LUCY R. HUTYRA

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RESEARCH INTERESTS

Interactions between humans and ecosystems including (1) carbon, water, & energy cycling (2) ecosystem responses to stressors (both human and climatic); (3) terrestrial ecology; (4) cities.

ACADEMIC APPOINTMENTS

Boston University, *Boston, Massachusetts, USA*
Distinguished Professor of Earth & Environment, 2024 – present
Department Chairperson, Earth & Environment, 2024 – present
Associate Director, Urban NRT Program, 2017 – present
Affiliated Faculty, Center for Information and Systems Engineering, 2013 – Present
Director Biogeosciences Program, 2021 – 2024
Associate Director, Initiative on Cities, 2023 – 2024
Interim Director, Initiative on Cities, 2021 – 2022
Co-Director, Urban Climate Research Initiative, 2018 – 2022
Professor of Earth & Environment, 2021 – 2024
Associate Professor of Earth & Environment, 2015 – 2021
Assistant Professor of Earth & Environment, 2009 – 2015

Harvard University
Associate, Department of Earth & Planetary Sciences, 2016 – present
Associate of the Arnold Arboretum of Harvard University, 2015 – Present
Charles Bullard Fellow, 2016 – 2017

University of Washington
Research Scientist, 2007 – 2009

EDUCATION

Harvard University, Cambridge, Massachusetts
Ph.D., Department of Earth & Planetary Sciences, April 2007
Thesis: Carbon and Water Exchange in Amazonian Rainforests
Harvard University, Cambridge, Massachusetts
A.M., Department of Earth & Planetary Sciences, June 2006
Yale University, New Haven, CT
Graduate coursework, School of Forestry, 1998-1999
University of Washington
B.S., College of Forest Resources, Forest Ecology and Management, March 1998

HONORS, AWARDS, & DISTINCTIONS

2024 – present: Board of Directors, Aerodyne Research
2024 – American Geophysical Union, Ascent Award, Atmospheric Sciences
2024 – College of Arts & Sciences Distinguished Professorship
2023 – MacArthur Fellow
2023 – present: Visiting Faculty Fellow, Google.
2023 – present: Commonwealth of Massachusetts Climate Science Advisory Panel
2017 – present: NASA Federal Advisory Committee on Earth Sciences
2022 Dean's Award for Excellence in Graduate Education, College of Arts & Sciences, Boston University
2019 – 2022: Contributing Author to IPCC WGIII, AR6 Climate Change in 2021: Mitigation of Climate Change

2016-2017 Charles Bullard Fellowship, Harvard University
2016 National Academy of Sciences, Kavli Fellow (Early Career Award)
2015 Templeton Award for Excellence in Student Advising
2012 National Science Foundation CAREER Award

GRANTS & AWARDS

(43) Gateway Exposome Coordinating Center (GECC) for Alzheimer's Disease and Alzheimer's Disease Related Dementia (CO-PI). National Institute of Health. 07/2024 – 06/2029.
(42) Modeling urban air temperature sensitivity to tree canopy expansion and cool roofs, World Resources Institute **(PI)**. 07/2024 – 02/2026
(41) GeoCAFE - An RCN to Convene, Accelerate, Foster, and Expand Geosciences Research Addressing Climate Change Impacts on Human Health (C2H2) (CO-PI), National Science Foundation, 05/2024-04/2029
(40) Downscaling of OCO-2/3 Target Mode SIF and XCO2 Observations to Understand Fine-Scale Variability in Urban, Suburban, and Agricultural Areas, NASA (CO-PI, Institutional PI) 02/2024 – 01/2027.
(39) From grasses to trees to forest fragments – Improving our understanding and modeling of biogenic fluxes in cities. National Institute of Standards and Technology (**PI**). 10/1/2023 – 9/30/2026
(38) Application of continuous ground-based remote sensing to analysis of OCO-2/3 XCO2 and SIF data in mosaic landscapes (CO-PI, Institutional PI). 7/2021 - 06/2024
(37) Understanding methane changes in cities affected by COVID-19 shutdowns. NOAA (CO-PI, institutional PI). 9/1/2021-8/31/2023
(36) Application of continuous ground-based remote sensing to analysis of OCO-2/3 XCO2 and SIF data in mosaic landscapes; NASA (Co-PI). 7/2021-7/2024
(35) Quantifying spatial and temporal variations in urban biogenic C fluxes: measurements, models and remote sensing from the leaf to the forest scale; NIST (**PI**). 8/1/2020-7/31-2024
(34) CO2-Air Quality Urban Synthesis and Analysis ("CO2-AQ USA") Project: Trends & Drivers of Urban Emissions from Past, Present, to Future; NOAA (CO-PI). 9/1/2020-8/31/2024
(33) Calibration & validation of XCO2 and SIF for urban targets; NASA (**PI** – Science Component of the award). 9/1/19 – 2/28/22
(32) A pantropical monitoring system of carbon emissions and removals from forest degradation, deforestation, and forest expansion and growth; NASA (CO-PI) 9/1/19-8/31/22
(31) PREEVENTS Track 2: Land-atmosphere feedbacks over urban terrain under heat waves; NSF (CO-PI)
(30) Re-envisioning Urban Infrastructure to Address Climate Change: A Comprehensive Regional Framework for Sustainability; NSF (**PI**) 5/1/19-10/30/19
(29) Calibration & validation of XCO2 and SIF for urban targets; NASA (**PI** – Instrumentation Component of the award). 3/1/19-2/29/20
(28) Vegetation Photosynthesis & Respiration Modeling for Toronto; Environment Canada (**PI**) 12/1/19-3/31/19
(27) LTER: From Microbes to Macrosystems: Understanding the response of ecological systems to global change drivers and their interactions; NSF (CO-I) 1/1/2019-12/31/2024
(26) Mitigation of Boston heat island effect with urban canopy, Boston University Pardee Center seed grant **(PI)**
(25) Fluorescence Based Constraints on Urban Biogenic CO2 Fluxes from OCO-2, OCO-3, and CLARS; NASA (CO-PI) 5/22/2018-5/21/21
(24) NRT: Boston UniverCity - Partnering Graduate Students and Cities to Tackle Urban Environmental Challenges (CO-PI); NSF 8/1/2017-7/31/2022
(23) CO2 Urban Synthesis and Analysis ("CO2-USA") Network **(Institutional PI)**: NOAA 8/2017-7/2020
(22) Coastal Hypoxia Analysis and Risk Tracking (CHART) through

