

## Pamela H. Templer, PhD

*Distinguished Professor and Chair*

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### EDUCATION

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|---------------------------------------------------------------------------------------------------|------|
| Ph.D. in Ecology and Evolutionary Biology, Cornell University, Ithaca, NY                         | 2001 |
| B.A. in Environmental Studies and Biology (double major), University of California Santa Cruz, CA | 1995 |

### ACADEMIC APPOINTMENTS

|                                                             |              |
|-------------------------------------------------------------|--------------|
| Distinguished Professor, Arts & Sciences, Boston University | 2024-present |
| Chair, Department of Biology, Boston University             | 2022-present |
| Professor, Boston University                                | 2017-2024    |
| Director, BU URBAN Ph.D. Program, Boston University         | 2017-present |
| Director, Ph.D. Program in Biogeoscience, Boston University | 2014-2021    |
| Associate Chair, Department of Biology, Boston University   | 2014-2020    |
| Associate Professor, Boston University                      | 2012-2017    |
| Assistant Professor, Boston University                      | 2005-2012    |
| Co-Director, Stable Isotope Laboratory, Boston University   | 2007-2025    |
| Postdoctoral Fellow, University California Berkeley         | 2001-2005    |
| Research Assistant, Cary Institute                          | 1996         |

### OTHER PROFESSIONAL APPOINTMENTS

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| President-Elect, Ecological Society of America (ESA)                                               | 2026-2029    |
| Charles Bullard Fellow, Harvard University                                                         | 2021-2022    |
| Chair, ESA's Task Force on Diversity, Equity, Inclusion, and Justice                               | 2020-2021    |
| Elected Fellow, Ecological Society of America                                                      | 2019         |
| Elected Vice President for Education & Human Resources, Ecological Society of America              | 2018-2021    |
| Faculty Research Fellow, Pardee Center for the Study of the Longer-Range Future, Boston University | 2015-present |
| Associate of the Arnold Arboretum, Harvard University                                              | 2015-present |
| Charles Bullard Fellow and Sustainability Science Fellow, Harvard University                       | 2013-2014    |
| President, Graduate Student Association, Department of Ecology & Evol Bio, Cornell University      | 1998         |

### HONORS AND AWARDS

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|-----------------------------------------------------------------------------------------------|-----------|
| Sustainability Champion Award, Boston University Institute Global Sustainability              | 2024      |
| Provost's Scholar-Teacher of the Year Award, Boston University                                | 2021      |
| Assoc for Advancement Sustainability Higher Educ (AASHE) Campus Sustainability Research Award | 2021      |
| National Science Foundation Research Trainee (NRT) Grant, PI                                  | 2012-2017 |
| Metcalf Award for Excellence in Teaching, Boston University (University-wide award)           | 2015      |
| National Science Foundation CAREER Grant, PI                                                  | 2012-2017 |
| Andrew W. Mellon Foundation's Junior Faculty Research Grant, PI                               | 2007-2011 |
| Teresa Heinz Environmental Scholars Award (Ph.D. Dissertation Research Fellowship)            | 1999      |
| Polgar Fellowship, Hudson River Foundation                                                    | 1995      |
| Honors undergraduate senior thesis, University California Santa Cruz                          | 1995      |
| National Science Foundation – Research Experience for Undergraduates (REU), Cary Institute    | 1994      |

### LEADERSHIP AND SERVICE TO THE COMMUNITY

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| Co-Lead, Hubbard Brook Long-Term Ecological Research (LTER) Site                               | 2022-present |
| Invited Author, The Nature Record (First U.S. National Nature Assessment; revised name)        | 2025-present |
| Selected Participant, HERS Leadership Institute                                                | 2025         |
| Invited Member, U.S. National Committee for International Union of Biological Sciences         | 2024-2028    |
| Invited Author, First U.S. National Nature Assessment, U.S. Global Change Research Program     | 2024-2025    |
| Invited Member, Ecological Society of America Fellows/Early Career Fellows Selection Committee | 2023-2026    |
| Elected Member, Town of Brookline, Massachusetts Tree Planting Committee                       | 2021-present |
| Invited Member, Lost Women in Science Advisory Board                                           | 2021-present |
| Invited Member, Task Force on International Nitrogen Management Systems (ILTER-INMS)           | 2021-2025    |
| United Nations Focal Point & Presenter, Conference of the Parties (COP) annual climate summits | 2019-2025    |

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| Invited Member, Technical Steering Committee - Executive Office of Energy & Environmental Affairs | 2019-2020 |
| Massachusetts 2050 Decarbonization Roadmap                                                        |           |
| Subject Matter Editor, <i>Ecology</i> and <i>Ecological Monographs</i> peer reviewed journals     | 2013-2021 |
| Elected member of Scientific Coordinating Committee, Hubbard Brook Experimental Forest            | 2010-2022 |

#### EXAMPLES OF TEMPLER LAB RESEARCH IN THE NEWS

PBS News Hour: <https://www.pbs.org/newshour/science/love-it-or-hate-it-winter-plays-an-important-role-heres-how-its-changing>  
 NPR Science Friday: <https://www.sciencefriday.com/segments/beechn-leaf-disease/>  
 NPR WBUR's Morning Edition: <https://www.wbur.org/news/2023/10/24/beechn-tree-disease-massachusetts>  
 NPR WGBH, <https://www.wgbh.org/news/local/2020-09-08/western-mass-blaze-serves-as-reminder-of-states-rich-history-of-wildfire>  
 HBO Vice News Tonight, <https://www.youtube.com/watch?v=-rCHCx6Vz98>  
 Boston Globe, <http://www.bostonglobe.com/ideas/2014/11/07/the-city-ecosystem-pipes-and-all/HjLVemBs9nPiuE53PjPSLK/story.html>  
 CBS Boston Evening News, <http://boston.cbslocal.com/2014/03/29/eye-on-weather-the-spring-forecast/>  
 Car Talk, [www.cartalk.com/content/losing-winter-climate-change-will-hit-new-england-hard](http://www.cartalk.com/content/losing-winter-climate-change-will-hit-new-england-hard)  
 Scientific American, <http://www.scientificamerican.com/article.cfm?id=wired-forest-may-reveal-how-new-england-forests-respond-climate-change>

#### TEACHING EXPERIENCE AT BOSTON UNIVERSITY

##### COURSES TAUGHT

|               |                                                                                     |
|---------------|-------------------------------------------------------------------------------------|
| BI303         | Ecology (2006)                                                                      |
| BI306         | Biology of Global Change (2006, 2008-2012, 2014-2020, 2022-2023, 2025)              |
| BI/EE 530     | Forest Ecology (2007, 2009-2013, 2015, 2017-2021)                                   |
| GRS BI/EE 719 | Terrestrial Biogeoscience Colloquium (2012)                                         |
| GRS BI/EE 720 | Terrestrial Biogeoscience Practicum (2013)                                          |
| GRS BI/EE 764 | Urban Biogeoscience and Environmental Health Colloquium (Fall 2019)                 |
| SPH EH765     | Urban Biogeoscience and Environmental Health Colloquium (Fall 2019)                 |
| GRS BI/EE 765 | URBAN Biogeoscience and Environmental Health Applied Research Methods (Spring 2020) |
| SPH EH797     | URBAN Biogeoscience and Environmental Health Applied Research Methods (Spring 2020) |

##### POSTDOCTORAL FELLOWS AND VISITING SCIENTISTS

Tiphaine Chevallier, PhD (2008-2009), Joanna Carey, PhD (2014-2015), Thomas Dirnboeck, PhD (2015-2017),  
 Alix Contosta (2018-2020), Desneiges Murray (2025-2027)

