

CURRICULUM VITAE

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Noah Ralph Lottig

Center for Limnology
Trout Lake Research Station
10810 County Road N
Boulder Junction, Wisconsin 54512
United States

715 356 9494 (phone)
715 356 6866 (fax)
nrlottig@wisc.edu (email)
<http://www.noahlottig.com> (home page)

Education

Ph.D., *Limnology and Marine Science*, University of Wisconsin – Madison, 2009
M.S., *Biological Sciences*, Virginia Polytechnic Institute and State University, 2005
B.S. *Legal Studies and Biological Sciences*, University of Wisconsin – Superior, 2003

Recent Professional Experience

North Temperate Lakes Long Term Ecological Research Program

- 2009-present: Trout Lake Site Manager and Postdoctoral Research Associate

University of Wisconsin Center for Limnology

- 2005-2009: Graduate Research Assistant

Virginia Polytechnic Institute and State University – Department of Biological Sciences

- 2003-2005: Graduate Research Assistant

Teaching Experience

Guest Lecturer

- | | |
|---|---|
| • Floodplain Ecology | Ecology of Rivers and Streams (2010) |
| • The Hyporheic Zone | Ecology of Rivers and Streams (2010) |
| • Ecology of Streams and Rivers | Limnology: Conservation of Aquatic Resources (2009) |
| • Nutrient Cycling in Lotic Ecosystems | Ecology of Rivers and Streams (2008) |
| • Stream Templates: Physical, Biological, and Chemical Features | Limnology: Conservation of Aquatic Resources (2008) |

- Community and Population Ecology in Lotic Ecosystems Limnology: Conservation of Aquatic Resources (2008)

Graduate Teaching Assistant

- Ecology of Rivers and Streams – Senior/Graduate Course (2006, 2008)
- Freshwater Ecology – Senior/Graduate Course (2004)
- General Biology – Intro Undergraduate Course (2003, 2004)

Academic Mentoring

NSF Research Experience for Undergraduates

- Loren P. Reinhardt (2004-2005)

Recent Awards

- American Geophysical Union Joint Assembly- *Outstanding Student Paper Award: Biogeosciences Section* (2009)
- Wisconsin Wetlands Society – *Annual Meeting Student Award* (2007)
- North American Benthological Society – *Best Conservation Oriented Research Talk* (2006)
- North American Benthological Society – *Presidents Award* (2006)

Recent Science Service

- Reviewer for manuscripts submitted to the *Journal of Environmental Quality, Journal of the North American Benthological Society*
- American Geophysical Union Joint Assembly – Co-organized “Carbon Linkages Between Terrestrial and Aquatic Ecosystems: Magnitude, Mechanisms, and Biogeochemical Consequences.” (2009).
- North American Benthological Society – *Session chair at annual meeting* (2006)
- North American Benthological Society – *Student paper judge at annual meeting* (2006)

Recent Outreach Activities

- Boy Scouts of America – Environmental Science Merit Badge (2010, 2011)
- Schoolyard LTER – University of Wisconsin Long-Term Ecological Research Program (2010, 2011)
- Winter Limnology – University of Wisconsin Saturday Enrichment Program, grades 5th-8th (2006, 2007, 2008)
- Pollution in the Watershed – Girl Scouts Saturday Science Program (2006, 2007, 2008)

Manuscripts in review or preparation

Shade, A., J.S. Read, N.D. Youngblut, N. Fierer, R. Knight, T.K. Kratz, N.R. **Lottig**, E.E. Roden, E.H. Stanley, J. Stombaugh, R.J. Whitaker, C.H. Wu, and K.D. McMahon. *in review*. Microbial communities are resilient after a novel whole-ecosystem disturbance.

Lottig, N.R. and E.H. Stanley. *in review*. Upstream lakes do not substantially influence stream and river dissolved organic carbon in a wetland-rich region.

