

Dustin W. Kincaid

Program in Ecology, Evolutionary Biology, & Behavior
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EDUCATION

Ph.D. Integrative Biology & Ecology, Evolutionary Biology, & Behavior, Michigan State University (2011 - Present).

Advisor: Dr. Stephen K. Hamilton.

B.S. Zoology & Biological Aspects of Conservation, University of Wisconsin-Madison (2007).

PEER-REVIEWED PUBLICATIONS

Rosi-Marshall EJ, **Kincaid DW**, Bechtold HA, Royer TV, Rojas M, & Kelly JJ. 2013. Pharmaceuticals suppress algal growth and microbial respiration and alter bacterial communities in stream biofilms. *Ecological Applications* 23: 583–593.

Rosi-Marshall EJ, Kennedy TA, **Kincaid DW**, Cross WF, Kelly HAW, Behn KA, White T, Hall Jr RO, & Baxter CV. 2010. Short-term effects of the 2008 high-flow experiment on macroinvertebrates in the Colorado River below Glen Canyon Dam, Arizona. U.S. Geological Survey Open-File Report 2010-1031: 1-28.

Kincaid DW & Findlay SEG. 2009. Sources of elevated chloride in local streams: groundwater and soils as potential reservoirs. *Water, Air, and Soil Pollution* 203: 335–342.

PUBLICATIONS IN REVIEW & IN PREPARATION

Stachelek J, Ford C, **Kincaid D**, King K, Miller H, & Nagelkirk R. The National Eutrophication Survey: lake characteristics and historical nutrient concentrations. *Earth System Science Data Discuss* (*In review*)

Kincaid DW, Lara N, Tieggs SD, & Hamilton SK. Rates of cellulose decomposition are relatively high and sensitive to temperature in freshwater flocculent organic sediments (*In prep*)

Kincaid DW & Hamilton SK. Nitrate removal by flocculent organic sediments in shallow freshwater ecosystems (*In prep*)

OTHER RESEARCH EMPLOYMENT

2012-2014 Graduate Research Assistant, *Breaking the per mil barrier: application of high precision isotope tracer measurements to resolve rates of aquatic denitrification*. Michigan State University. PIs: Drs. Nathaniel Ostrom & Stephen Hamilton

2011 Research Support Specialist, *Nutrient spiraling in large rivers*. Cary Institute of Ecosystem Studies. PIs: Drs. Emma Rosi-Marshall, Jennifer Tank, Robert Hall, & Michelle Baker

2011 Research Support Specialist, *Evaluating the influence of riparian forest structure on stream ecosystems across the northern forest*. Cary Institute of Ecosystem Studies. Supervisors: Drs. Emma Rosi-Marshall & Heather Bechtold

2010-2011 Research Support Specialist, *Effects of chronic exposure to pharmaceutical compounds on stream ecosystem functions*. Cary Institute of Ecosystem Studies. PIs: Drs. Emma Rosi-Marshall, Heather Bechtold, and Todd Royer

- 2008-2011 Research Support Specialist, *Linking whole-system carbon cycling to quantitative food webs in the Colorado River*. Loyola University Chicago & Cary Institute of Ecosystem Studies. PI's: Drs. Emma Rosi-Marshall, Robert Hall, Ted Kennedy, Colden Baxter, and Wyatt Cross
- 2007 Research Assistant, Stream Ecology Center. Idaho State University. Supervisor's: Drs. Colden Baxter and Amy Marcarelli
- 2006 REU, *Sources of elevated chloride in local streams: groundwater and soils as potential reservoirs*. Cary Institute of Ecosystem Studies. Mentor: Dr. Stuart Findlay
- 2004-2007 Undergraduate Research Assistant, Center for Limnology, River Ecology Lab. University of Wisconsin-Madison. Supervisor: Dr. Emily Stanley
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TEACHING

- 2016-2017 Science Education Fellow, Kellogg Biological Station, Michigan State University
- Summer 2015 Graduate Teaching Assistant, Wetlands Ecology & Management, Kellogg Biological Station, Michigan State University
- Fall 2014 Graduate Teaching Assistant, Integrated Studies Biology Lab, Michigan State University
- Summer 2014 Graduate Teaching Assistant, Wetlands Ecology & Management, Kellogg Biological Station, Michigan State University
- 2012-2014 NSF Graduate STEM Fellow in K-12 Education: Kellogg Biological Station Bioenergy Sustainability Project, Michigan State University
- Spring 2012 Graduate Teaching Assistant, Population & Organismal Biology Lab, Michigan State University
- Fall 2011 Graduate Teaching Assistant, Population & Organismal Biology Lab, Michigan State University
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AWARDS AND FELLOWSHIPS