##### GRADUATE STUDENTS

Anne Socci (Ph.D., 2006-2011, Impact winter climate change on nutrient & water uptake in northern forest ecosystems)  
 Andrew Reinmann (Ph.D., 2008-2014, Effects of winter climate change on carbon & nitrogen losses from temperate forest ecosystems)  
 Patrick Sorensen (Ph.D., 2011-2016, Effects of winter snowpack on microbial activity, community composition, and plant-microbe interactions in mixed-hardwood temperate forests)  
 Rebecca Sanders-DeMott (Ph.D., 2011-2016, Effects of climate change across seasons on forest ecosystems)  
 Stephen Decina (Ph.D., 2013-2018, Controls on atmospheric nitrogen deposition and cycling in urban ecosystems)  
 Jamie Harrison (Ph.D., 2016-2020, Water & carbon uptake & soil nitrogen cycling in a northern hardwood forest under a changing climate))  
 Jenna Rindy (MS, 2019-2022, Effects of urbanization and forest fragmentation on atmospheric nitrogen inputs)  
 Steve Gougherty (PhD, 2018-2023, Nutrient allocation and conservation mechanisms in trees: intraspecific variation, reproductive costs, and global scale comparisons)  
 Erin Pierce (MS, 2017-2019, Effects of tropospheric ozone & nitrogen on carbon cycling in northern forests)  
 Stephen Caron (PhD, 2019-2024, Drivers of nitrogen oligotrophication in temperate deciduous forests)  
 Emerson Conrad-Rooney (PhD, 2021-present, Effects of urbanization & climate change on forest ecosystems)  
 Emma Daily (PhD, 2023-present)  
 Yu-Qing Chua (PhD, 2024-present)  
 Visiting Ph.D. graduate students: Dries Huygens (University of Ghent, Belgium, 2005); Lilia L. Roa Fuentes (National University of Mexico, 2010); Christine Bollig (University of Bern, Switzerland, 2011); Maria Moser (ETH Zürich; Swiss Federal Institute of Technology; 2021-22); Robert Weigel (University of Greifswald, Germany, 2016); John Allen (University of Helsinki, Finland, 2018); Chikae Tatsumi (Kyoto University, Japan, 2019); Yihan Cai (Hokkaido University, Japan, 2023)

## UNDERGRADUATE AND HIGH SCHOOL STUDENTS:

Mentor to more than 50 undergraduate research assistants and 25 students in Boston University's Undergraduate Research Opportunities Program (UROP) and the National Science Foundation's Research Experience for Undergraduates (REU) program. Mentor to more than 25 high school students.

## PUBLICATIONS

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### REFEREED ARTICLES (139 total; Google Scholar h-Index = 56; \*Graduate Student; \*\*Undergraduate)

- Bergl DD\*, MS Carbone, D Hollinger, Y Liu, B Lucas, SV Ollinger, A Ouimette, **P Templer**, AD Richardson. Increasing respiration weakens the carbon sink over two decades in a temperate deciduous forest. 2026. *Global Change Biology Communications*, *in press*.
- Isobe K, R Tateno, K Fukuzawa, N Hosokawa, T Oda, M Green, **PH Templer**, PM Groffman. 2026. Cascading effects of winter climate change in northern forest ecosystems: microclimate, biogeochemical flux, and vegetation. *Ecology*, *in press*.
- Kumar K, M Worosz, SH Shiu, **PH Templer**, KS McNeal. 2026. Lessons learned from interdisciplinary US National Science Foundation Research Traineeship-supported graduate programs. *PLOSOne* 21:e0343307.
- Meng L\*, A Pourmokhtarian, **PH Templer**, LR Hutyra, CT Driscoll. 2026. Effects of urbanization on the dynamics of carbon, nitrogen, and water cycling in hardwood forests of the Northeastern U.S. *Landscape and Urban Planning* 267:105541.
- Atherton K\*, C Tatsumi, I Frenette, D Heaton, I Smith, L Hutyra, **P Templer**, J Bhatnagar. 2025. Disruption of the urban oak tree microbiome with urbanization. *Nature Cities* 2: 958-968.
- Bowser G, K Akamani, M Balgopal, JD Coley, ED Diaz-Clark, WC Funk, B Helmuth, S Henriques, N Grant-Hoffman, T Osborne, A Seshadri, **PH Templer**, MC Urban, K Waddell. 2025. Assessing nature: perceptions, knowledge, and gaps. *Frontiers in Ecology & Environment* 23:e2846.
- Caron S\*, J Campbell, CT Driscoll, P Groffman, AB Reinmann, B Leonardi, L Rustad, G Wilson, **PH Templer**. 2025. Shallow snowpack and early snowmelt reduce nitrogen availability in the Northern Hardwood Forest. *Biogeochemistry* 168:49.
- Caron S\*, A Bailey, N Cleavitt, C Driscoll, T Fahey, PM Groffman B Leonardi, L Rustad, G Wilson, **PH Templer**. 2025. Impacts of litter quality and climate on nitrogen oligotrophication in northern hardwood forests. *Canadian Journal Forest Research* 55:1-13.
- Conrad-Rooney E\*, C Avery, G Bowser, A Crimmins, T Francis, A Grade, P McElwee, **PH Templer**. 2025. Analysis of nature-related themes in U.S. Climate Assessments. Special Issue: Advancements in U.S. Climate Assessments. *Climatic Change* 178:86.
- Conrad-Rooney E\*, AB Reinmann. **PH Templer**. 2025. Declining winter snowpack offsets carbon storage enhancement from growing season warming in northern temperate forest ecosystems. *Proceedings of the National Academies of Sciences* 122:e2412873122.
- Cunningham P, R Vesey, H Chaudry-Phipps, TM Fayle, U Diara, G Chomicki, D Lestina, J Tuma, **PH Templer**, P Klimes, LM Henry. 2025. Dietary niche shapes microbiome diversity in Indo-Pacific ants. *Microbiology Spectrum* 13:e01965-25.
- Fahey TJ, NL Cleavitt, **PH Templer**, PM Groffman, AS Bailey, SB Caron\*, G Wilson. 2025. Foliar resorption of beech and maple along an elevation gradient in a northern hardwood forest. *Forest Ecosystems* 13:100304.
- Garlick S, JC Besley, K Peterman, A Black-Maier, M R Downs, E Ortiz Franco, PM Groffman, A Lavallee, K O'Connell, M Storksieck, **PH Templer**. 2025. Six elements of effective public engagement with science. *Frontiers in Ecology & Environment* 23:e70014.
- Meng L\*, A Pourmokhtarian, **PH Templer**, LR Hutyra, J Thompson. CT Driscoll. 2025. Regional projections of the impacts of future urbanization and climate change on biogeochemical cycles in New England forests. *Research* 8:1043.
- Meng L\*, A Pourmokhtarian, **PH Templer**, LR Hutyra, CT Driscoll. 2025. Simulations of historical impacts of climate change and atmospheric chemistry on a Northeastern U.S. forest ecosystem. *Ecological Applications* 35:e70079.
- Meng L\*, A Pourmokhtarian, **PH Templer**, LR Hutyra, CT Driscoll. 2025. Response of a northeastern temperate forest to future scenarios of climate change and energy policies through the 21<sup>st</sup> century. *Environmental Modeling and Software* 190:106473.
- Possinger AR, CT Driscoll, M Green, TJ Fahey, C Johnson, MM Koppers, LD Martel, J Morse, **PH Templer**, A Uribe, GF Wilson, PM Groffman. 2025. Increasing soil respiration in a northern hardwood forest indicates symptoms of a changing carbon cycle. *Communications Earth & Environment* 6:418.
- Wilson G, PM Groffman, LD Martel, MB Green, CT Driscoll, J Durán, **PH Templer**, M Fisk. 2025. Changes in soil moisture and its relationships with nitrogen cycle processes in a northern hardwood forest. *Canadian Journal Forest Research* 55:1-15.

