

Curriculum Vitae

Kathleen Cushing Weathers

G. Evelyn Hutchinson Chair in Ecology
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Education

Rutgers University, Piscataway, New Jersey
Ph.D., Ecology, 1993

Yale University, New Haven, Connecticut
M.F.S., Forest Science, 1983

Albion College, Albion, Michigan
B.A., English (*cum laude*), 1978

Professional Experience

Primary Positions

2007-present **Senior Scientist**, Cary Institute of Ecosystem Studies, Millbrook, NY
2009-2010 **Program Director, DEB, Ecosystem Cluster**, National Science Foundation, VA
2004-2006 **Senior Scientist, Head of Laboratory Services**, Institute of Ecosystem Studies,
Millbrook, NY
2004 **Scientist, Head of Laboratory Services**, Institute of Ecosystem Studies,
Millbrook, NY (50:50 Administration/Research)
1999-2004 **Associate Scientist, Head of Laboratory Services**, Institute of Ecosystem
Studies, Millbrook, NY (50:50 Administration/Research)
1994-1999 **Forest Ecologist, Head of Laboratory Services**, Institute of Ecosystem Studies,
Millbrook, NY (50:50 Administration/Research)
1988-1994 **Forest Ecologist, Manager of Laboratory Facilities**, Institute of Ecosystem
Studies, Millbrook, NY (75:25 Administration/Research)
1984-1986 **Coordinator, Cloud Water Project**, Institute of Ecosystem Studies, Millbrook,
NY
1982, 1983 **Research Assistant**, Yale University/AMC, New Haven, CT

Additional Positions

2005-present **Volunteer Research Director**, Lake Sunapee Station, Sunapee, NH
2006-present **Graduate Faculty**, Rutgers University, New Brunswick, NJ
2010-2013 **Lecturer** in Environmental Studies, Bates College, Lewiston, ME
2004-2015 **Visiting Scholar**, Dartmouth College, Hanover, NH
2004-2007 **Graduate Faculty**, University of Maine, Orono, ME
2004-2005 **Visiting Scientist**, Lake Sunapee Protective Association, Sunapee, NH
1999-2004 **Graduate Faculty, Graduate Committee**, Bard College Center for

- Environmental Policy, Annandale-on-Hudson, NY
1995-present **Faculty, Program in Biogeochemistry and Environmental Change**, Cornell University, Ithaca, NY
1994-2002 **Graduate Faculty, Graduate Committee**, Bard College Graduate Program in Environmental Studies, Annandale-on-Hudson, NY

Selected Professional Honors and Awards

- Eugene P. Odum Education Award**, Ecological Society of America, 2017
G. Evelyn Hutchinson Chair in Ecology, Cary Institute of Ecosystem Studies (2016-2021)
Elected Fellow, Ecological Society of America (ESA), 2015
Elected Fellow, American Association for the Advancement of Science (AAAS), 2002
Marie Tharp Visiting Fellowship, Earth Institute, Columbia University, 2007-2008
NSF Director's Award, Collaborative Integration: Water, Sustainability and Climate Team, 2010
Rolf Eliassen Award, research, management, outreach, LSPA, 2006
Cary Graduate Fellowship, 1986-1988

Professional Boards

- Elected Chair** (2012-2017), SESYNC (The National Socio-Environmental Synthesis Center) External Advisory Board
Elected Vice Chair (2013), and **Chair** (2015) Gordon Research Conference on Catchment Science
Elected co-Chair of the Global Lakes Ecological Observatory Network (GLEON) Steering Committee, 2011-2013, re-elected 2013-2016, 2016-2018
Elected Executive Committee, National Atmospheric Deposition Program (NADP), Vice Chair 2010-2011, **Chair** 2011-2012, Past Chair 2013
National Water Quality Monitoring Council (NWQMC), representing GLEON, 2018-
EPA Clean Air Scientific Advisory Committee (CASAC), 2009-2015
EPA CASAC, NO_x-SO_x Secondary Standard Review Committee, 2013 and 2015 -present
Appointed Scientific Advisory Committee Interuniversity Research Group in Limnology and Aquatic Environments (GRIL), Quebec, Canada, 2016
American Women in Science (AWIS), Finance Committee, 2009-2015
EPA Clean Air Scientific Advisory Committee (NO_x and SO_x Secondary and Ozone NAAQS Reviews), 2007-2013
Global Lake Ecological Observatory Network (GLEON), Steering Committee, 2007-present
Editorial Board, *Tree Physiology*, 2006-2012
Hubbard Brook Research Foundation, Board-of-Trustees, 2006-2008
Ecological Society of America's Public Affairs Committee, 2005-2009
Advisory Board, *Biologist*, 2004-2015
Editorial Board, *GigaScience*, 2015-present
National Academy of Sciences, National Transportation Board, 2000-2002, Committee to evaluate the Congestion Mitigation and Air Quality Program (CMAQ, ISTEPA, TEA-21)

Publications (asterisk denotes undergraduate, graduate, postdoc, or research support staff authors at time the manuscripts were drafted; ^indicates corresponding or co-first author)

- *Boucher, J., K.C. Weathers[^], and H. Norouzi. 2018. Assessing the effectiveness of Landsat 8 chlorophyll-a retrieval algorithms for regional freshwater monitoring. *Ecological Applications*. 28:1044-1054. DOI:10.1002/eap.1708.
- Cobourn, K.A., C.C. Carey, K. Boyle, C. Duffy, H.Dugan*, K. Farrell*, L. Fitchett*, P. Hanson, J. Hart*, V. Henson*, A. Hetherington*, A. Kemanian, L. Rudstam, L. Shu, P. Soranno, M. Sorice, J. Satchelek, N. Ward*, K.C. Weathers, W. Weng*, Y. Zhang*. 2018. From concept to practice to policy: modeling coupled natural and human systems in lake catchments. *Ecosphere* 9(5):e02209.10.1002/ecs2.2209.
- *Engel, F., K.J. Farrell*, I.M. McCullough*, F. Scordo*, B.A. Denfeld*, H.A. Dugan*, E. de Eyto, P.C. Hanson, R.P. McClure*, P. Nöges, T. Nöges, E. Ryder, K.C. Weathers, and G.A. Weyhenmeyer. 2018. A lake classification concept for a more accurate global estimate of the dissolved inorganic carbon export from terrestrial ecosystems to inland waters. *The Science of Nature* 105:25. DOI:10.1007/s00114-018-1547-z.
- Dietze, M.C., A. Fox, L. Beck-Johnson, J.L. Betancourt, M.B. Hooten, C.S. Jarnevich, T.H. Keitt, M.A. Kenney, C.M. Laney, L.G. Larsen, H.W. Loescher, C.K. Lunch, B. Pijanowski, J.T. Randerson, E.K. Read, A.T. Tredennick, R. Vargas, K.C. Weathers, and E.B. White. 2018. Iterative near-term ecological forecasting: Needs, opportunities, and challenges. *Proceedings of the National Academy of Sciences* DOI:10.1073/pnas.1710231115.
- Brantley, S.L., D.M. Eissenstat, J.A. Marshall, S.E. Godsey, Z. Balogh-Brunstad, D.L. Karwan, S.A. Papuga, J. Roering, T.E. Dawson, J. Evaristo, O. Chadwick, J.J. McDonnell, and K.C. Weathers. 2017. On the roles trees play in building and plumbing the critical zone. *Biogeosciences* 14:5115-5142.
- O'Reilly, C.M., Rebekka D. Gougis, Jennifer L. Klug, Cayelan C. Carey, David C. Richardson, Nicholas E. Bader, Dax C. Soule, Devin Castendyk, Thomas Meixner, Janet Stomberg, Kathleen C. Weathers, and William Hunter. 2017. Using large data sets for open-ended inquiry in the undergraduate science classrooms. *BioScience* 67:1052-1061. DOI:10.1093/biosci/bix118.
- Ponette- González, A., Y. Perroni, K.C. Weathers, P.A. deSouza*, F. Garcia-Oliva, and W.Z deMello. 2017. Nitrogen cycling in tropical Atlantic forests differing in exposure to urban atmospheric nitrogen deposition. *Plant Soil* 420:451-465. DOI:10.1007/s11104-017-3421-8.
- Richardson, D.C., S.J. Melles*, R.M. Pilla*, A.L. Hetherington*, L.B. Knoll*, C.E. Williamson, B.M. Kraemer*, J.R. Jackson, E.C. Long, K. Moore, L.G. Rudstam, J.A. Rusak, J.E. Saros, S. Sharma, K.E. Strock, K.C. Weathers, and C.R. Wigdahl-Perry. 2017. Transparency, Geomorphology and Mixing Regime Explain Variability in Trends in Lake Temperature and Stratification across Northeastern North America (1975–2014). *Water* 9:442-; DOI:10.3390/w9060442.

