ABIGAIL LEWIS, Ph.D.

Smithsonian Environmental Research Center, Edgewater, MD, USA
abigail.sl.lewis@gmail.com | (262) 565-7269

EDUCATION

2019–2024 **Ph.D. in Biological Sciences**, Virginia Tech
- Dissertation: *Oxygen dynamics in the bottom-waters of lakes: Understanding the past to predict the* future; Advisor: Dr. Cayelan Carey
- Preparing the Future Professoriate Certificate, Associate of the Graduate Academy for Teaching Excellence

2015–2019 **B.A. in Biology**, Spanish minor, Pomona College
- Thesis: *Effects of artificial light at night on benthic freshwater carbon cycling*; Advisor: Dr. Wallace Meyer III
- *Magna cum laude*, Phi Beta Kappa, Distinction in the Senior Exercise

RESEARCH EXPERIENCE

2024–present **Postdoctoral Climate Change Fellow**, Smithsonian Institution

2019–2024 **NSF Graduate Research Fellow**, Virginia Tech

Institute for Critical Technology and Applied Science (ICTAS) Doctoral Scholar, Virginia Tech

2018 **NSF REU Intern**, University of Wisconsin Madison

2017 **NSF REU Intern**, Cary Institute of Ecosystem Studies (CIES)

2016–2017 **Research Assistant**, Pomona College

FELLOWSHIPS (total of ~$579,120)

2024 **Fulbright Postdoctoral Fellowship** (Spain; ~$32,500, *declined*)

Science Communication In the Parks Fellowship, Ecological Society of America and the U.S. National Parks Service ($3700)

2023 **Smithsonian Climate Change Fellowship** ($133,920)

2019 **NSF Graduate Research Fellowship** ($141,000)

ICTAS Doctoral Fellowship, Virginia Tech (~$192,000)

Cunningham Fellowship, Virginia Tech (~$76,000; *declined)*

Interfaces of Global Change Fellowship, Virginia Tech

SELECTED GRANTS AND AWARDS (total of $28,000)

2024 **Outstanding Doctoral Student Award**, Virginia Tech College of Science ($500)

Trailblazing Award in Community & Outreach, Ecological Society of America Student Section ($700)

Outstanding Student Presentation Award, American Geophysical Union ($200)

2023 **Noel Krieg Graduate Fellowship**, Virginia Tech ($2,000)

2022 **Make-a-Difference Award**, Virginia Tech College of Science Roundtable ($10,000)

Mary and George Schaeffer Stream Team Excellence Award, Virginia Tech ($1,000)

Katherine S. McCarter Graduate Student Policy Award, Ecological Society of America

Graduate Academy for Teaching Excellence Associate, Virginia Tech

2021 **AGU Sharing Science Grant** ($1,000)
- Funded the development of a flipped science fair, where elementary students judged graduate student science fair posters

2019 **John Stauffer Scholarship for Academic Merit**, Pomona College ($12,000)
- Description: "An award is made to a senior student majoring in Physics, Chemistry, or a related science, who exhibits the highest academic promise"

Vaile Prize, Pomona College ($600)

Distinction in the senior exercise, Pomona College

PEER-REVIEWED PUBLICATIONS (* indicates mentored undergraduate student). *Total of 32 published or in review; 11 first-author*

In review Hounshell, A. G., **A. S. L. Lewis**, D. W Howard, H. L. Wander, M. E. Lofton, P. C. Hanson, and C. C. Carey. Dissolved organic carbon dynamics are driven by water temperature, primary production, and anoxia over five years of whole-ecosystem experiments in a eutrophic reservoir. Accepted at *Aquatic Sciences*.

Lewis, A. S. L., J. R. Holmquist, A. N. Al-Haj, Z. N. Read, R. L. Rich, J. P. Megonigal, and G. L. Noyce. Warming decreases the predictability of coastal wetland methane emissions. In review at *Ecosphere*.

Lewis, A. S. L., D. C. Richardson, D. W. Howard, C. C. Carey, Y. Amitai, S. Bansal, E. de Eyto, H-P Grossart, K. K. Hoffman, R. Hovel, L. Knoll, B. M. Kraemer, I. Oleksy, M. Schmid, R. Schwefel, D. Straile, X. Sun, G. A. Weyhenmeyer, W. M. Woelmer, S. Wollrab, and P. Znachor. How should we analyze seasons and seasonality in lakes? In revision at *Limnology and Oceanography Letters*.

Colton, M., T. Fanara, S. Babin, **A. S. L. Lewis,** M. Dietze, C. Brown, M. Cotnoir, A. Caldas, and K. Boyd. Ecological Forecasting for Readiness, Resilience, and Response. In revision at *Bulletin of the American Meteorological Society.*

Rabaey, J. S., **A. S. L. Lewis**, K. Attermeyer, P. Aurich, S. Bansal, M. Bartosiewicz, B. L. Bertolet, I. Bussmann, S. B. Cadieux, E. Calamita, C. Capelli, C. C. Carey, C. Cillero, F. Clayer, S. L. D'Ambrosio, T. A. Davidson, B. R. Deemer, B. A. Denfeld, W. Eckert, C. Esposito, P. Ford, A. Gorsky, N. A. Griffiths, H-P. Grossart, D. P. Hamilton, M. A. Holgerson, B. J. Huser, T. Iwata, J. Jansen, S. Jones, S. Juutinen, P. Kortelainen, M. Koschorreck, T. Kragh, A. Laas, T. Larmola, S. Läubli, I. Laurion, M. F. Lehmann, L. Liu, P. J. Martikainen, A. Matoušů, S. A. McCord, J. J. Montes-Pérez, D. Nizzoli, C. Ordóñez, M. Peacock, R. M. Pilla, V. Preskienis, J. Pu, T. Riis, T. Saarela, A. B. Santoso, C. J. Schubert, A. Sepulveda-Jauregui, B. S. Sherman, J. S. Sø, K. J. Stenehjem, K. J. Stenehjem, K. E. D. Strock, K. Tsuchiya, K. Wendt-Potthoff, G. A. Weyhenmeyer, P. Znachor, and J. Zopfi. Carbon dioxide and methane depth-profile concentrations in 544 lakes, ponds, and reservoirs worldwide. In revision at *Scientific Data*.

Holmquist, J. R., A. R. Carr, and **A. S. L. Lewis**. Continuous Salinity Mapping for Coastal Wetlands in the United States. In revision at *Remote Sensing of the Environment*.

