

# CAITLIN E. HICKS PRIES

Assistant Professor, Department of Biological Sciences, Dartmouth College

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## EDUCATION

Ph.D. <b>University of Florida</b>	<b>2012</b>
Department of Biology	
M.S. <b>University of Florida</b>	<b>2007</b>
Department of Soil and Water Science	
B.A. <b>Middlebury College</b>	<b>2004</b>
Biology and Environmental Studies, <i>Summa Cum Laude</i>	

## AWARDS

Outstanding Early Career Scientist, Biogeosciences Division, European Geosciences Union	2020
S.A. Wilde Early Career Award, Soil Science Society of America	2018
Graduate Student Mentoring Award, University of Florida	2008
Best Masters Thesis, University of Florida, College of Agriculture and Life Sciences	2008
Best Masters Thesis, University of Florida, Soil and Water Science Department	2007
Phi Beta Kappa, Beta Chapter of Vermont	2004
Elbert C. Cole '15 Prize for Outstanding Biology Student, Middlebury College	2004
Henry David Thoreau Scholarship for Environmental Studies	2000

## GRANTS AND FELLOWSHIPS

Department of Energy, Terrestrial Ecosystem Science, *Testing mechanisms of how mycorrhizal associations affect forest soil carbon and nitrogen cycling*. \$959,995. 09/2019-08/2022 (Principal Investigator)

Natural Resources Conservation Service (USDA), *Researching Strategies for Improving Vermont's Soil Health Through Perennial Grazing Crop Development*. \$150,000. 10/2019-09/2022 (Principal Investigator)

National Science Foundation, *MRI: Acquisition of an Isotope Ratio Mass Spectrometer (IRMS) to enable interdisciplinary research at Dartmouth and beyond*. \$483,126. 08/2018-07/2021 (Principal Investigator)

Advanced Research Projects Agency-Energy (ARPA-E), *Associated Particle Imaging (API) for Non-Invasive Determination of Carbon Distribution in Soil*, \$2.4 million (\$62,000 to Dartmouth). 06/2017-11/2020 (Co-Investigator)

### **Pre-Faculty:**

University of Florida Graduate Student Research Abroad Program, *The effect of permafrost warming on arctic carbon balance*. \$9,995. 2011

National Science Foundation Doctoral Dissertation Improvement Grant, *Carbon cycle changes in a changing climate: Using <sup>13</sup>C and <sup>14</sup>C to partition ecosystem respiration in tundra undergoing permafrost thaw*. \$14,941. 2010

Denali National Park Murie Science and Learning Center Research Fellowship, *Carbon cycle changes in warming Alaska: Do plants or soil microbes drive changes in ecosystem respiration?* \$4,580. 2010

National Science Foundation GK-12 Program, Science Partners in Inquiry-based Collaborative Education Fellowship. \$33,000. 2009

University of Florida, Alumni Graduate Fellowship. \$36,000. 2007-2009

University of Florida, Soil and Water Science Department, William K. Robertson Fellowship. \$1,000. 2006

## EMPLOYMENT

<b>Assistant Professor</b>	<b>2017 – Present</b>
Dartmouth College, Department of Biological Sciences	
<b>Postdoctoral Fellow</b>	<b>2013 – 2017</b>
Lawrence Berkeley National Laboratory, Climate Science Department	
Research area: <i>Responses and mechanisms of soil carbon cycling to whole-profile in situ soil warming</i>	
<b>Doctoral Student</b>	<b>2007 – 2012</b>
University of Florida, Department of Biology	
Dissertation title: <i>Effects of permafrost thaw and warming on carbon cycling in Alaskan tundra</i>	
<b>Masters Student</b>	<b>2005 – 2007</b>
University of Florida, Department of Soil and Water Science	
Thesis title: <i>Carbon pools and sources in a constructed mangrove and seagrass habitat</i>	
<b>Research Assistant</b>	<b>2004 – 2005</b>
Cary Institute of Ecosystem Studies, Research area: <i>Landscape ecology</i>	
<b>Sea Turtle Intern</b>	<b>2003</b>
Bald Head Island Conservancy (NC), Monitoring sea turtle nesting and hatching	
<b>REU Intern</b>	<b>2002</b>
Darling Marine Center, University of Maine, Research area: <i>Marine benthic ecology</i>	
<b>Research Assistant</b>	<b>2001</b>
Middlebury Ecology, Research area: <i>Pollination ecology</i>	