- *Dugan, H.A., J.C. Summers*, N.K. Skaff*, F.E. Krivak-Tetley*, J.P. Doubek*, S.M. Burke*, S.L. Bartlett*, L. Arvola, H. Jarjanazi, J. Korponai, A. Kleeberg, G. Monet, D. Monteith, K. Moore, M. Rogora, P.C. Hanson, and K.C. Weathers. 2017. Long term chloride trends in North American and European freshwater lakes. *Nature Data* 10.1038/sdata.2017.101.
- Arthur, M.A., K.C. Weathers, G.M. Lovett, M.P. Weand*, W.C. Eddy*. 2017. Beech bark disease induced changes in tree species composition influences forest floor acid-base chemistry. *Canadian Journal of Forest Research* 47:9875-882. DOI:10.1139/cjfr-2016-0341.
- *Dugan, H.A., S.L. Bartlett*, S.M. Burke*, J.P. Doubek*, F.E. Krivak-Tetley*, N.K. Skaff*, J.C. Summers*, K.J. Farrell*, I.M. McCullough*, A.M. Morales-Williams*, D.C. Roberts*, Z. Ouyang*, F. Scordo*, P.C. Hanson, and K.C. Weathers. 2017. Salting our freshwater lakes. *Proceedings of the National Academy of Sciences* 114:4453-4458. DOI:10.1073/pnas.1620211114.
- Soranno, PA +50 authors. 2017. LAGOS-NE: a multi-scaled geospatial and temporal database of lake ecological context and water quality for thousands of US lakes. *Gigascience* 6: 1-22.
- LaDeau, S., B. Han, E. Rosi-Marshall, and K.C. Weathers. 2017. The next decade of big data in ecosystem science. *Ecosystems* 20:274-283. DOI:10.1007/s10021-016-0075-y.
- Ponette-González, A.P., H.A. Ewing, and K.C. Weathers. 2016. Interactions between precipitation and vegetation canopies. In: *A Biogeoscience Approach to Ecosystems*. E.A. Johnson and Y.E. Martin, eds. Cambridge University Press. ISBN:9781107046702.
- Smyth, R.L., A. Caruso*, L. Borre*, G. Zhu, M. Zhu, A.L. Hetherington*, E. Jennings, J.L. Klug, M.C. Piccolo, J.A. Rusak, K.C. Weathers, and C. Wigdahl-Perry. 2016. High frequency lake data benefit society through broader engagement with stakeholders: a synthesis of GLEON data use survey and member experiences. *Inland waters* 6:555-564. DOI:10.5268/IW-6.4.894.
- ^Hanson, P.C., K.C. Weathers^, and T.K. Kratz. 2016. Networked lake science: how the Global Lake Ecological Observatory (GLEON) works to understand, predict, and communicate lake ecosystem response to global change. *Inland Waters* 6:543-554. DOI:10.5268/IW-6.4.904.
- *Rose, K.C., K.C. Weathers, A. Hetherington*, and D. Hamilton. 2016. Insights from the Global Lake Ecological Observatory Network (GLEON). *Inland Waters* 6:476-482. DOI:10.5268/IW-6.4.1051
- *Dugan, H.A., R. Iestyn Woolway*, A.B. Santoso*, J.R. Corman*, A. Jaimes*, E.R. Nodine*, V.P. Patil*, J.A. Zwart*, J.A. Brentrup*, A.L. Hetherington*, S.K. Oliver*, J.S. Read*, K.M. Winters*, P.C. Hanson, E.K. Read*, L.A. Winslow*, and K.C. Weathers. 2017. Consequences of gas flux model choice on the interpretation of metabolic balance across 15 lakes. *Inland Waters* 6:581-592. DOI:10.5268/IW-6.4.836.
- Richardson, D.C., D.A. Bruesewitz, C.C. Carey, and K.C. Weathers. 2017. Intra- and inter-annual variability in metabolism in an oligotrophic lake. *Aquatic Sciences* 79:319-333. DOI:10.1007/s00027-016-0499-7.
- Marcé, R., G. George, P. Buscarinu, M. Deidda, J. Dunalska, E. de Eyto, G. Flaim, H.P. Grossart, V. Istvanovics, M. Lenhardt, E. Moreno-Ostos, B. Obrador, I. Ostrovsky, D.C. Pierson, J. Potuzak, S. Poikane, K. Rinke, S. Rodriguez-Mozaz, P.A. Staehr, K. Sumberova, G. Waajen, G.A. Weyhenmeyer, K.C. Weathers, M. Zion, B.W. Ibelings, and E. Jennings. 2016. Automated high frequency monitoring for improved lake and reservoir management. *Environmental Science and Technology* 50:10780-10794.

