

JENNIFER LEE MORSE

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Professional Preparation

College of William and Mary	Biology and Environmental Science	B.S., 1997
George Mason University	Biology	M.S., 2002

Professional Experience

2009, Adjunct Faculty, Environmental Studies Department, Elon University, Elon, NC
2006-2007, Graduate Teaching Assistant, Biology Department, Duke University, Durham, NC
2002-2004, Laboratory Manager, Departments of Entomology and Biology, University of Maryland, College Park, MD
1999-2002, Graduate Teaching Assistant, Biology Department, George Mason University, Fairfax, VA
1999-2001, Graduate Research Assistant, Wetland Ecosystems Laboratory, George Mason University
1998-2002, Environmental Scientist, Science and Engineering Group, DynCorp, Alexandria, VA
1997, Department of Energy Science and Engineering Research Fellow, Pacific Northwest National Laboratory, Richland, WA

Awards and Honors

Katherine Stern Dissertation Fellowship, Duke University, 2009-2010
Preparing Future Faculty Fellow, Duke University, 2008-2009
Lindbergh Foundation Grant, 2008
Kenan Institute for Ethics Campus Grant Award, Duke University, 2008
Oosting Memorial Graduate Student Symposium Speaker, Duke University, 2008
Graduate Student Seed Money Award, National Center for Airborne Laser Mapping, 2008
STAR Graduate Fellowship, US Environmental Protection Agency, 2005-current
Graduate Student Conservation Research Award, North American Benthological Society, 2005
Biology Department Grant-in-Aid, Duke University, 2005
Student Research Award, Society of Wetland Scientists, 2005
Biology Department Fellowship, George Mason University, 2000
Virginia Scholar, State of Virginia, 1993-1997
James Monroe Scholar, College of William and Mary, 1993-1997
National Merit Scholar, 1993

Publications

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1. Groffman, P.M., K. Butterbach-Bahl, R.W. Fulweiler, A.J. Gold, **J.L. Morse**, E.K. Stander, C. Tague, C. Tonitto, and P. Vidon. Challenges to incorporating spatially and temporally explicit phenomena (hotspots and hot moments) in denitrification models. *Biogeochemistry (in press)*
 2. Fierer, N., **J.L. Morse**, S.T. Berthrong, E.S. Bernhardt, and R.B. Jackson. 2007. Environmental controls on the landscape-scale biogeography of stream bacterial communities. *Ecology* 88(9): 2162–2173.
 3. Palmer, M.A., E.S. Bernhardt, E.A. Chornesky, S.L. Collins, A.P. Dobson, C.S. Duke, B.D. Gold, R.B. Jacobson, S.E. Kingsland, R.H. Kranz, M.J. Mappin, M.L. Martinez, F. Micheli, **J.L. Morse**, M.L. Pace, M. Pascual, S.S. Palumbi, O.J. Reichman, A.R. Townsend, and M.G. Turner. 2005. Ecological science and sustainability for the 21st century. *Frontiers in Ecology and the Environment* 3(1): 4–11.

4. **Morse J.L.**, J.P. Megonigal, and M.R. Walbridge. 2004. Sediment nutrient accumulation and nutrient availability in two tidal freshwater marshes along the Mattaponi River, Virginia, USA. *Biogeochemistry* 69: 175-206.
5. Palmer, M., E. Bernhardt, E. Chornesky, S. Collins, A. Dobson, C. Duke, B. Gold, R. Jacobson, S. Kingsland, R. Kranz, M. Mappin, M.L. Martinez, F. Micheli, **J. Morse**, M. Pace, M. Pascual, S. Palumbi, O.J. Reichman, A. Simons, A. Townsend, and M. Turner. 2004. Ecology for a crowded planet. *Science* 304: 1251-1252.
6. Palmer, M.A., P. Arzberger, J.E. Cohen, A. Hastings, R.D. Holt, **J.L. Morse**, D. Sumners, and Z. Luthey-Schulten. 2003. Accelerating mathematical-biological linkages. Report of a joint NSF-NIH workshop held February 12-13, 2003 at the National Institutes of Health. Bethesda, MD.