Published Works

2012

Lottig, N.R. and S.R. Carpenter. *In press*. Predicting annual lake characteristics with comparative and temporal models: the importance of neighboring lakes and lake history. *Limnology and Oceanography*

Stanley, E.H., S.M. Powers, N.R. **Lottig**, I. Buffam, and J.T. Crawford. 2012. Contemporary changes in dissolved organic carbon of human dominated rivers: is there a role for DOC management? *Freshwater Biology* doi:10.1111/j.1365-2427.2011.02613.x

2011

Lottig, N.R., E.H. Stanley, P.C. Hanson, and T.K. Kratz. 2011. Comparison of regional stream and lake chemistry: Differences, similarities, and potential drivers. *Limnology and Oceanography* 56:1551-1562 doi:10.4319/lo.2011.56.5.1551

Buffam, I., M.G. Turner, A.R. Desai, P.C. Hanson, J.A. Rusak, N.R. **Lottig**, E.H. Stanley, and S.R. Carpenter. 2011. Integrating aquatic and terrestrial components to construct a complete carbon budget of a north temperate lake district. *Global Change Biology* doi:10.1111/j.1365-2486.2010.02313.x

2010

Stanley, E.H., S.M Powers and N.R. **Lottig**. 2010. The evolving legacy of disturbance in stream ecology: concepts, contributions, and coming challenges. *The Journal of the North American Benthological Society* 29:67-83.

2009

Powers, S.M., E.H. Stanley and N.R. **Lottig**. 2009. Quantifying phosphorus uptake using pulse and steady state approaches in streams. *Limnology and Oceanography Methods* 7:498-508.

2007

Lottig, N.R., H.M. Valett, M.E. Schreiber and J.R. Webster. 2007. Flooding and arsenic pollution: influences on stream ecosystem structure and function. *Limnology and Oceanography* 52:1991-2000.

Lottig, N.R. and E.H. Stanley. 2007. Benthic sediment influence on phosphorus concentrations in a headwater stream. *Biogeochemistry* 84:297-309.

Lottig, N.R. and J.M Fox. 2007. A potential mechanism for disturbance mediated channel migration in a southeastern salt marsh. *Geomorphology* 86:525-528.

Presentations¹

¹ underline indicates that the co-author is an undergraduate student under my supervision

2010

Lottig, N.R. 2010. Carbon dynamics of northern Wisconsin hydrosapes. Science in the Northwoods Conference

Lottig, N.R., E.H. Stanley, P.C. Hanson, and T.K. Kratz. 2010. Integrating lakes and streams to understand biogeochemical drivers of a northern Wisconsin aquatic landscape. American Society of Limnology and Oceanography Summer Meeting.

2009

Lottig, N.R. and E.H. Stanley. 2009. The Importance of Hydroscape Complexity in Regional Aquatic Carbon Dynamics. American Geophysical Union Joint Assembly.

Stanley, E.H., N.R. **Lottig**, A. Shade, J.S. Read, P.C. Hanson, T.K. Kratz, F.E. Roden, C. Wu, K.D. McMahon. 2009. Changes in Terminal Electron Acceptors During Experiment Mixing of a Dystrophic Lake. American Geophysical Union Joint Assembly.

Shade, A, J.S. Read, N.R. **Lottig**, T.K. Kratz, E. Roden, E.H. Stanley, C. Wu, K.D. McMahon. 2009. Bacterial community response to whole-lake mixing manipulation. American Society for Limnology and Oceanography Aquatic Sciences Meeting.

Buffam, I., M.G. Turner, A.R. Desai, P.C. Hanson, M.C. Van de Bogert, J.A. Rusak, N.R. **Lottig**, E.H. Stanley, T.K. Kratz, and S.R. Carpenter. 2009. Constructing a complete carbon budget for a north temperate lake district. Ecological Society of America Annual Meeting.

2008

Lottig, N.R., E.H. Stanley and J.T. Maxted. 2008. Influence of hydroscape complexity on watershed biogeochemistry. Ecological Society of America Annual Meeting.