- DOI:10.1021/acs.est.6b01604.
- Ponette-Gonzalez, A, L. Curran, A. Pittman, K. Carlson, B. Steele, D. Ratnasari, M. Mujiman, and K.C. Weathers. 2016. Biomass burning drives atmospheric nutrient redistribution within forested peatlands in Borneo. *Environmental Research Letters* 11085003.
- *Chaves-Ulloa, R, B.W. Taylor, H.J. Broadley*, K.L. Cottingham, N.A. Baer, K.C. Weathers, H.A. Ewing, and C.Y. Chen. 2016. Dissolved organic carbon modulates mercury concentrations in insect subsidies from streams to terrestrial consumers. *Ecological Applications* 26:1771-1784.
- *Crowley, K.F., G.M. Lovett, M.A. Arthur, and K. C. Weathers. 2016. Long-term effects of pest-induced tree species change on carbon and nitrogen cycling in northeastern U.S. forests: A modeling analysis. *Forest Ecology and Management* 372:269-290.
- Weathers, K.C., P.M. Groffman, E.VanDolah*, E. Bernhardt, N.B. Grimm, K.A. McMahon, J. Schimel, M. Paolisso, S. Baer, K. Brauman, and E. Hinckley. 2016. Frontiers in Ecosystem Ecology from a Community Perspective: The Future is Boundless and Bright. *Ecosystems* 19:753-770. DOI: 10.1007/s10021-016-9967-0.
- *Read, E.K., M. O'Rourke, G.S. Hong, P.C. Hanson, L.Winslow*, S. Crowley, C. Brewer, and K.C. Weathers. 2016. Building the team for team science. *Ecosphere* 7(3):e01291. DOI:10.1002/ecs2.1291.
- *Piso, Z., M. O'Rourke, and K.C. Weathers. 2016. Out of the Fog: Catalyzing Integrative Capacity in Interdisciplinary Research. *Studies in History and Philosophy of Science* 56:84-94. DOI:10.1016/j.shpsa.2016.01.002
- *Hinckley, E-L, G.B. Bonan, B.J. Bowen, B.P. Colman, P.A. Duffy, C.L. Goodale, B.Z. Houlton, E. Marin-Spiotta, K. Ogle, S.V. Ollinger, E.A. Paul, P.M. Vitousek, K.C. Weathers, and D.G. Williams. 2016. The soil and plant biogeochemistry sampling design for The National Ecological Observatory Network. *Ecosphere* 7(3):e01234. DOI:10.1002/ecs2.1234.
- Templer, P.H., K.C. Weathers, H.A. Ewing, T.E. Dawson, S. Mambelli, A.M. Lindsey*, J. Webb*, V.K. Boukili*, and M.K. Firestone. 2015. Fog as a source of nitrogen for redwood trees: Evidence from fluxes and stable isotopes. *J. Ecology* 103:1397–1407.
- Ponette-Gonzalez, A., Curran, K.A. Brauman*, E. Marin-Spiotta, K.A. Farley, K.C. Weathers, K.R. Young, and L.M. Curran. 2015. Managing water services in tropical regions: From land cover proxies to hydrologic fluxes. *Ambio* 44:367-375. DOI 10.1007/s13280-014-0578-8.
- *Read, E.K., V. Patil*, S.K. Oliver*, A.L. Hetherington*, J.A. Brentrup*, J.A. Zwart*, K.M. Winters*, J.R. Corman*, E.R. Nodine*, R.I. Woolway*, H.A. Dugan*, A. Jaimes*, A.B. Santoso*, G.S. Hong*, L.A Winslow*, P.C. Hanson, and K.C. Weathers. 2015. The importance of lake-specific characteristics for water quality across the continental US. *Ecological Applications* 25:943-955.
- *de Souza, P.A., A G. Ponette-González, W.Z. de Mello, K.C. Weathers, and I.A. Santos*. 2015. Atmospheric organic and inorganic nitrogen inputs to coastal urban and montane Atlantic Forest sites in southeastern Brazil. *Atmospheric Research* 160:126-137.
- *Griffith, K., A. Ponette-Gonzalez, L. Curran, and K.C. Weathers. 2015. Assessing the influence of topography and canopy structure on Douglas-fir throughfall with LiDAR and empirical data in the Santa Cruz Mountains, USA. *Environmental Monitoring and Assessment* 187:1-13.

- Bruesewitz, D.A., C.C. Carey, D.C. Richardson, and K.C. Weathers. 2015. Under-ice thermal stratification dynamics of a large, deep lake revealed by high-frequency data. *Limnology and Oceanography* DOI:10.1002/lno.10014; 60: 347-359.
- ^Cottingham, K.L., H.A. Ewing^, C.C. Carey, M.L. Greer, and K.C. Weathers^. 2015. Cyanobacteria as drivers of lake nitrogen and phosphorus cycling. *Ecosphere* 6(1):1. <http://dx.doi.org/10.1890/ES14-00174.1>.
- Ewing, H.A., Tuininga, A.R., P.M. Groffman, K.C. Weathers, T.J. Fahey, M.C. Fisk, P. J. Bohlen, and E. Suarez. 2015. Earthworms reduce biotic 15-nitrogen retention in northern hardwood forests. *Ecosystems* 18:328-342.
- Templer, P., K.C. Weathers, A.M. Lindsey*, L. Scott*, and K. Lenoir*. 2015. Atmospheric inputs and nitrogen saturation status in and adjacent to Class I Wilderness areas of the northeastern United States. *Oecologia* 177:5-15.
- *Rodriguez, A, G.M. Lovett, K.C. Weathers, M.A. Arthur, P.H. Templer, C.L. Goodale, and L. Christenson. 2014. Lability of C in temperate forest soils: Assessing the role of nitrogen addition and tree species composition. *Soil Biology and Biochemistry* 77:129-140.
- *Carey, C.C., K.L. Cottingham, K.C. Weathers, and N.G. Hairston, Jr. 2014. Trophic state mediates the effects of a large colonial cyanobacterium on phytoplankton dynamics. *Fundamental and Applied Limnology* 184:247-260.
- Hamilton, D.P., C.C. Carey*, L. Arvola, P. Arzberger, C. Brewer, J.J. Cole, E. Gaiser, P.C. Hanson, B.W. Ibelings, E. Jennings, T.K. Kratz, F-P. Lin, C.G. McBride*, D. de Motta Marques, K. Muraoka*, A. Nishri, G. Qin, J. S. Read*, K.C. Rose*, E. Ryder*, K.C. Weathers, G. Zhu, D. Trolle, and J.D. Brookes. 2014. A Global Lake Observatory Network (GLEON) for synthesizing high-frequency sensor data for validation of deterministic ecological models. *Inland Waters* 5:49-56.
- *McGowan, K., F. Westley, E.D.G. Fraser, P. Loring, K.C. Weathers, F. Avelino, J. Sendzimir, R.R. Chowdhury, and M-L. Moore. 2014. The research journey: Travels across the idiomatic and axiomatic towards a better understanding of complexity. *Ecology and Society* 19:37.
- *Hartmann, M.D., J.S. Baron, H.A. Ewing, and K.C. Weathers. 2014. Combined effects of warming and atmospheric nitrogen deposition on net ecosystem production, greenhouse gas flux and water quality in nine US mountain ecosystems. *Biogeochemistry* 119:85-108.
- Ponette-González, A.G., E. Marin-Spiotta, K.A. Brauman*, K.A. Farley, K.C. Weathers, and R. Young. 2014. Land-use and land-cover effects on hydrologic connectivity in the high-elevation tropics. *BioScience* 64:92-104.
- *Carey, C.C., K.C. Weathers, H.A. Ewing, M. Greer, and K.L. Cottingham. 2014. Spatial and temporal variability in recruitment of the cyanobacterium *Gloeotrichia echinulata* in an oligotrophic lake. *Freshwater Science*. DOI:10.1086/675734. 33: 577-592.
- Cheruvilil, K., P. Soranno, K.C. Weathers, P.C. Hanson, S. Goring*, C. Filstrup, E. Read*. 2014. Creating and maintaining high-performing collaborative research teams: the importance of diversity and interpersonal skills. *Frontiers in Ecology and the Environment* 14:31-38.
- Heffernan, J.B., P.A. Soranno, M.J. Angilletta, L.B. Buckley, D.S. Gruner, T.H. Keitt, J.R. Kelner, J.S. Kominoski, A.V. Rocha, J. Xiao, T.K. Harms, S.J. Goring*, L.E. Koenig, W.H. McDowell, H. Powell, A.D. Richardson, C.A. Stow, R. Vargas, and K.C. Weathers. 2014. Macrosystems ecology: understanding ecological patterns and processes at continental scales. *Frontiers in Ecology and Environment* 14:5-14.

