and Management* 7: 187-197.
- Pollard A.I. and L.L. Yuan. 2010. Assessing the consistency of response metrics of the invertebrate benthos: a comparison of trait- and identity-based measures. *Freshwater Biology* 55: 1420-1429.
- Yuan L.L., A.I. Pollard and D.M. Carlisle. 2009. Using propensity scores to estimate the effects of insecticides on stream invertebrates from observational data. *Environmental Toxicology and Chemistry* 28: 1518-1527.
- Pollard, A.I. and L.L. Yuan. 2006. Community response patterns: an evaluation of benthic invertebrate assemblage composition in metal polluted streams. *Ecological Applications* 16: 645-655.
- Hrabik T.R., B.K. Greenfield, D.B. Lewis, A.I. Pollard, and K.A. Wilson, T.K. Kratz. 2005. Landscape-scale variation in taxonomic diversity in four groups of aquatic organisms: The influence of physical, chemical, and biological properties. *Ecosystems* 8: 301-17.
- Hanson, PC, A.I. Pollard, D.L. Bade, K. Predick, S.R. Carpenter, and J.A. Foley. 2004. A model of carbon evasion and sedimentation in temperate lakes. *Global Change Biology* 10: 1285-98.
- Pollard, A.I. and T. Reed. 2004. Benthic invertebrate assemblage changes following dam removal in a Wisconsin stream. *Hydrobiologia* 513: 51-8.
- Pollard, A.I., M.J. Gonzalez, M.J. Vanni and J.L. Headworth. 1998. Effects of turbidity and biotic factors on the rotifer community in an Ohio reservoir. *Hydrobiologia* 388:215-23.