

ALLISON L. GILL

Department of Biology
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EDUCATION

- 2011 - present** **Ph.D., Boston University**
Ecology, Behavior, Evolution, certificate in Terrestrial Biogeoscience
Advisor: Adrien Finzi
Expected Completion May 2017
- 2007 - 2011** **B.A. Mount Holyoke College, *summa cum laude*, Phi Beta Kappa**
Major: Biology Minor: Chemistry
Advisor: Martha F. Hoopes
Thesis: *Fixing Invasions: The effect of non-native, nitrogen-fixing plant species on plant community structure in Northeastern open meadows*

AWARDS

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| National Science Foundation Doctoral Dissertation Improvement Grant
<i>Partitioning rhizosphere effects on microbial community structure and carbon cycling across a peatland water table gradient</i> (\$21,091) | 2015-2017 |
| Department of Energy Graduate Research Fellowship (\$151,500) | 2012-2015 |
| National Science Foundation Graduate Research Fellowship (\$121,500, declined) | 2012-2015 |
| NSF Soil Biogeochemistry Workshop Graduate Student Support (\$3,000) | 2013 |
| George Bernard Shaw Travel Award, Boston University (\$600, \$400) | 2012, 2013 |
| Outstanding Graduate Student Activities Award (BU ALES) | 2013 |
| Graduate Course, <i>Carbon Cycling in Peatlands</i> , Swedish University of Agricultural Sciences, Umea, Sweden, selected participant | 2012 |
| Stein Prize for best research paper in biology, Mount Holyoke College (\$1,000) | 2011 |
| <i>Phi Beta Kappa</i> | 2011 |
| Mary Lyon Scholar, Mount Holyoke College | 2011 |
| Bernice McClean Award for Excellence in Biology (\$400) | 2011 |
| Bernice McClean Travel Award (\$600) | 2011 |
| <i>Sigma Xi</i> Scientific Research Honor Society | 2011 |
| Abby T. Howe Award for Excellence in Biology (\$400) | 2010 |
| Mount Holyoke College Leadership Award (\$60,000) | 2007-2011 |
| President's Volunteer Service Award | 2007 |
| AP Scholar with Honor | 2006 |

PUBLICATIONS

Gill, AL, MA Giasson, and AC Finzi. Influence of deep peat heat on peat surface carbon dioxide and methane fluxes at the SPRUCE experiment. In preparation.

CA Medvedeff, M Tfaily, L Pfeifer-Meister, R Wilson, X Lin, M Kolton, J Chanton, SD Bridgham, JK Keller, **A Gill**, A Finzi, and JE Kolka. Regional-scale variation in methane

emission is regulated by water table depth in *Sphagnum*-dominated peatlands. In preparation.

Gill, AL and AC Finzi. Global patterns of plant carbon allocation and belowground resource use efficiency. In Review at *Nature Geoscience*.

Hanson, PJ, **AL Gill**, X Xu, JR Phillips, DJ Weston, RK Kolka, JS Riggs, LA Hook. Intermediate-scale community-level flux of CO₂ and CH₄: a large collar application in a Minnesota peatland with seasonal and spatial performance data. In review at *Soil Biology and Biochemistry*.

Gill, AL, AS Gallinat, R Sanders-DeMott, AJ Rigden, DJ Short Gianotti, JA Mantooh, and PH Templer. 2015. Changes in autumn senescence in northern hemisphere deciduous trees: a meta-analysis of autumn phenology studies. *Annals of Botany* 116(6): 875-888.

Gill, AL and MF Hoopes. Fixing invasions: the influence of non-native, nitrogen-fixing species on plant community structure in New England open meadows. In preparation.

INVITED PRESENTATIONS

Gill, AL and AC Finzi. The carbon cost of nitrogen uptake: global patterns. NSF LTER Soil Biogeochemistry Workshop, Millbrook, NY. Oral presentation. March 2013.

CONTRIBUTED PRESENTATIONS *denotes undergraduate co-author

Gill, AL, M-A Giasson, and AC Finzi. Effects of experimental warming on trace gas fluxes from a black spruce peatland [SPRUCE]. American Geophysical Union Annual Meeting. San Francisco, CA. Poster Presentation. December 2015.

Yu, R*, AL Gill, M-A Giasson, and AC Finzi. Effects of experimental warming on trace gas fluxes from a black spruce peatland [SPRUCE]. Boston University Undergraduate Research Opportunity Program (UROP) Symposium. Boston, MA. Poster Presentation. October 2015.

Gill, AL, M-A Giasson, and AC Finzi. Effects of experimental warming on trace gas fluxes from a black spruce peatland [SPRUCE]. Department of Energy Biological and Environmental Sciences Principal Investigators' Meeting. Baltimore, Maryland. Poster Presentation. April 2015.