- Yihan C\*, **PH Templer**, M Kobayashi. 2025. Unveiling responses of vascular plant performance and vegetation cover to shifting snow regimes: a meta-analysis. *Climatic Change* 178:116.
- Contosta AR, KA Arndt, HM Baulch, NJ Casson, A Harpold, TL Morelli, APK Sirén, **PH Templer**. 2024. Threshold changes in winter temperature and precipitation drive threshold responses across nine global climate zones and associated biomes. *Annual Review of Ecology, Evolution, and Systematics* 55:271-300.
- Gougherty SW\*, **PH Templer**. 2024. Global patterns of nitrogen and phosphorus in reproductive and leaf litterfall. *Ecosystems* 27:1156-1171.
- Nieland MA, P Lacy, SD Allison, JM Bhatnagar, D Doroski, SD Frey, K Greaney, SE Hobbie, SE Kuebbing, DB Lewis, M McDaniel, SS Perakis, SM Raciti, **PH Templer**, A Shaw, CD Sprunger, MS Strickland, LTA van Diepen, C Viatorisz, EB Ward, AD Keiser. 2024. Nitrogen deposition weakens coupled soil carbon and nitrogen dynamics across the continental United States, *Global Change Biology* 30:e70016.
- Smith I\*, **PH Templer**, L Hutrya. 2024. Water sources for street trees in mesic urban environments. *Science of the Total Environment* 908:168411.
- Templer PH**, KF Atherton\*, A Conrad-Rooney\*, H Ho, LR Hutrya, CF Ianniello\*, DR Kashian, JI Levy, D Meshoulam, MC Urban. 2024. Strengthening graduate education and addressing environmental challenges through solutions-oriented partnerships and interdisciplinary training. *Sustainable Earth Reviews* 7:3.
- Blake K\*\*, **PH Templer**. 2023. Interacting effects of urbanization and climate on atmospheric deposition of phosphorus around the globe: a meta-analysis. *Atmospheric Environment* 309:119940.
- Bowser G, **PH Templer**, SS Ho, SA Green, S Hautzinger, I Zhu-Maguire, A Connaughton, L Dundon, D Husic, M Urban. 2023. Fierce urgency of now: integrating the youth voice at COP. *Frontiers in Ecol & Environment* 21:164-165.
- Buckley S\*, CL Connolly\*, JI Levy, **PH Templer**, J Ashmore, L Carvalho, N Phillips, P Fabian. 2023. Carbon, indoor air, energy and financial benefits of coupled ventilation upgrade and enhanced rooftop garden installation: an interdisciplinary climate mitigation approach. *Sustainable Cities & Society* 97:104792.
- Caron S\*, S Garvey\*, J Gewirtzman, K Schultz\*, J Bhatnagar, CT Driscoll, L Hutrya, **PH Templer**. 2023. Urbanization and fragmentation have opposite effects on soil nitrogen availability in temperate forest ecosystems. *Global Change Biology* 29:2156-2171.
- Conrad-Rooney E\*, J Gewirtzman, Y Pappas\*\*, VJ Pasquarella, LR Hutrya, **PH Templer**. 2023. Atmospheric wet deposition in urban and suburban sites across the United States. *Atmospheric Environment* 305:119783.
- Contosta A, C Driscoll, J Battles, **PH Templer**, G Likens, R Holmes, NL Rodenhouse, M Vadeboncouer, J Campbell, S Garlick, M Green, S Rogers, P Groffman. 2023. Early warning signals of changing resilience in the biogeochemistry and biology of a northern hardwood forest. *Environmental Research Letters* 305:119783.
- Garvey S\*, **PH Templer**, JM Bhatnagar, LR Hutrya. 2023. Soils at the temperate forest edge: an investigation of soil characteristics and carbon dynamics. *Science of the Total Environment* 891:164320.
- Gougherty S\*, B Cowart\*\*, **PH Templer**. 2023. Macroscale variation in red maple (*Acer rubrum*) foliar carbon, nitrogen, and nitrogen resorption. *Ecosystems* 26:937-950.
- Green M, L Pardo, J Campbell, E Rosi, E Bernhardt, C Driscoll, T Fahey, N LoRusso, J Matthes, **PH Templer**. 2023. Combination of factors rather than single disturbance drives perturbation of the nitrogen. *Biogeochemistry* 166:1399-157.
- Ho SS, G Bowser, **PH Templer**, SA Green. 2023. Learning for sustainability: partnerships for the goals. *Sustainable Earth Reviews* 6:8.
- Primack R, T Miller, C Terry\*\*, E Marin-Spiotta, **PH Templer**, A Berhe, E Diaz-Vallejo, M Hastings, V Magley, A Mattheis, B Schneider, R Barnes. 2023. Historically excluded groups in ecology are undervalued and poorly treated. *Frontiers in Ecology and the Environment* 21:363-369.
- Reeve C, JA Robichaud, T Fernandes, AE Bates, AJ Bramburger, J Brownscombe, CM Davy, HAL Henry, BC McMeans, ERD Moise, S Sharma, PA Smith, EK Studd, AO Sutton, **PH Templer**, SJ Cooke. 2023. Applied winter biology: threats, conservation, and management of biological resources during winter in cold climate regions. *Conservation Physiology* 11:1.
- Rindy JE\*, EA Pierce\*, J Geddes, SM Garvey\*, J Gewirtzman, C Driscoll, L Hutrya, **PH Templer**. 2023. Effects of urbanization and forest fragmentation on atmospheric nitrogen inputs and ambient nitrogen oxide and ozone concentrations in mixed temperate forests. *Journal Geophysical Research Biogeosciences* 128.
- Tatsumi C, KF Atherton\*, S Garvey\*, E Conrad-Rooney\*, LL Morreale\*, LR Hutrya, **PH Templer**, JM Bhatnagar. Urbanization and fragmentation interact to drive mutualism breakdown and the rise of unstable pathogenic communities in the forest soil microbiome. 2023. *Proceedings of the National Academy of Sciences* 120:e230751920.
- Templer PH**, J Harrison\*, F Pilotto, A Flores-Diaz, P Haase, WH McDowell, R Sharif\*, H Shibata, D Blankman, A Avila, U Baatar, HR Bogen, I Bourgeois, J Campbell, T Dirnbock, WK Dodds, M Hauken, I Kokorite, K Lajtha, IL Lai, H Laudon, TC Lin, SRM Lins, H Meessenburg, P Pinho, A Robinson, M Rogora, B Scheler, P Schleppe, R Sommaruga, T