## TEACHING

<b>Dartmouth College</b>	<b>2017-Present</b>
Instructor: Ecology (BIOL 16) and Global Change Biology (BIOL 26)	
<b>University of Florida</b>	<b>2006-2011</b>
Teaching Assistant: Ecology, Introductory Biology, Wetland Biogeochemistry	
<b>NSF GK-12 Fellow, Westwood Middle School, Gainesville, FL</b>	<b>2009-2011</b>
Taught Physics and Chemistry to eighth graders	

## MENTORING

**Dartmouth College**

2017-Present

*Ph.D. Advisor:* Amelia Fitch, Genevieve Goebel, and Erin Lane

Graduate Committee Member: Rebecca Finger-Higgins, Morgan Peach, Ashley Lang, Fiona Jevon, and Christopher Callahan

*Senior Thesis/Project Advisor:* Tanner Aiono '20 and Grace Ryan '18*WISP/UGAR/Presidential Scholar Mentor:* Laura Jeliakov '18, Beth Bruna '21, Toby Harding '21, Eliza Helmers '22, Eva Legge '22, Natalie Dokken '23, and Citlalli Vergara '23**Lawrence Berkeley National Laboratory**

2013-2016

*Science Undergraduate Laboratory Intern Mentor:* Cori West, Caitlin O'Neil, and Erik Poppleton. All three are currently pursuing graduate degrees in science.**University of Florida**

2008-2012

*Senior Thesis/Project Advisor:* Chase Mason (currently a professor at UCF) and Elaine Pegoraro (currently a doctoral candidate at NAU)

Supervised 10 undergraduate volunteers

## PUBLICATIONS

**Refereed Journal Articles**

**Hicks Pries, C.E.**, A. Angert, C. Castanha, B. Hilman, and M.S. Torn. 2020. Using Respiration Quotients to Track Changing Sources of Soil Respiration Seasonally and with Experimental Warming. *Biogeosciences*. <https://doi.org/10.5194/bg-17-3045-2020>.

Schädel, C., J. Beem-Miller, M. Aziz Rad, S. E. Crow, **C. Hicks Pries**, J. Ernakovich, A. M. Hoyt, A. Plante, S. Stoner, C.C. Treat, and C.A. Sierra. 2020. Decomposability of soil organic matter over time: The Soil Incubation Database (SIDb, version 1.0) and guidance for incubation procedures. *Earth Systems Science Data*. <https://doi.org/10.5194/essd-12-1511-2020>

Lawrence C.R. J. Beem-Miller, A. Hoyt, [and 31 others including **C.E. Hicks Pries**]. 2020. An open source database for synthesis of soil radiocarbon data: International Soil Radiocarbon Database (ISRad) version 1.0. *Earth Systems Science Data*. <https://doi.org/10.5194/essd-12-61-2020>.

Bailey V.L., **C.E. Hicks Pries**, K. Lajtha. 2019. What do we know about soil carbon destabilization? *Environmental Research Letters*. <https://doi.org/10.1088/1748-9326/ab2c11>.

Plaza C, E. Pegoraro, R. Bracho, G. Celis, K.G. Crummer, J.A. Hutchings, **C.E. Hicks Pries**, M. Mauritz, S.M. Natali, V.G. Salmon, C. Schaedel, E.E. Webb, E.A.G. Schuur. 2019. Direct observations of permafrost degradation and rapid soil carbon loss in tundra. *Nature Geoscience*. <https://doi.org/10.1038/s41561-019-0387-6>

Kwon M.J., S.M. Natali, **C.E. Hicks Pries**, E.A.G. Schuur, A. Steinhof, K.G. Crummer, N. Zimov, S.A. Zimov, M. Heimann, O. Kolle, M. Göckede. 2019. Drainage enhances modern soil carbon contribution but reduces old soil carbon contribution to ecosystem respiration in tundra ecosystems. *Global Change Biology*. <https://doi.org/10.1111/gcb.14578>.

