

Diana Oviedo-Vargas, PhD

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EDUCATION

- 2013 Ph.D. Indiana University, School of Public and Environmental Affairs.
Environmental Sciences
- 2011 M.S. Indiana University, School of Public and Environmental Affairs.
Environmental Sciences
- 2007 B.S. University of Costa Rica, *Chemistry*

PROFESSIONAL EXPERIENCE

- 2017-present Assistant Research Scientist, Stroud Water Research Center
- 2013-2017 Postdoctoral Research Associate, Department of Marine Earth and Atmospheric Sciences, North Carolina State University
- 2011-2013 Associate Instructor, School of Public and Environmental Affairs, Indiana University, Bloomington
- 2004-2007 Teaching Assistant, Analytical and organic chemistry laboratories, University of Costa Rica
- 2004-2007 Research Assistant, Natural Products Research Center, University of Costa Rica

GRANTS AND AWARDS FUNDED

- 2016 Office of Postdoctoral Affairs Professional Development Award (\$850)
- 2012 NSF Doctoral Dissertation Improvement Grant: Extracellular enzyme activity in large rivers and its relationship to dissolved organic matter quality and inorganic nutrient uptake (\$14,406)
- 2011 IU Graduate School Grant-in-aid of Doctoral Research: Quality assurance and inter-laboratory comparison of fluorescence techniques for the characterization of dissolved organic matter (\$930)
- 2010 IU Research and Teaching Preserve Student Research Grant: Dissolved organic carbon in Sycamore Creek: A comparison to agriculturally impaired streams (\$500)
- 2009 Indiana Academy of Science Senior Research Grant: Whole-stream metabolism and characterization of dissolved organic carbon sources in agricultural streams in central Indiana (\$2,500)

OTHER AWARDS

- 2015 Best poster presentation award. 3rd Prize. North Carolina State University Postdoctoral Research Symposium

SCIENTIFIC PUBLICATIONS

- Joshi I.D., D'Sa E.J., Osburn C.L., Bianchi T.S., Ko D.S., **Oviedo-Vargas D.**, Arellano A.R. and Ward N.D., 2017. Assessing chromophoric dissolved organic matter (CDOM) distribution, stocks, and fluxes in Apalachicola Bay using combined field, VIIRS ocean color, and model observations. *Remote Sensing of Environment*, 191, 359-372.

- Oviedo-Vargas D.**, D. Dierick, D.P. Genereux, and S.F. Oberbauer. 2016. Chamber measurements of high CO₂ emissions from a rainforest stream receiving old C-rich regional groundwater. *Biogeochemistry*, doi: 10.1007/s10533-016-0243-3.
- Oviedo-Vargas D.**, D.P. Genereux, D. Dierick, and S.F. Oberbauer. 2015. The effect of regional groundwater on carbon dioxide and methane emissions from a lowland rainforest stream in Costa Rica, *Journal of Geophysical Research: Biogeosciences* 120 (12) 2579–2595, doi:10.1002/2015JG003009.
- Oviedo-Vargas D.**, and T.V. Royer. 2015. The role of dissolved organic nitrogen in a nitrate-rich agricultural stream. *Journal of Environmental Quality* 44 (2) 668-675, doi:10.2134/jeq2014.07.0314.
- Warner D., **D. Oviedo-Vargas**, and T.V. Royer. 2015. Evaluation of passive samplers for the collection of dissolved organic matter in streams. *Environmental Monitoring and Assessment* 187 (1) 1-9, 10.1007/s10661-014-4208-5.
- Oviedo-Vargas D.**, T.V. Royer, and L.T. Johnson. 2013. Dissolved organic carbon manipulation reveals coupled cycling of carbon, nitrogen and phosphorus in a nitrogen-rich stream. *Limnology & Oceanography* 58 (4) 1196-1206, 10.4319/lo.2013.58.4.1196.

PRESENTATIONS AT NATIONAL AND REGIONAL CONFERENCES

- Oviedo-Vargas, D.**, C.L. Osburn, T.S. Bianchi, E.J. D'Sa, D.S. Ko, A. Arellano, I.D. Joshi, Extracellular enzyme activity in estuarine systems of the Gulf of Mexico and its links to organic matter biogeochemistry. Aquatic Sciences Meeting, Honolulu, HI. 2017
- Oviedo-Vargas D.**, C.L. Osburn, T.S. Bianchi, E.J. D'Sa, D.S. Ko, N.D. Ward, A. Arellano, I.D. Joshi, and J.D. Kinsey. Examining the relative contribution of 'blue carbon' to coastal shelf environments via optical properties of dissolved and base-extracted particulate organic matter. Ocean Sciences Meeting, New Orleans, LA. 2016.
- Oviedo-Vargas D.**, D. Dierick, D. P. Genereux, S.F. Oberbauer, and C.L. Osburn. Regional groundwater discharge drives high carbon dioxide emissions from a lowland tropical rainforest stream. American Geophysical Union Fall Meeting, San Francisco, CA. 2015.
- Genereux, D.P., **D. Oviedo-Vargas**, D. Dierick, C.L. Osburn, and S.F. Oberbauer. Effects of regional groundwater on carbon budgets and fluxes in tropical rainforest watersheds. North Carolina State University Postdoctoral Research Symposium, Raleigh, NC. 2015.
- Oviedo-Vargas D.**, D.P. Genereux, C.L. Osburn, and S.F. Oberbauer. Contribution of stream CO₂ and methane emissions to carbon budgets in low-land tropical watersheds with and without connections to carbon-rich deep groundwater. Society for Freshwater Sciences, Portland, OR. 2014.
- Oviedo-Vargas D.**, D.P. Genereux, C.L. Osburn, and S.F. Oberbauer. Effects of regional groundwater on carbon emissions from tropical streams. North Carolina State University Postdoctoral Research Symposium, Raleigh, NC. 2014.
- Oviedo-Vargas D.**, T.V. Royer, and L.T. Johnson. Ecoenzymatic activity in sediments and water of rivers across the western and midwestern United States. Society for Freshwater Sciences, Jacksonville, FL. 2013.
- Oviedo-Vargas D.**, T.V. Royer, and L.T. Johnson. Characterization of dissolved organic nitrogen in a stream draining a heavily modified agricultural landscape. Association for the Science of Limnology and Oceanography, New Orleans, LA. 2013.
- Oviedo-Vargas D.**, T.V. Royer, and L.T. Johnson. Temporal and spatial variation of the nature of dissolved organic matter in a stream network dominated by agricultural activities. Society for Freshwater Science, Louisville, KY. 2012.

