

Curriculum Vitae

Sheila M. Saia

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Objective

My vision is to provide clean and plentiful water supplies to future generations through the creative education of citizens today.

Education

PhD in Biological & Environmental Engineering, In Progress
Cornell University, Ithaca, NY

Masters of Science in Biological & Environmental Engineering, August 2012
Cornell University, Ithaca, NY

**Bachelors of Science in Bioengineering
(focus on Complex Systems Science), May 2007**
State University of New York (SUNY) Binghamton University, Binghamton, NY
Magna Cum Laude

Professional Experience

- * **Graduate Student Intern for Cornell Cooperative Extension:** Cayuga County Cooperative Extension, Auburn, NY. September 2013-Present
- * **Teaching Assistant for BEE 3710 Physical Hydrology:** Cornell University, Ithaca, NY. Spring Semester 2013.
- * **Teaching Assistant for BEE 4730 Watershed Engineering:** Cornell University, Ithaca, NY. Fall Semesters 2011, 2012.
- * **AmeriCorps ABE, Volunteer Coordinator:** Buffalo Niagara Riverkeeper, Buffalo, NY. November 2008 – May 2009
- * **ESL/EFL Teacher:** Hands On English School, Tokyo, Japan. August 2007 – 2008
- * **Head Peer Advisor:** Binghamton University Engineering and Computer Science Student Advising Office, Binghamton, NY. September 2005 – May 2007
- * **Science Teaching Assistant:** George F. Johnson Elementary School, Endwell, NY. November 2003 – December 2006
- * **Conference and Public Relations Assistant:** Daemen College Office of Conferences and Events, Buffalo, NY. Summers 2005-2007
- * **Counselor & Sailing Instructor:** Lake Chautauqua Lutheran Center, Bemus Point, NY. Summers 2003-2005
- * **Student Observer:** Erie County Medical Center Cardiology Lab. July 2005
- * **Pharmacy Assistant:** Snyder Pharmacy, Buffalo, NY. Sept. 2002 – July 2003
- * **Assistant Figure Skating Coach:** Mitchell's Skating Center, Niagara University, Niagara Falls, NY. 1999 – Present

Research Experience

- * **Research Assistant:** Linking hydrology and microbiology to understand P transport in the landscape, Cornell University Soil & Water Lab. September 2013 - Present
- * **Research Assistant:** CEAP nutrient and pesticide modeling project (USDA),

Cornell University Soil & Water Lab. Dec 2009 – September 2013

- * **Research Assistant:** Cornell University and Municipality of Neapolis, Crete, Greece watershed study, Cornell University Soil & Water Lab. June 2010 – July 2011
- * **Research Assistant:** Surveying Upstate New York Well Water for Pesticide Contamination, Cornell University Soil & Water Lab. July 2009 – Dec 2009
- * **Research Assistant:** Modeling leadership emergence in open source systems, Binghamton University Department of Bioengineering and School of Management Joint Project. May 2007
- * **Research Project:** Neural Network/Evolutionary Program Development for Breast Cancer Diagnosis Package, Binghamton University. May 2006
- * **Research Project:** Tested the Effects of Music on EEG and Heart Rate, Binghamton University. December 2005
- * **Research Project:** Modeling the Effects of Pollution on the Susquehanna River Network, Binghamton University. May 2005

Manuscript Review

Ed. Guruprasad Madhavan, *Career Development in Bioengineering and Biotechnology*. International Release Date: September 2008

Peer Reviewed Publications

Brooks, E.S., **S.M. Saia**, J. Boll, L. Wetzel, Z.M. Easton, T.S. Steenhuis. 2013. Development and Application of a Simple Pollutant Transport Decision-Support Tool. *Journal of the American Water Resources Association*. (submitted)

Saia, S.M., E.S. Brooks, Z.M. Easton, C. Baffaut, J. Boll, and T.S. Steenhuis. 2013. Incorporating Pesticide Transport into the WEPP-UI Model for Mulch Tillage and No Tillage Plots with an Underlying Claypan Soil. *Applied Engineering in Agriculture*. 29(3):373-382.

Richards, B.K., S. Pacenka, A.E. Salvucci, **S.M. Saia**, L.F. Whitbeck, P.M. Furdyna, T.S. Steenhuis. 2011. Surveying Upstate NY Well Water for Pesticide Contamination: Cayuga and Orange Counties. *Ground Water Monitoring & Remediation*. 32(1):73-82.

Other Publications

Saia, Sheila. *Soil is a living thing - so it should be kept healthy*. Auburn Citizen EcoTalk Column. October 4, 2012.

Saia, Sheila. *Evaluating Best Management Practices for Minimized Pesticide Transport with the WEPP-UI Model*. Masters Dissertation, Cornell University, 2012. Available online at:
<http://soilandwater.bee.cornell.edu/publications/SheilaSaiaMSthesis2012.pdf>

Saia, Sheila. *Cretan village reconnects with its water*. Revolve Magazine, Spring 2012 Issue: 39-41.

Saia, S.M., M. Kurth, M. Bowes, G. Holst-Warhaft, T.S. Steenhuis. Water on the brink: a water profile of Neapolis, Crete, Greece. Athens, Greece: Global Water Mediterranean, July 2011.

Poster Presentations

Saia, S.M., M.T. Walter, P.J. Sullivan, R. Christie. December 2012. *Water Quality Interpolation Using Various In-Stream Distance Weighting Metrics*. AGU Fall Meeting, San Francisco, CA.

Saia, S.M., E. Brooks, J. Boll, T. Steenhuis. March 2012. *A web-based BMP tool for minimizing pesticide transport in agricultural watersheds*. Penn State Environmental Chemistry Student Symposium, State College, PA.