Sjodin, A., G. Stokes, C. Gallagher, M. Javadian, **A. S. L. Lewis**, C. Schreiner, L. Super, B. Tuschhoff, A. Willson, M. C. Dietze, J. MacLachlan, and J. Peters. Toward a standard lexicon for ecological forecasting. In revision at *Frontiers in Ecology and the Environment.*

2025 **Lewis, A. S. L.**, D. Mercado-Bettin, and C. C. Carey. 2025. Ecological memory contributes to a spatial mismatch in water quality trends between the surface and bottom waters of 382 temperate lakes. *Ecology Letters*, 28(11): e70243. https://doi.org/10.1111/ele.70243

Olsson, F. E., C. C. Carey, G. Harrison, R. Ladwig, M. F. Lapeyrolerie, **A. S. L. Lewis**, M. E. Lofton, F. Montealegre-Mora, J. S. Rabaey, C. J. Robbins, X. Yang, and R. Q. Thomas. 2025. What can we learn from 100,000 freshwater forecasts? A synthesis from the NEON Ecological Forecasting Challenge. *Ecological Applications, 35(1): e70004.* https://doi.org/10.1002/eap.70004

Wood, C. E., M. E. Schreiber, C. E. Bauer, A. Breef-Pilz, **A. S. L. Lewis**, N. W. Hammond, R. P. McClure, M. F. Verne, and C. C. Carey. 2025 Preemptive activation of hypolimnetic oxygenation improves control of Fe and Mn in drinking water reservoirs. *Water Research,* 124722. https://doi.org/10.1016/j.watres.2025.124722

2024 **Lewis, A. S. L.**, A. Breef-Pilz, D. W. Howard, M. E. Lofton, F. Olsson, H. L. Wander, C. E. Wood, M. E. Schreiber, and C. C. Carey. 2024. Reservoir Drawdown Highlights the Emergent Effects of Water Level Change on Reservoir Physics, Chemistry, and Biology. *JGR Biogeosciences,* 129, e2023JG007780. https://doi.org/10.1029/2023JG007780

Lewis, A. S. L., M. P. Lau, S. F. Jane, K. C. Rose, Y. Be'eri-Shlevin, S. H. Burnet, F. Clayer, H. Feuchtmayr, H. P. Grossart, D. W. Howard, H. Mariash, J. Delgado Martin, R. L. North, I. Oleksy, R. M. Pilla, A. P. Smagula, R. Sommaruga, S. E. Steiner, P. Verburg, D. Wain, G. A. Weyhenmeyer, and C. C. Carey. 2024. Anoxia Begets Anoxia: a positive feedback to the deoxygenation of temperate lakes. *Global Change Biology,* 30(1), e17046. https://doi.org/10.1111/gcb.17046

- Reported in 36 news stories from 34 outlets (Altmetric)

Mesman, J. P., C. C. Barbosa, **A. S. L. Lewis**, F. E. Olsson, S. Calhoun-Grosch, H.-P. Grossart, R. Ladwig, R. S. La Fuente, K. Münzner, L. G. T. Nkwalale, R. M. Pilla, K. Suresh, and D. J. Wain. 2024. Challenges of Open Data in aquatic sciences: issues faced by data users and data providers. *Frontiers in Environmental Science,* 12:1497105. https://doi.org/10.3389/fenvs.2024.1497105

Howard, D. W., J. A. Brentrup, D. C. Richardson, **A. S. L. Lewis**, F. E. Olsson, and C. C. Carey. Variability in ice cover does not affect annual metabolism estimates in a small eutrophic reservoir. *JGR Biogeosciences*, 129, e2024JG008057. https://doi.org/10.1029/2024JG008057

Malmborg, C. A., A. M. Willson, L. M. Bradley, M. A. Beatty, D. H. Klinges, G. Koren, **A. S. L. Lewis**, K. Oshinubi, and W. M. Woelmer. Defining Model Complexity: An Ecological Perspective. *Meteorological Applications*, 31(3), e2202. https://doi.org/10.1002/met.2202

Wander, H. L., **A. S. L. Lewis**, D. W. Howard, M. E. Lofton, W. M. Woelmer, B. L. Brown, and C. C. Carey. 2024. Zooplankton community structure and diel migration patterns vary over hours, days, and years in the pelagic and littoral zone of a eutrophic reservoir. *Journal of Plankton Research*, fbae017. https://doi.org/10.1093/plankt/fbae017

Man, X., C. Lei, K. A. Bierlein, L. D. Bryant. **A. S. L. Lewis**, C. C. Carey, and J. C. Little. 2024. Computationally characterizing the diffusive boundary layer in lakes and reservoirs. *Journal of Soils and Sediments, 24, 2132–2143.* https://doi.org/10.1007/s11368-024-03767-0

2023 **Lewis, A. S. L.**, C. R. Rollinson, A. J. Allyn, J. Ashander, S. Brodie, C. B. Brookson, E. Collins, M. C. Dietze, A. S. Gallinat, N. Juvigny-Khenafou, G. Koren, D. J. McGlinn, J. A. Peters, N. R. Record, C. J. Robbins, J. Tonkin, and G. M. Wardle. 2023. The power of forecasts to advance ecological theory. *Methods in Ecology and Evolution,* 14(3), 746–756. https://doi.org/10.1111/2041-210X.13955

Lewis, A. S. L., M. E. Schreiber, B. R. Niederlehner, A. Das*, N. W. Hammond, M. E. Lofton, H. L. Wander, and C. C. Carey. 2023. Effects of Hypoxia on Coupled Iron and Carbon Cycling Differ by Timescale in Two Freshwater Reservoirs. *JGR: Biogeosciences,* 128(1), e2022JG007071. https://doi.org/10.1029/2022JG007071

Lewis, A. S. L., D. W. Howard, G. Koren, C. Kowalski, J. McLachlan, J. A. Peters, O. Tabares, and G. Smies. 2023. Ethics in ecological forecasting: a case-based learning set. *Teaching Issues and Experiments in Ecology,* 19(13). https://doi.org/10.25334/5D99-Y019

Lewis, A. S. L., G. O'Malley, G. K. Palissery, A. Hensley, C. López Lloreda, C. Perez, and E. K. Bueren. 2023. Flipped Science Fair invites children to judge graduate student posters through a university-community partnership. *Journal of STEM Outreach,* 6(1), 1–12. https://doi.org/10.15695/jstem/v6i1.14