- *^Goring, S., K.C. Weathers^, W.K. Dodds, P.A. Soranno, L.C. Sweet, K.S. Cheruvilil, J.S. Kominoski, J. Rüegg*, A.M. Thorn, and R.M. Utz. 2014. Improving the culture of interdisciplinary collaboration in ecology by expanding measures of success. *Frontiers in Ecology and the Environment* 14:39-47.
- *Rüegg, J., C. Gries, B. Bond-Lamberty, G.J. Bowen, B.S. Felzer, N.E. McIntyre, P.A. Soranno, K.L. Vanderbilt, and K.C. Weathers. 2014. Completing the data life cycle: using information management in macrosystems ecology research. *Frontiers in Ecology and the Environment* 14:24-30.
- Sullivan, T.J., G.B. Lawrence, S.W. Bailey, T.C. McDonnell, C.M. Beier, K.C. Weathers, G.T. McPherson, and D.A. Bishop. 2013. Effects of acidic deposition on soil acidification on sugar maple trees in the Adirondack Mountains, New York. *Environmental Science and Technology* 47:12687-12694.
- *Carey, C.C., K.L. Cottingham, K.C. Weathers, J.A. Brentrup*, N.M Ruppertsberger*, H.A. Ewing, and N. Hairston, Jr. 2013. Facilitation in a nutrient-limited freshwater ecosystem: the cyanobacterium *Gloeotrichia echinulata* stimulates other phytoplankton. *Journal of Phytoplankton Research* DOI:10.1093/plankt/fbt105.
- Greer, M.L., H.A. Ewing, K.L. Cottingham, and K.C. Weathers. 2013. Collaborative understanding of cyanobacteria in lake ecosystems. *College Mathematics* 44:376-385.
- Lovett, G.M., M.A. Arthur, K.C. Weathers, and J.M. Griffin*. 2013. Effects of introduced insects and diseases on forest ecosystems in the Catskill Mountains of New York. *Annals of the New York Academy of Sciences* 1298:66-77. DOI:10.1111/nyas.12215.
- *Nelson, S.J., K.E. Webster, C.S. Loftin, and K.C. Weathers. 2013. Shifts in controls on the temporal coherence of throughfall chemical flux in Acadia National Park, Maine, USA. *Biogeochemistry* 116(1-3):147-160. DOI: 10.1007/s10533-013-9884-7.
- Weathers, K.C., P.C. Hanson, P. Arzberger, et al. 2013. The Global Lake Ecological Observatory Network (GLEON): The Evolution of grassroots network science. *Bulletin of Limnology and Oceanography* 22:71-73.
- Murray, G.L.D, K.D. Kimball, L.B. Hill, J.E. Hislop*, and K.C. Weathers. 2013. Long-term trends in cloud and rain chemistry on Mount Washington, New Hampshire. *Water Air and Soil Pollution* 224:1653-1667. DOI:10.1007/s11270-013-1653-7.
- *Schwarz, K.E., K.C. Weathers, S.T.A. Pickett, R.G. Lathrop, R.V. Pouyat, and M.L. Cadenasso. 2013. A comparison of three empirically based, spatially explicit predictive models of residential soil Pb concentrations in Baltimore, Maryland, USA: Understanding the variability within cities. *Environmental Geochemistry and Health* 35:495-510.
- *Simkin, S.M., B.L. Bedford, and K.C. Weathers. 2013. Phytotoxic sulfide more important than nutrients for plants within a groundwater-fed wetland. *Ecosystems* 16:1118-1129. DOI:10.1007/s10021-013-9671-2.
- Lovett, G.M., M.A. Arthur, K.C. Weathers, R. Fitzhugh, and P.M. Templer. 2013. Nitrogen addition increases carbon storage in soils, but not in trees, in an eastern US deciduous forest. *Ecosystems* 16:980-1001. DOI:10.1007/s10021-013-9662-3.
- *Solomon, C.T., D.A. Bruesewitz*, D.C. Richardson, K.C. Rose*, M.C. Van de Bogert*, P.C. Hanson, T.K. Kratz, B. Larget, R. Adrian, B. Leroux, C-Y., Chiu, D.P. Hamilton, E.E. Gaiser, S. Hendricks, V. Istvánovics, A. Laas*, D. O'Donnell, M.L. Pace, E. Ryder*, P.A. Staehr, T. Torgersen, M.J. Vanni, K.C. Weathers, and G. Zhu. 2013. Ecosystem respiration: Drivers of daily variability and background respiration in lakes around the globe. *Limnology and Oceanography* 58:849-866.

- *Gioda, A., O. Mayol-Bracero, F.N. Scatena, K.C. Weathers, V. L. Mateus, and W.H. McDowell. 2013. Chemical constituents in clouds and rainwater in the Puerto Rican rainforest: potential sources and seasonal drivers. *Atmospheric Environment* 68:208-220.
- *Carey, C.C., H.A. Ewing, K.L. Cottingham, K.C. Weathers, R.Q. Thomas*, and J.N. Haney. 2012. Occurrence and toxicity of the cyanobacterium *Gloeotrichia echinulata* in low-nutrient lakes in the northeastern United States. *Aquatic Ecology* 46:395-409.
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- *Dueker, M.E., G.D. O'Mullan, A.R. Juhl, K.C. Weathers, and M. Uriarte. 2012. Local environmental pollution strongly influences culturable microbial aerosols at an urban aquatic Superfund site. *Environmental Science and Technology* 46:10926-10933. DOI:10.1021/es301870t
- Canham, C.D., M.L. Pace, K.C. Weathers, E.W. McNeil, B.L. Bedford, L. Murphy*, and S. Quinn. 2012. Nitrogen deposition and lake nitrogen concentrations: A regional analysis of terrestrial controls and aquatic linkages. *Ecosphere* 3(7):66. DOI.org/10.1890/ES12-00090.1.
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- Uriarte, M.L., K.C. Weathers, and V.T. Eviner. 2006. Power games limit science and reflect archaic values. *Nature* 439:18.
- Likens, G.E., K.C. Weathers, D.C. Buso, and T.J. Butler. 1998. Solving the acid rain problem. *Science* 282:1991.
- Weathers, K.C. 1993. Review of *The Earth in Transition: Patterns and Processes of Biotic Impoverishment*, G.M. Woodwell, (ed.). *Quarterly Review of Biology* 68:129-130.
- Eaton, J.S., K.C. Weathers, and G.E. Likens. 1986. An interlaboratory comparison between the Illinois State Water Survey and the Institute of Ecosystem Studies. 24 pp.

