

## Jennifer L. Morse

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### Education

- 2004-present Ph.D student, Biology Department, Duke University, NC  
Advisors: Dr. Emily Bernhardt and Dr. Curt Richardson
- 1998-2002 MS in Biology (Environmental Science & Policy), George Mason University, VA  
Thesis: "Sediment deposition and nutrient availability in two tidal freshwater marshes on the Mattaponi River, Virginia."  
Advisors: Dr. Mark Walbridge and Dr. J. Patrick Megonigal
- 1993-1997 BS *cum laude*, Biology and Environmental Science, College of William & Mary, VA  
Honors: National Merit Scholar, Virginia Scholar, James Monroe Scholar

### Professional

- 2002-2004 Lab Manager: Stream Ecology Research Lab (Dr. Margaret Palmer), University of Maryland. My work focused on nutrient uptake and metabolism experiments (fluorometer, ion and gas chromatography), and macroinvertebrate sampling in suburban streams in Maryland. I managed data processing and maintained SAS databases, supervised interns, managed budgets of different grants, and operated and maintained analytical equipment for water chemistry analysis.
- Jul-Aug 2002 Botanist Research Assistant: Naucrates Mangrove Project on Phra Thong Island, Thailand. I designed and conducted a survey of mangrove forests, with the help of volunteer participants I trained and supervised. I collaborated with Thai and Italian scientists in mapping island ecosystems using GPS/GIS and remote sensing.
- 2000-2002 Graduate Teaching Assistant: Biology Department, GMU. As a laboratory instructor for undergraduate biology, general ecology, and plant biology, I taught 13 sections in 5 semesters.
- 1998-2001 Graduate Research Assistant: Wetlands Ecology Research Lab (Dr. J. Patrick Megonigal), GMU. Researched factors controlling sediment and nutrient deposition in marshes on the Mattaponi River, VA. Responsibilities included sample collection, project planning, plant identification, sample processing, soil and plant C, N, P analyses (Perkin Elmer CHNS/O Series II, Technicon Auto-Analyzer II), GPS/GIS (ArcView 3.2), and statistics.
- 1998-2002 Environmental Scientist: DynCorp, Alexandria, VA. Science and Engineering Group. My responsibilities included: method validation studies for water analysis, data review, database development, drafting and editing reports, under contract to EPA Office of Water.
- Jun-Dec 1997 Research Fellow: US Department of Energy, Science and Engineering Research Semester. Pacific Northwest National Laboratory, Richland, WA. Conducted a study of soil-crust biota, mapped vegetation with GPS/GIS, assisted in field surveys, and drafted reports.

### Publications

- 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.

- 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.
- 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.
- 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**

- 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, Montreal, Canada. August 2005.
- 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.
- 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, Savannah, GA. August 2003.
- 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, Madison, WI. August 2001.
- 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>.

### **Awards**

- US EPA STAR Graduate Fellow, 2005
- Society of Wetland Scientists Student Research Grant (\$1000), 2005
- Duke University Biology Department Grant-in-Aid (\$1000), 2005
- North American Benthological Society Graduate Student Award (\$500), 2005
- George Mason University Biology Department Fellowship (\$500), 2000

### **Professional Membership and Service**

- Ecological Society of America, Ecological Visions Committee member, 2003-2004.
- Member of the Ecological Society of America, Society of Wetland Scientists, American Society for Limnology and Oceanography, North American Benthological Society, Sigma Xi.
- Peer Reviewer: *Oecologia*, *Wetlands Ecology and Management*.

### **Additional Experience and Skills**

- Computer skills: statistics (SAS, SPSS), GIS (ArcView, IDRISI), web design (HTML, MS FrontPage,, databases (MS Access, Visual Basic for Access).
- Foreign languages: Fluent in French and Italian, proficient in Spanish.