- Staszewski, M Taka. 2022. Atmospheric deposition and precipitation are important predictors of inorganic nitrogen export to streams from forest and grassland watersheds: large-scale data synthesis. *Biogeochemistry* 160:219-41.
- Blagden M\*\*, JL Harrison\*, R Minocha, R Sanders-DeMott\*, S Long, **PH Templer**. 2022. Experimental changes in climate influence foliar nutrition and metabolism of red maple (*Acer rubrum*) trees in a northern hardwood forest. *Ecosphere* 13:e03859.
- Finestone J\*\*, **PH Templer**, JM Bhatnagar. 2022. Soil fungi exposed to warming temperatures and shrinking snowpack in a northern hardwood forest have lower capacity for growth and nutrient cycling. *Frontiers in Forests and Global Change* 5:800335.
- Garvey S\*, **P Templer**, E Pierce\*, A Reinmann, L Hutya. 2022. Diverging patterns at the forest edge: soil respiration dynamics of fragmented forests in urban and rural areas. *Global Change Biology* 28: 3094-3109.
- Kobayashi M, **P Templer**, A Katayama, O Seki, K Takagi. 2022. Early snowmelt by an extreme warm event affects understory more than overstory trees in Japanese temperate forests. *Ecosphere* e4182.
- Mason R, N Lany, J Craine, M Jonard, S Ollinger, P Groffman, R Fulweiler, J Angerer, Q Read, P Reich, **PH Templer**, A Elmore. 2022. Evidence, causes, consequences of declining nitrogen availability in terrestrial ecosystems. *Science* 376.
- Mason R, J Craine, N Lany, M Jonard, S Ollinger, P Groffman, R Fulweiler, J Angerer, Q Read, P Reich, **PH Templer**, A Elmore. 2022. Response to "Explanations for nitrogen decline." *Science* 376:1170.
- Guerrieri R, **P Templer**, F Magnani. 2021. Canopy exchange and modification of nitrogen fluxes in forest ecosystems. *Current Forestry Reports* 7:115-137.
- Hundertmark WJ\*\*, M Lee\*\*, IA Smith\*\*, AHY Bang\*\*, V Chen\*\*, C Gately, **PH Templer**, LR Hutya. 2021. Influence of landscape management practices on urban greenhouse gas budgets. *Carbon Balance and Management* 16:1.
- Rivero-Villar A, G Ruiz-Suárez, **PH Templer**, V Souza, J Campo. 2021. Nitrogen cycling in tropical dry forests are sensitive to changes in rainfall regime and nitrogen deposition. *Biogeochemistry* 153:283-302.
- Studd EK, AE Bates, AJ Bramburger, T Fernandes, B Hayden, HAL Henry, MM Humphries, R Martin, BC McMeans, ERD Moise, AM O'Sullivan, S Sharma, BJ Sinclair, AO Sutton, **PH Templer**, SJ Cooke. 2021. Nine maxims for the ecology of cold-climate winters. *BioScience* 71:820-830.
- Sutton A, E Studd, T Fernandes, A Bates, A Bramburger, SJ Cooke, B Hayden, HAL Henry, M Humphries, R Martin, B McMeans, E Moise, AM O'Sullivan, S Sharma, **PH Templer**. 2021. Frozen out: unanswered questions about winter biology. *Environmental Reviews* 29.
- Tatsumi C; F Hyodo, T Taniguchi, W Shi, F Koba, K Fukushima, S Du, N Yamanaka, **P Templer**, R Tatenno. 2021. Arbuscular mycorrhizal community in roots and nitrogen uptake patterns of understory trees beneath ectomycorrhizal and non-ectomycorrhizal overstory trees. *Frontiers in Plant Science* 11.
- Whipple S\*, S Tiwari, T Osborne, G Bowser, SA Green, **PH Templer**, S Ho. 2021. Engaging the Youth Environmental Alliance in Higher Education to Achieve the Sustainable Development Goals. *Scholarship and Practice of Undergraduate Research* 5:4-15.
- Bowser G, SA Green, SS Ho, **PH Templer**. 2020. Educating students in solutions-oriented science. *Frontiers in Ecology and the Environment* 18:171.
- Garcia MO\*, **PH Templer**, PO Sorensen\*, R Sanders-DeMott\*, P Groffman, JM Bhatnagar. 2020. Soil microbes trade-off biogeochemical cycling for stress tolerance traits in response to year-round climate change. *Frontiers in Microbiology* 11:616.
- Harrison JL\*, K Schultz\*\*, M Blagden\*\*, R Sanders-DeMott\*, **PH Templer**. 2020. Growing season soil warming may counteract trend of nitrogen oligotrophication in a Northern hardwood forest. *Biogeochemistry* 151:139-152.
- Harrison JL\*, R Sanders-DeMott\*, AB Reinmann\*, P Sorensen\*, **PH Templer**. 2020. Growing season warming and winter soil freeze/thaw cycles increase transpiration in a northern hardwood forest. *Ecology* 101:e03173.
- Harrison JL\*, M Blagden\*\*, MB Green, G Salvucci, **PH Templer**. 2020. Water sources for red maple trees in a northern hardwood forest under a changing climate. *Ecohydrology* 13:e2248.
- Harrison JL\*, AB Reinmann\*, A Socci Maloney\*, N Phillips, SM Juice, AJ Webster, **PH Templer**. 2020. Transpiration of dominant tree species varies in response to projected changes in climate: implications for composition and water balance of temperate forest ecosystems. *Ecosystems* 23:1598-1613.
- Winbourne JB, T Jones, SM Garvey, JL Harrison\*, L Wang, D Li, **PH Templer**, L Hutya. 2020. Tree transpiration and urban temperatures: current understanding, implications, and future research directions. *BioScience* 70:576-588.
- Contosta A, N Casson, S Garlick, S Nelson, M Ayres, E Burakowski, J Campbell, I Creed, C Eimers, C Evans, I Fernandez, C Fuss, T Huntington, K Patel, R Sanders-DeMott, K Son, **PH Templer**, C Thornbrugh. 2019. Northern forest winters have lost cold, snowy conditions that are important for ecosystems and human communities. *Ecological Applications* 29: e01974.
- Craine JM, AJ Elmore, L Wang, P Boeckx, S Delzon, Y Fang, A Gray, R Guerrieri, MJ Gundale, P Hietz, DM Nelson, PL Peri, **PH Templer**, C Werner. 2019. Reply to: Data do not support large-scale oligotrophication of terrestrial ecosystems. *Nature Ecology and Evolution* 3:1287-1288.

- Decina, L, Hutya, PH Templer. 2019. Hotspots of nitrogen deposition in the world's urban areas: a global data synthesis. *Frontiers in Ecology & Environment* 18:92-100.
- Dirnbock T, P Haase, M Mirtl, J Pauw, **PH Templer**. 2019. Contemporary international long-term ecological research (ILTER) from biogeosciences to socio-ecology and biodiversity research. *Regional Environmental Change* 19:309-11.
- Reinmann\* AB, J Susser\*\*, EMC Demaria, and **PH Templer**. 2019. Declines in northern forest tree growth following snowpack decline and soil freezing. *Global Change Biology* 25:420-430.
- Song J, S Wan, S Piao, A Knapp, A Classen, S Vicca, P Ciais, M Hovenden, S Leuzinger, Claus Beier, P Kardol, J Xia, Q Liu, J Ru, Z Zhou, Y Luo, D Guo, J. Langley, J Zscheischler, J Dukes, J Tang, J Chen, K Hofmockel, L Kueppers, L Rustad, L Liu, M Smith, **PH Templer**, R Quinn Thomas, R Norby, R Phillips, S Niu, S Fatichi, Y Wang, P Shao, H Han, D Wang, L Lei, J Wang, X Li, Q Zhang, X Li, F Su, B Liu, F Yang, G Ma, G Li, Y Liu, Y Liu, Z Yang, K Zhang, Y Miao, M Hu, C Yan, A Zhang, M Zhong, Y Hui, Y Li, M Zheng. 2019. A meta-analysis of 1119 manipulative experiments on terrestrial carbon cycling responses to global change. *Nature Ecology & Evolution* 3:1309-1320.
- Sorensen\* PO, JM Bhatnagar, L Christenson, J Duran, T Fahey, MC Fisk, AC Finzi, PM Groffman, JL Morse, **PH Templer**. 2019. Roots mediate the effects of snowpack decline on soil bacteria, fungi, and nitrogen cycling in a northern hardwood forest. *Frontiers in Microbiology* 10:926.
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Harris GP, SW Bigelow, JJ Cole, H Cyr, LL Janus, AP Kinzig, JF Kitchell, GE Likens, K.H. Reckhow, D Scavia, D Soto, L.M. Talbot, and **PH Templer**. 2003. The Role of Models in Ecosystem Management. In C.D. Canham, J.J. Cole, W.K. Lauenroth (eds.), *Role of Models in Ecosystem Science*. Princeton University Press.

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## RESEARCH GRANT SUPPORT

### Active Grants

WM Keck Foundation. "Rules of Life in the Urban Biome." \$1,000,000 total. J Bhatnagar PI, J Geddes, L Hutya, **PH Templer**, Co-PIs. \$200,000 direct costs to PH Templer. \$0 indirect costs (01/01/25-12/31/27).

National Science Foundation. "Long-Term ecological research at the Hubbard Brook Experimental Forest." \$420,000 total to **PH Templer**, Co-PI; \$330,330 direct costs; \$86,664 indirect costs (03/01/23-02/28/29).

National Science Foundation. "Climate Leaders Academy: A professional development opportunity in the Geosciences." \$301,317 total to **PH Templer**, Co-PI; \$182,616 direct costs; \$118,701 indirect costs (01/2023-12/31/2026)

Department of Energy. "Linking root and soil microbial stress metabolism to watershed biogeochemistry under rapid year-round environmental change." Bhatnagar, PI, **PH Templer**, Co-PI. \$989,201 total; \$23,122 direct costs to Templer; \$15,029 indirect costs to Templer. (08/15/2021-08/14/2026).