Thomas, R.Q., C. Boettiger, C.C. Carey, M.C. Dietze, L.R. Johnson, M.A. Kenney, J.S. Mclachlan, J.A. Peters, E.R. Sokol, J.F. Weltzin, A. Willson, W.M. Woelmer, and **Challenge Contributors**. 2023. The NEON Ecological Forecasting Challenge. *Frontiers in Ecology and the Environment,* 21(3), 112–113. https://doi.org/10.1002/fee.2616

Woelmer, W. M., A. G. Hounshell, M. E. Lofton, H. L. Wander, **A. S. L. Lewis**, D. Scott, and C. C. Carey. 2023. The importance of time and space in biogeochemical heterogeneity and processing along the reservoir ecosystem continuum. *Aquatic Sciences,* 85(2), 66. https://doi.org/10.1007/s00027-023-00959-7

2022 **Lewis, A. S. L.**, W. M. Woelmer, H. L. Wander, D. W. Howard, J. W. Smith, R. P. McClure, M. E. Lofton, N. W. Hammond, R. S. Corrigan, R. Q. Thomas, and C. C. Carey. 2022. Increased adoption of best practices in ecological forecasting enables comparisons of forecastability across systems. *Ecological Applications,* 32(2), e02500. https://doi.org/10.1002/eap.2500

Jane, S., J. L. Mincer, M. P. Lau, **A. S. L. Lewis**, J. T. Stetler, and K. C. Rose. 2022. Longer duration of seasonal stratification contributes to widespread increases in lake hypoxia and anoxia. *Global Change Biology,* 29(4), 1009–1023. https://doi.org/10.1111/gcb.16525

Lofton, M. E., D. W. Howard, R. P. McClure, H. L. Wander, W. M. Woelmer, A. G. Hounshell, **A. S. L. Lewis**, and C. C. Carey. 2022. Experimental thermocline deepening alters vertical distribution and community structure of phytoplankton in a four-year whole-reservoir manipulation. *Freshwater Biology,* 67(11), 1903–1924. https://doi.org/10.1111/fwb.13983

Carey C. C., P. C. Hanson, R. Q. Thomas, A. B. Gerling, A. Hounshell, **A. S. L. Lewis**, M. E. Lofton, R. P. McClure, H. L. Wander, W. M. Woelmer, B. R. Niederlehner, and M. E. Schreiber. 2022. Anoxia decreases the magnitude of the carbon, nitrogen, and phosphorus sink in freshwaters. *Global Change Biology,* 28(16), 4861–4881. https://doi.org/10.1111/gcb.16228

2021 Carey, C. C., W. M. Woelmer, M. E. Lofton, R. J. Figueiredo, B. J. Bookout, R. S. Corrigan, V. Daneshmand, A. G. Hounshell, D. W. Howard, **A. S. L. Lewis**, R. P. McClure, H. L. Wander, N. K. Ward, and R. Q. Thomas. 2021. Advancing lake and reservoir water quality management with near-term, iterative ecological forecasting. *Inland Waters,* 12(1), 107–120. https://doi.org/10.1080/20442041.2020.1816421

Woelmer, W. M., L. M. Bradley, L. T. Haber, D. H. Klinges, **A. S. L. Lewis**, E. Mohr, C. L. Torrens, K. I. Wheeler, and A. M. Willson. 2021. 10 Simple Rules for training yourself in an emerging field. *PLOS Computational Biology,* 17(10), e1009440. https://doi.org/10.1371/journal.pcbi.1009440

2020 **Lewis, A. S. L.**, B. S. Kim, H. L. Edwards, H. L. Wander, C. M. Garfield, H. E. Murphy, N. D. Poulin, S. D. Princiotta, K. C. Rose, A. E. Taylor, K. C. Weathers, C. R. Wigdahl-Perry, K. Yokota, D. C. Richardson, and D. A. Bruesewitz. 2020. Prevalence of nitrogen and phosphorus colimitation of freshwater phytoplankton explained by nitrogen deposition and lake characteristics across northeastern United States. *Inland waters,* 10(1), 42–50. https://doi.org/10.1080/20442041.2019.1664233

2018 Frassl, M. A, D. P. Hamilton, B. A. Denfeld, E. de Eyto, S. E. Hampton, P. S. Keller, S. Sharma, **A. S. L. Lewis**, G. A. Weyhenmeyer, C. M. O'Reilly, M. E. Lofton, and N. Catalán. 2018. Ten simple rules for collaboratively writing a multi-authored paper. *PLOS Computational Biology,* 14(11), e1006508. https://doi.org/10.1371/journal.pcbi.1006508

2017 Lewis, S. E., J. J. Piatt., and **A. S. L. Lewis.** 2017. Impact of a diet of native or non-native leaves on an amphipod *Gammarus pseudolimnaeus*. *Freshwater Science,* 36(4), 739–749. https://doi.org/10.1086/694855

OTHER TECHNICAL WRITING

2025 Peters, J., **A. S. L. Lewis**, A. Willson, C. Kowalski, C. Brookson, G. Koren, H. Moustahfid, H. O'Grady, J. McLachlan, J. Zobitz, M. Lofton, R. Krasnow, and S. Shafiei Sabet. Resources for Reviewing Code. Ecological Forecasting Initiative Blog. https://ecoforecast.org/resources-for-reviewing-code/

2024 American Meteorological Society. 2024. The Future of Ecological Forecasting (Contributed to conceptualization, drafting, and revision)

2023 Bickley, S. L., S. Sickler, **A. S. L. Lewis**, C. D. Davis, and K. Macdonald. Weiss reservoir is a source of greenhouse gas emissions. *Public comment submitted to the U. S. Federal Energy Regulatory Commission*. https://elibrary.ferc.gov/eLibrary/filelist?accession_num=20230113-5184

2021 **Lewis, A. S. L.**, B. Toh, J. Zwart, A. Shiklomanov, L. Johnson, E. White, H. Moustahfid, K. Heilman, A. Griffin, J. Peters, Q. Thomas, and M. Dietze. 2021. Uncertainty quantification, Data assimilation, Modeling & Statistics. *Ecological Forecasting Initiative Task View.* https://projects.ecoforecast.org/taskviews/uncertainty-quantification-data-assimilation-modeling-statistics.html

NOVEL CODE PUBLICATIONS

2025 **Lewis, A. S. L.** and D. C. Richardson. 2025. abbylewis/Seasons_in_lakes: Initial code release for manuscript submission (v1.0.0). *Zenodo*. https://doi.org/10.5281/zenodo.15786637