Remote Sensing and Process-based Modeling in South and Southeast Asia **(Institutional PI)**: NASA 9/2017-8/2020

(21) Urban net ecosystem productivity: Solar induce fluorescence as a tool for productivity assessment **(PI)**; NIST 3/2017-2/2020

(20) Fragmentation effects on forest productivity across managed ecosystem gradients **(PI)**; USDA 6/2017-5/2020

(19) Coupled Carbon and Nitrogen Cycling under Changing Land Cover and Air Quality: Improving Regional Estimates of Carbon Dynamics for the Northeastern U.S. (CO-PI); USDA 3/2017-2/2020

(18) Prototype Regional Carbon Monitoring Systems for Urban Regions **(Institutional PI)**; NASA 9/2016-8/2019

(17) Tracking carbon emissions and removals by time series analysis of the land surface: prototype application in tropical MRV systems compliant with IPCC Tier 3 (CO-PI); NASA 9/2016-8/2019

(16) Validation and Application of OCO-2 data in US Northeast Corridor **(Institutional PI);** NASA, 4/2015-3/2018.

(15) RCN: Coordinating the Development of Terrestrial Lidar Scanning for Aboveground Biomass and Ecological Applications (CO-PI); NSF, 6/2015-5/2020

(14) CAREER: Assessing urban influences on ecosystem processes **(PI)**; National Science Foundation, DEB-1149471, 2/2012 – 1/2017.

(13) Quantifying carbon signatures across urban-to-rural gradients: Advancing the capacity for monitoring, reporting, and verification through observations, models, and remote sensing **(PI);** NOAA, 8/2014 – 7/2017

(12) SCOPE: A smart-city cloud-based platform and ecosystems*;* Partnerships for Innovation (CO-PI); National Science Foundation, 8/2014 – 7/2017.

(11) Collaborative Research: Water and Carbon Dynamics in Tropical Peatlands: Comparison of a Forested Peat Dome with a deforested Peat Dome in Borneo **(Institutional PI)**; National Science Foundation, EAR-1114155, 9/2011 – 8/2015.

(10) Prototype Monitoring, Reporting, and Verification System for the Regional Scale: The Boston-DC Corridor (CO-PI); NASA (NNH13CK02C), 9/2013 – 8/2016.

(9) Methane Inputs from Natural Gas Infrastructure in Greater Metropolitan Boston (CO-PI); Environment Defense Fund, 10/2012 – 9/2013.

(8) CNH-Ex: Shifting Land Use and Forest Conservation: Understanding the Coupling of Social and Ecological Processes Along Urban-to-Rural Gradients (CO-PI); National Science Foundation BCS-1211802, 9/1/2012 – 8/31/2015

(7) 4-D modeling of the regional carbon cycle in and around urban environments: An interdisciplinary study to advance observational and modeling foundations (CO-PI); NASA (NNX12AM82G), 7/1/2012 – 6/30/2015.

(6) Collaborative Research: ULTRA-Ex: Metabolism of Boston (CO-PI). National Science Foundation, DEB-0948857, 9/2010-2/2012.

(5) Urban carbon metabolism travel grant **(PI)**; Boston University, Mary Erskine Award, 2011.

(4) Linking CO_2 emissions to deforestation and forest degradation over tropical peat swamp forests in northwestern Borneo during 1992 – 2014. Society of Women Geographers, Pruitt Dissertation Fellowship granted to PhD advisee Ha Nguyen. 2014-2015

(3) Estimating rates of methane leakage from Greater Metropolitan Boston (CO-PI); Environment Defense Fund, 5/2012 – 11/2012.

(2) Carbon and nitrogen dynamics along an urbanization gradient in Boston, MA. Arnold Arboretum Deland Award granted to PhD Advisee Preeti Rao, 2011-2012.

(1) Combating climate change through smarter urban transportation policies (Academic PI); IBM Smarter Cities, 2012.

NASA SCIENCE

(3) NASA Orbital Carbon Observatory – 3 2018 – present

(2) NASA Orbital Carbon Observatory – 2 2015-2018

TEAMS | (1) NASA Carbon Monitoring System 2013 – 2020

PUBLICATIONS

PEER-REVIEWED ARTICLES & BOOK CHAPTER
UNDERLINE DENOTES ADVISEE
(WEB OF SCIENCE H-INDEX = 53; SUM OF CITATIONS 11,699;
GOOGLE SCHOLAR H-INDEX = 62; SUM OF CITATIONS 19,087)

IN REVIEW

(120) Smith, I.A., Li, D., Fork, D.K., Wellenius, G.A., **Hutyra, L.R.** Optimizing urban cooling: A statistical approach to estimate tree canopy and cool roof expansion impacts on air temperature, *Nature Cities*, in review.

(119) Sanders-DeMott, R., Hutyra, L.R., Hurteau, M.D., Keeton, W.S., Fallon, K.S., Anderegg, W.R.L., Hollinger, D.Y., Kuebbing, S.E., Lucash, M.S., Ordway, E.M., Vargas, R., Walker, W.S. Ground-Truth: Can Forest Carbon Protocols Ensure High-Quality Credits? *Earth's Future*, in review.

(118) Winbourne, J.B., Palazzoli, I., Schifman, L., Gately, C.K., Smith, I.A., **Hutyra, L.R.** Spatial and seasonal trends in biogenic and fossil fuel carbon dioxide fluxes among three metropolitan regions, *Elementa*, in review.

2024

(117) Morreale, L., Thompson, J., Pasquarella, V., **Hutyra, L.R.** Edge cases: Fragmentation in temperate forest landscapes, Frontiers in Ecology and Environment, doi:10.1002/fee.2828, 2024.

(116) Abramoff, R.Z., Warren, J.M., Harris, J., Phillips, J.R., Winbourne, J., Smith, I., Reinmann, A., **Hutyra, L.R.**, Allen, D.W., Mayes, M.A. Shifts in belowground Processes along a temperate forest edge. *Landscape Ecology,* 39(5), 2024.

(115) Pitt, J.R., Lopez-Coto, I., Karion, A., Hajny, K.D., Tomlin, J., Kaeser, R., Jayarathne, T., Stirm, B.H., Floerchinger, C.R., Loughner, C.P., Commane, R., Gately, C.K., **Hutyra, L.R.**, Gurney, K.R., Roest, G.S, Liang, J., Gourdji, S., Mueller, K.L, Whetstone, J.R., Shepson, P.B., New York City methane emissions: what are we missing?, *Environmental Science & Technology,* 58(21) 9147-9157, 2024.