National Science Foundation. "Changing seasonality and declining nitrogen in the northern hardwood forest." \$538,487 to **PH Templer**, PI; \$435,662 direct costs; \$101,825 indirect costs (10/01/20-05/31/26).

National Science Foundation. "RCN-UBE: Youth Environmental Alliance in Higher Education (YEAH)." \$50,000 total to **PH Templer**, Co-PI; \$39,682 direct costs; \$10,318 indirect costs (8/01/20-07/31/26).

### Completed Grants

National Science Foundation. "Advancing public engagement with science across the Long-Term Ecological Research Network." \$635,157. Garlick, PI. \$29,057 total to **PH Templer**, Co-PI; \$23,061 direct costs; \$5,996 indirect costs (08/01/2022-07/31/2025).

National Science Foundation. "Long-Term ecological research at the Hubbard Brook Experimental Forest." \$269,335 to **PH Templer**, Co-PI; \$213,758 direct costs; \$55,577 indirect costs (02/01/17-02/29/25).

National Science Foundation. "NRT: Boston UniverCity - Partnering graduate students with cities to tackle urban environmental challenges." **PH Templer**, PI. \$2,999,530 total; \$2,754,212 direct costs; \$245,318 indirect costs; one year no-cost extension (09/01/17-08/31/23).

Charles Bullard Fellowship in Forest Research, Harvard University. "Controls on carbon sequestration by forest ecosystems: implications for forest health and global climate change." \$60,000 total funds for entire award to **PH Templer**, PI. (09/01/21-08/31/22).

United States Department of Agriculture. "Coupled carbon and nitrogen cycling under changing land cover and air quality: Improving regional estimates of carbon dynamics for the Northeastern U.S." \$634,141 to **PH Templer**, PI (05/15/17-05/14/21).

National Science Foundation. "ADVANCE Partnership: From the classroom to the field: improving the workplace in the geosciences." 01/01/19-12/31/21 \$137,950 total, \$53,677 subcontract to Boston University.

Boston University Initiative on Cities. "Effects of greenspace structure on urban tree health and human exposure to fine particulate matter: a biogeochemical analysis and exposure assessment." \$10,000 to **PH Templer**, Co-PI (06/01/20-05/31/21).

National Science Foundation. "Collaborative Research: Embedding public engagement with science at long-term ecological research sites." \$49,450 to **PH Templer**, PI (08/01/17-07/31/21).

National Science Foundation. "A comprehensive regional framework for sustainability." \$49,990 to **PH Templer**, Co-PI (05/01/19-10/31/20).

National Science Foundation. "CAREER: Role of plant nutrient uptake in forest nutrient retention and carbon sequestration: an integrated research, teaching and outreach program." \$755,640, total funds for entire award (03/01/12-02/28/19). **PH Templer**, PI.

National Science Foundation. "Collaborative Research: IDBR: TYPE A: The NANAPHID: A novel aphid-like nanosensor network for real-time measurements of carbohydrates in live plant tissue." A Lapenis, State University New York Albany, PI; \$33,810 total funds to **PH Templer**, Co-PI (02/01/15-01/31/19).

National Science Foundation. "Long-Term ecological research at the Hubbard Brook Experimental Forest." T Fahey, Cornell University, PI with 20 Co-PIs; \$101,000 total funds to **PH Templer**, Co-PI (02/01/11-01/31/18).

National Oceanic and Atmospheric Administration. "Quantifying carbon signatures across urban-to-rural gradients: advancing the capacity for monitoring, reporting, and verification through observations, models and remote sensing." Lucy Hutyra, PI. M Friedl, T Nehrkorn, S Raciti, **PH Templer**, S Wofsy, and C Woodcock, Co-PI's. \$795,495 total. \$78,078 total funds to **PH Templer**. (08/01/14-07/31/17).

United States Department of Agriculture, Northeastern States Research Cooperative. "Understanding impacts of precipitation change and drought on the northern forest." Asbjornsen H, L Rustad and **PH Templer**. \$111,926 total funds to H Asbjornsen. (04/01/14-09/30/16).

John Wesley Powell Center for Synthesis and Analysis. U.S. Geological Survey. "Advancing understanding of ecosystem responses to climate change with warming experiments: what have we learned and what is unknown?" \$149,460 to fund postdoc (Joanna Carey) and travel for participants to attend two synthesis workshops at Powell Center in Fort Collins, CO. K Kroeger, PI. J Tang and **PH Templer**, Co-PI (09/01/13-08/31/15).

Charles Bullard Fellowship in Forest Research, Harvard University. "Winter climate change and regional estimates of primary productivity of northeastern U.S. forests: using long-term data, remote sensing and future scenarios." \$40,000 total funds for entire award to **PH Templer**, PI. (09/01/13-06/01/14).

National Science Foundation. "Collaborative Research: Winter climate change in a northern hardwood forest." P Groffman, Cary Institute, PI; \$114,828 total funds to **PH Templer**, Boston University, PI (09/01/10-08/31/13).

National Science Foundation. "STATS4STEM.ORG: Enriching STEM education through real-world data sets, computing and statistical analysis." E Simoneau, Boston Latin School (high school), PI; \$14,936 total funds to **PH Templer**, Co-PI (10/01/09-09/30/12).

United States Department of Agriculture, Northeastern States Research Cooperative. "Assessing the role of tree species and nitrogen deposition in mediating carbon storage in northern hardwood forests." GM Lovett, Cary Institute, PI; \$5760 total funds to **PH Templer** (10/01/09-09/30/12).

United States Department of Agriculture, Northeastern States Research Cooperative. "Effects of winter climate change on growing season sap flow and carbon exchange in the northern hardwood forest," \$131,391, total funds for entire award (09/01/09-08/31/12). **PH Templer**, PI with M Friedl and N Phillips, Co-PI's. All funds allocated to **PH Templer** at Boston University.

Andrew W. Mellon Foundation. "Impacts of winter dynamics on growing season plant nutrient uptake and forest productivity in a northeastern hardwood forest," \$300,000 (05/01/07-12/31/11). **PH Templer**, PI.

United States Department of Agriculture, Northeastern States Research Cooperative. "Determination of atmospheric deposition and nitrogen saturation status in Class I wilderness areas of the northeastern United States," \$63,730, total funds for entire award (06/01/06-05/31/11) **PH Templer**, PI, with K Weathers, Cary Institute, Co-PI. All funds allocated to PH Templer at Boston University.

Harvard University, Arnold Arboretum. "Impacts of the hemlock woolly adelgid and atmospheric nitrogen deposition on forest nitrogen saturation status," \$5,000, total funds for entire award (05/22/06-05/21/07). **PH Templer**, PI.

#### COMPETITIVE FUNDING AND AWARDS TO GRADUATE STUDENTS AND POSTDOCS IN MY LAB

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National Science Foundation Earth Sciences Postdoctoral Fellowship awarded to **D Murray**. "Shifting Paradigms in Atmospheric Deposition: The Rise of Organic Solutes," (09/01/25-08/31/27).

National Science Foundation Graduate Research Fellowship awarded to **E Conrad-Rooney**. "Interacting Effects of Growing Season and Winter Climate Change on Forest Carbon Sequestration," (05/01/23-04/30/26).

Arnold Arboretum of Harvard University, Deland Award for Student Research to **J Rindy**. "Effects of urbanization and forest fragmentation on tree health: removal of fine particulate matter by forest trees." \$10,000 (05/01/20-05/01/21).

New England Botanical Club, Graduate Student Research Award to **J Harrison**. "Combined effects of winter and growing season climate on northern hardwood forest ecosystems of New England." \$3000 (06/01/19-05/31/20)

Arnold Arboretum of Harvard University, Deland Award for Student Research to **E Pierce**. "Impact of tropospheric ozone and nitrogen deposition on urban forest health and carbon sequestration." \$4750 (05/01/18-05/01/19).

Boston University, Research in Biogeoscience Award to **J Harrison**. \$500 (05/31/17-04/30/18).

National Science Foundation Graduate Research Fellowship awarded to **S Decina**. "Assessing the effects of soil freezing on populations of arbuscular mycorrhizal fungi associated with *Acer saccharum* in a northern hardwood forest" (06/01/14-05/31/17).