Lewis, A. S. L. and Rabaey, J. 2025. abbylewis/GHG_depth_profile_data: Code release for manuscript submission (v1.0.0). Zenodo. https://doi.org/10.5281/zenodo.17782009

Lewis, A. S. L. 2025. abbylewis/SMARTX_CH4cast: Forecasts of methane (CH4) fluxes from the Salt Marsh Accretion Response to Temperature eXperiment (SMARTX) (v1.0.1). *Zenodo.* https://doi.org/10.5281/zenodo.15352913

Lewis, A. S. L. 2025. abbylewis/Spring_memory: Data analysis of bottom-water temperature and oxygen dynamics in 615 lakes (v1.2.2). *Zenodo.* https://doi.org/10.5281/zenodo.10714287

2024 **Lewis, A. S. L.**, M. E. Lofton, A. Breef-Pilz, and F. Olsson. 2024. abbylewis/BVR_Drawdown: Effects of a 2022 drawdown on water quality in Beaverdam Reservoir (v1.1.0) [R]. *Zenodo*. https://doi.org/10.5281/zenodo.8330109

Howard, D., Brentrup, J., Richardson, D., **Lewis, A. S. L.**, Olsson, F., and Carey, C. 2024. dwh77/FCR_Metab: Metabolism estimates in Falling Creek Reservoir. *Zenodo*. https://doi.org/10.5281/zenodo.10575646

2023 **Lewis, A. S. L.** and M. P. Lau. 2023. abbylewis/Anoxia-Begets-Anoxia: Data analysis of biogeochemical dynamics in 656 lakes (v1.1.1) [R]. *Zenodo*. https://doi.org/10.5281/zenodo.10086950

Lewis, A. S. L. 2023. abbylewis/FeDOC: Effects of hypoxia on coupled carbon and iron cycling in two freshwater reservoirs (v1.1.0) [R]. *Zenodo*. https://doi.org/10.5281/zenodo.7527419

Wander, H. L., **A. S. L. Lewis**, D. W. Howard, M. E. Lofton, W. M. Woelmer, B. L. Brown, and C. C. Carey. 2023. hlwander/bvr_zoops_code: Zooplankton exhibit multiple diel migration strategies and substantial interannual changes in community structure in a eutrophic reservoir: Code (v1.0) [R]. *Zenodo.* https://doi.org/10.5281/zenodo.8417404

DATA PUBLICATIONS (* indicates mentored undergraduate student).

For annually-revised datasets, the most recent citation is presented and the years of previous co-authored revisions are listed to the left.

2025 Holmquist, J., E. L. Koontz, A. Carr, **A. S. L. Lewis**, P. Megonigal, G. Noyce, S. Parker, A. E. Stearns, S. H. Wulfing, C. M. Young, and B. Roberts. 2025. NASA Blue Methane Field Monitoring for Louisiana and the Chesapeake Bay, 2019-2021. Figshare. https://doi.org/10.25573/serc.28373957.v1

Lewis, A. S. L., J. S. Rabaey, K. Attermeyer, P. Aurich, S. Bansal, M. Bartosiewicz, B. L. Bertolet, I. Bussmann, S. B. Cadieux, E. Calamita, C. Capelli, C. C. Carey, C. Cillero, F. Clayer, S. L. D'Ambrosio, T. A. Davidson, B. R. Deemer, B. A. Denfeld, W. Eckert, C. Esposito, P. Ford, A. Gorsky, N. A. Griffiths, H. F. Grossart, D. P. Hamilton, M. A. Holgerson, B. J. Huser, T. Iwata, J. Jansen, S. Jones, S. Juutinen, P. Kortelainen, M. Koschorreck, T. Kragh, A. Laas, T. Larmola, S. Läubli, I. Laurion, M. F. Lehmann, L. Liu, P. J. Martikainen, A. Matoušů, S. A. McCord, J. J. Montes-Pérez, D. Nizzoli, C. Ordóñez, M. Peacock, R. M. Pilla, V. Preskienis, J. Pu, T. Riis, T. Saarela, A. B. Santoso, C. J. Schubert, A. Sepulveda-Jauregui, B. S. Sherman, J. S. Sø, K. J. Stenehjem, K. E. Strock, K. Tsuchiya, K. Wendt-Potthoff, G. A. Weyhenmeyer, P. Znachor, and J. Zopfi. 2025. Greenhouse gas depth-profile data in 522 lakes worldwide ver 3. Environmental Data Initiative. https://doi.org/10.6073/pasta/b2299c0d9804a662d6038923119b00c4

2025 *2024* *2023* *2022* *2021* *2019* Carey C. C., A. Breef-Pilz, **A. S. L. Lewis**, K. K. Hoffman. 2025. Time series of high-frequency profiles of depth, temperature, dissolved oxygen, conductivity, specific conductance, chlorophyll a, turbidity, pH, oxidation-reduction potential, photosynthetically active radiation, colored dissolved organic matter, phycocyanin, phycoerythrin, and descent rate for Beaverdam Reservoir, Carvins Cove Reservoir, Falling Creek Reservoir, Gatewood Reservoir, and Spring Hollow Reservoir in southwestern Virginia, USA 2013-2024. Environmental Data Initiative. https://doi.org/10.6073/pasta/75d1c9a57a49030c468ab19db3643c36

2025 *2024* *2023* *2022* Carey, C. C., A. Breef-Pilz, and **A. S. L. Lewis**. 2025. Time series of methane and carbon dioxide diffusive fluxes using an Ultraportable Greenhouse Gas Analyzer (UGGA) for Falling Creek Reservoir and Beaverdam Reservoir in southwestern Virginia, USA during 2018-2024 ver 4. Environmental Data Initiative. https://doi.org/10.6073/pasta/cdd88943c7990f28daa9b8ab7a6b9679

2024 *2023* *2022* *2021* Carey, C. C., F. E. Olsson, B. R. Niederlehner, A. Breef-Pilz, and **A. S. L. Lewis**. 2024. Time series of dissolved methane and carbon dioxide concentrations for Falling Creek Reservoir and Beaverdam Reservoir in southwestern Virginia, USA during 2015–2023 ver 8. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/5a45f25ba0440a5efd32177a9103fb5f