Leadership: Scientific Conferences, Meetings, Workshops

- Global Lakes Ecological Observatory Network (GLEON). All Hands' Meeting 19, Chair*, New Paltz NY, November 2017.
- Global Lakes Ecological Observatory Network (GLEON), Steering Committee Visioning Meeting, Chair and Host*, SESYNC, Annapolis, MD, April 2016.
- National Science Foundation Macrosystems Biology PIs' Meeting, Chair*, Arlington, VA, June 2015.
- Gordon Research Conference on Catchment Science, Chair*, June 2015.
- Coastal Fog as a System: Catalyzing an Interdisciplinary Research Agenda. Workshop, Host, Convener*, Pescadero, CA, June 2013.
- Global Lakes Ecological Observatory Network (GLEON). All Hands' Meeting 13, Host, Chair*, Sunapee, NH, October, 2011.
- National Atmospheric Deposition Program. Fall Meeting, Chair*, Providence, RI, October 2011.
- Global Lakes Ecological Observatory Network (GLEON). Steering Committee Visioning Meeting, Host and Co-convener*, Sunapee, NH, August, 2010.
- The ecological effects of biofuels. Steering Committee*, Washington, DC, March 2008.
- Systems in transition: What's happening and what's to be done? Convener*, New London, NH, 10-11 December 2007.
- What good is GLEON? A Workshop to Explore Buoy Data as a Tool to Link Outreach, Education and Research, Convener and Chair*, New London, NH, 13 November 2006.
- Workshop on fog research in redwood forest, Co-convener*, Berkeley, CA, December 2005.
- Ecological Circuitry Collaboratory. Final synthesis workshop, Co-convener*, Minneapolis, MN, November 2005.
- Ecological Society of America, Workshop on modeling in ecology, Co-convener, 90th Annual Meeting, ESA. Montreal, Canada, August, 2005.*
- Lake Science: Regional Connections and Vision: A workshop of education and research professionals from northern New England, Convener, Chair*, New London, NH, April 2005.
- NEON Planning Committee, Research Infrastructure, Facilities Infrastructure Committee, Co-chair, 3 meetings, 2004, 2005.*
- Ecological Society of America. The mechanics of integrating ecological science and public policy, Co-leader, 89th Annual Meeting, Portland, OR, August 2004.*
- The Nature Conservancy and Institute of Ecosystem Studies. Workshop on Air Pollution and Biodiversity, Co-convener*, Millbrook, NY, May 2004.
- New York State Energy Research and Development Authority (NYSERDA). Acid Rain Research, Co-chair, Ecosystem Response Session. Albany, NY, October 2003.*
- An international workshop on fog, trees, ecosystem functioning and biodiversity of relict temperate rain forest patches in Fray Jorge National Park, Chile, Co-convener*, La Serena, Chile, May 2003.
- Cary Conference X, Ecosystem function in heterogeneous landscapes, Co-chair*, Institute of Ecosystem Studies, Millbrook, NY, April 2003.
- Structure and Function of Boundaries in Ecological Mosaics: A Workshop on the status and opportunities for integrated research, Co-convener*, Institute of Ecosystem Studies, Millbrook, NY, October 2000.
- Acid Rain: The Ecological Response, Co-convener*, Washington, DC, 1999.

Invited Participation in Meetings and Panels

Keynote Speaker: Women and Climate Change, Roosevelt Library, Hyde Park, NY, April 2015
Gordon Research Conference: Catchment Science, Lewiston, ME, July 2011, **invited speaker**
EPSCoR Arkansas: Engaging America's Talent, Little Rock, AR, March 2010, **invited speaker**
Cary Conference XIII, *Effective communication of science in environmental controversies*,
Millbrook, NY, May, 2009, **invited speaker**
Global Lakes Ecological Observatory Network (GLEON), steering committee member and
presenter for Lake Sunapee, New Hampshire buoy and working group 4th, 5th, 6th, and 7th
International Meetings; Finland, March 2007, Montreal, August 2007, Florida, February
2008, Sweden, September 2008, **invited participant**
Global Lakes Ecological Observatory Network (GLEON), member and presenter for Lake
Sunapee, New Hampshire buoy and working group, March 2005, 2nd and 3rd International
Meetings; Australia, March 2005; Taiwan, October 2006, **invited participant**
Critical Loads. Baltimore, MD, 11-14 February 2008, **invited participant**
Sustainability of BioFuels Institute of Ecosystem Studies, Millbrook, NY, November 2007,
invited participant
Urban Air Pollution Workshop. Baltimore LTER Program, Baltimore, MD, September, 2007,
invited participant
Metamodels: Developing novel approaches to biocomplexity in endangered species management
workshop, Chicago, IL, 16-18 November 2006, **invited participant**
Northeast Ecosystem Research Cooperative, Biannual Meeting, Durham, NH, October 2006,
invited speaker
Program Evaluator, EPA Office of Air and Radiation, 2006, **invited**
Deans' and Forestry School Leaders', Summit on Forest Research for the 21st Century: Defining
Strategic Directions and Rebuilding Capacity, 4-6 January 2006, **invited participant**
National Institutes of Medicine, Environmental Medicine Round Table, **invited speaker**
Member, North Temperate Lakes LTER External Review Committee, May 2005, **invited**
committee member
EPA Office of Air and Radiation Program Evaluation Workshop, Washington, DC, 29-30
November 2005, **invited participant**
NEON Planning Committee, 2004, 2005, Research Infrastructure, Facilities Infrastructure
Committee, Co-Chair, **invited**
Nitrogen Deposition-Ecosystem Function Long Term Ecological Research Workshop, Boulder,
CO, 7-9 November 2004, **invited participant**
Northeast Ecosystem Research Cooperative, Biannual Meeting, Amherst, MA, October 2003,
invited speaker
North Eastern Regional Air Quality Consortium Meeting, Lubec, ME, June 2003, **invited**
speaker
Steering Committee, Seventh, ninth, and tenth Cary Conferences, Millbrook, NY, 1989, 2001,
2003, **invited**
EPA Ecological Thresholds Workshop, Washington, DC. November 2002, **invited speaker**
Hubbard Brook Research Foundation, "Science Links" scientist, 2000-2001, **invited**
Evaluating Biogeochemistry Programs in Northwestern National Parks, Seattle, WA, January
2001, **invited**
American Women in Science, 2002 Dissertation Improvement Grant Reviewer
Advisory Workshop for Hudson River Tributaries of Dutchess County, Poughkeepsie, NY, April
2001, **invited**

CASTNet Dry Deposition Workshop, Washington, DC. March 2000, **invited**
New York State Energy Research and Development Authority (NYSERDA), *Acid Rain Research*, Albany, NY, December 1999, **invited panel member**
Nitrogen in Coastal Watersheds Workshop, Narragansett, RI, 1997, **invited participant**
National Center for Ecological Analysis and Synthesis (NCEAS) Workshop, Santa Barbara, CA, 1997, **invited participant**
Dissolved Organic Nitrogen in the Atmosphere Workshop, College Park, MD, 1998, **invited participant**
American Association of University Women American Foundation Panel, 1997-2000. Review of approximately 30-50 research proposals annually for this panel meeting, **invited**
National Science Foundation, Ecosystem Studies Advisory, Field Station and Marine Biological Laboratories Panel and Major Research Instrumentation Panels, 1995-2006, **invited**
Forest Response Program/Western Conifer Planning Meeting, Corpus Christi, TX, February 1988, **invited speaker**
National Atmospheric Deposition Program Technical Meeting, Minneapolis, MN, November 1987, **invited speaker**
NATO Advanced Research Workshop, Edinburgh, Scotland, September 1986, **invited speaker**
NAPAP Mountain Cloud Chemistry Project Protocol Meetings, Albany, NY, November 1984 and March 1986, **invited speaker**
Institute of Ecosystem Studies - Cary Conferences I-XIII, Millbrook, NY 1985-present, **invited participant**

