

FARRAH R. FATEMI

Environmental Studies Program
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EDUCATION

Ph.D. in Ecology and Environmental Science, The University of Maine 2011

M.S. in Forest and Natural Resources Management, State University of New York, College of Environmental Science and Forestry (SUNY-ESF) 2007

B.S. in Biology, Environmental Science (dual major), DePaul University, 2003

PROFESSIONAL EXPERIENCE

Aug 2014- present	<i>Assistant Professor of Environmental Studies</i>	St. Michael's College
2013-2014	<i>Post-Doctoral Research Fellow</i>	University of Alberta
2011-2013	<i>Post-Doctoral Teaching Fellow</i>	Villanova University
2010-2011	<i>Chase Distinguished Research Assistant</i>	University of Maine
2006-2010	<i>Graduate Research/Teaching Assistant</i>	University of Maine
2004-2006	<i>Graduate Research/Teaching Assistant</i>	SUNY-ESF
2003-2004	<i>Wildlife Research Technician</i>	University of Wisconsin-Madison

RESEARCH ARTICLES

Peer-Reviewed Publications

- Mineau, M.M, **Fatemi, F.R.**, Fernandez, I.J., Simon, K.S. 2013. Microbial enzyme activity at the watershed scale: response to chronic nitrogen deposition and acute phosphorous enrichment. *Biogeochemistry*. DOI 10.1007/s10533-013-9869-6.
- Fatemi, F.R.**, I. J. Fernandez, J.E. Szillery, S.A. Norton, and L.E. Rustad. 2012. Soil solution response to two decades of acidification at the Bear Brook Watershed in Maine. *Water, Air, and Soil Pollution* 223: 6171-6186.
- Fatemi, F.R.**, R.D. Yanai, S.P Hamburg, M.A. Vadeboncouer, M.A. Arthur, R.D. Briggs and C.R. Levine. 2011. Allometric equations for young northern hardwoods: the importance of age-specific equations for estimating aboveground biomass. *Canadian Journal of Forest Research* 41:881-991.
- Heneghan, L., **F. Fatemi**, L. Umek , K. Grady , K. Fagen, and M. Workman. 2006. The invasive shrub European Buckthorn (*Rhamnus cathartica*, L.) alters soil properties in Midwestern woodlands. *Applied Soil Ecology*. 32: 142-48.

- Heneghan, L., C. Raushenberg, **F. Fatemi**, and M. Workman. 2004. European buckthorn (*Rhamnus cathartica*) and its effects on some ecosystem properties in an urban woodland. *Ecological Restoration*. 22 (4): 275-280.
- Kharas, G. B., A.M. Fuerst, A. Scola, III, D.J. Bavirsha, B.M. Bernau, S.K. Brown, P.E., A.N. Dabrowski, P. De Angelo, **F.R. Fatemi**, and K. Watson. 2000. Novel copolymers of trisubstituted ethylenes and styrene. *Journal of Macromolecular Science, Part A- Pure and Applied Chemistry* 39 (12): 1380-1391.

Technical and Professional Reports

- Fatemi, F.R.** 2011. The effects of long-term nitrogen enrichment and acidification on soil C, N, and P dynamics at the Bear Brook Watershed in Maine. PhD thesis, University of Maine, 111 pgs.
- Fatemi, F.R.** 2007. Aboveground Biomass and Nutrient Content in Developing Northern Hardwood Stands in New Hampshire, USA. M.S. Thesis, State University of New York, College of Environmental Science and Forestry.
- Fatemi, F.R.** 2005. Aboveground Biomass and Nutrient Content in Developing Hardwood Stands at Bartlett Experimental Forest, NH (abstract). In: Kenefic, Laura S.; Twery, Mark J., eds. *Changing Forests – Challenging Times: Proceedings of the New England Society of American Foresters 85th Winter Meeting; 2005 March 16-18; Gen. Tech. Rep. NE-325*. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station: 41.