2024 Carey, C. C., A. Breef-Pilz, A. D. Delany, A. G. Hounshell, **A. S. L. Lewis**, H. L. Wander, G. Haynie, M. Kricheldorf, and E. Tipper. 2024. Time series of high-frequency sensor data measuring water temperature, dissolved oxygen, conductivity, specific conductance, total dissolved solids, chlorophyll a, phycocyanin, fluorescent dissolved organic matter, turbidity at discrete depths, and water level in Beaverdam Reservoir, Virginia, USA in 2009-2023 ver 4. Environmental Data Initiative. https://doi.org/10.6073/pasta/31bb6047e0ac367c60a61884338799c4

McAfee, B. J., M. E. Lofton, A. Breef-Pilz, K. J. Goodman, R. T. Hensley, K. K. Hoffman, D. W. Howard, **A. S. L. Lewis**, D. M. McKnight, I. A. Oleksy, H. L. Wander, C. C. Carey, A. Karpatne, and P. C. Hanson. 2024. LakeBeD-US: Ecology Edition - a benchmark dataset of lake water quality time series and vertical profiles. Environmental Data Initiative. https://doi.org/10.6073/pasta/c56a204a65483790f6277de4896d7140

2023 **Lewis, A. S. L.**, B. R. Niederlehner, A. Das*, H. L. Wander, M.E. Schreiber, and C. C. Carey. 2023. Experimental microcosm incubations assessing the effect of hypoxia on aqueous iron and organic carbon, pH, sediment organic carbon, and sediment iron-bound organic carbon ver 1. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/60a7784acef3038d3c8a16776a5b5746

Lewis, A. S. L., M. P. Lau, S. F. Jane, Y. Beeri-Shlevin, S. H. Burnet, F. Clayer, H. Feuchtmayr, H. Grossart, D. W. Howard, H. Mariash, J. Delgado-Martin, R. L. North, I. Oleksy, R. M. Pilla, K. C. Rose, A. P. Smagula, R. Sommaruga, S. E. Steiner, P. Verburg, D. Wain, G. A. Weyhenmeyer, and C. C. Carey. 2023. Dissolved oxygen, temperature, chlorophyll-a, total phosphorus, total nitrogen, and dissolved organic carbon at multiple depths in 822 lakes from 1921-2022 ver 1. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/2cd6628a942de2a8b12d2b19962712a0

Lewis, A. S. L., M. E. Schreiber, B. R. Niederlehner, A. Das*, and C. C. Carey. 2023. Total organic carbon, total nitrogen, and iron-bound organic carbon in surficial sediment and settling particulate material from Falling Creek and Beaverdam Reservoirs in 2019 and 2021 ver 1. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/a1d49c266b57465daa863cde4b1d4b4e

Schreiber, M. E., C. E. Wood, **A. S. L. Lewis**, N. W. Hammond, K. M. Krueger, M. E. Lofton, R. P. McClure, Z. W. Munger, A. Breef-Pilz, N. K. Ward, A. B. Gerling, B. R. Niederlehner, A. G. Hounshell, M. F. Verne, and C. C. Carey. 2023. Sediment trap time series data for Beaverdam Reservoir and Falling Creek Reservoir in southwestern Virginia, USA 2018 through 2022 ver 1. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/3e5d11ce1a38542d95250cdce18d6987

2022 Carey, C. C., H. L. Wander, R. P. McClure, M. E. Lofton, K. D. Hamre, J. P.
2021 Doubek, A. B. Gerling, **A. S. L. Lewis**, A. Breef-Pilz. 2022. Secchi depth data and discrete depth profiles of photosynthetically active radiation, temperature, dissolved oxygen, and pH for Beaverdam Reservoir, Carvins Cove Reservoir, Falling Creek Reservoir, Gatewood Reservoir, and Spring Hollow Reservoir in southwestern Virginia, USA 2013–2021 ver 10. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/887d8ab8c57fb8fdf3582507f3223cd6

2022 Carey, C. C., **A. S. L. Lewis**, D. W. Howard, W. M. Woelmer, P. A. Gantzer, K. A. Bierlein, J. C. Little, WVWA. 2022. Bathymetry and watershed area for Falling Creek Reservoir, Beaverdam Reservoir, and Carvins Cove Reservoir ver 1. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/352735344150f7e77d2bc18b69a22412

Jane, S. F., J. L. Mincer, M. P. Lau, **A. S. L. Lewis**, J. T. Stetler, and K. C. Rose. 2022. Temperature and dissolved oxygen profiles for three Swiss lakes: 1972–2016 ver 6. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/7c08d0a4417f73d733d2a7eba43f57ea

2021 Carey, C.C., W. M. Woelmer, **A. S. L. Lewis**, A. Breef-Pilz, D. W. Howard, *2020* and B. J. Bookout. 2021. Time series of high-frequency sensor data measuring water temperature, dissolved oxygen, pressure, conductivity, specific conductance, total dissolved solids, chlorophyll a, phycocyanin, and fluorescent dissolved organic matter at discrete depths in Falling Creek Reservoir, Virginia, USA in 2018-2020 ver 5. Environmental Data Initiative. https://doi.org/10.6073/pasta/88896f4a7208c9b7bddcf498258edf78

2021 **Lewis, A. S. L.**, W. M. Woelmer, H. L. Wander, D. W. Howard, J. W. Smith, R. P. McClure, M. E. Lofton, N. W. Hammond, R. S. Corrigan, R. Q. Thomas, and C. C. Carey. 2021. Systematic review of near-term ecological forecasting literature published between 1932 and 2020 ver 1. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/c4bea94f100f39a6b73c7b9a577df214

Lofton, M. E., D. W. Howard, R. P. McClure, H. L. Wander, W. M. Woelmer, A. G. Hounshell, **A. S. L. Lewis**, and C. C. Carey. 2021. Time series of phytoplankton biovolume at the depth of the vertical chlorophyll maximum in Falling Creek Reservoir, Vinton, VA, USA 2016–2019 ver 1. *Environmental Data Initiative*. https://doi.org/10.6073/pasta/2de760e8b72e474c31e42526f5360f9a

2020 Wander, H. L., **A. S. L. Lewis,** H. L. Edwards, and D. C. Richardson. 2020. Zooplankton density and size data in Lake Awosting, Lake Minnewaska, and Mohonk Lake, NY, USA 2013–2018 ver 1. *Environmental Data Initiative.* https://doi.org/10.6073/pasta/befde8268750ff108b59d8198eb989a1

TEACHING EXPERIENCE

Summer 2025 **Instructor:** Data Science Skills Series
Smithsonian Environmental Research Center (SERC)