Invited Seminars

SUNY New Paltz, March 2018, Harrison Lecture
University of Saskatchewan, October 2017
Michigan Tech University, October 2017
Columbia University, Lamont Doherty, Nov 2016
Iowa State, May 2016
Virginia Tech University, April 2016
Michigan State University, February 2015
Utah State University, April 2014
Binghamton University, February 2013
Colby College, September 2012
Cary Institute, April 2012
Ohio University, May 2012
University of Massachusetts, Dartmouth, October 2011
Keene State University, February 2011
University of Kentucky, Lexington, KY, November 2010
Syracuse University, Syracuse, NY, March 2010
Miami University, Oxford, OH, April 2009
University of Maine, Orono, ME, November 2008
Lamont-Doherty of Columbia University, Pallsades, NY, January 2008
University of Toronto, Toronto, Canada, March 2007
Columbia University, New York, NY, November 2006
Rutgers University, New Brunswick, NJ, September 2006
Dartmouth College, Hanover, NH, November 2005

Lamont-Doherty of Columbia University, Pallsades, NY, November 2005
NAS, Institutes of Medicine, Environmental Medicine Round Table, "Ecological effects of the
Cap and Trade Program," Washington, DC, February 2005
The Ecosystems Center, Woods Hole, MA, March 2004
Colby-Sawyer College, New London, NH, January 2004
Rensselaer Polytechnic Institute, Rensselaer, NY, April 2003
American Chemical Society, Mid-Hudson Chapter, Beacon, NY, March 2003
Vassar College Careers Symposium, Poughkeepsie, NY, February 2003
Cornell University, Ithaca, NY, November 2002
Indiana University, Bloomington, IN, March 2002
New York State Energy Research and Development Authority (NYSERDA), Albany, NY,
November 2001
Clean Air Coalition, U.S. Senate - Staffer and Stakeholders' Briefing on the Science of Acid
Deposition, Washington, DC, 2000
University of Virginia, Environmental Sciences, Charlottesville, VA, April 2001
Colorado State University, Fort Collins, CO, February 2000
The Ecosystems Center, Woods Hole, MA, November 1997
Cary Conference VII, Millbrook, NY, May 1997
Fordham University, Bronx, NY, October 1996
University of Rhode Island, Kingston, RI, February 1995
Pace University School of Law, New York, NY, 1995, 1996
St. Mark's Episcopal Church, Greenwich, CT, October 1995
Cornell University, Ithaca, NY, December 1992
Fordham University, Bronx, NY, March 1992
Calvin College, Grand Rapids, MI, January 1991
Bard College, Annandale, NY, July 1990
Albion College, Albion, MI, October 1986

Grants/Contracts

Research:

- 2017-2020 Interactive effects of catchment and climate change on water quality in forested North Temperate lakes: Historic trends and future predictions. NASA. David Lutz, Dartmouth College (PI), Kathleen Weathers (co-PI), \$314,52 (Cary portion).
- 2017-2021 Grassroots global network science: A macrosystems model. National Science Foundation, \$498,000. Kathleen Weathers, Cary Institute (PI), Paul Hanson, UWisconsin (co-PI).
- 2016-2021 Macrosystems biology: Ecological forecasting. National Science Foundation. Michael Dietze (PI), Boston University, \$555,805. Shannon LaDeau (co-PI), Kathleen Weathers (co-PI).
- 2016-2019 CNH-L: Linking land-use decision making, water quality, and lake associations to understand human-natural feedbacks in lake catchments. National Science Foundation, ICER-1517823. \$1,799,931. Coburn, VT PI, Carey, Duffy, Hanson, Boyle, Weathers co-PIs.
- 2013-2015 Development of real-time environmental sensor technology and applications for the Northeast: A proposal from the NERC Northeastern Environmental Sensor Working Group (NESN). NSRC. \$26,868. L. Rustad (PI), M. Martin, K.C. Weathers, K. Rose, J. Shanley.
- 2013-2014 Lessons learned from grassroots networks workshop. National Science Foundation, \$87,993. K.C. Weathers, T.K. Kratz, C.C. Carey, P.C. Hanson.
- 2012-2014 Coastal fog as a system: Catalyzing an interdisciplinary research agenda. Gordon and Betty Moore Foundation, \$157,000. K.C. Weathers.
- 2012-2017 Building analytical, synthesis, and human network skills needed for macrosystem science: A next generation graduate student training model based on GLEON. National Science Foundation, \$2,100,000. K.C. Weathers, P.C. Hanson.
- 2012-2014 Frontiers in ecosystem ecology: Energizing the research agenda. National Science Foundation, \$157,773. P.M. Groffman, K.C. Weathers.
- 2011-2014 Ecosystem dynamics in a Mexican tropical forest: Pilot project. National Science Foundation, \$53,296. A. Ponette-Gonzalez, K.C. Weathers.
- 2010-2013 Appalachian Trial Mega Transect Project. National Park Service, \$100,000. K.C. Weathers, H.A. Ewing (Bates College).

- 2009-2012 Collaborative research: Opening Pandora's box with a biotic key: Can cyanobacterial blooms in nutrient-poor lakes accelerate eutrophication. National Science Foundation, Emerging Frontiers, \$949,043. K.L. Cottingham, H.A. Ewing, K.C. Weathers.
- 2008-2010 Microbes, mariculture, forests and fog: Unexplored ecosystem interconnections in southern Chile. Ocean-Atmosphere-Terrestrial Systems Program, Earth Institute, Columbia University, \$200,000. M. Uriarte, K.C. Weathers, E. Dueker, C. Small, A. Subramaniam, G. O'Mullan, A. Juhl.
- 2008-2011 Cyber-Infrastructure-Team Demonstration: Developing a model for engagement of citizen scientists: Lake associations. National Science Foundation-OCI, \$249,900. K.C. Weathers, K. Chiu, B. Benson, A. Zimmerman, J. Fichter.
- 2008-2010 Empirical estimation of the critical load for inorganic aluminum mobilization in the western Adirondack region. New York State Energy Research and Development Association, \$61,000. K.C. Weathers, G. Lawrence, T. Sullivan.
- 2007-2009 Opening Pandora's Box: A cyanobacterial key and its potential to accelerate eutrophication. National Science Foundation, \$49,999. K.L. Cottingham, K.C. Weathers, H.A. Ewing, N. Caraco.
- 2007-2009 Mapping of total N and S deposition, eastern North America. NSRC, USDA-FS, \$35,000. K.C. Weathers.
- 2007-2010 A spatially-explicit watershed scale analysis of nutrient loading to Adirondack lake ecosystems. National Science Foundation, \$301,000. C.D. Canham, M.L. Pace, K.C. Weathers.
- 2006-2007 North American wet deposition mapping. Council for Economic/Ecological Cooperation, Montreal, Canada, \$68,000. K.C. Weathers.
- 2006-2008 Land cover effects on water fluxes and atmospheric deposition across a Mexican Tropical Montane landscape. Doctoral Improvement Grant: National Science Foundation, \$12,000. K.C. Weathers, A. Ponnette-Gonzalez.
- 2005-2007 Development of a strategic plan to assess field station needs for research, teaching, education and outreach in northern New England. National Science Foundation, \$24,170. K.C. Weathers, J. Callewaert.
- 2003-2007 An assessment of forest health and soil status to determine the effects of logging practices on water quality in the west-of-Hudson watersheds. SUNY Research Foundation, \$241,780. G.M. Lovett, K.C. Weathers.