Boston Area Research Initiative Research seed grant awarded to **S Decina**. "Assessing total atmospheric deposition of nitrogen and phosphorus throughout the Greater Boston Area," \$5,000 for graduate research (08/01/16-12/31/16).

National Science Foundation Doctoral Dissertation Improvement Grant (DDIG) to **P Sorensen**. "Direct and indirect effects of winter climate change on microbes: implications for nitrogen retention in temperate hardwood forests." \$21,254 (06/01/14-05/31/16).

Arnold Arboretum of Harvard University, Deland Award for Student Research to **S Decina**. “Comparing methods of measurement for atmospheric nitrogen deposition and assessing urban dry nitrogen deposition fluxes.” \$10,000 (05/01/15-05/01/16).

Environmental Protection Agency, Science to Achieve Results (STAR) Program awarded to **A Reinmann**. “Impact of winter climate change on soil, canopy, and ecosystem carbon exchange in a northern deciduous forest,” \$126,000 (09/01/11-08/31/14).

Boston University, Research in Biogeoscience Award to **R Sanders-Demott**. \$500 (05/31/13-04/30/14).

Boston University, Research in Biogeoscience Award to **P Sorensen**. \$500 (05/31/12-04/30/13).

Boston University, competitive Dean’s Fellowship awarded to **R Sanders-Demott**, \$19,800 (09/01/11-05/30/12).

Boston University, Research in Biogeoscience Award to **A Reinmann**. “Coupled response of above- and belowground carbon fluxes in a temperate deciduous forest to reduced winter snowpack,” \$500 (05/31/11-04/30/12).

National Science Foundation Graduate Research Fellowship awarded to **A Socci**. “Potential effects of climate change-induced soil freezing on plant nutrient uptake and productivity” (06/01/07-05/31/11).

United States Department of Agriculture, Northeastern States Research Cooperative, Northern Forest Scholars Graduate Fellowship awarded to **A Socci**. “Assessing the impacts of climate change-induced soil freezing on plant nutrient uptake and productivity in a northern hardwood forest,” \$40,000 (09/01/07-12/31/09).

Boston University, competitive Dean’s Fellowship awarded to **A Socci**, \$16,500 (09/01/06-05/30/07).

## PROFESSIONAL SERVICE AND ACTIVITIES

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### DEPARTMENTAL SERVICE AT BOSTON UNIVERSITY

|                                                                                  |              |
|----------------------------------------------------------------------------------|--------------|
| Chair, Department of Biology                                                     | 2022-present |
| Chair, Global Change Biology Faculty Search Committee (Biology)                  | 2018-2019    |
| Associate Chair, Department of Biology (Ecology, Behavior & Evolution)           | 2014-2020    |
| Chair, Graduate Committee                                                        | 2012-2013    |
| Member of Microbial Ecologist Faculty Search Committee (Biology)                 | 2012-2013    |
| Member of Belamarich Award Committee to select Outstanding Doctoral Dissertation | 2011 & 2012  |
| Member of Department of Biology Graduate Student Committee                       | 2009-2013    |
| Member of Marine Biology Faculty Search Committee (Biology)                      | 2008-2009    |
| Member, Chairman’s Advisory Committee                                            | 2006-2010    |
| Member, Graduate Admissions Committee, Department of Biology                     | 2005-2007    |
| Coordinator of Spring 2006 Ecology, Behavior & Evolution Seminar Series          | 2006         |

### UNIVERSITY SERVICE AT BOSTON UNIVERSITY

|                                                                                     |              |
|-------------------------------------------------------------------------------------|--------------|
| Member, Framework Research, Innovation & Convergence Working Group                  | 2025-present |
| Member, BU Photonics Center Academic Advisory Committee                             | 2022-present |
| Member, BU Institute Global Sustainability Core Faculty                             | 2017-present |
| Director, NSF NRT Program in Biogeoscience & Environmental Health                   | 2017-present |
| Co-Director, Boston University Stable Isotope Laboratory                            | 2007-2025    |
| Member, BU Provost’s Task Force on Future of PhD Education                          | 2022-2023    |
| Member, BU Initiative on Cities Faculty Advisory Board                              | 2022-2025    |
| Member, BU University Lecture Committee                                             | 2019         |
| Member, BU Climate Action Plan Task Force                                           | 2016-2017    |
| Member, BU Hub Learning Outcomes Com, Satellite Com on Scientific Social Inquiry    | 2016         |
| Member, University Council Committee on Research & Scholarly Activity               | 2016-2021    |
| Member, Provost’s Faculty Teaching Awards Committee                                 | 2015-2016    |
| Director, Ph.D. Program in Biogeoscience                                            | 2014- 2021   |
| Co-Chair, BU Child Care Advisory Committee                                          | 2014-2015    |
| Trustee Scholars Selection Committee (BU’s top merit-based scholarship)             | 2011-2013    |
| Member, Biogeoscience Research and Travel Award Committee for PhD students          | 2011 & 2012  |
| Member, Advisory Committee for Global Ecology Education Masters Program             | 2011-2015    |
| BioBugs (Biology Inquire and Outreach to High School Students)                      | 2010 & 2011  |
| Member, Marine Biogeochemistry Faculty Search Committee (Earth Sciences)            | 2008         |
| Member, MMEDIC BA/MD Program Admissions Committee                                   | 2008         |
| Member, Seven-Year BU BA/MD Program Admissions Committee                            | 2007-2008    |
| Faculty participant, “Freshman Fridays” orientation events for prospective students | 2006-2015    |
| Facilitator, Responsible Conduct of Research Program at Boston University           | 2005-2006    |

## SERVICE OUTSIDE OF BOSTON UNIVERSITY

|                                                                                              |              |
|----------------------------------------------------------------------------------------------|--------------|
| Invited Member, U.S. National Committee for the International Union of Biological Sciences   | 2024-present |
| Invited Author, First National Nature Assessment, U.S. Global Change Research Program        | 2024         |
| Ecological Society of America Fellows/Early Career Fellows Selection Committee               | 2023-2026    |
| Invited Moderator, United Nations Conference of the Parties, Sharm El Sheikh, Egypt          | 2022         |
| Elected Member, Town of Brookline Tree Planting Committee                                    | 2021-present |
| Invited Member, Lost Women in Science Advisory Board                                         | 2021-present |
| Chair of Diversity, Equity, Inclusion, and Justice Task Force, Ecological Society of America | 2020-2021    |
| Invited Member, MA Executive Office of Energy and Environmental Affairs                      | 2019-2020    |
| Steering Committee for the MA Decarbonization Roadmap                                        |              |
| Member, Rapid Response Team, Ecological Society of America                                   | 2019-2022    |
| Elected Vice President for Education and Human Resources, Ecological Society of America      | 2018-2021    |
| Ph.D. Jury Member, Ghent University, Belgium                                                 | 2018         |
| Ecological Society of America, Mercer Award Subcommittee                                     | 2016-2017    |
| Subject Matter Editor for the journals <i>Ecology</i> & <i>Ecological Monographs</i>         | 2013-2021    |
| Invited member, Governing Council of the Science Policy Exchange                             | 2013-2020    |
| Board of Trustees, Hubbard Brook Research Foundation                                         | 2012-2024    |
| Co-Chair, Natl Atmos Deposition Program Sub-committee on Urban Atmos Monitoring              | 2012-2018    |
| Editorial Review Board, Associate Editor for the journal <i>Biogeochemistry</i>              | 2011-2013    |
| Elected member of Scientific Coordinating Committee, Hubbard Brook Exper Forest              | 2010-2022    |
| Served on National Science Foundation Ecosystem Science Grant Panels                         | 2009-2021    |

## REVIEWER FOR THE FOLLOWING PEER REVIEWED JOURNALS AND PROPOSAL PANELS

Amer Assoc for Advanc Science Program Europe & Central Asia Proposal Review, Anal Chem, Applied Soil Ecology, Atmos Envir, Biogeochemistry, Bio Invasions, Bio & Fert Soils, Can J Forest Research, Ecol Apps, Ecological Monographs, Ecology, Ecosystems, European Journal of Soil Biology, Forest Ecology & Management, Functional Ecology, Global Biogeochemical Cycles, Global Change Biology, Journal Arid Environments, Journal of Plant Nutrition & Soil Science, Journal of Plant Nutrition and Soil Science, Journal of Trop Ecology, Kearney Foundation Proposal Review, Natl Sci Foundation Ecosy Studies & Globe Prop Reviews, Nature, Nature Clim Change, Nature Geoscience, Nature Sust, New Phytologist, Oecologia, Plant and Soil, Plant Biology, Plant Ecology & Diversity, Proceedings of the National Academy of Sciences, Rapid Comm in Mass Spectrometry, Science, Soil Bio & Biochemistry, Soil Science Society America, Tree Phys.

