Morgan M. Maglio

(Maiden name: Morgan M. Franklin)
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Research interests

Hydroecological and biogeochemical processes, focused on understanding and predicting responses to human impacts and restoration efforts. Specialization in simulation modeling of aquatic systems.

Education

University of Wisconsin, Madison, WI
M.S. in Atmospheric and Oceanic Sciences, December 2008
Thesis Title: *"Parameterizing the Marine Silicon Cycle: Effects on Modern Ocean Biogeochemistry."*
Adviser: Dr. Arne Winguth
GPA 4.00/4.00

University of Wisconsin, Madison, WI
B.S. in Mathematics, May 2006
GPA 3.76/4.00, Graduated with Distinction

Research and Academic Work Experience

Research Associate (Senior Research Associate as of July 2010), U.S. Geological Survey, National Research Program, Reston, VA, Hydroecology of Flowing Waters Project, March 2009 to present.

- Field, numerical, and laboratory analysis of hydroecological processes in streams and wetlands. Current projects focus on the Florida Everglades and streams in Northern Virginia and North Carolina.
- Development of a numerical model of surface/subsurface transport and reactivity of solutes in the Everglades ridge and slough landscape.
- Installation and maintenance (including data collection and analysis) of a hydrologic monitoring network for the Everglades Decompartmentalization Physical Model.
- Additional responsibilities include training and supervising interns and new associates, facilitating account creation and workstation setup for new project members, updating the project website, and maintaining all project equipment, instrumentation, and software.

Graduate Research Assistant, University of Wisconsin-Madison, Department of Atmospheric and Oceanic Sciences**,** August 2006 to December 2008.

- Implemented silicon cycle parameterizations within a biogeochemical model coupled to the ocean component of a GCM from the National Center for Atmospheric Research.
- Researched global ocean biogeochemistry and its effects on the carbon cycle and global climate.
- Studied an important paleoclimatic warming event and ocean biogeochemistry within this context.

Teaching Assistant, University of Wisconsin-Madison, Department of Atmospheric and Oceanic Sciences, January 2008 to May 2008.

- Evaluated students' written assignments, exams, and term papers.
- Met with students on an individual basis to discuss questions, concerns, and progress.
- Updated the class webpage.

Undergraduate Math Tutor, University of Wisconsin-Madison, January 2003 to May 2006.

- Provided walk-in tutoring in university residence halls for students in various college math courses.

Published Abstracts

Larsen, L.G., Harvey, J.W., Maglio, M., Langston, T., Jastram, J., and Hyer, K. 2010. Impacts of stream restoration on sediment and organic matter processing and fate in priority watershed urban streams. USGS Chesapeake Bay Science Workshop, Cumberland, MD, November 2010.

Harvey, J.W., Packman, A.I., Jerolmack, D.J., Drummond, J., Martin, R., McPhillips, L.E., Tobias, C.R., Henry, E.J., Larsen, L.G., Bohlke, J.K., Aubeneau, A., Hucks-Sawyer, A., Maglio, M., Mroczkowski, S., Stonedahl, S. 2010. Hydrogeomorphic drivers of urban stream ecological processes. USGS Chesapeake Bay Science Workshop, Cumberland, MD, November 2010.

Maglio, M., Larsen, L.G., Noe, G.B., and Harvey, J.W. 2010. Modeling surface-subsurface exchange of water and reactivity of solute in the ridge and slough landscape and Implications for restoration. Greater Everglades Ecosystem Restoration Conference, Naples, FL, July 2010.

Larsen, L.G, Harvey, J.W., McPhillips, L.E., and Maglio, M. 2010. Controls on ecosystem metabolism in restored and unrestored suburban streams: roles of flow, geomorphology, and fine sediment dynamics. ASLO-NABS Summer Meeting, Santa Fe, NM, June 2010.

McPhillips, L.E., Harvey, J.W., Packman, A.I., Tobias, C.R., Jerolmack, D.J., Bohlke, J.K., Henry, E.J., Larsen, L.G., Aubeneau, A., Drummond, J. , Duernberger, K., Hucks-Sawyer, A., Lettrich, M., Martin, R., Maglio, M., Mroczkowski, S., and Stonedahl, S. 2010. Hydrogeomorphic drivers of stream ecological processes: the 2009 Clear Run, NC studies. ASLO-NABS Summer Meeting, Santa Fe, NM, June 2010.

Franklin, M. and Winguth, A. 2008. Parameterizing the marine silicon cycle: Effects on modern ocean biogeochemistry. AGU Fall Meeting, San Francisco, CA, December 2008.

Honors and Awards

Schwerdtfeger Award (UW-Madison, Atmospheric and Oceanic Sciences Department), awarded to one student each year for excellent performance in first year graduate studies, $500, 2007.

William F. Vilas Scholarship (UW-Madison), for strong academic performance based on class rank and GPA, $1,600, 2002-2005.

Wisconsin Academic Excellence Scholarship, awarded to valedictorians of graduating high school classes, $9,000, 2002.

Menomonie Alumni Association Scholarship (Menomonie High School Alumni Foundation), awarded to one graduating senior boy and girl each year, $700, 2002.

Skills

Programming Languages and Software: MATLAB, Fortran, Microsoft Office (Word, Excel, Powerpoint), Adobe (Illustrator, Photoshop), JMP statistical software, some experience with Java, HTML, NCL, and Perl

Hydrological Instruments: SonTek Acoustic Doppler Velocimeters (ADVOcean-Hydra, ADVField, Argonaut-ADV, FlowTracker), SonTekAcoustic Doppler Profilers (ADP/ADCP, Argonaut-SW), Nortek Acoustic Doppler Velocimeter (Vectrino), YSI Multiparameter Sondes, Sequoia particle size analyzers (LISST-100X, LISST-Floc, LISST-StreamSide, LISST-Portable), Onset water level data loggers (Hobo U20), KPSI pressure transducers, Sea-Bird Electronics MicroCAT sensors, Campbell Scientific data loggers (CR10X), Cohesive Strength Meter, minipoint samplers

Certifications: PADI Open Water SCUBA diver, Wisconsin DNR Hunter Safety Education

Foreign Language: Spanish