- 2003-2004 International: planning visit – Fog, trees, ecosystem functioning and the biodiversity of relict temperate rain forest patches in Fray Jorge National Park, Chile. National Science Foundation, \$21,142. C.G. Jones, K.C. Weathers, T. Dawson, H.A. Ewing.
- 2003-2004 Cary Conference X: Ecosystem function in heterogeneous landscapes. Environmental Protection Agency, \$20,000. G.M. Lovett, K.C. Weathers, C.G. Jones.
- 2003-2004 Cary Conference X: Ecosystem function in heterogeneous landscapes. USDA National Research Initiative Competitive Grants Program, \$15,000. G.M. Lovett, K.C. Weathers, C.G. Jones.
- 2002-2004 Atmospheric deposition to complex terrain: Scaling up to the landscape. National Park Service, \$131,000. K.C. Weathers (PI), G.M. Lovett, S.E. Lindberg.
- 2002-2004 Comparing atmospheric deposition estimates: Throughfall and inferential methods at CASTNet sites. Environmental Protection Agency, \$60,000. K.C. Weathers (PI).
- 2002-2004 Cary Conference X: Ecosystem function in heterogeneous landscapes. Andrew W. Mellon Foundation, \$30,000. G.M. Lovett, K.C. Weathers, C.G. Jones.
- 2002-2004 Cary Conference X: Ecosystem function in heterogeneous landscapes. National Science Foundation, \$50,000. G.M. Lovett, K.C. Weathers, C.G. Jones.
- 2001-2003 Fog mediates the hydrological and nitrogen cycles of Redwood forests. Andrew W. Mellon Foundation, \$300,000. K.C. Weathers, T.E. Dawson and M. Firestone, University of California, Berkeley for collaborative research.
- 2001-2003 An integrated assessment of the recovery of surface waters from reduced levels of acid precipitation in the Catskills and Adirondacks, NY. NYSERDA, \$173,462. G.M. Lovett, K.C. Weathers.
- 2001-2004 A regional model of atmospheric deposition for the Northeastern US. Northeast Regional Cooperative (US Forest Service), \$191,000. K.C. Weathers (PI), G.M. Lovett, S.V. Ollinger.
- 2000-2003 The effects of an introduced pest on the C and N dynamics of a northern hardwood forest. National Science Foundation, \$974,748. G.M. Lovett, K.C. Weathers, M.A. Arthur, M. Carreiro.

- 1999-2004 Under the Andrew W. Mellon Foundation grant to the Institute of Ecosystem Studies: Ecosystem function in mosaic landscapes: Boundaries, fluxes, and transformations. **Subgrants:** (1) The ecological function of forest edges. \$38,176. K.C. Weathers, S.T.A. Pickett, M.L. Cadenasso; (2) Nitrate loss from Catskill watersheds: Spatial patterns of forest type and history. \$63,411. G.M. Lovett, K.C. Weathers; (3) The role of spatial scale in hydrologic export of materials from heterogeneous watersheds: Scaling down from large-river models. \$32,619. N.F.M. Caraco, J.J. Cole, G.M. Lovett, K.C. Weathers; (4) Structure and function of ecological boundaries: A workshop on status and opportunities for integrated research. \$14,033. S.T.A. Pickett, M.L. Cadenasso, K.C. Weathers.
- 1998-2000 PRIMENet — Atmospheric deposition in mountainous terrain: Scaling up to the landscape. Environmental Protection Agency, Cooperative Agreement CR826558-01-0, \$483,206. K.C. Weathers, G.M. Lovett, and S.E. Lindberg.
- 1997-1998 Cloud water chemistry in the Catskill Mountains, NY. QST Environmental, \$34,272. G.M. Lovett and K.C. Weathers.
- 1997-1999 Atmospheric controls on nutrient cycles in remote, old growth, temperate forests of southern Chile. The Andrew W. Mellon Foundation, \$50,000. K.C. Weathers, G.M. Lovett, G.E. Likens.
- 1996-1997 The importance of cloud water for forested ecosystems in southern Chile. The Andrew W. Mellon Foundation, \$100,000. K.C. Weathers, G.M. Lovett, G.E. Likens.
- 1996-1999 Nitrate loss from Catskill watersheds: The role of forest change. USDA NRICGP, \$378,000. G.M. Lovett, K.C. Weathers, M.A. Arthur.
- 1988 Graduate student research - 1988. National Audubon Society, \$1000. K.C. Weathers.

Major Instruments and Laboratory Facilities:

- 1989-2007 Created, set vision for, administered, and managed IES Analytical Laboratory, a shared, in-house analytical facility with 4 technical staff and up to \$300,000 annual budget (Cary Institute).
- 2005-2007 Acquisition of instrument and information infrastructure for the IES Analytical Laboratory. National Science Foundation, \$290,764. K.C. Weathers and D.A. Schmidt. Also, Research experiences for undergraduate (2 students), and research enhancement for undergraduate instructors supplements (1 undergraduate faculty member).
- 2002-2005 Acquisition of instrumentation for the Institute of Ecosystem Studies' Central Analytical Lab. National Science Foundation, \$154,337. K.C. Weathers, PI.

- 1999-2001 Multi-user biological instrumentation - A replacement scintillation counter and cation ion chromatograph for the IES Analytical Laboratory. National Science Foundation, \$46,134. K.C. Weathers, PI.
- 1998-1999 Multi-user biological instrumentation - Analytical laboratory equipment and development of laboratory computer network at the Institute of Ecosystem Studies. National Science Foundation, \$90,566. K.C. Weathers, PI; co-PI, C.D. Canham.
- 1994-1995 Facilities improvement at the Institute of Ecosystem Studies. National Science Foundation, \$99,000. K.C. Weathers, PI; co-PI, G.E. Likens.
- 1991-1992 Facilities upgrade at the Institute of Ecosystem Studies. National Science Foundation, \$48,000. K.C. Weathers, PI; co-PI, G.E. Likens, J.J. Cole.

Teaching

- Fundamentals of Ecosystem Ecology. Cary Institute of Ecosystem Studies. The Cary Institute offers an intersession course for graduate students in the U.S. and abroad. One IES staff member is responsible for all aspects of the course. To date, I have run the course four times: 1994, 1995, 2004, and 2014.
- Ecosystem Ecology. Bard College Graduate Program in Environmental Studies. A 1-semester graduate course in ecosystem ecology for master's level environmental studies students. 1995-1998.
- Forest, Land and Soils Module: (1) Fundamentals of Terrestrial Ecosystem Ecology, and (2) Fundamentals of Water. Bard College, Center for Environmental Policy. Master's degree program in Environmental Policy. 2001-2003.
- Nitrogen Emissions, Chemistry and Deposition - lectures to MS students in the Ecology, Evolution, and Behavior Program, State University of New York, Albany. 2005, 2008.
- Air Pollution – lectures for law students. Pace University, Environmental Law Program. 1990s.

Students Supervised

Research Experience for Undergraduates Program (Advisees):

- Lewis, Abigail. "Nutrient limitation of phytoplankton at varying depths in a stratified lake." 2017
- Shrift, Margot. "Estimating chlorophyll-a and water quality for nutrient poor lakes using Landsat 8." 2017.
- Skoglund, Sophia. "Developing a model for lake ice phenology using satellite remote sensing observations." 2017.
- Boucher, Jonah. "Assessing the effectiveness of Landsat 8 chlorophyll-a retrieval algorithms for regional freshwater management." 2016.
- Saberi, Saba. "Scanning from the sky: Using remote sensing to estimate gross primary production in lakes." 2016
- Fiorillo, Alyeska. "Understanding ion chromatography for the analysis of environmental samples." National Science Foundation Research Experiences for Undergraduates, Supplement 2008.

