

Curriculum Vitae

ROGER C. VIADERO, JR., PH.D., CSE, BCEEM, WFR

Director, Institute for Environmental Studies
Professor, Department of Biological Sciences
Founding Chair, Environmental Science Ph.D. Program

Western Illinois University
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<https://publons.com/a/1435750>

EDUCATION AND PROFESSIONAL CERTIFICATION

EDUCATION

- Ph.D., Civil and Environmental Engineering, West Virginia University, Morgantown, WV, 1997
- M.S., Nuclear Engineering, University of Illinois, Urbana, IL, 1994
- B.S., Physics, *Summa Cum Laude*, *Phi Beta Kappa*, Mary Washington College, Fredericksburg, VA, 1993

PROFESSIONAL CERTIFICATION

- Wilderness First Responder, Wilderness Medical Associates, expires 30 November 2030
- ABET Program Evaluator, Engineering Accreditation Commission (EAC), 2024-2029
- Board Certified Environmental Engineering Member, American Academy of Environmental Engineers and Scientists, Specialization in Site Remediation, 2019-present
- Certified Senior Ecologist, Ecological Society of America, 2009-present

ACADEMIC AND PROFESSIONAL EXPERIENCE

ACADEMIC APPOINTMENTS

Western Illinois University, Macomb and Moline, IL

- Director, Institute for Environmental Studies, 2007-present
- Professor, Department of Biological Sciences, 2007-present
- Founding Chair, Environmental Science Ph.D. Program, 2014-2025

West Virginia University, Morgantown, WV, Office of the Vice President for Research and Economic Development

- Director, Center for Environmental Research, 2005-2007

West Virginia University, Morgantown, WV, Department of Civil and Environmental Engineering

- Robert C. Byrd Associate Professor, 2005-2007
- Associate Professor, 2004-2005
- Assistant Professor, 1999-2004

University of Wisconsin-Green Bay, Green Bay, WI, Division of Natural and Applied Science

- Assistant Professor of Civil and Environmental Engineering, 1998-1999

West Virginia University, Morgantown, WV, Department of Civil and Environmental Engineering

- Research Assistant Professor, 1998
- Lecturer, 1996-1997

RELATED PROFESSIONAL EXPERIENCE

- Expert Witness, 2021-present
- Senior Consulting Remediation Engineer/Scientist, Riverside Global, Hampton, IL, 2020-present

- Science Advisor and Panel Manager (GS 15), US Department of Agriculture, National Institute for Food and Agriculture Institute of Bioenergy, Climate, and the Environment, Washington, DC, 2015-2017.
- Research Fellow, University of Illinois, Urbana, IL, Grainger College of Engineering, 1993-1995
- Site Remediation Consultant, Automated Sciences Group, Dahlgren, VA, Summer 1993
- Director's Intern, Office of the Director, Federal Bureau of Investigation, Washington, DC, May-August 1992
- Intern, Forensic Science Research and Training Center, Federal Bureau of Investigation, Quantico, VA, May-August 1990 and 1991

REPRESENTATIVE SYNERGISTIC EXPERIENCE

- Chair, Board of Professional Certification, Ecological Society of America, Washington, DC, 2025 and 2026
- Member, Board of Professional Certification, Ecological Society of America, Washington, DC, 2024-present
- Program Evaluator, Engineering Accreditation Commission (EAC), ABET, Baltimore, MD, 2024-2029
- Member, Quad Cities Clean River Advisory Council, Quad Cities Community Foundation and the Walton Family Foundation, Davenport, IA, 2023-2025
- Second VP through Past President, Aquacultural Engineering Society, Riverview, FL, 2006-2009
- Elected Member, Board of Directors, Aquacultural Engineering Society, Riverview, FL, 2004-2006
- Senior Fellow, Homeland Security Policy Institute, The George Washington University Medical Center, Washington, DC, 2006
- Editorial Board Member, Journal of Aquacultural Engineering, Elsevier Science, Ltd., Amsterdam, NL, 2006-present

REPRESENTATIVE AWARDS

- Eddy Award for Outstanding Environmental Education on the Upper Mississippi River, River Action, Davenport, IA, 2020.
- Inaugural Robert C. Byrd Endowed Associate Professor, WVU Research Corporation, 2005-2007.
- Paper Award for "exceptional contribution to aquacultural engineering literature," Aquacultural Engineering Society, March 2004.
- Award for Outstanding Teaching, WVU College of Engineering and Mineral Resources, 2002-2003.
- Excellence in Teaching Award, WVU Department of Civil and Environmental Engineering, 2001-2002.
- J.C. Burchinal Award for Outstanding Undergraduate Teaching, WVU Department of Civil and Environmental Engineering, 1999-2000 and 2000-2001.
- Research Fellowship, College of Engineering, University of Illinois at Urbana-Champaign, 1993-1995.
- Departmental Honors in Physics, Mary Washington College, May 1993.
- Phi Beta Kappa, Mary Washington College, March 1992.