**Hicks Pries C.E.**, B.N. Sulman, C. West, C. O'Neill, E. Poppleton, R.C. Porras, C. Castanha, B. Zhu, D.B. Wiedemeir, M.S. Torn. 2018. Root litter decomposition slows with soil depth. *Soil Biology & Biochemistry* 125: 105-114. <https://doi.org/10.1016/j.soilbio.2018.07.002>

- Rasmussen C., Heckman K., Wieder W., Keiluweit M., Lawrence C., Asefaw-Berhe A., Blankinship J., Crow S., Druhan J., **Hicks Pries C.**, Marin-Spiotta E., Plante A., Schaedel C., Schimel J., Sierra J., Thompson A., Wagai R. 2018. Beyond clay: towards an improved set of variables for predicting soil organic matter content. *Biogeochemistry* 137 (3): 297-306. <https://doi.org/10.1007/s10533-018-0424-3>
- Hicks Pries C.E.**, Castanha C., Porras R.C., Phillips C., Torn M.S. 2018. The whole-soil carbon flux in response to warming: Technical comment response. *Science* 359 (6378). DOI: 10.1126/science.aao0457
- Castanha, C., Zhu B., **Hicks Pries C.E.**, Georgiou K., Torn M.S. 2018. Compensatory effects of heating, rhizosphere, and depth on soil moisture mediate decomposition of root litter in a Mediterranean grassland ecosystem. *Biogeochemistry* 137:267–279. [doi.org/10.1007/s10533-017-0418-6](https://doi.org/10.1007/s10533-017-0418-6)
- Porras R.C., **Hicks Pries C.E.**, Torn M.S., Nico P.S. 2018. Synthetic iron (hydr)oxide-glucose associations in subsurface soil: Effects on decomposability of mineral associated carbon. *Science of the Total Environment* 613-614C, 342-351. DOI: 10.1016/j.scitotenv.2017.08.290
- Hicks Pries C.E.**, Bird J.A., Castanha C., Hatton P.J., Torn M.S. 2017. Long term decomposition: The influence of litter type and soil horizon on retention of plant carbon and nitrogen in soils. *Biogeochemistry* 134 (1-2), 5-16. DOI 10.1007/s10533-017-0345-6
- Porras R.C., **Hicks Pries C.E.**, McFarlane K.J., Torn M.S. 2017. Association with pedogenic iron and aluminum: Effects on soil organic matter storage and stability in temperate forest soils. *Biogeochemistry* 133 (3), 333-345. DOI 10.1007/s10533-017-0337-6
- Hicks Pries C.E.**, Castanha C., Porras R.C., Torn M.S. 2017. The whole-soil carbon flux in response to warming. *Science* 355 (6332), 1420-1423. doi: 10.1126/science.aal1319
- Hicks Pries, CE**, EAG Schuur, SM Natali, KG Crummer. 2016. Old soil carbon losses increase with ecosystem respiration in experimentally thawed tundra. *Nature Climate Change* doi:10.1038/nclimate2830
- Hicks Pries, CE**, RSP Logtestijn, EAG Schuur, SM Natali, JHC Cornelissen, R Aerts, E Dorrepaal. 2015. Decadal warming causes a consistent and persistent shift from heterotrophic to autotrophic respiration in contrasting permafrost ecosystems. *Global Change Biology* 21 (12), 4508-4519 doi: 10.1111/gcb.13032
- Torn, MS, A Chabbi, P Crill, PJ Hanson, IA Janssens, Y Luo, **CH Pries**, C Rumpel, MWI Schmidt, J Six, M Schrumpf, and B Zhu. 2015. A call for international soil experiment networks for studying, predicting, and managing global change impacts. *SOIL* 1, 575-582 doi:10.5194/soil-1-575-2015
- Natali, S.M., E.A.G. Schuur, E. E. Webb, **C.E. Hicks Pries**, K.G. Crummer. 2014. Permafrost degradation stimulates carbon loss from experimentally warmed tundra. *Ecology* 95 (3) <http://dx.doi.org/10.1890/13-0602.1>.
- Hicks Pries, C.E.**, E.A.G. Schuur, J.G. Vogel, S.M. Natali. 2013. Moisture drives surface decomposition in thawing tundra. *Journal of Geophysical Research-Biogeosciences*, doi: 10.1002/jgrg.20089.
- Hicks Pries, C.E.**, Schuur E.A.G., Crummer K.G. 2013. Thawing permafrost increases old soil and autotrophic respiration in tundra: Partitioning ecosystem respiration using  $\delta^{13}\text{C}$  and  $\Delta^{14}\text{C}$ . *Global Change Biology* 19 (2) doi: 10.1111/gcb.12058.
- Hicks Pries, C.E.**, E.A.G. Schuur, and K. G. Crummer. 2012. Holocene Carbon Stocks and Carbon Accumulation Rates Altered in Soils Undergoing Permafrost Thaw. *Ecosystems* 12 (1): 162-173.
- Hicks Pries, C.E.** and J. Hughes. 2012. Inquiring into familiar objects: An inquiry-based approach to introduce scientific vocabulary. *Science Activities* 49 (2): 64-69.