(114) Warner, K., Sonti, N.F., Cook, E.M., Hallett, R.A., **Hutyra, L.R.**, Reinmann, A.B. Urbanization exacerbates climate sensitivity of eastern United States broadleaf trees. *Ecological Applications*, e2970, 2024.

(113) Templer, P.H., Atherton, K.F., Conrad-Rooney, E., Ho, H., **Hutyra, L.R.**, Ianniello, C.F., Kashian, D.R., Levy, J.I., Meshoulan, D., Urban, M.C., Strengthening graduate education and addressing environmental challenges through solutions-oriented partnerships and interdisciplinary training. *Sustainable Earth Review*, 7:3, 2024.

(112) Smith, I.A., Templer, P.H., **Hutyra, L.R.** Water sources for street trees in mesic urban environments, *Science of the Total Environment*, 908 (168411), 2024.

2023

(111) Rindy, J., Pierce, E., Geddes, J., Garvey, S., Gewirtzman, J., Driscoll, C., **Hutyra, L.R.**, Templer, P.H., Effects of Urbanization and Forest Fragmentation on Atmospheric Nitrogen Inputs and Ambient Nitrogen Oxide and Ozone Concentrations in Mixed Temperate Forests, Journal of Geophysical Research – Biogeosciences, 2023.

(110) Jones, T.S., Logan, B.C., Reblin, J.S., Bombard, D.M., Ross, B.P., Allen, D.W., Marrs, J.K**., Hutyra, L.R**. Stress-induced Changes in Photosynthesis and Proximal Fluorescence Emission of Turfgrass. Environmental Research Communications, 5(11), 2023.

(109) Tatsumi, C., Atherton, K.F., Garvey, S.M., Conrad-Rooney, E., Morreale, L., **Hutyra, L.R.,** Templer, P.H., Bhatnagar, J.M. Urbanization and edge effects interact to drive mutualism breakdown and the rise of unstable pathogenic communities in forest soils. *Proceedings of the National academy of Sciences*, 120(36): e2307519120, 2023.

(108) Jimenez, R.B., Bozigar, M., Janulewicz, P., Lane, K.J., **Hutyra, L.R.**, Fabian, P.M. School greenness and student-level academic performance: Evidence from the Global South, *Geohealth*, 7(8): e2023GH000830, 2023.

(107) Garvey, S.M., Templer, P.H, Bhatnagar, J., **Hutyra, L.R.** Soils at the Forest Edge, *Science of the Total Environment,* 891: 164320, 2023.

(106) Conrad-Rooney, E., Gerirtzman, J., Pappa, Y., Pasquarella, V., **Hutyra, L.R.**, Templer, P.H. Atmospheric Wet Deposition in Urban and Suburban Sites Across the United States, *Atmospheric Environment,* 305:119783, 2023.

(105) Caron, S. Garvey, S.M., Gewirtzman, J. Schultz, K., Bhatnagar, J.M., Driscoll, C., **Hutyra, L.R.,** Templer, P.H. Urbanization and Fragmentation Have Opposing Effects on Soil Nitrogen Availability in Temperate Forest Ecosystems, Global Change Biology, 29(8): 2156-2171.

(104) Smith, I.A., Fabian, P.M., **Hutyra, L.R.**, Landcover composition and albedo impacts on urban surface temperature across seven United States cities: Towards optimal climate sensitive design, *Science of the Total Environment*, 857: 159663, 2023.

2022 (103) Tiesken, K., Smith, I.A., Jimenez Celsi, J.B., **Hutyra, L.R.**, Fabian, M.P. Mapping the Cooling Health Benefits of Greenspace through an Ecosystem Services Framework. *Science of the Total Environment*, 845(1): 157283, 2022.

(102) Hajny, K.D., Floerchinger, C., Pitt, J., Tomlin, J., Kaeser, R., Stirm, B.H., Jayarathnew, T., Gately, C.K., Sargent, M., Gurney, K., Roest, G., Lopez-Coto, I., Turner, A.J., **Hutyra, L.R.**, Shepson, P.B., Wofsy, S.C. A spatially-explicit inventory scaling approach to estimate urban CO2 emissions. *Elementa*, 10.1525/elementa.2021.00121, 2022.

(101) Mitchell, L., Lin, J., **Hutyra, L.R.**, Bowling, D., Cohen, R., Davis, K., DiGangi, E., Duren, R., Ehleringer, J., Fain, C., Falk, M., Guha, A., Karion, A., Keeling, R., Kim J., Miles, N., Miller, C., Newman, S., Pataki, D., Prinzivalli, S., Ren, X., Rice, A., Richardson, S., Sargent, M., Stephens, B., Turnbull, J., Verhulst, K., Vogel, F., Weiss, R., Whetstone J., Wofsy, S. A Multi-City Urban Atmospheric Greenhouse Gas Measurement Data Synthesis. Scientific Data, *9(1): 361, 2022*.

(100) Garvey, S.M., Templer, P.H., Pierce, E.A., Reinmann, A.B., **Hutyra, L.R.** Diverging patterns at the forest edge: Soil respiration dynamics of fragmented forests in urban and rural areas. *Global Change Biology,* 28(9): 3094-3109, 2022.

(99) Pitt, J., Lopez-Coto, I., Hajny, K.D., Tomlin, J., Kaeser, R., Jayarathne, T., Stirm, B.H., Floerchinger, C.R., Loughner, C.P., Commane, R., Gately, C.K., **Hutyra, L.R.**, Gurney, K., Roest, G.S., Liang, J., Gourdji, S., Karion, A., Whetstone, J.R., Shepson, P.B. New York City greenhouse gas emissions estimated with inverse modelling of aircraft measurements. E*lementa*, *10: 1,* 10.1525/elementa.2021.00082, 2022.

(98) Winbourne, J.B., Smith, I.A., Stoynova, H., Kohler, C., Gately, C.K., Logan, B.A., Reblin, J., Reinmann, A.B., Allen, D.W., **Hutyra, L.R.** Quantification of urban forest and grassland carbon fluxes using bottom-up measurements and a satellite-based model in Washington DC/Baltimore area. *Journal of Geophysical Research – Biogeosciences*, 127, e2021JG006568, 2022.