Saia, S.M., Z. Easton, E. Brooks, J. Boll, T. Steenhuis. December 2010. *Modeling the Impact of Landscape Variability on Nutrient and Pesticides Dynamics in CEAP Watersheds*. AGU Fall Meeting, San Francisco, CA.

Saia, S.M., M. Kurth, M. Bowes, G. Holst-Warhaft, and T. Steenhuis. Oct. 2010. *A Water System on the Brink: Neapolis Crete*, Atkinson Center for Sustainable Futures Poster Session, Cornell University.

Oral Presentations

Brooks, E., **S.M. Saia**. May 2012. *Hydrologic Characterization Tool (HCT) for water, sediment, pesticides, and nutrients*. Land Grant and Sea Grant National Water Conference, Portland, OR.

M. Kurth and **S.M. Saia**. November 2011. *Perspectives on water scarcity management: the story of Neapolis, Greece and beyond*. Cornell Law School International Water Conference, Ithaca, NY.

Saia, S., M. Kurth, M. Bowes. March 2011. *Water Resources on the Brink: The Story of Neapolis, Crete, Greece*. Atkins Center for Sustainability Environmental Round-Table. Cornell University, Ithaca, NY.

Brooks, E.S., J. Boll, Z. Easton, T.S. Steenhuis, and **S.M. Saia**. 2011. Assessing the success of conservation practices at the 13 CEAP watersheds through simple modeling tools based on publicly available data. USDA-NIFA National Water Conference, Washington DC, Jan 31 - Feb 1, 2011.

Saia, S. and C. Bayer. August 2010 *Good to the Last Drop: How Important Is Water to Me?*. Jervis Public Library Teen Workshop. Rome, NY.

Awards

- * **CALS Land Grant Fellowship**, Cornell University. Sept 2013 – May 2015
- * **Mianus River Gorge Preserve Graduate Student Research Assistantship**, Mianus River Gorge Preserve. January 2011 - December 2013
- * **3rd Place Poster Prize**, Atkinson Center for Sustainable Futures Poster Session, Cornell University. October 2010
- * **Foreign Language and Area Studies (FLAS) Fellowship**, US Department of Education and Cornell University. Sept 2010 – May 2011
- * **Alpha Epsilon Agricultural and Biological Engineering Honors Society**, September 2009.
- * **Graduate Research Assistant Fellowship**, Cornell University. Sept. 2009
- * **Americorps Education Award**, May 2009

- * **R.C. Nagel Most Improved Chapter Award**, Tau Beta Pi Engineering Honors Society. October 2007
- * **State University of N.Y. Chancellor's Award for Student Excellence**. April 2007
- * **Co-Publicity Chair, IEEE Recognition Award for Outstanding Service and Leadership to IEEE-USA and the Profession**, Binghamton University. October 2006
- * **Spring Student Art Show**, Binghamton University. April 2005 and 2006
- * **Tau Beta Pi Engineering Honors Society**. September 2005
- * **Robert Mancini Scholarship for Community Service**, Binghamton University. September 2004
- * **Women Entering Non-traditional Fields Scholarship**, Amherst Central High School, Buffalo, NY. May 2003

Membership and Service

- * **Mentor:** Mianus River Gorge Preserve High School Wildlife Technician Program, Bedford, NY. Jan 2012 - Present
- * **Student Moderator:** Soil and Water Conservation Society International Annual Conference, Fort Worth, TX
- * **Seminar Committee Chair and Member:** Cornell Biogeochemistry and Environmental Science and Sustainability Graduate Student Association. September 2011 – Present
- * **Workshop Co-Leader:** Expand Your Horizons, Cornell University, April 2012 and April 2013
- * **Secretary and Member:** Alpha Epsilon Biological and Agricultural Engineering Honors Society, September 2010 – May 2012
- * **Volunteer:** Sciencenter, Ithaca, NY. October 2009 – Present
- * **Volunteer:** Buffalo ReUse. October 2008 – September 2009
- * **Volunteer:** NYDEC Reinstein Woods Environmental Nature Preserve and Education Center, Depew, NY. September 2008 – September 2009
- * **Co-Creative Director and Professional Member:** IEEE/EMBS Binghamton Bioengineering, Binghamton University. September 2004 – May 2007
- * **Fundraising Chair and Member:** Tau Beta Pi Engineering Honors Society, Binghamton University, September 2005 – May 2006.
- * **Volunteer:** Binghamton University Food Co-op. Sept. 2005 – May 2007
- * **Organizer:** Hurricane Katrina Benefit Concert. September 2005
- * **Volunteer and Mentor:** Binghamton University Kids Program. September. 2004 – May 2006
- * **Counselor and Sailing Instructor:** Lake Chautauqua Lutheran Centre, Jamestown, NY. Summers 2003 and 2004
- * **Member and Instructor:** Niagara University Skating Club, Niagara Falls, NY. 1999 – Present

Professional Memberships

- American Geophysical Union, 2010 – Present
- Soil and Water Conservation Society, 2012 – Present
- Institute of Electrical and Electronics Engineers, 2005-2007

Additional Skills and Information

- * **Technical:** Microsoft Office, Mathematica, MatLab, R, HTML, ArcGIS 10
ELISA Immunoassay techniques, Ion Chromatography techniques, PCR,
Epifluorescence Microscopy,
- * **Linguistic Proficiency:** French, Italian, Japanese, Greek (All: Introductory)
- * **Personal Interests:** Traveling, Cooking, Outdoor Activities (Fishing, Cycling,
Rock Climbing, Sailing), Figure Skating, Printmaking

References

Available Upon Request