**Hicks Pries, C.E.** and J. Hughes. 2011. Powering the Future: A wind turbine design competition. *Science Scope* 35 (4): 24-30.

Natali, S. M., E.A.G. Schuur, C. Trucco, **C.E. Hicks Pries**, K. G. Crummer, and A.F. Baron Lopez. 2011. Effects of experimental warming of air, soil and permafrost on carbon balance in Alaskan tundra. *Global Change Biology* 17 (3): 1394-1407.

#### Articles in Review or Revision

<sup>6</sup>Finger-Higgins, R. **C.E. Hicks Pries**, and R. Virginia. *In review*. Trade-offs between wood and leaf production in Arctic shrubs along a temperature and moisture gradient in West Greenland. *Ecosystems*.

<sup>6</sup>Fitch, Amelia, A Lang, E Whalen, K Geyer, **C Hicks Pries**. *In review*. Fungal community, not substrate quality, drives soil microbial function in Northeast temperate forests. *Frontiers in Forests and Global Change*.

<sup>6</sup>Peach, Morgan, **CE Hicks Pries**, and A. Friedland. *In revision*. Plants and earthworms control soil carbon and water quality trade-offs in turfgrass mesocosms. *Science of the Total Environment*.

#### Book Chapters and Non-Refereed Articles

**Hicks Pries, C.E.**, L. Smith, J. Maclaren, C. Treat, C. Voight. *In press*. Tundra Soil's Changing Biogeochemical Cycles. Book Chapter in "Multi-scale Biogeochemical Processes in Soil Ecosystems: Critical Reactions and Resilience to Climate Changes", Y. Yang and M. Keiluweit, editors.

Schuur E.A.G., Carbone M.S., **Hicks Pries C.E.**, Hopkins F., Natali S.M. 2016. Radiocarbon in terrestrial systems *in* Radiocarbon in Ecology and Earth System Science. Schuur E.A.G. and S. Trumbore, editors.

Trumbore, S., Sierra C.A., **Hicks Pries C.E.** 2016. Radiocarbon nomenclature, theory, models, and interpretation: Measuring age, tracing source pools, and determining cycling rates *in* Radiocarbon in Ecology and Earth System Science. Schuur E.A.G. and S. Trumbore, editors.

E. Pegoraro and **C.E. Hicks Pries**. 2013. Decay in the Alaskan tundra: the effects of initial litter quality and leaching on long-term plant decomposition. *Journal of Undergraduate Research* 14(2). To access: <http://ufdc.ufl.edu/UF00091523/00657>.