- Developed and co-led a series of six data science training workshops for the SERC community, with topics including Git/GitHub, spatial data analysis, and advanced data visualization

Fall 2023 **Co-instructor of record:** Advanced R Programming
Virginia Tech

- Designed and taught a graduate seminar (13 students)
- All teaching materials are available in an open-source GitHub repository

Spring 2022 **Teaching Assistant:** Principles of Biology Laboratory
Virginia Tech

- Taught three lab sections with 7–24 students each

Fall 2018 **Teaching Assistant:** Ecology for Non-Majors
Pomona College
- Coordinated laboratory exercises and field logistics for an introductory ecology class

Spring 2018 **Writing Mentor:** Introduction to Ecology and Evolution
Pomona College
- Led individualized mentor sessions to help undergraduate students develop skills in scientific writing

Spring 2018 **Teaching Assistant:** Bilingual (Spanish and English) kindergarten
Mountain View Elementary School

Spring 2018 **Mentor:** Rooftop Garden Project
The Draper Center for Community Partnerships, Pomona College
- Developed programing for biweekly workshops on earth science and environmental justice for local high school students

GUEST LECTURES

2025 **Intern Professional Development**, SERC

Data Carpentries, SERC

2024 **Aquatic Ecology**, Carroll University

Introduction to Graduate Studies, Virginia Tech

2023 **Careers in Biological Sciences**, Virginia Tech

Ecology, Virginia Tech

UNDERGRADUATE STUDENTS MENTORED

2025 **Rania Adouim** (Amherst College)
- SERC REU intern. First-author on a presentation at the Ecological Society of America 2025 meeting and a manuscript in preparation

2023 **Ryan Keverline** (Virginia Tech)

2019–2023 **Arpita Das** (Virginia Tech)
- Coauthor on seven datasets, three presentations, and a published manuscript

2020 **Nick Ruszkowski** (Virginia Tech)

INVITED PRESENTATIONS (presenters underlined)

2026 **Lewis, A. S. L.**, D. C. Richardson, D. W. Howard, C. C. Carey, Y. Amitai, S. Bansal, E. de Eyto, H-P Grossart, K. K. Hoffman, R. Hovel, L. Knoll, B. M. Kraemer, I. Oleksy, A. B. Santoso, M. Schmid, R. Schwefel, D. Straile, X. Sun, G. A. Weyhenmeyer, W. M. Woelmer, S. Wollrab, and P. Znachor. 2026. Analyzing seasons and seasonality in lakes amid global change. Invited talk at: *ASLO-SIL 2026 Joint Meeting*; Montreal, CA.

Lewis, A. S. L. 2026. Invited plenary talk at: *Unifying Ecology Across Scales Gordon Research Conference*; Easton, MA, USA.

2025 **Lewis, A. S. L.** 2025. Aquatic biogeochemistry amid global change: Understanding the past to predict the future. Invited talk at: *University of Georgia Odum School of Ecology*; Athens, GA, USA.

Lewis, A. S. L. 2025. Leveraging marsh restoration for empowering climate change communication in northeastern National Parks. Invited talk at: *ESA Annual* Meeting; Baltimore, MD, USA.

2024 **Lewis, A. S. L.** and C. C. Carey. 2024. Synthesis of long-term water quality data from 615 lakes highlights seasonally-distinct effects of climate change on lake ecosystem function. Invited talk at: *ESA Annual Meeting*; Long Beach, CA, USA.

Lewis, A. S. L. 2024. Trailblazing Award Presentation. Invited talk at: *ESA Annual Meeting*; Long Beach, CA, USA.

Lewis, A. S. L. 2024. Oxygen dynamics in the bottom waters of lakes: Understanding the past to predict the future. Invited seminar at: *Helmholtz Centre for Environmental Research – UFZ*; Magdeburg, Germany.

Lewis, A. S. L. 2024. Deoxygenation of temperate lakes: Understanding the past to predict the future. Invited seminar at: *Lake Superior State University*; Sault Ste. Marie, MI, USA.

2023 **Lewis, A. S. L.** 2023. Using forecasts to understand ecosystems. Invited talk at: *American Meteorological Society 103rd Annual* Meeting; Boulder, CO, USA (virtual).

Lewis, A. S. L. 2023. Using forecasts to understand ecosystems. Invited talk at: *Ecological Forecasting Initiative Student Association Meeting* (virtual).

2022 **Lewis, A. S. L.**, W. M. Woelmer, H. L. Wander, D. W. Howard, J. W. Smith, R. P. McClure, M. E. Lofton, N. W. Hammond, R. S. Corrigan, R. Q. Thomas, and C. C. Carey. 2022. Near-term ecological forecasting: state of the field. Invited talk at: *INTECOL 2022*; Geneva, Switzerland (virtual).

Lewis, A. S. L., A. Hensley, C. López Lloreda, C. Perez, E. Bueren, G. Palissery, G. O'Malley, H. Wander, and S. Drew. 2022. Flip the Fair: an intersection of science communication, outreach, and empowerment. Invited talk at: *Virginia Tech Life Sciences Seminar*; Blacksburg, VA, USA.

2021 **Lewis, A. S. L.** 2021. Invited talk at: *Virginia Tech graduate commencement address*. Blacksburg, VA, USA.

Kroehler, C., P. Raun , J. Appiah-Kubi, C. Colleary, V. Diaz, **A. S. L. Lewis**, and A. Wendler. 2021. Girls Launch! Providing Female Scientist Role Models to Early Elementary Children. Invited talk at: *Virginia Tech Widening Inclusivity in the (Geo)Sciences Seminar*; Blacksburg, VA, USA.

Lewis, A. S. L. 2021. Oxygen: stories of fire, beer, and the guillotine. Invited talk at: *Science on Tap*; Blacksburg, VA, USA.

2020 **Lewis, A. S. L.** 2020. The Unseen Nature of Lakes. Invited talk at: *Skype a Scientist LIVE*. Virtual Q&A.

- An invited 45-minute live-streamed Q&A with a general audience talking about lakes

SELECTED CONTRIBUTED PRESENTATIONS (presenters underlined; *indicates mentored undergraduate student)

2025 **Lewis, A. S. L.,** G. L. Noyce, P. Y. Oikawa, E. L. Koontz, B. J. Roberts, A. E. Stearns, C. M. Young, A. Malhotra, and J. R. Holmquist. 2025. Plant Traits Regulate the Seasonal Patterns of Methane Production, Oxidation, and Transport across Coastal Wetlands. Oral presentation at: *AGU Annual Meeting*; New Orleans, LA, USA.