PAPERS PRESENTED (* denotes undergraduate student)

- Fatemi, F.**, Raymond, J., SanClements, M., Fernandez, I. Soil microbial carbon cycling along a drainage sequence in a Maine forested watershed. Soil Science Society of America Annual Meeting, Tampa, FL, November 2013.
- Fatemi, F.**, Chang, S., Carlyle, C., Bork, E. Soil enzyme activities across different landuse types in Canadian agroecosystems. Soil Science Society of America Annual Meeting, Tampa, FL, November 2013.
- Fatemi, F.**, Fatemi, L., Heneghan, L. Ephemeral natures: examining our link to the soil and natural cycles through contemporary art. Soil Science Society of America Annual Meeting, Tampa, F., November 2013.
- *Menninger, J., **Fatemi, F.** Differences in tree allometry in urban and forest areas: implications for estimating tree carbon storage in urban environments. ECANUSA Forest Science Conference, Durham, NH, November 2012.
- Fatemi, F.**, Fernandez, I., Simon, K., Rustad, L., Norton, S. Does chronic N enrichment alter ecosystem-scale C:N:P stoichiometry? BIOGEOMON: The 7th international symposium on ecosystem behavior, July 2012.
- Mineau, M, **Fatemi, F.**, Fernandez, I., Norton, S., Simon, K. Terrestrial and aquatic microbial enzyme response to shifting nitrogen and phosphorus availability: experiments at the whole-watershed scale. Enzymes in the Environment Research Coordination Network Workshop 2012, Fort Collins, CO.
- San Clements, M., Oelsner, G.P, McKnight, D., **Fatemi, F.R.**, Fernandez, I.J. The Clean Air Act and Dissolved Organic Matter (DOM): The effects of acidification and recovery on DOM quality

- and source in temperate forested watersheds. Ecological Society of America Annual Meeting, 2011, Austin, TX.
- Fatemi, F.R.**, I.J. Fernandez, K.S. Simon, D.B. Dail, L.E. Rustad, S.A. Norton. Does long-term forest N-enrichment and acidification enhance microbial P limitation? A case study. Soil Science Society of America Annual Meeting, 2010, Long Beach, CA.
- Fatemi, F.**, I. Fernandez, K. Simon, D.B. Dail. The effect of nutrient availability on soil extracellular enzyme activities and CNP dynamics. Soil Science Society of America Annual Meeting, 2009, Pittsburgh, PA.
- Yanai, R.D., E.B. Rastetter, M. Fisk, T. J. Ratliff, T.J. Fahey, B. K. Naples, **F. R. Fatemi** and S. P. Hamburg. Is P more limiting than N in young northern hardwoods? Soil Science Society of America Annual Meeting, 2009, Pittsburgh, PA.
- Fatemi, F.**, I. Fernandez, K. Simon, D.B. Dail. Extracellular enzyme activities as indices of microbial nutrient limitation and soil CNP dynamics. Eleventh Biannual Soil Ecology Society Meeting 2009, Burlington, VT.
- Fatemi, F.**, I. Fernandez, K. Simon, D.B. Dail, L. Rustad. Response of forest soil CNP dynamics to N enrichment: clues from extracellular enzyme activities. Soil Science Society of America Annual Meeting, 2008, Houston, TX.
- Fatemi, F.**, I.J. Fernandez, L.E. Rustad, K.S. Simon, S.A. Norton and M.J. Sancelements. The effects of N enrichment on forest CNP stoichiometry at the Bear Brook Watershed in Maine. North American Forest Soils Conference 2008, Blacksburg, VA.
- Yanai, R.D., M.A. Arthur, S.P. Hamburg, M.A. Vadeboncoeur, J.D. Blum, and **F.R. Fatemi**. 2008. Estimating uncertainty in Ecosystem Budgets. Symposium—Nutrient Budgets in the Balance: What have we learned? Soil Science Society of America Annual Meeting 2008, Houston, TX.
- Fatemi, F.**, I.J. Fernandez, J. Szillery, S. Norton, L.E. Rustad. Insights from Soil Solutions on Long-term Acidification at the Bear Brook Watershed in Maine. Soil Science Society of America Annual Meeting, 2007, New Orleans, LA.
- Fatemi, F.R.** Estimating biomass in northern hardwoods: comparing allometric equations for aboveground biomass. Long-term ecological research network, all scientists meeting 2006, Estes Park, CO.
- Yanai, R.D., S.P. Hamburg, J.D. Blum, M.A. Arthur, M. Acker, **F.R. Fatemi**, and M.A. Vadeboncoeur. What controls calcium budgets in northern hardwood forests: species composition or parent material? Soil Science Society of America Annual Meeting 2006, Indianapolis, IN.
- Fatemi, F.** Do your equations look like my equations? Comparing allometric equations for aboveground biomass in developing northern hardwoods. Hubbard Brook Ecosystem Study 43rd annual cooperators meeting 2006, NH.
- Fatemi, F.R.** and R.D. Yanai. Aboveground biomass and nutrient content in developing northern hardwood stands. Ecological Society of America Annual Meeting 2005, Montreal, QU.
- Fatemi, F.** Biomass and nutrient content estimations in northern hardwoods: implications for future research. Hubbard Brook Ecosystem Study 42nd annual cooperators meeting 2005, NH.
- Umek, L., L. Heneghan, **F. Fatemi**, M. Hargreaves, M. Melton, J. Sandinger, D. Strain and M. Workman. Nitrogen dynamics in forest soils dominated by European Buckthorn. Tenth Biannual Soil Ecology Society Meeting 2005, Argonne, IL.