Mason C.M., **C.E. Hicks Pries**, and E. A. G. Schuur. 2010. Seasonal differences in nutrient allocation of arctic tundra vegetation. *University of Florida Journal of Undergraduate Research* 11(2). To access: <http://www.clas.ufl.edu/jur/201007/index.html>.

Mayor J.R. and **C.E. Hicks**. 2009. Potential impacts of elevated CO<sub>2</sub> on plant interactions, sustained growth, and C cycling in salt marsh ecosystems *in* Human Impacts on Salt Marshes: A Global Perspective.

#### PRESENTATIONS

##### Invited Talks at National and International Meetings

**Hicks Pries, C.** 2019. Digging deeper: How depth affects soil carbon responses to climate change. Soil Science Society of America, Forest and Rangeland Soils Division, Wilde Early Career Awardee Lecture.

**Hicks Pries, C.** 2018. Beyond Surface Flux: Gathering new insights from in situ warming experiments. American Geophysical Union Fall Meeting 2018, Washington D.C.

**Hicks Pries, C.** Torn M.S. 2017. Isotope-based insights into old questions about transport and transformation of plant inputs to soil. Soil Science Society of America Annual Meeting, Tampa, FL.

**Invited Research Seminars**

- Hicks Pries, C.** 2018. Digging Deeper: The Vulnerability of Soil Organic Carbon to Climate Change. Biology Department Seminar, East Carolina University, Greenville, NC.
- Hicks Pries, C.** 2018. Digging Deeper: The Vulnerability of Soil Organic Carbon to Climate Change. Plant and Soil Sciences Department Seminar, University of Massachusetts, Amherst, MA.
- Hicks Pries, C.** 2017. When Permafrost Thaws: Tundra carbon feedbacks to climate change. Institute of Arctic Studies Seminar, Dartmouth College, Hanover, NH.
- Hicks Pries, C.** 2017. Digging Deeper: The Vulnerability of Soil Organic Carbon to Climate Change. Ecosystem Science Seminar, University of California Merced.
- Hicks Pries, C.** 2014. How does litter become soil organic matter? Tracing the fate of needle- and root-derived soil organic matter through 10 years of decomposition. Soil Science Seminar, University of Zurich, Switzerland.
- Hicks Pries, C.** 2014. Terrestrial ecosystem carbon feedbacks in a warming world: Experiments in an Alaskan tundra and a California coniferous forest. Biology Department Seminar, Middlebury College, Vermont.
- Hicks Pries, C.** 2011. Beneath our feet: Soil carbon and ice dynamics and the future of our climate. Murie Science and Learning Center, Denali National Park, AK.
- Hicks, C.** 2007. Coastal ecosystems as carbon sinks: A case study from the Indian River Lagoon. Wetlands Seminar Series, University of Florida.

**Contributed Presentations (since 2013)**

- Hicks Pries C.E., O. Krol, S.D. Frey, and P. Templer.** How soil depths differ in climate change responses (*poster*). 2019. Soil Science Society of America Annual Meeting, San Diego, CA.
- Hicks Pries C.E., O. Krol, S.D. Frey, and P. Templer.** Digging down: How respiration from different soil depths responds to climate change (*oral*). 2018. American Geophysical Union Fall Meeting, Washington, D.C.
- Hicks Pries C.E., A. Angert, C. Cristina, B. Hilman, M.S. Torn.** The changing energy sources of soil respiration seasonally and with experimental warming (*oral*). 2017. American Geophysical Union Fall Meeting, New Orleans, Louisiana.
- Hicks Pries CE, Porras RC, Castanha C, Sulman B, Zhu B, Bird JA, Torn MS.** How soil depth affects decomposition (*poster and invited talk*). 2017. Department of Energy Environmental Systems Science PI Meeting, Potomac, Maryland.
- Hicks Pries CE, Castanha C, Porras RC, Torn MS.** Differential root decomposition across soil depths (*poster*). 2016. American Geophysical Union Fall Meeting, San Francisco, California.
- Hicks Pries CE, Castanha C, Porras RC, Torn MS.** Soil depth responses to in situ warming (*poster*). 2016. Department of Energy Environmental Systems Science PI Meeting, Potomac, Maryland.
- Hicks Pries CE, Castanha C, Porras RC, Torn MS.** Invariant temperature sensitivity of soil respiration with depth (*poster*). 2015. American Geophysical Union Fall Meeting, San Francisco, California.