Gill, AL and AC Finzi. Rhizosphere impacts on peat decomposition across a water table gradient. Boston University Biogeoscience Annual Graduate Student Symposium. Boston, MA. Oral Presentation. January 2015.

Gill, AL and AC Finzi. Rhizosphere impacts on peat decomposition across a water table gradient. American Geophysical Union Annual Meeting. San Francisco, CA. Poster presentation. December 2014.

Predi, M*, AL Gill, and AC Finzi. A review of the economic viability of post-agricultural peat restoration in the United Kingdom. Boston University Undergraduate Research Opportunity Program (UROP) Symposium. Boston, MA. Poster Presentation. October 2014.

Gill, AL and AC Finzi. Rhizosphere impacts on peat decomposition across a water table gradient. Department of Energy Annual Graduate Fellow's Meeting. Argonne National Lab, Lamont, IL. Poster presentation. July 2014.

Gill, AL and AC Finzi. The influence of water table position on soil microbial processes and carbon mineralization in a mid-latitude spruce peatland. American Geophysical Union Annual Meeting. San Francisco, CA. Poster presentation. December 2013.

Gill, AL and AC Finzi. The influence of water table position on soil microbial processes and carbon mineralization in a mid-latitude spruce peatland. Department of Energy Annual Graduate Fellow's Meeting. SLAC National Lab, Palo Alto, CA. Poster presentation. July 2013.

Gill, AL and AC Finzi. The influence of water table position on soil microbial processes and carbon mineralization in a mid-latitude spruce peatland. Ecological Society of America Annual Meeting, Minneapolis, MN. Poster presentation. August 2013.

Gill, AL and AC Finzi. The influence of water table position on carbon mineralization in a mid-latitude spruce peatland. Swedish University of Agricultural Sciences, Umea, Sweden. Poster presentation. August 2012.

Gill, AL and MF Hoopes. Fixing invasions: the influence of non-native, nitrogen-fixing species on plant community structure in New England open meadows. Ecological Society of America Annual Meeting, Austin, TX. Poster Presentation. August 2011.

TEACHING EXPERIENCE

2013, 2015	BI643: Biogeochemistry, Boston University, <i>Guest Lecturer</i>
Spring 2012	BI108: Principles of Biology II, Boston University, <i>Teaching Fellow</i>
Fall 2011	BI107: Principles of Biology I, Boston University, <i>Teaching Fellow</i>
Spring 2011	Biol226: Evolution, Mount Holyoke College, <i>Teaching Assistant</i>
Fall 2010	Biol223: Ecology, Mount Holyoke College, <i>Teaching Assistant</i>
Spring 2010	Chem302: Organic Chemistry II, Mount Holyoke College, <i>Teaching Assistant</i>
Fall 2009	Chem202: Organic Chemistry I, Mount Holyoke College, <i>Teaching Assistant</i>

SERVICE

2015	BU Biogeoscience Graduate Student Invited Seminar Speaker, coordinator
2014-2015	BU Biogeoscience Workshop Committee, chairperson
2014	DOE High School Science Bowl – reviewer for Life Sciences division
2014	Climate Change Science presentation for 6 th grade class at the Pierce School, Brookline, MA
2012-present	Boston University Advocates for Literacy in Environmental Sciences (graduate group) – founding member
2012-present	Reviewer for <i>Global Change Biology</i> , <i>Biogeochemistry</i>

MENTORSHIP *Indicates student awarded BU Undergraduate Research Opportunity Funding

2015	Rieka Yu*, Boston University, Boston, MA
2015	Jordan Archer, College of St. Scholastica, Duluth, MN
2014	Michelle Predi*, Boston University, Boston, MA

MEDIA COVERAGE

Butters, J. 2015. Shake it off: What autumn leaf fall reveals about global warming. *Arts and Sciences Insider* Boston University.

Weir, EH. 2014. Clare Booth Luce supports women in science. Mount Holyoke College.

COLLABORATORS

S Bridgham (U. of Oregon), AF Finzi (Boston U.), AS Gallinat (Boston U.), M-A Giasson (Boston U.), T Guilderson (Lawrence Livermore National Lab), PJ Hanson (Oak Ridge National Lab), MF Hoopes (Mount Holyoke College), J Keller (Chapman U.), JA Mantooth (Boston U.), K McFarlane (Lawrence Livermore National Lab), R Sanders-Demott (Boston U.), DJ Short-Gianotti (Boston U.), JM Talbot (Boston U.), PH Templer (Boston U.)

PROFESSIONAL MEMBERSHIPS

Phi Beta Kappa

Sigma Xi

Ecological Society of America

American Geophysical Union