(97) Jimenez, R.B., Lane, K.J., **Hutyra, L.R.**, Fabian, P.M. Spatial resolution of normalized difference vegetation index and greenness exposure misclassification in an urban cohort. *Journal of Exposure Science Epidemiology* 32(2): 213-222, 2022.

(96) Parazoo, N.C., Coleman, R.W., Yadav, V., Stavros, E.N., Hulley, G., **Hutyra, L.R.** Estimating Biological Carbon Fluxes in a Mixed Urban Mediterranean Landscape Using High Resolution Thermal and Optical Remote Sensing Constraints. *Science of the Total Environment, 806: 151335*, 2022.

2021 (95) Morreale, L., Thompson, J.R., Tang, X., Reinmann, A.B., **Hutyra L.R.**, Fragmentation impacts on temperate forest productivity: reversal of the tropical edge paradigm. *Nature Communications* 12:7181.

(94) Sargent, M. Floerchinger, C., McKain, K., Budney, J., Gottlieb, E., **Hutyra, L.R.**, Rudek, J., Wofsy, S.C. Majority of US natural gas emissions unaccounted for in inventories. *Proceedings of the National Academy of Sciences of the United States of America* 118 (44): e2105804118, 2021.

(93) Angot, H., Rutkowski, E., Sargent, M., Wofsy, S., **Hutyra, L.R.**, Howard, D., Obrist, D. Selin, N. Atmospheric mercury sources in a coastal-urban environment: A case study in Boston, Massachusetts, USA. Environmental Science: Processes & Impacts, DOI: 10.1039/D1EM00253H, 2021.

(92) Smith, A.I., Li, D., Winbourne, J.B., Jones, T.S., Tieskens, K., **Hutyra, L.R.** A satellite-based model for estimating latent heat flux from urban vegetation. *Frontiers in Ecology & Evolution*, 9: Article 695995, 2021.

(91) Marrs, J.K., Jones, T.J., Allen, D.W., **Hutyra, L.R.** Instrumentation sensitivities for tower-based solar-induced fluorescence measurements. *Remote Sensing of Environment 259, 112413, 2021.*

(90) Tang, X., Woodcock, C.E., Olofsson, P., **Hutyra, L.R.** Assessment of land use / land cover change and associated carbon emissions and uptake in the Mekong Drainage Basin by time series analysis of MODIS and Landsat data. *Remote Sensing of Environment, 256, 112336, 2021.*

(89) Hundertmark, W.J., Lee, M., Smith, I.A., Bang, A.H.Y., Chen, V., Gately, C.K., Templer, P.H., **Hutyra, L.R.** Influence of Landscape Management Practices on Urban Greenhouse Gas Budgets. *Carbon Balance and Management*, 16(1): 1-12, 2021.

2020

(88) Reinmann, A.B., Smith, I.A., Thompson, J., **Hutyra, L.R.** Forest fragmentation impacts on carbon balance across urban and rural landscapes. *Environmental Research Letters, 15:114036, 2020.*

(87) Werbin, Z., Brochu,P. , Buckley, S., Butler, L., Connolly, C., Heidari, L., Houttuijn Bloemendaal. L., McCabe, T.D., Miller, T., **Hutyra, L.R.** A Decision Support Tool for Mitigating Urban Heat Island Effects through Tree-planting. *Plos-One*, e0224959, 2020.
paper resulted from student practicum course advised in Spring 2019

(86) Marrs, J.K., Reblin, J.S., Logan, B.A., Allen, D.W., Reinmann, A.B., Bombard, D. Tabachnik, D., **Hutyra, L.R.** Is solar-induced fluorescence truly a proxy for photosynthesis? *Geophysical Research Letters,* 47, e2020GL087956, 2020.

(84) Lauvaux, T., Gurney, K.R., Miles, N.L., Davis, K.J., Richardson, S.J., Deng, A. Nathan, B.J., Oda, T., Wang, J.A., **Hutyra, L.,** Turnbull, J. Policy-relevant assessment of urban CO2 emissions. *Environmental Science and Technology, 54: 10237-10245, 2020*

(83) Winbourne, J.B., Jones, T.S., Garvey, S., Harrison, J., Wang, L., Li, D., Templer, P.H., **Hutyra, L.R.**, Tree transpiration and urban temperatures: current understanding, implications, and future research directions. *Bioscience*, 70(6): 576-588, 2020.

(82) Jones, T.S., Winbourne, J., **Hutyra. L.R.** Ribbonized sap flux sensor: An integrated sap flow sensor. *Ecospheres*, 11(6):e03135, 2020.

(81) Decina, S.M., Templer, P.H., **Hutyra, L.R.** Hotspots of nitrogen deposition in urban areas: a global data synthesis. *Frontiers in Ecology and Environment*, 18(2): 92–100, 2020.

(80) Tang, X., **Hutyra, L.R.**, Arévalo, P., Baccini, A., Woodcock, C.E., Olofsson, P., Spatiotemporal tracking of carbon emissions and uptake using time series analysis of Landsat data: a spatially explicit carbon bookkeeping model. *Science of the Total Environment,* 720: 137409, 2020.

(79) Trlica, A., **Hutyra, L.R.** Smith, I.A., Morreale, L., Current and future biomass carbon uptake in Boston's urban forest, *Science of the Total Environment,* 709: 136196, 2020.

2019

(78) Barrera, Y., Nehrkorn, T., Hegarty, J., Sargent, M., Benmergui, J., Gottlieb, E., Wofsy, S., DeCola, P., **Hutyra, L.,** Jones, T., Using Lidar Technology to Assess Urban Air Pollution and Improve Estimates of Greenhouse Gas Emissions in Boston. *Environmental Science & Technology.,*53: 8957-8966, 2019.

(77) Smith, I.A., **Hutyra, L.R.**, Reinmann, A.B., Thompson, J., Allen, D.W. Forest fragmentation stimulate soil respiration in temperate forests. *Geophysical Research Letters*, *46* https://doi.org/10.1029/2019GL082459, 2019.

(76) Smith, I.A., Dearborn, V., **Hutyra, L.R.** Live fast, die young: Accelerated growth, mortality, and turnover in urban street trees. *Plos-One,*14(5): e0215846, 2019

2018

(75) Urbanowicz, C., **Hutyra, L.R.**, Stinson, K.A. The effects of urbanization and land use on ragweed distribution. *Ecosphere* 9(12): e02512, 2018.