Heneghan, L., **F. Fatemi**, B. Bernau, C. Raushenberg, K. Fagen and M. Workman. The impact of an invasive shrub (*Rhamnus cathartica* L.) on soil foodwebs and some ecosystem properties in an urban woodland in Chicago, Illinois and the potential implications for management. Ninth Biannual Soil Ecology Society Conference 2003, Palm Beach, CA.

Heneghan, L., C. Raushenberg, **F. Fatemi**, B. Bernau and M. Workman. Impact of an invasive shrub (*Rhamnus cathartica* L.) on some ecosystem properties of urban woodlands in Chicago, Illinois. Ecological Society of America annual meeting 2002, Tucson, AZ

TEACHING EXPERIENCE

Direction of Undergraduate Research Projects and Theses

Jeremy Menninger (2012, 2013-2014), Claire Corsey (2013), Lauren Ribant (2012), , Selena Kabonge (2012), Claudia Colon (2012), Greg Noyes (2008)

Courses taught:

Villanova University:

- Introduction to Environmental Science (Lecture and Laboratory, 4 credit hours), Fall 2011
- Environmental Chemistry (Lecture and Laboratory, 4 credit hours), Spring 2012, 2013
- Ecosystem Services (Lecture; developed entire curricula for this new course offering), Fall 2012

Other institutions:

- Instructor- Introduction to Soil Science Laboratory, University of Maine, SUNY- ESF 2005, 2006, 2007, 2009 (1 credit hour)
- Teaching Assistant- Introduction to Environmental Science, The Human Impact on the Environment, and General Biology, DePaul University 2002-2003

Chemistry tutor: Support for Science Students Program, University of Maine, Fall 2008

Guest Lecturer:

- Soil Formation and Landscape Processes, Topic: Soil formation processes (University of Alberta, 2013)
- Watershed Science And Sustainability, Topic: The long-term effects of acid deposition on stream chemistry: evidence from the Bear Brook Watershed in Maine
- Environmental Science II, Topic: Soil Resources, (Villanova University, 2012)
- Soil Science, Topic: Soil Biology, (University of Maine, 2009, 2010)
- Forest Ecology, Topic: Boreal Forest Ecosystems (SUNY-ESF, 2006)

Workshops:

- **Instructor:** Teaching a Laboratory Workshop, University of Maine Graduate School Orientation for Incoming Teaching Assistants 2010
- **Facilitator:** Writing Manuscripts for Publication Workshop, Soil Science Society of America Annual Meeting 2008, 2009, 2010
- **Facilitator:** Teaching a Laboratory Workshop, University of Maine Graduate School Orientation for Incoming Teaching Assistants 2009

Teaching-related coursework and workshops attended:

- Villanova's Institute for Teaching and Learning Orientation Sept. 2012; Jan 2013
- Seminar on College Teaching (SUNY-ESF course, 1 credit hour)
- Student Laboratory Instruction (DePaul University course, 3 credit hours)

- University of Maine Center for Teaching Excellence Workshops: Basics of Teaching (2010), What do the Best College Teachers do? (2010), Team-based learning 2009), Fostering Classroom Democracy (2008)

COMPETITIVE FUNDING, SCHOLARSHIPS and RECOGNITION

2013	Best paper award for session 254 (oral presentation) of Forest, Range and Wildland Division at the Soil Science Society of America Annual Meeting
2010-2011	Chase Distinguished Research Assistantship, The University of Maine Graduate School
2009-2011	Louise Cies Graduate Fellowship, New England Farm and Garden Club
2010, 2007	Best paper award for session 239 (oral presentation, 2010), and session 313 (poster presentation, 2007) of Division S-7 Forest, Range and Wildland Soils, Soil Science Society of America Annual Meeting
2010	Fred Griffie Memorial Award for Excellence in Graduate Research. College of Natural Sciences, Forestry and Agriculture, The University of Maine
2010	Travel Grant, The University of Maine Graduate Student Government
2010	Co-authored 2004 publication is ranked as most highly cited article in Ecological Restoration (January 2010)
2010	New Course Development and Teaching Funds, The University of Maine Continuing and Distance Education Department
2009	Doctoral Stipend Supplement Recipient: The University of Maine Program in Ecology and Environmental Science
2009	Travel Grant, The University of Maine Graduate Student Government
2008	Travel Grant, The University of Maine Graduate Student Government
2007	Mirosław Czapowskyji Soil Science Scholarship, Department of Plant, Soil, and Environmental Sciences, The University of Maine, 2007-2008
2007	Travel Grant, The University of Maine Graduate Student Government
2006	Edna Bailey Sussman Foundation Internship, SUNY-ESF, Summer 2006
2003	Award for Research in Forest and Prairie Ecosystems, DePaul Environmental Science Program
2003	Exhibiting Artist, DePaul University Juried Exhibition 2003
2002	Summer Undergraduate Research Grant, DePaul University College of Liberal Arts and Sciences, Summer 2002
2002	Outstanding Teaching Assistant Award, DePaul University Environmental Sciences Program
2002	Service Award, Lake Forest Open Lands, Lake Forest Open Lands Association

COMMUNITY AND ACADEMIC SERVICE

- Co-curator: “Rooted in Soil” art exhibit scheduled for January 2015 at DePaul University Art Museum
- Manuscript Reviewer: European Journal of Soil Biology 2013, Forest Science 2012, Northern Journal of Applied Forestry 2008, 2011, 2012
- Scientific Advisor, DePaul University Art Museum’s Climate of Uncertainty exhibit, 2012-2013

- Departmental Early Action Candidate's Day, Villanova University, Spring 2012
- Sigma-Xi Undergraduate Research Poster Judge, Villanova University, Spring 2012
- Organizing Committee for visiting speaker/filmmaker Randy Olson, Villanova University College of Liberal Arts and Sciences, Spring 2012
- Invited Speaker, Friends of Walker Pond Association Annual Meeting. Presentation title: Carved by Glaciers: A short summary of the formation of Maine's natural landscape, 2010
- Science Fair Judge, Category: Oral Competition, Maine Principals' Association 2009-2010
- Volunteer Reader Maine Audio Information and Reading Service: Serving Maine's Blind and Visually Impaired,
 - Weekly and substitute reader 2007-2009
- Human Dimensions Researcher The University of Maine, Center for Tourism Research and Outreach, American Folk Festival 2009
- Graduate Student Government Representative, The University of Maine 2007-2009:
 - Social Committee (2007-2008),
 - Philanthropy Committee (2009)
- Competition Judge, Future Farmers of America, Category: Extemporaneous Speaking 2008
- Graduate Student Orientation Volunteer The University of Maine 2007, 2009
- Democratic National Committee Volunteer 2004, 2008
- Fundraising co-coordinator and Volunteer Cast Member, Vday Syracuse: Ending Violence Against Women, 2005