Adouim, R.*, **A. S. L. Lewis**, J. Wolfe, R. Cheney, and J. Holmquist. 2025. Ten years of plant surveys reveal interactive effects of climate change and biological invasion on community composition in a coastal marsh. Poster presentation at: *ESA Annual Meeting*; Baltimore, MD, USA.

Lewis, A. S. L., J. R. Holmquist, A. N. Al-Haj, R. L. Rich, and G. L. Noyce. 2025. Warming has non-linear effects on the predictability of methane fluxes in a brackish wetland. Oral presentation at: *Ecological Forecasting Initiative Meeting*; Blacksburg, VA, USA.

2024 **Lewis, A. S. L.** and C. C. Carey. 2024. Ecological memory of spring air temperature drives summer water quality dynamics in temperate lakes. Oral presentation at: *ASLO Meeting*; Madison, WI, USA.

Lewis, A. S. L., J. Rabaey, K. Attermeyer, P. Aurich, S. Bansal, B. Bertolet, R. Bhattacharya, I. Bussmann, S. B. Cadieux, E. Calamita, C. Carey, F. Clayer, T. Davidson, B. R. Deemer, B. Denfeld, W. Eckert, C. Esposito, A. Gorsky, N. Griffiths, H-P. Grossart, D. Hamilton, M. Holgerson, B. Huser, T. Iwata, J. Jansen, S. Juutinen, P. Kortelainen, M. Koschorreck, T. Kragh, A. Laas, T. Larmola, I. Laurion, M. F. Lehmann, L. Liu, A. Matoušů, D. Nizzoli, C. Ordóñez, M. Peacock, R. Pilla, J. Pu, T. Riis, T. Saarela, A. B. Santoso, C. Schubert, B. S. Sherman, J. S. Sø, K. Strock, K. Stenehjem, K. Tsuchiya, K. Wendt-Potthoff, G. A. Weyhenmeyer, and P. Znachor. 2024. Patterns and drivers of bottom-water greenhouse gas concentrations across 522 lakes worldwide. Oral presentation at: *AGU Annual Meeting*; Washington, DC, USA.

2023 **Lewis, A. S. L.**, M. Lau, S. Jane, K. Rose, Y. Be'eri-Shlevin, S. H. Burnet, F. Clayer, O. Erina, H. Feuchtmayr, H. P. Grossart, T. Harris, D. Howard, A. James, H. Mariash, J. Delgado Martin, R. North, I. Oleksy, R. M. Pilla, J. A. Rusak, R. Sommaruga, P. Verburg, D. Wain, J. Watkins, G. Weyhenmeyer, and C. C. Carey. 2023. Anoxia Begets Anoxia: a positive feedback to the deoxygenation of temperate lakes. Poster presented at: *GLEON All-Hands Meeting*; June 2023; Ryn, Poland.

Lewis, A. S. L., W. Zhi, J. Mai, N. Basu, and C. C. Carey. 2023. Ecological memory of climate and land use change shapes water quality across >650 widespread lakes. Oral presentation at: *AGU Annual Meeting*; San Francisco, CA, USA.
- Outstanding Student Presentation award

2022 **Lewis, A. S. L.**, W. M. Woelmer, H. L. Wander, D. W. Howard, J. W. Smith, R. P. McClure, M. E. Lofton, N. W. Hammond, R. S. Corrigan, R. Q. Thomas, and C. C. Carey. 2022. Near-term ecological forecasting: state of the field. Oral presentation at: *Ecological Forecasting Initiative Meeting*; virtual.

Lewis, A. S. L., M. Lau, S. Jane, K. Rose, Y. Be'eri-Shlevin, S. H. Burnet, F. Clayer, O. Erina, H. Feuchtmayr, H. P. Grossart, T. Harris, D. Howard, A. James, H. Mariash, J. Delgado Martin, R. North, I. Oleksy, R. M. Pilla, J. A. Rusak, R. Sommaruga, P. Verburg, D. Wain, J. Watkins, G. Weyhenmeyer, and C. C. Carey. 2022. Declining oxygen concentrations are associated with increased phosphorus and chlorophyll-a across 504 lakes. Poster presented at: *GLEON All-Hands Meeting*; Lake George, NY, USA.

Lewis, A. S. L., B. R. Niederlehner, A. Das*, N. W. Hammond, M. E. Schreiber, and C. C. Carey. 2022. Effects of Hypoxia on Coupled Iron and Carbon Cycling Differ by Timescale in Two Freshwater Reservoirs. Oral presentation at: *Interfaces of Global Change Research Symposium*; Blacksburg, VA, USA.
- 1st Place Platform Presentation and Karen P. DePauw Outstanding Interdisciplinary Presentation Award

Lewis, A. S. L., B. R. Niederlehner, A. Das*, N. W. Hammond, M. E. Schreiber, and C. C. Carey. 2022. Effects of Hypoxia on Coupled Iron and Carbon Cycling Differ by Timescale in Two Freshwater Reservoirs. Oral presentation at: *Joint Aquatic Sciences Meeting*; Grand Rapids, MI, USA.

Lewis, A. S. L., C. López Lloreda, G. O'Malley, H. Wander, E. Bueren, S. Drew, A. Hensley, C. J. Kroehler, A. D. Lowery, G. K. Palissery, C. Perez, C. Pihlstrom, and P. Raun. 2022. Flip the Fair: an intersection of science communication, outreach, and empowerment. Oral presentation at: *Joint Aquatic Sciences Meeting*; Grand Rapids, MI, USA.

2021 **Lewis, A. S. L**., B. R. Niederlehner, A. Das*, N. W. Hammond, M. E. Schreiber, and C. C. Carey. 2021. High levels of iron-bound organic carbon correspond to multi-annual oxygenation history in two reservoirs. Poster presented at: *GLEON All-hands Meeting*; virtual.

Lewis, A. S. L., R. P. McClure, P. C. Hanson, and C. C. Carey. 2021. Integrated whole-ecosystem experiments and ecosystem modeling reveal that seasonal oxygen depletion is driven primarily by temperature in a eutrophic reservoir. Oral presentation at: *ASLO Meeting*; virtual.

2020 **Lewis, A. S. L.**, M. E. Lofton, R. P. McClure, W. M. Woelmer, P. C. Hanson, R. Q. Thomas, and C. C. Carey. 2020. Near-term, iterative forecasts highlight the relative importance of two drivers for dynamic oxygen concentrations in a drinking water reservoir. Oral presentation at: *AGU Annual Meeting;* virtual.