(74) Hayes, D. J., R. Vargas, S. R. Alin, R. T. Conant, **L. R. Hutyra**, A. R. Jacobson, W. A. Kurz, S. Liu, A. D. McGuire, B. Poulter, and C. W. Woodall, 2018: Chapter 2: The North American carbon budget. In *Second State of the Carbon Cycle Report (SOCCR2): A Sustained Assessment Report* [Cavallaro, N., G. Shrestha, R. Birdsey, M. A. Mayes, R. G. Najjar, S. C. Reed, P. Romero-Lankao, and Z. Zhu (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 71-108, https://doi.org/10.7930/SOCCR2.2018.Chw2, 2018

(73) Gurney, K. R., P. Romero-Lankao, S. Pincetl, M. Betsill, M. Chester, F. Creutzig, K. Davis, R. Duren, G. Franco, S. Hughes, **L. R. Hutyra**, C. Kennedy, R. Krueger, P. J. Marcotullio, D. Pataki, D. Sailor, and K. V. R. Schäfer, 2018: Chapter 4: Understanding urban carbon fluxes. In *Second State of the Carbon Cycle Report (SOCCR2): A Sustained Assessment Report* [Cavallaro, N., G. Shrestha, R. Birdsey, M. A. Mayes, R. G. Najjar, S. C. Reed, P. Romero-Lankao, and Z. Zhu (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 189-228, https://doi.org/10.7930/SOCCR2.2018.Ch4., 2018.

(72) Hayek, M. N., Longo, M., Wiedemann, K.T., Wu, J., Smith, M., Restrepo-Coupe, N., Tapajos, R., da Silva, R., Fitzjarrald, D.R., Camargo, P.B., **Hutyra, L.R**., Alves, L.A., Daube, B., Munger, J.W., Saleska, S.R., Wofsy, S.C. Factors Controlling Carbon Exchange in an Eastern Amazon Forest: from Hours to Years. *Biogeosciences*, 15, 4833-4848, 2018

(71) Sargent, M., Barrera, Y., Nehrkorn, T., **Hutyra, L.R.,** Gately, C.K., Jones, T., McKain, K., Sweeney, C., Hegarty, J., Hardiman, B., Wofsy, S.C. Anthropogenic and biogenic CO_2 fluxes in the Boston urban region, *Proceedings of the National Academy of Sciences of the United States of America,* 115(29), 7491-7496, 2018.

(70) Smith, I.A., **Hutyra, L.R.**, Reinmann, A.B., Marrs, J.K., Thompson, J. Piecing together the fragments: Elucidating edge effects on forest carbon dynamics. *Frontiers in Ecology and Environment*, 16: 213-221, 2018.

(69) Decina, S., Templer, P.H., **Hutyra, L.R.** Atmospheric Inputs of Nitrogen, Carbon, and Phosphorus Across an Urban Area: Unaccounted Fluxes and Canopy Influences. *Earth's Future*, *6* (2) 134-148, 2018.

(68) Hayek, M., Wehr, R., **Hutyra, L.R.**, Longo, M., Wiedemann, K., Munger, J.W., Bonal, D., Saleska, S.R., Fitzjarrald, D.R., Wofsy, S.C. A novel correction for biases in forest eddy covariance carbon balance: the MS-PEARL correction. *Agricultural and Forest Meteorology,* 250: 90-101, 2018.

2017

(67) Trlica, A., **Hutyra, L.R.**, Schaaf, C., Erb, A., Wang, J. Albedo, land cover, and the urban heat island. *Earths Future*, 5: 1084-1101, 2017.

(66) Gately, C.K. and **L.R. Hutyra**. Large uncertainties in urban-scale carbon emissions. *Journal of Geophysical Research – Atmospheres*, 122: 11,242-11260, 2017.

(65) Scharenbroch, B.C., Carter, D., Bialecki, M., Fahey, R., Scheberl, L., Catania, M., Roman, L., Bassuk, N., Harper, R., Werner, L., Siewert, A., Miller, S., **Hutyra, L.**, Raciti, S. A rapid urban site index for assessing the quality of street tree planting sites. *Urban Forestry & Urban Greening*, 27:279-286, 2017.

(64) Reinmann, A.B. and **L.R. Hutyra**. Reply to Remy et al.: Local and global limitations to forest productivity as mediators of biogeochemical response to forest edge effects, *Proceedings of the National Academy of Sciences of the United States of America***,** 114: E7033-E7034, 2017.

(63) Decina, S., Templer, P.H., **Hutyra, L.R.**, Gately, C.K., Rao, P. Variability, drivers, and effects of nitrogen deposition across an urban area: emerging patterns among human activities, the atmosphere and soils. *Science of the Total Environment*, 609: 1524-1534, 2017.

(62) Kittridge, K.B., Thompson, J., Morreale, L., Short Gianotti, A., **Hutyra, L.R.** Three decades of forest harvesting along a suburban - rural continuum. *Ecosphere*, 8(7) e01882, 2017.

(61) Gately, C.K., **Hutyra, L.R.**, Peterson, S., Sue Wing, I. Urban Emissions Hotspots: Quantifying Vehicle Congestion and Air Pollution Using Mobile Phone GPS Data. *Environmental Pollution*, 229:496-504, 2017.

(60) Hardiman, B., Wang, J., **Hutyra, L.R.**, Gately, C., Getson, J., Friedl, M. Accounting for urban biogenic fluxes in regional carbon budgets. *Science of the Total Environment*, 592: 366-372, 2017.

(59) Groffman, P.M., Cavender-Bares, J., Childers, D., Grimm, N.B., Grove, M., **Hutyra, L.R.**, Pataki, D., Pickett, S., Pouyat, R., Rosi-Marshall, E., Ruddell, B. Moving towards a new Urban System Science, *Ecosystems*, 20: 38-43, 2017.

(58) Wang, J.A., **Hutyra, L.R.**, Li, D., Friedl, M.A. Gradients of atmospheric temperature and humidity controlled by local urban land use intensity in Boston. *Journal of Applied Meteorology and Climatology*, 56: 817-831, 2017.

(57) Reinmann AB and **LR Hutyra**. Edge effects enhance carbon uptake and its vulnerability to climate change in temperate broadleaf forests. *Proceedings of the National Academy of Sciences of the United States of America,* 114(1): 107-112, 2017.