TEACHING, STUDENT MENTORSHIP AND ADVISING

TEACHING

Undergraduate and graduate level in person, online, and remote instruction in: environmental systems, environmental impact analysis, environmental applications of GIS, aquatic chemistry and biology, hazardous waste site remediation, industrial pollution control, resource management, civil engineering design, and engineering mechanics.

STUDENT MENTORSHIP AND ADVISING

- Post Doctoral Trainees (2)
- Ph.D. Students (14) ; 8 graduated as dissertation committee chair and 6 graduated as dissertation committee member
- Master's Students (46); 15 graduated as thesis committee chair and 31 graduated as thesis committee member
- Undergraduate Students Mentored (19)

PUBLICATIONS

RECENT BOOKS, MONOGRAPHS, AND BOOK CHAPTERS (11 TOTAL)

- Viadero, R. (2024). "Aquatic Environmental Systems: An Interdisciplinary Approach for Scientists and Engineers," Taylor Francis Publishing, CRC Press, 158 pp., ISBN: 978-1-032-26718-0 (hbk), 978-1-032-26721-0 (pbk), 978-1-003-28963-0 (ebk), <https://doi.org/10.1201/9781003289630>.

RECENT JOURNAL PUBLICATIONS (46 TOTAL)

- Kang, R. and R. Viadero. "A River Almost Ran Through It-Turning Frequent Flooding into Opportunities for Experiential Learning," Focus on Geography, accepted, May 2026.
- Kang, R., Vitt, D., and R. Viadero. "Riparian Moss Cover Reduces Near-Surface Soil Moisture: Implications for Streambank Stabilization, Restoration Ecology, submitted.
- Kang, R., Donovan, S., Jerin, T., Viadero, R., and P. McDaniel. "Ecology at the Margins: Quantifying Environmental Motifs in Public Art along the Atlanta Beltline Eastside Trail," Papers in Applied Geography, submitted.
- Viadero, R., Singh, A., Thomas, D., and S. Babatunde. "Partitioning of Slag-Derived Metals in Freshwater, Sediment, and Aquatic Vegetation," Journal of Soil and Water Conservation, submitted.
- Rehbein, M., Viadero, R., Hunt, J., and C. Miller (2024). "The Role of Temperature, Wind Speed, and Precipitation on the Abundance of *Culex* Species and West Nile Virus Infection Rate in Rural West-Central Illinois," Journal of the American Mosquito Control Association, 40(10), 1-10, <https://doi.org/10.2987/23-7152>.
- Hunt, J., Rehbein, M., Viadero, R. and C. Miller (2023). "Distribution of Invasive *Aedes* Mosquitoes in Western Illinois, 2014-2018: First Records for *Aedes japonicus* and *Aedes albopictus*," Journal of the American Mosquito Control Association, 39 (1), 1-11, <https://doi.org/10.2987/22-7105>.
- Singh, A. and R. Viadero (2022). "Environmental Impact of the Historical Slag Pile in Davenport, Iowa, USA: Trace Metal Contamination in Soils and Terrestrial Vegetation," Journal of Soil and Water Conservation, 77(4), 365-371, <https://doi.org/10.2489/jswc.2022.00134>.
- Rehbein, M., and Viadero, R. (2021). "A New Record of *Uranotaneia sapphirina* and *Aedes japonicus* in Lee and Ogle Counties, Illinois," Journal of the American Mosquito Control Association, 37 (4), 280-282, <https://doi.org/10.2987/21-6994>.

RECENT CONFERENCE PRESENTATIONS AND PAPERS (70 TOTAL) [†]presenting author, ^{*} student author