Lewis, A. S. L., M. E. Lofton, R. P. McClure, W. M. Woelmer, P. C. Hanson, R. Q. Thomas, and C. C. Carey. 2020. Bottom-water temperatures drive changing rates of oxygen depletion in a drinking water reservoir. Poster presented at: *GLEON All-hands Meeting*; virtual.

Lewis, A. S. L., M. E. Lofton, R. P. McClure, W. M. Woelmer, P. C. Hanson, R. Q. Thomas, and C. C. Carey. 2020. Near-term, iterative ecological forecasts provide insight into the drivers of changing oxygen concentrations in a drinking water reservoir. Poster presented at: *ESA Annual Meeting*; virtual.

Carey, C. C., **Lewis, A. S. L.**, Hounshell, A. G., Howard, D. W., McClure, R. P., Hammond, N. W., Lofton, M. E., P. C. Hanson, J. C. Little, M. Schreiber, and F. Birgand. 2020. Dynamic carbon-oxygen interactions over minute to annual time scales in an experimentally-oxygenated reservoir. Oral presentation at: *EGU General Assembly*; virtual.

Lewis, A. S. L., P. C. Hanson, and C. C. Carey. 2020. Oxygen demand can be predicted by oxygenation rates and temperature. Oral presentation at: *Virginia Water Conference*; March 2020; Richmond, VA, USA.

2019 **Lewis, A. S. L.**, A. G. Hounshell, R. P. McClure, N. W. Hammond, D. W. Howard, M. E. Lofton, H. L. Wander, W. M. Woelmer, F. Birgand, P. C. Hanson, J. C. Little, M. E. Schreiber, and C. C. Carey. 2019. Consequences of changing oxygen availability for carbon cycling in freshwater ecosystems. Poster presented at: *GLEON All-hands Meeting*; Huntsville, ON, USA.

2017 **Lewis, A. S. L.**, D. C. Richardson, and K. Weathers. 2017. Depth Affects Nutrient Limitation of Phytoplankton within a Stratified Lake. Poster presented at: *Council on Undergraduate Research REU Symposium*; Alexandria, VA, USA.

- By nomination from the Cary Institute for Ecosystem Studies

Kim, B. S., **A. S. L. Lewis**, H. L. Edwards, H. L. Wanders, A. E. Taylor, N. Poulin, S. Princiotta, K. Yokota, C. Wigdahl, K. Rose, D. C. Richardson, and D. A. Bruesewitz. 2017. Patterns of Nutrient Limitation in Sixteen Northeastern United States Lakes. Poster presented at: *GLEON All-hands Meeting*; New Paltz, NY, USA.

SELECTED OUTREACH

2024–2025 **Science Communication in the Parks Fellow**

- Developed digital and physical materials for two national parks to communicate the value of coastal marsh restoration ($3700 stipend)

2019–2024 **Outreach Committee Lead**, Virginia Tech Stream Team
- Organized a "flipped science fair" where elementary students judged 27 graduate student posters
- Coordinated summer camp activities at the Blacksburg Nature Center
- Built, painted, and installed a "stream box" for kids to learn about streams
- Coordinated Wikipedia editing sessions to highlight women and minoritized researchers

2021–2024 **Virginia Scientist-Community Interface (VS-CI)**
Reservoir Greenhouse Gas Emissions Team Member
- Used the G-RES tool to quantify greenhouse gas emissions from five reservoirs in Alabama with non-profit partners

2022–2023 **Letters to a Pre-Scientist Pen-pal**
- Exchanged letters with a 6th grade student to broaden perceptions of STEM

2020–present **Science Fair Judge**
- Virginia State Science and Engineering Fair: 2020, 2021
- Blue Ridge Highlands Regional Science Fair: 2020–2024
- Terra Rochester Finger Lakes Science & Engineering Fair: 2020

2020 **Girls Launch! Fellow**, Blacksburg, VA
- Developed an activity and video for kindergarten students to learn about water and see female scientists in action ($1,000 stipend)

2018–2020 **Envirobites (envirobites.org)**
Contributor and editor
- Published 16 articles communicating environmental research to a general audience

2015–2019 **Pomona College Sustainability Office**
- Initiated a Zero Waste Events Program to eliminate trash from major campus events (featured in The Week and on the United Nations website)
- Collaborated on a published Action Plan with sustainability initiatives and goals for the next 15 years
- Mentored interns and developed programing to promote sustainability

SELECTED PROFESSIONAL SERVICE

2026 **ASLO-SIL 2026 Joint Meeting**
- Co-organizer: "Gassy Waters: Advances in Understanding and Measuring Gas Fluxes across the Aquatic Continuum" (accepted)

2024–present **American Meteorological Society**
- Member: Committee on Ecological Forecasting

2023–present **American Geophysical Union**
- Co-organizer: "Ecological Forecasting in Managed and Natural Systems: Hydrology, Agriculture, and the Earth System" session (2025)
- Lead organizer and Outstanding Student Presentation Award chair: "Model-Data Integration and Novel Paradigms in Ecosystem Forecasting" session (2024)
- Co-organizer: "Ecological Forecasting in the Earth System" session (2023)

2020–present **Ecological Forecasting Initiative**
- Co-chair: Theory Working Group (2020–present)
- Member: Education Working Group (2022–present)
- Member: Student and Early Career Association (2020–2024)

2021–2025 **Global Lake Ecological Observatory Network**
- Co-moderator: Metabolism Working Group

PEER-REVIEW

Manuscript review for:
- *Global Change Biology*
- *Limnology and Oceanography Letters*
- *Limnology and Oceanography*
- *Journal of Geophysical Research – Biogeosciences*
- *Global Ecology and Biogeography*
- *Ecosphere*
- *Water Resources Research*
- *Scientific Data*
- *Inland Waters*
- *Freshwater Biology*

Grant review for:
- Deutsche Forschungsgemeinschaft (DFG; German Research Foundation)
- Graduate Research Development Program, Virginia Tech

SOCIETY AFFILIATIONS

- Global Lake Ecological Observatory Network (GLEON)
- Ecological Forecasting Initiative (EFI)
- Ecological Society of America (ESA)
- Association for the Sciences of Limnology and Oceanography (ASLO)
- American Geophysical Union (AGU)
- American Meteorological Society (AMS)
- Society for Open, Reliable, and Transparent Ecology and Evolutionary biology (SORTEE)