2016

(56) Jenerette, G.D., Clarke, L.W., Avolio, M.L., Pataki, D.E., Gillespie, T., Pincetl, S., Nowak, D.J., **Hutyra, L.R.**, McHale, M., McFadden, J.P., Alonzo, M. Climate Filters and Trait Choices Shape Urban Tree Biodiversity: Beyond Biome Matching and Homogenization. *Global Ecology and Biogeography,* 25 (11), 1367-1376, 2016.

(55) Short, AGS, Getson, J., **Hutyra, L.R.**, Kittredge, D.B. Experiencing and defining urban, suburban, and rural: A method to link perceptual definitions with geospatial measures of urbanization in central and eastern Massachusetts. *Urban Ecosystems*, 19: 823-833, 2016.

(54) Decina, S., **Hutyra, L.R.**, Gately, C., Getson, J., Reinmann, A.B., Short Gianotti, A.G, Templer, P. Soil respiration contributes significantly to urban carbon fluxes. *Environmental Pollution* 212: 433-439, 2016.

(53) Nguyen, H.T., **Hutyra, L.R.**, Hardiman, B., Raciti, S.M., Variations in forest structure across a tropical peat dome. *Ecological Applications*, 26: 587-601, 2016.

(52) **Hutyra, L.R.** Urban nutrient cycling *in* Handbook on urbanization and global environmental change. In: Seto, K. C., W. Solecki and C. Griffith eds., *Routledge Handbook on Urbanization and Global Environmental Change*. Routledge, 2016.

(51) Reinmann, A.B., **Hutyra, L.R.**, Trlica, A., Olofsson, P. Assessing the global warming potential of human settlement expansion in a mesic temperate landscape from 2005 to 2050. *Science of the Total Environment*, 546-546: 512-524, 2016.

2015

(50) Gurney, K.G., Romero-Lankao, P., Seto, K.C., **Hutyra, L.R.**, Duren, R., Kennedy, C., Grimm, N.B., Ehleringer, J.R., Marcotullio, P., Hughes, S., Pincetl, S., Chester, M.V., Runfola, D.M., Feddema, J.J., Sperling, J. Track urban emissions on human scales. *Nature* 525: 179-181, 2015.

(49) Briber, B., **Hutyra, L.R.**, Reinmann, A.B., Raciti, S.M., Dearborn, V., Holden, C.E., Dunn, A.L., Enhanced tree growth rates following conversion from forested to urban land uses. *Plos One* 10(8): e0136237, 2015.

(48) Gately, C., **Hutyra, L.R.**, Sue Wing, I. Cities, traffic, and CO2: A multidecadal assessment of trends, drivers, and scaling relationships. *Proceedings of the National Academy of Sciences of the United States of America, 112 (16):* 4999-5004*, 2015.*

(47) Ng, B.J.L., **Hutyra, L.R.**, Nguyen, H.T., Cobb, A., Fuu-Ming, K., Harvey, C., Gandois, L. Carbon fluxes from an urban tropical grassland. *Environment Pollution*, 203: 227-234, 2015.

(46) McKain, K., Down, A., Raciti, S., Budney, J., **Hutyra, L.R.**, Floerchinger, C., Herdon, S., Zahniser, M., Nehrkorn, T., Jackson, R.B., Phillips, N., Wofsy, S.C., Methane Emissions from Natural Gas in the Urban Region of Boston, Massachusetts. *Proceedings of the National Academy of Sciences of the United States of America* 112: 1941-1946, 2015.

(45) Kittredge, D.B., Short, A., **Hutyra, L.R.**, Foster, D.R., Getson, J.M., Landowner conservation awareness across a rural-to-urban gradient. *Biological Conservation* 184: 79-89, 2015.

(44) Templer, P.H., Toll, J.**, Hutyra, L.R.**, Raciti, S.M., Nitrogen and Carbon Export from Urban Areas Through Removal and Export of Litterfall. *Environmental Pollution* 197: 256-261, 2015.

2014

(43) Rao, P., **Hutyra, L.R.**, Raciti, S.M., Templer, P.H., Atmospheric nitrogen inputs and losses along an urbanization gradient in the Boston metropolitan region. *Biogeochemistry* 121: 229-245, 2014.

(42) **Hutyra, L.R.**, Duren, R., Gurney, K., Grimm, N.B., Kort, E., Larson, E., Shrestha, G., Urbanization and the carbon cycle: Current capabilities and future outlook on observing and modeling urban carbon flows. *Earth's Future,* 2(10): 473-495, 2014.

(41) Romero-Lankao, P., Gurney, K., Seto, K.C., Chester, M., Duren, R.M., Hughes, S., **Hutyra, L.R.,** Marcotullio, P., Baker, L., Grimm, N.B., Kennedy, C., Larson, E., Pincetl, S., Runfola, L., Sanches, L., Shrestha, G., Feddema, J.J., Sarzynski, A., Sperling, J., Stokes, E., A critical knowledge pathway to low-carbon, sustainable futures: Integrating understanding of urbanization, urban areas, and carbon. *Earth's Future,* 2(10): 515-532, 2014.

(40) Raciti, S.M., **Hutyra, L.R.**, Newell, J.D. Mapping carbon storage in urban trees with multi-source remote sensing data: Relationships between biomass, land use, and demographics in Boston neighborhoods. *Science of the Total Environment*, 500-501: 73-83, 2014.

(39) Kong, F., Yin, H., James, P., **Hutyra, L.R.**, He, H. Effects of spatial pattern of green space on urban cooling in a large metropolitan area of eastern China. *Landscape and Urban Planning*, 128: 35-47, 2014.

2013

(38) Restrepo-Coupe, N., da Rocha, H.R., **Hutyra, L.R.**, da Araujo, A.C., Borma, L.S., Christoffersen, B., Cabral, O.M.R., de Camargo, P.B., Cardoso, F.L., da Costa, A.C.L., Fitzjarrald, D.R., Goulden, M.L., Kruijt, B., Maia, J.M.F., Malhi, Y.S., Manzi, A.O., Miller, S.D., Nobre, A.D., von Randow, C., Abreu Sá, L.D., Sakai, R.K., Tota, J., Wofsy, S.C., Zanchi, F.B., Saleska, S.R., What drives the seasonality of photosynthesis across the Amazon basin? A cross-site analysis of eddy flux tower measurements from the Brasil flux network. *Agricultural and Forest Meteorology*, 182-183: 128-144, 2013.

(37) Rao, P., **Hutyra, L.R.**, Raciti, S.M., Finzi, A.C., Field and remotely sensed measures of soil and vegetation carbon and nitrogen across an urbanization gradient in the Boston Metropolitan Area. *Urban Ecosystems*, 16: 593-616, 2013.