- Parker, Claire. "Understanding ion chromatography for the analysis of environmental samples." National Science Foundation Research Experiences for Undergraduates, Supplement 2008.
- Voeller, Gabrielle. "Exploring resin technology for ecological studies." National Science Foundation Research Experiences for Undergraduates, Supplement. 2006.
- Barron, Alexander. "Effects of leaf litter extracts on nitrification in Catskill soils." National Science Foundation Research Experiences for Undergraduates at IES. 1998.
- Fuller, Amanda. "A comparison of nitrogen and mineralization rates for four species in the Catskill Mountains, NY, and White Mountains, NH." National Science Foundation Research Experiences for Undergraduates at IES. 1994.
- Perchemlides, Keith. "Influence of canopy tree species and elevation on rates of net N-mineralization and net nitrification in a Catskill Mountain watershed." National Science Foundation Research Experiences for Undergraduates at IES. 1993.
- Waters, Susan. "Effects of acid deposition: Influence of elevation and edge on nitrogen mineralization in a spruce forest." National Science Foundation Research Experiences for Undergraduates at IES. 1991.
- Arnott, A. Miles. "The effect of elevation and vegetation type on atmospheric lead deposition to the Catskill Mountains." National Science Foundation Research Experiences for Undergraduates at IES. 1991.

Undergraduate Theses/Final Projects Co-Supervised:

- Voeller, Gabrielle. 2007. Bates College, Chemistry and Environmental Studies, "Combined anion and cation resins for the collection and analysis of atmospheric deposition: Field and laboratory experiments."
- Carey, Cayelan. 2005-2007. Dartmouth College, "Controls on *Gloeotrichia* blooms, Lake Sunapee, New Hampshire."
- Savard, Michelle. 2005. Princeton University, Ecology and Evolutionary Biology, "Sulfate and nitrate deposition to balsam fir: Measured across an elevational gradient on Mt. Washington, White Mountains, New Hampshire."
- Maki, Christina. 2005. Bates College, Environmental Studies Program, "Ionic Composition of Streamwater and Its Relationship to Conductivity in the Lake Sunapee Watershed."
- Van Steinburgh, Greg. 2005. Colby-Sawyer College, "Efficacy of Catchment Basins for trapping sediment in the Lake Sunapee Watershed."
- Gasarch, Eve. 2005. Bates College, Environmental Studies Program, "Fire as a local control on forest composition at Bad Man's Cave, Catskills, New York."

Eaton Fellows Supervised:

- Schmidt, Denise. "Expanding the analytical capabilities of the Cary Institute Analytical Laboratory." 2011.
- Hanson, Paul. "Exploring data and analytical flows, from sample collection to synthesis." 2006-2007.
- Fitzgerald, Neil. "Comparison of trace metal variations in buffered and poorly buffered streams in the Shawangunk Mountain range." 2002-2003.
- Perez, Cecilia. "C and N content in Chile forest litter and the purchase of a C/N Analyzer for ecological research in Chile." 1998.

Laughlin, Janet. "Practical experience in an analytical laboratory." 1996.
Schechter, Ludmilla. "C and N dynamics in ecological materials from the Negev, Israel." 1994.
Begemann, Marianne. "A comparison of two methods for analysis of aluminum." 1992.
Shultz, Alexandra. "The effects of pH on aluminum speciation in the Coxingkill." 1990.
Ma, Xiaoying. "Elemental dynamics of the East Branch of Wappinger Creek during summer storm events." 1989.

Postdoctoral Scholars Supervised:

Pamela Templer (2003), David Richardson (2008-2009), Emily Kara Read (2012-2014), Hilary Dugan (2014-2016)

Graduate Students: notes: (1) the Cary Institute does not grant degrees, (2) all student advising for M.S. degrees occurred between 1994 and 2003.

Advisor or Co-Advisor

Carey, Cayelan, Cornell University (Ph.D.), 2007- 2012
Simkin, Samuel, Cornell University (Ph.D.), 2004-2012
Ponette-Gonzalez, Alexandra, Yale University (Ph.D.), 2004-2008
Skalla, Dennis, Bard College (M.S.)

Committee Member

Ward, Nicole, Virginia Tech University (Ph.D.), 2017-2022
Fitchett, Leah, Virginia Tech University (MS), 2017-2019
Dueker, M. Elias, Columbia University (Ph.D.), 2007-2012
Schwarz, Kirsten, Rutgers University (Ph.D.), 2007-2010
Nelson, Sarah, University of Maine (Ph.D.), 2001-2007
Hylton, Rebecca, North Carolina State University (Ph.D.), 2005-2009
Cadenasso, Mary, Rutgers University (Ph.D.), 1995-1998
O'Hara, Jennifer, Yale University (Ph.D.), 1997-2001
Dittersdorf, Joanne, Bard College (M.S.)
Ito, Pamela, Bard College (M.S.)
Lombardo, Melannie, Bard College (M.S.)
Macfarlane, Wallace, Bard College (M.S.)
Mele, Andre, Bard College (M.S.)
Miller, S.A., Mary Bard College (M.S.)
Moffett, Elizabeth, Bard College (M.S.)
Morrison, Jennifer, Bard College (M.S.)
Ross, Daphne, Bard College (M.S.)

Reviewer for:

Arid Environments, Atmospheric Environment, Biogeochemistry, BioScience, Ecological Applications, Ecology, Ecography, Ecosystems, Environmental Pollution, Environmental Research, Environmental Science and Technology, Environmental Studies and Science, Frontiers in Ecology and the Environment, Global Biogeochemical Cycles, Journal of Aerosol Science and Technology, Journal of Environmental Quality, Journal of Geophysical Research, Marine Environmental Research, National Science Foundation (outside reviewer, misc. panels), Nature, Oecologia, Plant, Cell and Environment, Science, Tree Physiology, Tellus, Water, Air and Soil Pollution, Water Resources Research

Cary Institute of Ecosystem Studies Service (* denotes current)***Cary Institute Board-of-Trustees***

Strategic Planning 2012-2017, Education Sub Committee (chair)
Visions Committee
Presidential Search Committee, 2008, 2013

Standing Committees

Affirmative Action
Cary Conference Steering
Computer (chair)
Eaton Fellowship (chair)*
Environmental Monitoring*
Local Area Network Establishment
Milestones and Media
Mosaic Landscape Research Management Team*
New Laboratory Building and Space Allocation (chair)
PostDocs, Summer Fellows and Visiting Scientists
Staff Review and Peer Advisory Preparedness*
Telecommunications
Workplace Safety*

Ad hoc committees

Adjunct Scientists*
Archives (chair)
Centers at the Institute
Data Management
Graduate Opportunities
Emeritus Policy
Lyme Disease
Research Assistant Salary
Search Committees (Scientific staff-Chair, Development Officer, Safety Officer, Support Staff)

Various Other Presentations

Aldo Leopold Society, Institute of Ecosystem Studies

Volunteer Recognition Program, Institute of Ecosystem Studies
Trustees of the Mary Flagler Cary Charitable Trust
Board-of-Trustees, Institute of Ecosystem Studies

Society Memberships

American Association for the Advancement of Science (AAAS)
American Society for Limnology and Oceanography (ASLO)
American Geophysical Union (AGU)
American Women in Science (AWIS)
Citizen Science Association (CSA)
Ecological Society of America (ESA)
Society for Organizational Learning (SoL)