**Lauren E. Kinsman-Costello**

*Department of Biological Sciences, Kent State University*

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APPOINTMENTS

Senior Research Scientist, 2014-Present, Dept of Biological Sciences, Kent State University

Postdoctoral Research Fellow , 2013-2014, Earth and Environmental Sciences Dept, University of Michigan

Long Term Ecological Research Capstone Fellow, 2011-2012, Kellogg Biological Station, Michigan State University

NSF GK-12 Fellow, 2007-2008, 2010-2011, Kellogg Biological Station, Michigan State University

Research Assistant, 2008-2010, Kellogg Biological Station, Michigan State University, Phosphorus cycling in wetlands (NSF funded)

Teaching Assistant, 2006-2007, Michigan State University, General Biology

EDUCATION

Michigan State University Ph.D., 2012. Zoology and Ecology, Evolutionary Biology, and Behavior, Advisor: Dr. Stephen K. Hamilton  
 Dissertation: *Effects of water level fluctuations on phosphorus, iron, sulfur, and nitrogen cycling in shallow freshwater ecosystems*

Duke University Courses in Environmental Management, 2005-2006. Nicholas School of the Environment and Earth Sciences

University of Notre Dame B.S., 2005. *(cum laude),* Environmental Sciences

PUBLICATIONS

**Kinsman-Costello, L.E.**, J.M. O’Brien, and S.K. Hamilton. 2014. Re-flooding a historically drained wetland leads to rapid sediment phosphorus release. *Ecosystems* 17(4): 641-656. DOI: 10.1007/s10021-014-9748-6

O’Brien, J.M., S.K. Hamilton, **L.E. Kinsman-Costello**, J.T. Lennon, and N.E. Ostrom. 2011. Nitrogen transformations in a through-flow wetland revealed using whole-ecosystem pulsed 15N additions. *Limnology & Oceanography* 57(1): 221-234.

Frost, P.C., **Kinsman, L.E.,** C.A. Johnston, and J.H. Larson. 2009. Watershed discharge modulates relationships between landscape components and nutrient ratios in stream seston. *Ecology* 90(6): 1631-1640.

Frost, P.C., J.H. Larson, **L.E. Kinsman**, G.A. Lamberti, and S.D. Bridgham. 2005. Attenuation of ultraviolet radiation in streams of northern Michigan. *Journal of the North American Benthological Society* 24: 246-255.

MANUSCRIPTS IN PREPARATION (Drafts available upon request)

**Kinsman-Costello, L.E.,** S.K. Hamilton and J.M. O’Brien. Natural stressors in uncontaminated sediments: The prevalence of ammonium, reduced sulfur, and iron in freshwater wetlands. *In review, Environmental Toxicology & Chemistry*

**Kinsman-Costello, L.E**., S.K. Hamilton, J.M. O’Brien, and J.T. Lennon. Temporary desiccation of biogeochemically diverse sediments causes variable sediment phosphorus release. *In review, Limnology & Oceanography*

**Kinsman-Costello, L.E.** and S.K. Hamilton. A review of hydrologic regime effects on sediment-water P exchange in shallow freshwater ecosystems. *In preparation for submission to Environmental Science & Technology*

PENDING GRANTS

**L’Oreal USA for Women in Science Fellowship** ($59,999) Submitted May 16, 2014: Ghosts of oceans past: Dynamic biogeochemistry of microbial communities in a submerged sinkhole.

**Ohio Sea Grant College Program.** Direct costs: $12,000; KSU in kind match: $6,007 (total:$18,007)Submitted July 23, 2014: Cuyahoga River Navigation Channel sediments: Potential to release phosphorus during and after Lake Erie Disposal.

**Internal Kent State University.** ($42,088.25) Submitted August 19, 2014: Summit St. Stormwater Wetland Monitoring.

AWARDS, GRANTS, AND FELLOWSHIPS

**NSF Doctoral Dissertation Improvement Grant,** National Science Foundation, $14,999, April 2009 Award #0902215

**KBS LTER Capstone Fellowship**, Kellogg Biological Station Long Term Ecological Research Site, $30,000 annual stipend, tuition for 4 course credits, health care benefits, May 2011-May 2012

**NSF GK-12 Fellowship**, Kellogg Biological Station, $30,000 annual stipend, tuition for 4 course credits, health care benefits, May 2007-May 2008, May 2010-May 2011

**Biogeomon Best Presentation Award,** Biogeomon 2012: The 7th International Symposium on Ecosystem Behavior, Lincolnville, ME, July 2012