Powers, S.M, E.H. Stanley, and N.R. **Lottig**. 2008. Interpreting nutrient uptake metrics in streams from short-term enrichments using dynamic transport modeling. Ecological Society of America Annual Meeting.

Lottig, N.R., E.H. Stanley and J.T. Maxted. 2008. Influence of hydroscape configuration on watershed biogeochemistry. International Association of Landscape Ecology Annual Meeting.

2006

Lottig, N.R. and E.H. Stanley. 2006. Prairie restoration along Midwestern USA streams: influences on nutrient retention and ecosystem metabolism. North American Benthological Society Annual Meeting.

Reinhard, L.P., N.R. **Lottig**, H.M. Valett, and M.E. Schreiber. 2006. Influence of elevated levels of arsenic on leaf decomposition and microbial structure and function in a headwater stream. North American Benthological Society Annual Meeting.

2005

Lottig, N.R., H.M. Valett, J.R. Webster and M.E. Schreiber. 2005. Flooding and arsenic contamination: influences on ecosystem structure and function in an Appalachian headwater stream. Center for Limnology, University of Wisconsin Madison.

Lottig, N.R., H.M. Valett, J.R. Webster and M.E. Schreiber. 2005. Influence of multiple disturbance regimes on ecosystem structure and function. North American Benthological Society.

2004

Lottig, N.R. and H.M. Valett. 2004. Influence of elevated arsenic concentrations on nutrient retention in a headwater stream. North American Benthological Society.

Orr, C.H., K.L. Rogers, N.R. **Lottig** and E.H. Stanley. 2004. Phosphorus uptake, channel geometry, and sediment size before and after small dam removal in Boulder Creek, Wisconsin. North American Benthological Society.

Schreiber, M.E., H.M. Valett, M. Gentry, B. Brown, J. Brookshire and N.R. **Lottig**. 2004. Geologic Controls on arsenic discharge to a mine-impacted headwater stream. Geological Society of America.

2003

Lottig, N.R., E.H. Stanley. 2003. Benthic sediment influence on spatial heterogeneity of soluble reactive phosphorus concentrations in Boulder Creek. North American Benthological Society.

Lottig, N.R. and E.H. Stanley. 2003. Soluble reactive phosphorus dynamics of boulder creek. University of Wisconsin—Superior Research Symposium.

Lottig, N.R., K.D. Benton and M.J. Miller. 2003. A comparison of the incidence of disease on two coral reefs in Belize, C.A. University of Wisconsin—Superior Research Symposium.

2002

Lottig, N.R. 2002. Nutrient dynamics of Boulder Creek. (Invited Presentation). Department of Limnology and Oceanography. University Wisconsin Madison.

Posters¹

¹ underline indicates that the co-author is an undergraduate student under my supervision

2009

Lottig, N.R. and S.R. Carpenter. 2009. Predicting annual lake characteristics with comparative and temporal models: the importance of neighboring lakes and lake history in minimizing prediction errors. LTER All Scientists Meeting.

2006

Lottig, N.R., E.H. Stanley, and J.T. Maxted. 2006. Influence of hydroscape position on biogeochemical signatures of NTL streams. LTER All Scientists Meeting.

2005

Reinhardt, L.P., N.R. **Lottig**, H.M. Valett and M.E. Schreiber. 2005. Influence of elevated arsenic concentrations on microbial respiration and phosphorus uptake in a headwater stream. North American Benthological Society.

Lottig, N.R., H.M. Valett, J.R. Webster and M.E. Schreiber. 2005. Influence of multiple disturbance regimes on ecosystem structure and function. 2nd Annual Virginia Tech Biology Department Research Symposium.

Reinhardt, L.P., N.R. **Lottig**, H.M. Valett and M.E. Schreiber. 2005. Influence of elevated levels of arsenic on microbial activity in a headwater stream. 2nd Annual Virginia Tech Biology Department Research Symposium.