## INVITED LECTURES

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|                                                                                        |                |
|----------------------------------------------------------------------------------------|----------------|
| Harvard University, Arnold Arboretum, DaRin Butz Internship Program                    | June 2026      |
| Brookline High School, AP Biology Class, Brookline, MA                                 | May 2026       |
| University Connecticut, Department of Ecology and Evolutionary Biology, Storrs, CT     | January 2026   |
| Brookline High School, Climate Solutions Class, Brookline, MA                          | November 2025  |
| Harvard University, Arnold Arboretum, DaRin Butz Internship Program                    | July 2025      |
| Brookline High School, Honors Biology Classes, Brookline, MA                           | June 2025      |
| Boston College, Depts of Biology and Earth & Environmental Sciences, Chestnut Hill, MA | April 2025     |
| Aerodyne Research Inc, Billerica, MA                                                   | February 2025  |
| Brookline High School, Climate Science and Social Change Class, Brookline, MA          | November 2024  |
| Boston University, Presidential Inauguration Research on Tap, Boston, MA               | September 2024 |
| Boston University, Office Sponsored Programs Research Luncheon, Distinguished Speaker  | August 2024    |
| Harvard University, Arnold Arboretum, DaRin Butz Internship Program                    | June 2024      |
| Boston University, Epsilon Eta Pre-Professional Environmental Fraternity, Boston, MA   | April 2024     |
| Tennessee State University, Environmental Sciences Department                          | February 2024  |
| Brookline High School, Climate Leaders Class, Brookline, MA                            | November 2023  |
| Harvard University, Department of Organismic & Evolutionary Biology                    | November 2023  |
| Harvard University, Arnold Arboretum, DaRin Butz Internship Program                    | June 2023      |
| Harvard University, Atmospheric Chemistry Group, Cambridge, MA                         | February 2023  |
| Brookline High School, AP Environmental Science Class, Brookline, MA                   | December 2022  |
| Williams College, Department of Biology, Williamstown, MA                              | September 2022 |
| Harvard University, Arnold Arboretum, DaRin Butz Internship Program                    | July 2022      |
| Northern Arizona University, EcolInformatics Seminar Series                            | January 2022   |
| Massachusetts General Hospital Grand Rounds Webinar Series                             | November 2021  |
| Harvard Forest, Harvard University, Petersham, MA                                      | October 2021   |

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|-----------------------------------------------------------------------------------------|-------------------------|
| Brookline High School, Environmental Science Class, Brookline, MA                       | October 2021            |
| City University of New York, Advanced Science Research Center, New York, NY             | September 2021          |
| Harvard University, Arnold Arboretum, DaRin Butz Internship Program                     | June 2021               |
| Brandeis University National Committee, San Fernando Valley, CA Chapter                 | May 2021                |
| Williams College, Department of Biology, Williamstown, MA                               | April 2021              |
| Brookline High School, Environmental Science Class, Brookline, MA                       | April 2021              |
| University of Southern California, Environment & Sustainability Seminar Series          | October 2020            |
| City University of New York, Advanced Science Research Center, New York, NY             | March 2020              |
| Arlington, MA Public Library, Science for the Public Series                             | January 2020            |
| Quincy, MA Public Library                                                               | October 2019            |
| Harvard University, Arnold Arboretum, DaRin Butz Internship Program                     | June 2019               |
| Brookline High School, Environmental Science Class, Brookline, MA                       | March 2019              |
| City University of New York, Advanced Science Research Center, New York, NY             | March 2019              |
| Harvard University, Arnold Arboretum, DaRin Butz Internship Program                     | June 2018               |
| Edward Devotion Public School, Fourth Grade Class, Brookline, MA                        | May 2018                |
| City University of New York, Advanced Science Research Center, New York, NY             | May 2018                |
| Wayne State University, Department of Biological Sciences, Detroit, MI                  | April 2018              |
| Ghent University, Department of Green Chemistry and Technology, Gent, Belgium           | January 2018            |
| Brookline High School, AP Environmental Science Class, Brookline, MA                    | December 2017           |
| Mothers Out Front, Newton, MA                                                           | June 2017               |
| Caitlin Gabel K-12 School, Portland, OR                                                 | May 2017                |
| Brookline, MA Public Library                                                            | May 2017                |
| Carleton College, Department of Biology, Northfield, MN                                 | April 2017              |
| University of Minnesota, Dept of Ecology, Evol & Behavior, Minneapolis and St. Paul, MN | April 2017              |
| Pierce Public School, Brookline, MA                                                     | March 2017              |
| University of Vermont, Rubenstein School of Envir & Natural Resources, Burlington, VT   | December 2016           |
| Squam Lakes Natural Science Center, Holderness, NH                                      | July 2016               |
| Tufts University, Department of Biology, Medford, MA                                    | March 2016              |
| University of Western Ontario, Department of Biology, Ontario, Canada                   | March 2016              |
| University Massachusetts Lowell, Department of Biological Sciences, Lowell, MA          | February 2016           |
| Edward Devotion Public School, Brookline, MA                                            | February 2016           |
| University of Granada, Dept de Ecologia Facultad de Ciencias, Granada, Spain            | April 2015              |
| University of Connecticut, Nat Resources and the Environment, Storrs, CT                | September 2014          |
| Harvard University, Environmental Science and Engineering, Cambridge, MA                | April 2014              |
| Boston University Academy, Boston, MA                                                   | February 2014           |
| Newton Free Library, Newton, MA                                                         | January 2014            |
| Brookline High School, AP Environmental Science Class, Brookline, MA                    | April and November 2013 |
| Harvard Forest, Harvard University, Petersham, MA                                       | October 2013            |
| Columbia University, Department of Ecology, Evolution & Envir Biology, New York, NY     | October 2012            |
| Brown University, Department of Ecology & Evolutionary Biology, Providence, RI          | February 2012           |
| Harvard University, Arnold Arboretum, Boston, MA                                        | February 2012           |
| Brookline High School, AP Environmental Science Class, Brookline, MA                    | December 2011           |
| Cornell University, Program in Biogeochemistry, Ithaca, NY                              | November 2010           |
| Wellesley College, Department of Biological Sciences, Wellesley, MA                     | March 2010              |
| Plymouth State University, Department of Biology, Plymouth, NH                          | February 2010           |
| Hubbard Brook Experimental Forest, Winter Ecology Course, North Woodstock, NH           | January 2010            |
| Massachusetts Institute of Technology (MIT), Cambridge, MA                              | November 2009           |
| Boston College, Department of Biology, Chestnut Hill, MA                                | November 2009           |
| Boston University, Program in Terrestrial Biogeosciences, Boston, MA                    | October 2009            |
| Marine Biological Laboratory, Woods Hole, MA                                            | March 2009              |
| Hubbard Brook Experimental Forest, REU Program, North Woodstock, NH                     | July 2008               |
| University of New Hampshire ( <i>Declined</i> , on maternity leave)                     | Fall 2007               |
| Harvard Forest, Harvard University, Petersham, MA                                       | May 2007                |
| University of Connecticut, Storrs, Department of Ecology & Evolutionary Biology         | March 2007              |
| Boston University, Department of Biology, Women in Biology Series                       | October 2006            |
| University of New Hampshire, Department of Plant Biology                                | April 2006              |
| Marine Biological Lab, Woods Hole, MA                                                   | March 2006              |

|                                                                                      |               |
|--------------------------------------------------------------------------------------|---------------|
| Harvard University, Cambridge, MA                                                    | February 2006 |
| Boston University, Department of Geography, Boston, MA                               | October 2005  |
| United States Department of Agriculture, Davis, CA                                   | April 2004    |
| University of Pennsylvania, Department of Biology, Philadelphia, PA                  | April 2004    |
| California State University, Department of Biology, Northridge, CA                   | February 2004 |
| University of Granada, Department of Animal Biology and Ecology, Granada, Spain      | November 2003 |
| University of Calif, Dept of Ecology, Evolution, & Marine Biology, Santa Barbara, CA | February 2003 |