- 2016-2017 Science Education Fellowship, Kellogg Biological Station, Michigan State University (\$45,000)
- 2016 Kellogg Biological Station LTER Small Grants Program, Michigan State University (\$2000)
- 2015-2016 Kellogg Biological Station LTER Full Year Research Fellowship, Michigan State University (\$45,000)
- 2015 Society for Freshwater Science Endowment Award (\$1000)
- 2015 Kellogg Biological Station Summer Research Fellowship, Michigan State University (\$2000)
- 2014 Kellogg Biological Station Summer Research Fellowship, Michigan State University (\$1000)
- 2014 Kellogg Biological Station LTER Summer Research Fellowship, Michigan State University (\$6750)
- 2013-2014 Graduate STEM Fellowship in K-12 Education, National Science Foundation (\$45,000)
- 2012-2013 Graduate STEM Fellowship in K-12 Education, National Science Foundation (\$45,000)
- 2012 Kellogg Biological Station Summer Research Fellowship, Michigan State University (\$1000)
- 2012 Graduate Research Fellowship, National Science Foundation (Honorable Mention)
- 2006 NSF Research Experience for Undergraduates (REU) Fellowship, Cary Institute of Ecosystem Studies (\$4500)
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CONFERENCE PRESENTATIONS

**Student mentee*

- Kincaid DW** & Hamilton SK. 2017. Total nitrate removal by flocculent organic sediments in shallow freshwater ecosystems. Society for Freshwater Science, Annual Meeting, Raleigh, NC. Poster.
- Lara N*, Kincaid DW, Hamilton SK, & Tiegs SD. 2017. Patterns and controls on cellulose decomposition rates within thick accumulations of flocculent sediment in shallow freshwaters. Society for Freshwater Science, Annual Meeting, Raleigh, NC. Poster.
- Roley SS, Hamilton SK, & **Kincaid DW**. Phosphorus retention and release by reservoirs of a eutrophic river. Society for Freshwater Science, Annual Meeting, Raleigh, NC. Oral.
- Kincaid DW**, Phanikumar MS, Hamilton SK, Briggs MA, & Zarnetske JP. 2016. Does density-driven nocturnal water column mixing drive redox oscillations in flocculent organic sediments? American Geophysical Union, Fall Meeting, San Francisco, CA. Poster.
- Kincaid DW**, Hamilton SK, Briggs MA, Zarnetske JP, & Phanikumar MS. 2016. "Does density-driven nocturnal water column mixing drive redox oscillations in flocculent organic sediments?" Society for Freshwater Science, Annual Meeting, Sacramento, CA. Oral.
- Muñiz-Tirado A*, **Kincaid DW**, Hamilton SK. 2016. "Changes in sediment porewater chemistry and wild rice growth as a result of reduced hyporheic flow." Society for Freshwater Science, Annual Meeting, Sacramento, CA. Poster.
- Kincaid DW**, Briggs MA, Hamilton SK, & Zarnetske JP. 2015. "Hydrologic controls on biogeochemical gradients in thick layers of flocculent organic sediments in a through-flow wetland." NSF Long Term Ecological Research Network All Scientists Meeting, Estes Park, CO. Poster.
- Kincaid DW**, Briggs MA, Hamilton SK, & Zarnetske JP. 2015. "Hydrologic controls on biogeochemical gradients in thick layers of flocculent organic sediments in a through-flow wetland." Society for Freshwater Science, Annual Meeting, Milwaukee, WI. Oral.
- Hamilton SK & **Kincaid DW**. 2014. "Freshwater sediment-water nitrogen transformations in tropical and temperate regions." Joint Aquatic Sciences Meeting, Portland, OR. Oral.
- Kincaid DW** & Hamilton SK. 2013. "Do hydrologic fluctuations regulate biogeochemical fluxes to surface waters in a riparian wetland? Drying and wetting: a whole ecosystem manipulation." NSF Long Term Ecological Research Program, Kellogg Biological Station All Scientists Annual Meeting, Lansing, MI. Poster.
- Kincaid DW** & Hamilton SK. 2013. "Do hydrologic fluctuations regulate biogeochemical fluxes to surface waters in a riparian wetland? Drying and wetting: a whole ecosystem manipulation." Society for Freshwater Science, 61st Annual Meeting, Jacksonville, FL. Poster.
- Kincaid DW**, Rosi-Marshall EJ, Royer TV, & Bechtold HA. 2011. "Chronic exposure to pharmaceutical compounds suppresses in-situ algal growth and microbial respiration." North American Benthological Society, 59th Annual Meeting, Providence, RI. Oral.
- Kincaid DW**, Rosi-Marshall EJ, Cross WF, Kennedy TA, & Hall RO. 2009. "Effects of an experimental flood on invertebrates in the Colorado River." North American Benthological Society, 57th Annual Meeting, Grand Rapids, MI. Oral.