**MSU Graduate Program Research Enhancement Fellowship**, $1,080 for research travel to Europe, January 2009

**Best Poster Presentation in Applied Research Award,** North American Benthological Society, Salt Lake City, UT, May 2008

**NABS Endowment President’s Award,** North American Benthological Society**,** $1000, May 2008

**Biogeochemistry Student Fellowship,** MSU Biogeochemistry Research Initiative, $1,500**,** January 2008

PRESENTATIONS

**Kinsman-Costello, L.E.** August 2014. Mud matters: Effects of hydrologic regime change on wetland sediment phosphorus retention. Kent State University Department of Biological Sciences Seminar Series. Kent, OH. *(Invited)*

**Kinsman-Costello, L.E.**, C. Sheik, G. Dick, N. Sheldon, A. Burton, T. Gallagher, D. Marcus, M. Snider, and B. Biddanda. May 2014. Dynamic biogeochemistry of microbial mat and sediment ecosystems in submerged groundwater seeps of Lake Huron. Joint Aquatic Sciences Meeting. Portland, OR.

**Kinsman-Costello, L.E.**, G. Dick, N. Sheldon, A. Burton, T. Gallagher, D. Marcus, M. Balke, M. Snider, and B. Biddanda. May 2013. Salty fresh water: Submerged sinkholes receiving high-conductance, low-oxygen groundwater inputs harbor unique microbial communities and function. Society of Freshwater Science. Jacksonville, FL.

**Kinsman-Costello, L.E.,** S.K. Hamilton, J.M. O’Brien and J.T. Lennon. May 2012. Sediment-water phosphorus release after desiccation depends on sediment biogeochemistry. Society for Freshwater Science. Louisville, KY.

**Kinsman-Costello, L.E.,** J.M. O’Brien, and S.K. Hamilton. May 2011. Effects of sediment drying and rewetting on phosphorus binding with iron in wetland sediments: Reconciling apparent contraditions. North American Benthological Society Annual Meeting. Providence, RI.

**Kinsman, L.E.,** J.M. O’Brien, S. Robbins and S.K.Hamilton. December 2010. Influence of hydrologic regime and biogeochemistry on sediment phosphorus retention and release processes in shallow freshwater ecosystems. American Geophysical Union Annual Fall Meeting. San Francisco, CA.

**Kinsman, L.E.,** J.M. O’Brien, and S.K.Hamilton. June 2010. Wetland sediment biogeochemistry determines effect of drying and rewetting on phosphorus flux. Joint meeting of the North American Benthological Society and the American Society of Limnology & Oceanography. Santa Fe, NM.

**Kinsman, L.E.,** J.M. O’Brien, and S.K.Hamilton. September 2009. Sediment total phosphorus concentrations in shallow freshwater ecosystems in an agricultural landscape. Long Term Ecological Research All Scientists’ Meeting. Estes Park, CO. (poster)

**Kinsman, L.E.,** J.M. O’Brien, and S.K.Hamilton. June 2009. High phosphorus concentrations in a restored wetland after flooding. Society of Wetland Scientists. Madison, WI.

**Kinsman, L.E.,** J.M. O’Brien, and S.K. Hamilton. May 2009. Internal eutrophication by sediment phosphorus release in a restored wetland. North American Benthological Society. Grand Rapids, MI.

**Kinsman, L.E.,** J.M. O’Brien, J.T. Lennon, and S.K. Hamilton. February 2009. Water level fluctuations and internal eutrophication in freshwater aquatic ecosystems. Radboud University Nijmegen. Nijmegen, the Netherlands. *(Invited)*

**Kinsman, L.E.,** J.M. O’Brien, and S.K.Hamilton. January 2009. High total phosphorus concentrations in organic flocculent sediments of shallow freshwater ecosystems. American Society of Limnology and Oceanography. Nice, France. (poster)

B. Wilke**, L.E. Kinsman,** S.D.P. Smith, T. Robinson. August 2008. Ecological Literacy in K-12 Classrooms of Rural Michigan. Ecological Society of America. Milwaukee, WI.