(36) Briber, B.M., **Hutyra, L.R.**, Dunn, A.L., Raciti, S.M., Munger, J.W., Variations in atmospheric CO_2 and carbon fluxes across a Boston, MA urban gradient. *Land*, 2(3): 304-327, 2013.

(35) Gately, C.K., **Hutyra, L.R.**, Sue Wing, I., Brondfield, M.N., A bottom-up approach to on-road CO_2 emissions estimate: Improved spatial accuracy and applications for regional planning. *Environmental Science and Technology*, 47(5), 2423–2430, 2013.

(34) Alberti, M. and **L.R. Hutyra**. Carbon signatures of development patterns along a gradient of urbanization *in*. Land Use and the Carbon Cycle: Science and Applications in Human Environment Interactions. Brown, D.G., Robinson, D.T., French, N.H.F., and B.C. Reed (eds). Cambridge University Press, ISBN: 9781107648357, 2013.

(33) Phillips, N.G., Ackley, R. Crosson, E.R., Down, A., **Hutyra, L.R.**, Brondfield, M., Karr, J.D., Zhao, K., Jackson, R.B., Mapping urban pipeline leaks: methane leaks across Boston. *Environmental Pollution*, 173: 1-4, 2013.

(32) Hepinstall-Cymerman, J., Coe, S., **Hutyra, L.R.** Patterns of land cover change in the central Puget Sound, Washington, 1986-2007, *Urban Ecosystems*, 16: 109-129, 2013.

2012

(31) Ivanov,V.Y., **Hutyra, L.R.,** Wofsy, S.C., Munger, J.M., Saleska, S.R., de Olivera, R.C., de Carmargo, P. Root niche separation can explain avoidance of seasonal drought stress and vulnerability of overstory trees to extended drought in a mature Amazonian forest. *Water Resources Research*, 48: doi 10.1029/2012WR011972, 2012.

(30) Seto, K.C., B. Güneralp, **Hutyra, L.R.**, Global Forecasts of Urban Expansion to 2030 and Impacts on Biodiversity and Carbon Pools. *Proceedings of the National Academy of Sciences of the United States of America*, 109 (40): 16083-16088, 2012.

(29) Brondfield, M.N., **Hutyra, L.R.,** Gately, C., Raciti, S.M., Peterson, S.A. Modeling and validation of on-road CO_2 emissions inventories at the urban regional scale. *Environmental Pollution*, 170: 113-123, 2012.

(28) Raciti, S.M., **Hutyra, L.R.**, Finzi, A.C. Depleted soil carbon and nitrogen stocks under impervious surfaces. *Environment Pollution*, 164: 248-251, 2012.

(27) Kim, Y., Knox, R.G., Longo, M., Medvigy, D., **Hutyra, L.R.**, Pyle, E.H., Wofsy, S.C., Bras, R.L., Moorcroft, P.R., Seasonal carbon dynamics and water fluxes in an Amazonian rainforest. *Global Change Biology*, 18(4): 1322-1334, 2012.

(26) Raciti, S.M., **Hutyra, L.R.**, Rao, P., Finzi, A.C., Inconsistent definitions of "urban" result in different conclusions about the size of carbon and nitrogen stocks. *Ecological Applications* 22(3): 1015-1035, 2012.

2011 (25) Miller, S., Goulden, M.L., **Hutyra, L.R.,** Keller, M., Saleska, S., Wofsy, S., Figueira, A., da Rocha, H., de Camargo, P., Reduced Impact Logging Minimally Alters Tropical Rainforest Carbon and Energy Exchange *Proceedings of the National Academy of Sciences of the United States of America*, 108(48): 19431-19435, 2011.

(24) **Hutyra, L.R.,** Yoon, B., Hepinstall-Cymerman, J., Alberti, A. Carbon consequences of land cover change and expansion of urban lands: A case study in the Seattle metropolitan region. *Landscape and Urban Planning* 103: 83-93, 2011.

(23) **Hutyra, L.R.**, Yoon, B., Alberti, A. Terrestrial carbon stocks across a gradient of urbanization: A study of the Seattle, WA region. *Global Change Biology*, 17: 783-797, 2011.

2010 (22) Costa, M., Biajoli, M., Saches, L., Malhado, A.C., **Hutyra, L.R.**, Da Rocha, H.R., Aguiar, R. Atmospheric versus vegetation controls of Amazonian tropical rainforest evapotranspiration: are the wet and seasonally dry rainforests any different? *Journal of Geophysical Research - Biogeosciences*, 115, G04021, doi:10.1029/2009JG001, 2010.

(21) van Haren, J.L.M.R., de Oliveira, C., Restrepo-Coupe, N., **Hutyra, L.R.**, de Carmargo, P.B., Saleska., S.R. Do plant species influence soil CO_2 and N_2O fluxes in a diverse tropical forest? Journal of Geophysical Research – Biogeosciences, doi: 10.1111/j.1365-2486.2010.02238.x, 2010.

2009 (20) Alberti, M. and **L.R. Hutyra**. Detecting Carbon Signatures of Development Patterns across a Gradient of Urbanization: Linking Observations, Models, and Scenarios. *Proceedings of the Fifth Urban Research Symposium 2009: Cities and Climate Change: Responding to an Urgent Agenda*, Vol.1, 1-12, 2009.

(19) van Gorsel, E., N. Delpierre, R. Leuning, A. Black, J.W. Munger, S. Wofsy, M. Aubinet, C. Feigenwinter, J. Beringer, D. Bonal, B. Chen, J. Chen, R. Clement, K.J. Davis, A. Desai, D. Dragoni, S. Etzold, T. Grünwald, L. Gu, B. Heinesch, **L.R. Hutyra**, W.W.P. Jans, W. Kutsch, B.E. Law, M.Y. Leclerc, I. Mammarella, L. Montagnani, A. Noormets, C. Rebmann, W. Sonia, Estimating nocturnal ecosystem respiration from the vertical turbulent flux and change in storage of CO_2. *Agricultural and Forest Meteorology*, 149: 1919-1930, 2009.

(18) Grant, R.F., **Hutyra, L.R.**, de Oliveira, R.C., Munger, J.W., Saleska, S.R., Wofsy, S.C.**,** Modeling the carbon balance of Amazonian rainforests: Resolving ecological controls on net ecosystem productivity, *Ecological Monographs*, 79(3): 445-463, 2009.