- Viadero, R., "Masterclass - Interdisciplinary Environmental Education In, On, and Around the Upper Mississippi River," Upper Mississippi River Conference, Moline, IL, October 16-17, 2024.
- Helmke, C.[†], Singh, A., and R. Viadero, "Spatial Distribution of Extractable Metals in Sediment from Iron Foundry Slag Deposited at Carp Lake, Davenport, IA," STUDENT AWARD, Upper Mississippi River Conference, Moline, IL, October 19-20, 2022.
- Viadero, R., "Diverting Mississippi River Water to Supplement the Water Supply in the Lower Colorado River Basin- An Exercise in Critical Thinking and Scientific Literacy," Upper Mississippi River Conference, Moline, IL, October 19-20, 2022.
- Viadero, R., "Critical Issues Roundtable: Looking Ahead and Lessons Learned," Great River Collaborative Conference, Culver-Stockton College, Canton, MO, April 7-9, 2022.
- Helmke, C.[†], Singh, A., and R. Viadero, "Spatial Distribution of Extractable Metals in Sediment from Iron Foundry Slag Deposited at Carp Lake, Davenport, IA," 16th Emiquon Science Symposium, March 30, 2022.
- Williams, M.^{*}, Nichols, J.^{*}, Alford, A.[†], Davee, M.^{*}, Helmke, C.^{*}, Viadero, R., and M. Bernards, "Drain Tile Water Quality: Integration of Cover Crops, Year 1," IL Nutrient Reduction and Education Council Meeting, Champaign, IL, February 16, 2021.
- Viadero, R. "Headwater Streams: Their Importance in the Upper Mississippi River Basin," 2020 Upper Mississippi River Webinar Series, November 5, 2020; available at <https://youtu.be/jpq0AAKidX0>.
- Singh, A.[†] and R. Viadero, "Distribution of Trace Metals among Soil, Water, Sediment and Vegetation in the Vicinity of an Iron Foundry Slag Deposit at Carp Lake, Davenport, IA, US," Soil and Water Conservation Society (SWCS) 75th International Annual Conference, Des Moines, IA, July 26-29, 2020.

CONTRACTS AND GRANTS

- \$7.75M total; \$5.75M as PI and \$2.0M as coPI
- Representative funding sources include: Federal Highways Administration via the West Virginia Division of Highways, Illinois Nutrient Research and Education Council, National Science Foundation, Northeastern Regional Aquaculture Center, and the US Department of Agriculture.

EDITORIAL AND REVIEW EXPERIENCE

EDITORIAL BOARD MEMBERSHIP

- Journal of Aquacultural Engineering, Elsevier Science, Ltd., 2006-present

MANUSCRIPT REVIEWER

- Aquacultural Engineering, Colloids and Surfaces, Environmental Engineering Science, Environmental Quality Management, Environmental Science and Technology, International Journal of Recirculating Aquaculture, Journal of the American Water Resource Association, Journal of Hydrology, Journal of Ecological Engineering, Journal of Environmental Engineering, Separation Science and Technology, Water Environment Research, Water Research

PROFESSION MEMBERSHIP AND ACTIVITIES

PROFESSIONAL AFFILIATIONS

- Member, American Academy of Environmental Engineers and Scientists
- Member, Ecological Society of America
- Member, Wilderness Medical Society
- Member, Aquacultural Engineering Society
- Volunteer, Engineers without Borders US and UK

REPRESENTATIVE PROFESSIONAL SERVICE AND LEADERSHIP

- Chair, Board of Professional Certification, Ecological Society of America, 2025 and 2026
- Design Evaluator, Engineers without Borders UK, Engineering for the People Student Design Contest, 2025, 2022, 2021
- Member, Board of Professional Certification, Ecological Society of America, 2024-2026
- Program Evaluator, ABET Engineering Accreditation Commission (EAC), 2024-2029
- Advisory Council Member, Quad Cities Clean River Council, QC Community Foundation and the Walton Family Foundation, 2022-2025
- Panelist, Aquaculture Research and Small Business Innovation Research Programs, US Department of Agriculture, National Institute for Food and Agriculture, Institute of Food Production and Sustainability, 2020, 2018, 2015, 2011, 2010
- Second Vice President through Past President, Aquacultural Engineering Society, 2004-2009
- Member, Board of Directors, Aquacultural Engineering Society, 2004-2006

REPRESENTATIVE UNIVERSITY, COLLEGE, AND DEPARTMENT SERVICE ACTIVITIES

- Leadership Council Member, Western Illinois University Quad Cities, 2019-2025
- Graduate Program Coordinator, Western Illinois University Environmental Science, 2013-2025
- Chairs' Council Member, Western Illinois University, Member, 2013-2025
- Chairs' Council Member, Western Illinois University, College of Arts and Sciences Member, 2007-2025
- Research Cabinet Member, Office of the Vice President for Research and Economic Development, 2005-2007
- Advisory Board Member, WVU Center for Immunopathology and Microbial Pathogenesis, WVU Health Sciences Center, 2006-2007
- Faculty Advisor, American Society of Civil Engineers (ASCE) WVU Student Chapter, 2006-2007
- Radiation Safety Officer, WVU College of Engineering and Mineral Resources, 2000-2007