- Castanha, C., B. Zhu, **C. Hicks Pries**, K. Georgiou, M. Torn. 2015. Soil Warming and Rhizosphere Effects on Root Litter Decomposition at Two Depths in a Mediterranean Grassland Ecosystem (*oral*). American Geophysical Union Fall Meeting, San Francisco, California.
- C. Hicks Pries**, C. Castanha, R. Porras, B. Zhu, and M. S. Torn. 2015. Responses of soil organic carbon to experimentally warming the whole soil profile *in situ*. (*oral*). SubSOM Symposium, Raesfeld, Germany.
- C. Hicks Pries**, B. Zhu, C. Castanha, R. Porras, J. B. Curtis, and M. S. Torn. 2014. Deep soil carbon and its vulnerability to climate change. (*oral*). American Geophysical Union Fall Meeting, San Francisco, California.
- C. Hicks Pries**, B. Zhu, C. Castanha, R. Porras, C. West, J. B. Curtis, and M. S. Torn. 2014. Whole-profile soil carbon responses to warming and root carbon inputs in a coniferous forest. (*poster*). American Geophysical Union Fall Meeting, San Francisco, California.
- C. Hicks Pries**, B. Zhu, J. B. Curtis, C. Castanha, R. Porras, D. Herman, and M. S. Torn. 2014. The effects of whole profile soil warming on decomposition of native soil carbon and <sup>13</sup>C-labeled root inputs. (*poster*). Department of Energy TES/SBR Joint Investigators' Meeting, Potomac, Maryland.
- C. Hicks Pries**, P.J. Hatton, C. Castanha, J.A. Bird, and M.S. Torn. 2014. How does litter become soil organic matter? Tracing the fate of needle- and root-derived soil organic matter through 10 years of decomposition. (*oral*). European Geosciences Union General Assembly, Vienna, Austria.
- M. S. Torn, **C. Hicks Pries**, B. Zhu, E. Brodie, J. Jansson, P. S. Nico, D. Herman, J.B. Curtis, C. Castanha, Y. Zhang. 2014. Understanding the response of soil organic carbon to warming throughout the whole soil profile. (*poster*). European Geosciences Union General Assembly, Vienna, Austria.
- C. Hicks Pries**, E. Dorrepaal, R. van Logtestijn, E. A. Schuur, H. Cornelissen. 2013. Declines In Old Soil Carbon Losses After 11 Years of Experimental Warming in a Subarctic Peatland (*oral*). American Geophysical Union Fall Meeting, San Francisco, California.
- C. Hicks Pries**, P. Hatton, C. Castanha, J. A. Bird, M. S. Torn. 2013. Where Is Needle- and Root-Derived Soil Organic Matter After 10 Years of Decomposition in a Temperate Forest? (*poster*). American Geophysical Union Fall Meeting, San Francisco, California.
- M. S. Torn, **C. Hicks Pries**, B. Zhu, C. Castanha, J. B. Curtis, E. Brodie, J. Jansson, P. S. Nico. 2013. Digging Deeper: controls and response of decomposition in the full soil profile. (*oral*). American Geophysical Union Fall Meeting, San Francisco, California.
- B. Zhu, **C. Hicks Pries**, J. Jansson, E. Brodie, P. S. Nico, D. Herman, J. B. Curtis, C. Castanha, Y. Zhang, M. S. Torn. 2013. The vulnerability of whole-profile soil organic carbon to in situ warming and root carbon inputs (*poster*). American Geophysical Union Fall Meeting, San Francisco, California.
- C.E. Hicks Pries**, M.S. Torn. 2013. Put down that ANOVA! Using regression-based experimental designs to deal with spatial heterogeneity (*oral*). 98<sup>th</sup> Annual Meeting of Ecological Society of America, Minneapolis, Minnesota.
- C.E. Hicks Pries**, M.S. Torn, J.A. Bird, and Pierre-Joseph Hatton. 2013. Tracing the fate of needle and fine root litter over 10 years in a coniferous forest soil (*poster*). 98<sup>th</sup> Annual Meeting of Ecological Society of America, Minneapolis, Minnesota.