#### INVITED CONFERENCE LECTURES AND PANELS

|                                                                                                                                                                                                       |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Invisible Impacts: Soc & Long-Term Ecosystem Change Virtual Conf. Keynote speaker                                                                                                                     | June 2026      |
| Food Project Career Panel, Dorchester, MA                                                                                                                                                             | May 2026       |
| Coolidge Corner Theatre – Coolidge Classroom, Brookline, MA                                                                                                                                           | March 2026     |
| University of Massachusetts Insects & Climate Change Education Day, Virtual                                                                                                                           | February 2026  |
| eLTER Science Conference, Tampere, Finland. Keynote speaker                                                                                                                                           | June 2025      |
| American Geophysical Union Annual Meeting, Washington DC                                                                                                                                              | Dec 2024       |
| NPR WBUR CitySpace, Choose Your Own Climate Disaster Panelist, Boston, MA                                                                                                                             | April 2024     |
| United Nations Conference of the Parties (COP28), Dubai, United Arab Emirates                                                                                                                         | Dec 2023       |
| Young Voices of Science (Virtual)                                                                                                                                                                     | March 2023     |
| United Nations Conference of the Parties (COP27), Sharm El-Sheikh, Egypt                                                                                                                              | Nov 2022       |
| National Science Foundation Research Traineeship (NRT) Annual Meeting                                                                                                                                 | Oct 2022       |
| Harvard Forest Symposium, Harvard Forest, Petersham, MA                                                                                                                                               | Oct 2022       |
| Technical University of Madrid Environmental Leaders Program, Boston, MA                                                                                                                              | July 2022      |
| 2022 Winter Biology Virtual Symposium (Virtual)                                                                                                                                                       | June 2022      |
| U.S. Congressional Briefing (Virtual)                                                                                                                                                                 | June 2022      |
| Harvard Arnold Arboretum Annual Plant Biology Symposium, Boston, MA                                                                                                                                   | May 2022       |
| Boston University Experiential Learning for Social Impact Summit, Boston, MA                                                                                                                          | May 2022       |
| Coolidge Corner Theatre – Science on Screen Series, Brookline, MA                                                                                                                                     | April 2022     |
| Harvard Forest Symposium, Harvard Forest, Petersham, MA                                                                                                                                               | March 2022     |
| Forests and Climate Science Briefing for the British Consulate (Virtual)                                                                                                                              | March 2022     |
| Ecological Society of America – COP26 Debrief                                                                                                                                                         | January 2022   |
| Climate Change & Health, Boston University Research on Tap, Boston, MA                                                                                                                                | January 2022   |
| Road to COP26: Climate Negotiations                                                                                                                                                                   | October 2021   |
| Pushing Boundaries – Women Scientists at the Forefront of Comm Engaged Research                                                                                                                       | October 2021   |
| Ecological Society of America, Annual Meeting in Long Beach, CA (Virtual)                                                                                                                             | August 2021    |
| Greater Boston Area K12 Teacher Training                                                                                                                                                              | August 2021    |
| Climate Science Symposium, Brookline High School                                                                                                                                                      | June 2021      |
| Quincy, MA Public Library – Your Big Backyard - Quincy's Fabulous Trees Panel                                                                                                                         | January 2021   |
| Ecological Society of America, Annual Meeting in Salt Lake City, UT (Virtual).                                                                                                                        | August 2020    |
| Session titled “Research Agenda for Tackling Global Change”                                                                                                                                           |                |
| Forest Stewards Guild “Forest Adaptation” Webinar Series                                                                                                                                              | March 2020     |
| University of California, Berkeley, Berkeley Atmospheric Science Conference                                                                                                                           | February 2020  |
| Climate Change Adaptation in New England Forested Watershed Management                                                                                                                                | November 2019  |
| CO <sub>2</sub> -URBAN Synthesis & Analysis Meeting, Boston, MA                                                                                                                                       | October 2019   |
| National Atmospheric Deposition Program, Annual Meeting, Albany, NY                                                                                                                                   | November 2018  |
| 500 Women Scientists Meeting, Boston, MA                                                                                                                                                              | September 2018 |
| Harvard University, Arnold Arboretum Science Institute, Boston, MA                                                                                                                                    | August 2018    |
| Climate Smart Land Network, 2 <sup>nd</sup> Annual Member Gathering, North Woodstock, NH                                                                                                              | May 2018       |
| Harvard Forest Ecology Symposium, “Synthesizing, evaluating, and learning from long-term ecological data”, Harvard University, Petersham, MA.                                                         | March 2018     |
| ILTER-Nitrogen Initiative International Training course titled “Long-term Trends in Nitrogen Cycles in Ecosystems, Field Monitoring and Global Comparisons” at Hokkaido University in Sapporo, Japan. | June 2016      |
| Sustainability Science Symposium, John F. Kennedy School of Government, Harvard University. Cambridge, MA.                                                                                            | May 2016       |
| Environmental History Working Group Panel on “Approaching the Anthropocene: Perspectives from the Humanities and the Sciences”, Harvard University, Cambridge, MA.                                    | May 2016       |
| Ecological Society of America, Annual Meeting in Baltimore, MD. Session titled “Using                                                                                                                 | August 2015    |

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| science-policy integration to improve ecosystem science to inform decision-making”                                                                        | March 2015     |
| Conference of the Northeastern Ecosystem Research Cooperative. Saratoga Springs, NY.                                                                      | December 2014  |
| University Massachusetts Boston, “Dimensions of Sustainability Winter Symposium”                                                                          | October 2014   |
| National Autonomous University of Mexico (UNAM), Institute of Ecology, “Frontiers in Ecology and Evolution” Symposium in Mexico City, Mexico.             |                |
| INTERFACE workshop on "Using results from global change experiments to inform land model development and calibration" in Beijing, China.                  | May 2014       |
| Environmental Monitoring, Eval & Protection in NY: Linking Science & Policy, Albany, NY                                                                   | November 2013  |
| New Hampshire Association of Natural Resource Scientists, Watershed Ecology Workshop                                                                      | May 2013       |
| Darwin Festival, Salem State University in Salem, MA.                                                                                                     | February 2013  |
| Eastern CANUSA Forest Science Conference in Durham, NH. Keynote speaker                                                                                   | November 2012  |
| National Atmospheric Deposition Program, Annual Meeting in Portland, ME.                                                                                  | October 2012   |
| EUROSOIL 2012 in Bari, Italy. "Influence of tree species on forest soils."                                                                                | July 2012      |
| American Geophysical Union, Annual Meeting in San Francisco, CA. “Controls on nitrogen losses from managed landscapes.”                                   | December 2011  |
| National Atmospheric Deposition Program, Annual Meeting in Providence, RI.                                                                                | October 2011   |
| CLIMMANI/INTERFACE joint workshop. “Nutrient constraints on the net carbon Balance” in Keflavik, Iceland.                                                 | June 2011      |
| Symposium at the University of California Davis, “From Sources to Scapes: Contributions of Light Stable Isotopes to Environmental Sciences” in Davis, CA. | December 2010  |
| Soil Science Society of America Meeting in Pittsburg, PA.                                                                                                 | November 2009  |
| Annual Meeting of the Ecological Society of Germany, Austria and Switzerland in Bayreuth, Germany.                                                        | September 2009 |