MENTORING

Summer 2016 Mentor, REU & Undergraduate Research Apprenticeship (URA) Programs, Kellogg Biological Station, Michigan State University. Students mentored:

Nicolas Lara, NSF REU Fellow, Oberlin College. Research topic: *Decomposition of organic carbon in loosely consolidated organic (flocculent) sediments in shallow freshwaters.*

Jezreel Wallace, URA, Michigan State University. Research topic: *Patterns of chlorophyll in loosely consolidated organic (flocculent) sediments in shallow freshwaters.*

Summer 2015 Mentor, REU & Undergraduate Research Apprenticeship (URA) Programs, Kellogg Biological Station, Michigan State University. Students mentored:

Adamaris Muñoz Tirado, NSF REU Fellow, University of Puerto Rico. Research topic: *Changes in sediment porewater chemistry and wild rice growth as a result of reduced hyporheic flow.*

Andrew Copsey, URA, Michigan State University. *Aquatic macroinvertebrate communities of loosely consolidated organic (flocculent) sediments in shallow freshwaters.*

Summer 2014 Mentor, Undergraduate Research Apprenticeship Program (URA), Kellogg Biological Station, Michigan State University. Student mentored:

Natalie Harnsakunatai, URA, Michigan State University. Research topic: *Biogeochemical importance of loosely consolidated organic (flocculent) sediments in shallow freshwaters.*

SERVICE

Professional Societies

2016-2017 Member, *Ad hoc* Inclusivity Committee, Society for Freshwater Science

2015-2016 Chair, Annual Meeting Live Auction Subcommittee, Student Resource Committee, Society for Freshwater Science

2014-2015 Student Representative, Board of Directors, Society for Freshwater Science

2013-2014 Chair, Student Resource Committee, Society for Freshwater Science

Peer Review, Journal Articles

Biogeochemistry

Michigan State University

2015-2017 Co-chair, KBS-LTER Graduate Student Group, Kellogg Biological Station, Michigan State University

2013-2016 Member, Science Communications Advisory Committee, Kellogg Biological Station, Michigan State University

2013-2017 Member, Council on Diversity & Community, College of Natural Science, Michigan State University

Community Outreach & Education

Summer 2017 Workshop Organizer, *From ecosystems to classrooms: teaching global change*, KBS K-12 Partnership, 2017 Summer Institute for Teachers, Kellogg Biological Station, Michigan State University

Spring 2017 Session Presenter, *Barcodes in water: using eDNA to monitor rare and invasive species in aquatic ecosystems*, KBS K-12 Partnership, 2017 Spring Teacher Workshop, Kellogg Biological Station, Michigan State University

Fall 2016 Workshop Organizer, *Go with the flow! Exploring the importance of connectivity in nature*, KBS K-12 Partnership, 2016 Fall Teacher Workshop, Kellogg Biological Station, Michigan State University

Summer 2016 Presenter, *Introduction to Microsoft Excel and data analysis*, REU & Undergraduate Research Apprenticeship Programs, Kellogg Biological Station, Michigan State University

Summer 2015 Presenter, *Introduction to Microsoft Excel and data analysis*, REU & Undergraduate Research Apprenticeship Programs, Kellogg Biological Station, Michigan State University

Summer 2015 Presenter, *Aquatic macroinvertebrates of southwestern Michigan*. Kalamazoo Water Festival, Kalamazoo, MI

- 2013 Presenter, *Watershed connectivity*. Kellogg Biological Station LTER's Annual Share the Harvest Event. Hickory Corners, MI
- 2012 Presenter, *Aquatic macroinvertebrates of southwestern Michigan*. Kellogg Biological Station LTER's Annual Share the Harvest Event. Hickory Corners, MI
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WORKING GROUPS & WORKSHOPS

- Fall 2015 Organizer, Inland Freshwater Wetlands Working Group, 2015 NSF Long Term Ecological Research Network All Scientists Meeting, Estes Park, CO.
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SHORT COURSES & CERTIFICATIONS

- 2015 Watershed Science Master Class, Consortium of Universities for the Advancement of Hydrologic Science, Inc., Biosphere 2, Oracle, AZ.
- 2013 Linking aquatic and soil organic matter across ecosystems through characterization of optical properties. NSF Long Term Ecological Research Program. University of Colorado-Boulder.
- 2012 Techniques to quantify stream-groundwater exchange and shallow transport workshop. Consortium of Universities for the Advancement of Hydrologic Science, Inc., Pennsylvania State University.
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SOCIETAL MEMBERSHIPS

- American Geophysical Union (AGU): 2016-Present.
Society for Freshwater Science (SFS): 2009-Present.