**Kinsman, L.E.,** J.M. O’Brien, and S.K.Hamilton. May 2008. Effects of Periodic Dessication on Sediment P Binding and Release: A Laboratory Mesocosm Study. North American Benthological Society. Salt Lake City, UT. (poster)

**Kinsman, L.E.,** P.C. Frost, J.H. Larson, and G.A. Lamberti. April 2007. Dissolved organic carbon in diverse aquatic ecosystems of north Michigan: Spatial and temporal variation driven by near- and within-system factors. 10th International Syposium on Wetland Biogeochemistry. Annapolis, MD. (poster)

**Kinsman, L.E.,** P.C. Frost, J.H. Larson, C.T. Cherrier, G.A. Lamberti, and S.D. Bridgham. February 2005. Attenuation of ultraviolet radiation in streams and lakes of northern Michigan: Effects of seasonal changes in dissolved organic carbon concentration and chemistry. American Society of Limnology and Oceanography. Salt Lake City, UT. (poster)

TEACHING

**Guest Lecturer,** Kent State University, Plant Ecology (2014).

**NSF GK-12 Fellow**, Kellogg Biological Station, Michigan State University (June 2007-June 2008, June 2010-May 2011).

**Lab Instructor**, Biological Sciences 110: Organisms and Populations, Michigan State University (August 2006-May 2007).

STUDENT ADVISING AND MENTORING

**Abigail Hoffman,** **John Brandt, Sidney Bush** (summer 2014) Kent State University-Holden Arboreum Research Experience for Undergraduates (REU) Program

**Chelsea Mervene, Katie Gallagher, Nick Aquilina** (2013) University of Michigan undergraduate researchers

**Paige Howell** (AY 2010-2011) Kalamazoo College Student, advised in research at Michigan State University

**Steve Robbins** (Summer 2010) NSF-funded REU project at Michigan State University

**Brandon Kovnat** (Summer 2009) Michigan State University Learn and Intern program

**Rob Davis** (Summer 2009) NSF-funded REU project at Michigan State University

**Jennifer Pham** (Summer 2008) NSF-funded REU project at Michigan State University

SYNERGISTIC ACTIVITIES AND PROFESSIONAL SERVICE

**Manuscript Reviewer** for Biogeochemistry, Ecological Engineering, Journal of Freshwater Science (formerly Journal of the North American Benthological Society), Wetlands

**Member**, Ecological Society of America, Society of Freshwater Scientists, American Geophysical Union, Association for the Sciences of Limnology and Oceanography

**Participant**, Mothur Bioinformatics Workshop, Bioinformatics workshop, Romulus, MI (2013)

**Special Session Co-organizer** LTER All Scientist Mtg. Working Group (2012), Society for Freshwater Science Special Session (2012).

**Graduate Resources Council Chair** (Member, May 2008-Present; Chair, May 2011-May 2012, Graduate Representative to Board of Directors, May 2012- May 2013) Society for Freshwater Science (formerly North American Benthological Society).

**Graduate Student Representative,** Kellogg Biological Station LTER (2009-2012)

**Organizing Committee,** Great Lakes Regional Biogeochemical Symposium (2009)

**Graduate Student Representative**, Kellogg Biological Station Academic Personnel Committee (August 2008-May 2009)

SCIENCE OUTREACH AND EDUCATION

**K-12 Curriculum Development** (Ongoing) *Kellogg Biological Station*. (<http://kbsgk12project.kbs.msu.edu/data-nuggets/>)

**Presentation** for KSU-Holden Summer REU Program (2014) *Kent State University.* Ghosts of oceans past: Biogeochemistry and microbial diversity in submerged sinkholes of Lake Huron.

**Public Presentation** (2013) *Alpena Public Library*. Ghosts of Oceans Past: Exploring Lake Huron’s Underwater Sinkholes and Groundwater Seeps

**NOAA Regional Ocean Sciences Bowl** (2012, 2013) *Great Lakes Environmental Research Lab*.

**Science Olympiad**, High School State Comp, Question writer, grader (2007) *Lansing, MI.*

**Girls’ Math and Science Fair** (2007) *Ingham County, MI.*

REFERENCES

**Stephen K. Hamilton** Professor, Zoology Department, Michigan State University

Phone: 269-671-2231, E-mail: hamilton@msu.edu

**Alan D. Steinman** Director, Annis Water Resources Institute, Grand Valley State University

Phone: 616-331-3749, E-mail: steinmaa@gvsu.edu

**Gregory J. Dick** Associate Professor, Earth and Environmental Sci., University of Michigan Phone: 734-763-3228, E-mail: gdick@umich.edu

**Jay T. Lennon** Associate Professor, Department of Biology, Indiana University

Phone: 812-856-0962, E-mail: lennonj@indiana.edu