- Johnson, L.T., T.V. Royer, R.P. Phillips, and **D. Oviedo-Vargas**. The role of artificial subsurface drainage in greenhouse gas emissions from agricultural watersheds. Society for Freshwater Science, Louisville, KY. 2012.
- Oviedo-Vargas D.**, T.V. Royer, and L.T. Johnson. Coupling between carbon and phosphorus cycling in a nitrate-rich stream in Indiana, USA. North American Benthological Society, Providence, RI. 2011.
- Johnson, L.T., T.V. Royer, **D. Oviedo-Vargas**, and L.G. Leff. Effect of a labile carbon addition on nitrogen cycling in a nitrate-rich stream in Indiana, USA. North American Benthological Society, Providence, RI. 2011.
- Oviedo-Vargas D.**, L.T. Johnson, T.V. Royer, and L.G. Leff. Characterization of dissolved organic carbon sources in an agricultural stream in Central Indiana. North American Benthological Society, Santa Fe, NM. 2010.
- Oviedo-Vargas D.**, L.T. Johnson, and T.V. Royer. Whole-stream metabolism and characterization of dissolved organic carbon sources in an agricultural stream in central Indiana. Women in Science, Bloomington, IN. 2010.
- Oviedo-Vargas D.**, L.T. Johnson, and T.V. Royer. Dissolved organic carbon sources and sinks in an agricultural stream in central Indiana. Indiana Academy of Sciences, Kokomo, IN. 2009.

WORKSHOPS AND SHORT COURSES ATTENDED

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| 2016 | Thermal analysis of organic matter (Ramped Pyrolysis). Woods Hole Oceanographic Institution, Woods Hole, MA |
| 2014 | Portal to the public (communicating science to the public). Association of Science-Technology Centers, Raleigh, NC |
| 2014 | Effective teaching with technology. North Carolina State University, Raleigh, NC |
| 2013 | Linking optical and chemical properties of dissolved organic matter in natural waters. Association for the Sciences of Limnology and Oceanography, New Orleans, LA |
| 2012 | New developments in fluorescence spectroscopy to characterize dissolved organic matter. Geological Society of America Meeting, Charlotte, NC |
| 2011 | Seminar in teaching public and environmental affairs. Indiana University, Bloomington, IN |
| 2009 | Fluorescence Workshop. University of Colorado, Boulder, CO. Organized by Dr. Dianne McKnight |

DEPARTMENTAL, COLLEGE, AND UNIVERSITY COMMITTEE SERVICE

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| 2010-2012 | Member of the Undergraduate Travel Award Committee, Society for Freshwater Science |
| 2011-2012 | Environmental Science Outreach Chair. Association of SPEA PhD students |

COURSES TAUGHT

- E260 Introduction to Water Resources. School of Public and Environmental Affairs, Indiana University, Bloomington.
- E355 Introduction to Limnology. School of Public and Environmental Affairs, Indiana University, Bloomington.

E262 Environmental Problems and Solutions. School of Public and Environmental Affairs, Indiana University, Bloomington.

UNDERGRADUATE AND GRADUATE STUDENTS MENTORED

- Paul Cöckson, Wake Technical Community College. MEAS Summer Research Internship. 2016
- Chiao-Wen Lin, North Carolina State University. Graduate student. 2014-2015
- Angela Cole, North Carolina State University. Undergraduate laboratory assistant. 2013
- Andrew Madison, Indiana University. Graduate laboratory assistant. 2012
- Cora Lewis, Indiana University. Undergraduate laboratory assistant. 2012
- Daniel Warner, Indiana University. Senior thesis. Utilization of passive samplers for the characterization of dissolved organic matter. 2011

MEMBERSHIPS IN PROFESSIONAL ASSOCIATIONS

- Society for Freshwater Science (previously, North American Benthological Society)
- Association for the Sciences of Limnology and Oceanography
- American Geophysical Union

LANGUAGE SKILLS

- Spanish (Native)
- English (fluent: speaking, writing, and reading)