Presentations

1. Morse, J.L., M. Ardón, and E. Bernhardt. Linking greenhouse gas fluxes and hydrologic variability in a restored agricultural wetland. Oral presentation, Ecological Society of America annual meeting in Milwaukee, Wisconsin. August 2008.
2. Morse, J.L., M. Ardón, and E. Bernhardt. Predicting the fate of nitrogen and the impact on water quality and greenhouse gas emissions from sea level rise and wetland restoration. Oral presentation, Lindbergh Foundation annual meeting in Atlanta, Georgia. May 2008.
3. Morse, J.L., M. Ardón, and E. Bernhardt. Farm fields to wetlands: biogeochemical consequences of re-flooding in coastal plain agricultural lands. Oral presentation, Oosting Memorial Lecture Graduate Symposium, Duke University. April 2008.
4. Morse, J.L., M. Ardón, and E. Bernhardt. Scaling up gas flux measurements to annual and landscape scales. Oral presentation, National Science Foundation Riparian Zone Workshop, Indianapolis, IN. January 2008.
5. Morse, J.L., M. Ardón, M. Doyle, and E. Bernhardt. Farm fields to wetlands: biogeochemical consequences of re-flooding in coastal plain agricultural lands. Oral presentation, North American Benthological Society annual meeting in Columbia, South Carolina. June 2007.
6. Morse, J.L., M. Ardón, M. Doyle, and E. Bernhardt. Controls over denitrification and trace gas emissions in a restored forested wetland. Oral presentation, International Symposium on Wetlands Biogeochemistry, Annapolis, MD. April 2007.
7. Morse, J.L., E. Bernhardt, and G. Poole. Linking hydrology and thermodynamics to understand biogeochemical transformations and fluxes in floodplain landscapes. Poster, Denitrification RCN Workshop: Modeling Denitrification, Institute of Ecosystem Studies, Millbrook, NY. November 2006.
8. Morse, J.L., E.S. Bernhardt, and G. Poole. Linking hydrological and thermodynamic models of floodplain biogeochemistry. Poster, North American Benthological Society annual meeting in Anchorage, Alaska. June 2006.
9. Morse, J.L., E.S. Bernhardt, and E.B. Sudduth. Stream confluences: simple mixing zones or biogeochemical hotspots? Poster, Ecological Society of America annual meeting in Montreal, Canada. August 2005.
10. Morse J.L., J.P. Megonigal, and M.R. Walbridge. Sediment nutrient accumulation and nutrient availability in two tidal freshwater marshes along the Mattaponi River, VA. Oral presentation, Ecological Society of America, Mid-Atlantic Chapter Meeting. March 2004.
11. Morse, J.L., M. Boschetti, C. Conti, M. Aureggi, S. Nimsantijaroen. Mangrove forest research, conservation education, and ecotourism in Thailand: a pilot study using novice volunteers. Poster, Ecological Society of America annual meeting in Savannah, GA. August 2003.
12. Morse J.L., J.P. Megonigal, and M.R. Walbridge. Nutrient characteristics and nutrient limitation in two Virginia tidal freshwater marshes. Oral Presentation, Ecological Society of America annual meeting in Madison, WI. August 2001.
13. Morse, J.L. 2001. A guide to writing in the biological sciences. Writing Center, George Mason University. <http://classweb.gmu.edu/biologyresources/writingguide/index.htm>.

Professional Service and Membership

Ecological Society of America, Biogeosciences Section webmaster, 2005-current

(<http://www.esa.org/biogeosciences/>)

Member: American Geophysical Union, Ecological Society of America, North American Benthological Society, Society of Wetland Scientists, Sigma Xi

Peer Reviewer: Oecologia, Wetlands Ecology and Management

Mentor in Duke's Women in Science and Engineering program, 2006-2008

Mentor in Women and Math Mentoring Network, 2007-2008

Duke University UPE Seminar Series committee, 2006-2007

Teaching Assistantships

2007 Ecology and Evolution, Duke University

2006 Biogeochemistry, Duke University

2000-2001 Ecology Laboratory, George Mason University

2000-2001 Plant Biology Laboratory, George Mason University

1999 Introductory Biology Laboratory, George Mason University

1994-1997 Introductory Italian Recitation, College of William and Mary

1996 Intermediate French Recitation, College of William and Mary