**C.E. Hicks Pries**, B. Zhu, J. Jansson, E. Brodie, P. Nico, D. Herman, J.B. Curtis, C. Castanha, and M.S. Torn. 2013. The vulnerability of subsurface soil organic carbon to in situ warming and altered root carbon inputs (*poster*). Department of Energy TES/SBR Joint Investigators' Meeting, Washington, D.C.

#### PROFESSIONAL SERVICE

##### **Working Groups**

Soil Incubation Database, Max Planck Institute of Biogeochemistry, Jena, Germany (2019)  
International Soil Radiocarbon Database, Powell Center, Fort Collins, CO (2017-Present)  
Root Carbon Workshop, Oak Ridge National Laboratory, Oak Ridge, TN (2018)  
'Mysteries of the Deep' soil carbon cycling workshop, Lawrence Berkeley National Laboratory (2013)

##### **Session Organizing**

AGU, Biogeosciences section (2013, 2015, 2017, 2019)  
SSSA, Soil Biology and Biochemistry section (2018)

##### **Reviewer for Granting Agencies**

DOE Belowground Carbon Cycling Review Panel (2013, 2015)  
Ad-hoc reviewer for NSF Office of Polar Programs, DEB, and Geosciences, DOE Terrestrial Ecosystem Science EPSCoR program (ongoing)

##### **Reviewer for Journals**

*Proceedings of the National Academy of Sciences, Nature Climate Change, Nature Geoscience, Nature Communications, Science Advances, Global Change Biology, Ecology, Biogeosciences, JGR-Biogeosciences; Environmental Research Letters, Geophysical Research Letters, Geoderma, Functional Ecology, etc.*

##### **Science Advisory Boards**

SPRUCE (Spruce and peatland responses under climatic and environmental change; 2016 to 2019)

#### DARTMOUTH SERVICE

##### **College-Wide**

Mellon Grant Committee (2018 to present)  
Invited Panelist at the Cows, Land, and Labor Conference, Hanover Inn (4/26/2019)

##### **Departmental**

Greenhouse Committee, Department of Biological Sciences (2017 to present)  
EEES Chair Nomination Committee (2018)

#### PRE-FACULTY SERVICE

Oversaw undergraduate research program, Department of Biology, University of Florida (2011-2012)  
Graduate committee representative, Department of Biology, University of Florida (2011-2012)  
Seminar committee representative, Department of Biology, University of Florida (2010-2011)  
Secretary, Biology Graduate Student Association, University of Florida (2009-2010)  
Student/Faculty Liaison, Botany Graduate Student Association, University of Florida (2008-2009)

#### COMMUNITY OUTREACH

##### **Presentations**

"How soils affect global warming", Science Pub, Brandon Inn, Brandon, VT (12/2/2018)



“Warmer soils and climate change: From the Arctic to your backyard”, Adventures in Learning, Colby-Sawyer College, New London, NH (11/8/2018)

“Experiments Gone Awry”, Montshire Unleashed, Montshire Museum of Science, Norwich, VT (10/20/2018)

“How warmer soils can affect climate change: From the Arctic to your backyard”, Suds and Science, Norwich Inn, Norwich, VT (2/6/2018)

### **Volunteering**

“Be A Scientist” project mentor to 7<sup>th</sup> grade students, Berkeley, CA (2016)

BASIS (Bay Area Scientists in Schools) Volunteer, Berkeley and Oakland, CA (2016)

Science Fair Judge, Alachua County School District, Florida (2009-2012)

### **MEMBERSHIPS**

Soil Science Society of America

American Geophysical Union

Ecological Society of America