(17) Malhi, Y., Aragão, L.E., Metcalfe, D.B., Patiño, S., Quesada, C.A., Almeida, S., Anderson, L., Brando, P., Chambers, J.Q., Costa, A.C.L., Martins, L., **Hutyra, L.R.**, Oliveira, P., Pyle, E.H., Robertson, A.L. Comprehensive assessment of carbon productivity, allocation and storage in three Amazonian forests. *Global Change Biology* 15(5): 1255-1274, 2009.

2008 (16) **Hutyra, L.R.**, Munger, J.W., Pyle, E.H., Saleska, S., Restrepo-Coupe, N., de Camargo, P.B., Wofsy, S.C., Resolving systematic errors in estimates of net ecosystem exchange of CO_2 and ecosystem respiration in a tall-stature forest: application to a tropical forest biome, *Agricultural and Forest Meteorology*, 148: 1266-1279, 2008.

(15) Pyle, E.H., Santoni, G.W., Nascimiento, H.E.M., **Hutyra, L.R.**, de Carmago, P.B., Vieira, S., Saleska, S.R., Laurance, W.F., Wofsy, S.C., Dynamics and disequilibria of carbon, biomass, and structure in two Amazonian forests, *Journal of Geophysical Research – Biogeosciences,* 113, G00B08, doi:10.1029/2007JG000592, 2008.

2007 (14) Luyssaert, S., I. Inglima, M. Jung, A.D. Richardson, M. Reichstein, D. Papale, S.L. Piao, E.D. Schulze, L.Wingate, G. Matteucci, L. Aragao, M. Aubinet, C. Beer, C. Bernhofer, K.G. Black, D. Bonal, J.M. Bonnefond, J.Chambers, P. Ciais, B. Cook, K.J. Davis, A.J. Dolman, B. Gielen, M. Goulden, J. Grace, A. Granier, A. Grelle, T. Griffis, T. Grünwald, G. Guidolotti, P.J. Hanson, R. Harding, D.Y. Hollinger, **L.R. Hutyra**, P. Kolari, B. Kruijt, W. Kutsch, F. Lagergren, T. Laurila, B.E. Law, G. Le Maire, A. Lindroth, D. Loustau, Y. Malhi, J. Mateus, M. Migliavacca, L. Misson, L. Montagnani, J. Moncrieff, E. Moors, J.W. Munger, E. Nikinmaa, S.V. Ollinger, G. Pita, C. Rebmann, O. Roupsard, N. Saigusa, M.J. Sanz, G. Seufert, C. Sierra, M.-L. Smith, J. Tang, R. Valentini, T. Vesala and I.A. Janssens. The CO_2-balance of boreal, temperate and tropical forests derived from a global database. *Global Change Biology*, 13, 2509-2537, 2007.

(13) **Hutyra, L.R.,** Munger, J.W., Saleska, S.R., Gottlieb, E.W., Daube, B.C., Dunn, A.L., Amaral, D.F., Camargo, P.B., Wofsy, S.C., Seasonal controls on the exchange of carbon and water in an Amazonian rainforest, *Journal of Geophysical Research-Biogeosciences*, 112, G03008, 2007.

(12) Ichii, K., Hashimoto, H., White, M.A., Potter, C., **Hutyra, L.R.**, Huete, A.R., Myneni, R.B., Nemani, R.R., Constraining rooting depths in tropical rainforests using satellite data and ecosystem modeling for accurate simulation of GPP seasonality, *Global Change Biology, 13, 67-77,* 2007.

2006 (11) Huete, A.R., Didan, K., Shimabukuro, Y.E., Ratana, P., Saleska, S., **Hutyra, L.R.**, Yang, W., Nemani, R.R. and Myneni, R. Amazon rainforests green-up with sunlight in dry season, *Geophysical Research Letters*, *33, L06405, 2006*.

(10) Liu, W.H., Bryant, D.M., **Hutyra, L.R.**, Saleska, S.R., Hammond-Pyle, E., Curran, D., Wofsy, S.C., Woody debris contribution to the carbon budget of selectively logged and maturing mid-latitude forests, *Oecologia*, *148(1) 108-117, 2006*.

2005 (9) **Hutyra, L.R.**, Munger, J.W., Nobre, C.A., Saleska, S.R., Vieira, S.A., Wofsy, S.C., Climatic variability and vegetation vulnerability in Amazonia, *Geophysical Research Letters*, *32*, L24712, 2005.

(8) Xiao, X.M., Moore, B., Zhang, Q., Saleska, S.R., **Hutyra, L.**, Wofsy, S.C., Frolking, S., Boles, S., Keller, M., Satellite-based modeling of gross primary production in a seasonally moist tropical evergreen forest, *Remote Sensing of Environment*, *94* (1), 105-122, 2005.

(7) Bain, W.G., **Hutyra, L.**, Patterson, D.C., Bright, A.V., Daube, B.C., Munger, J.W., Wofsy, S.C., Wind-induced error in the measurement of soil respiration using closed dynamic chambers, *Agricultural and Forest Meteorology*, *131* (3-4), 225-232, 2005.

2004 (6) Vieira, S., de Carmago, P.B., Selhorst, D., da Silva, R., **Hutyra, L.**, Chambers, J.Q., Brown, I.F., Higuchi, N., dos Santos, J., Wofsy, S.C., Trumbore, S.E., Martinelli, L.A., Forest structure and carbon dynamics in Amazonian tropical rain forests, *Oecologia*, *140*, 468-479, 2004.

(5) Rice, A.H., Hammond, E.P., Saleska, S.R., **Hutyra, L.**, Palace, M., Keller, M., de Carmargo, P.B., Portilho, K., Marques, D., Wofsy, S.C., Carbon Balance and Vegetation Dynamics in an Old-growth Amazonian Forest, *Ecological Applications*, *14* (4), s55-s71, 2004.

(4) **Hutyra, L.**, Factors controlling long- and short-term sequestration of atmospheric CO_2 in a mid-latitude forest, in *Ecological Issues in a changing world*, edited by S. Hong, Lee, J.A., Ihm, B., Farina, A., Son, Y., Kim, E., Cheo, J.C., pp. 82-84, Kluwer, Dordrecht, 2004.

2003 (3) Saleska, S.R., Miller, S.D.,Matross, D.M., Goulden, M.L., Wofsy, S.C., da Rocha,H., de Camargo, P.B., Crill, P., Daube, B.C., de Freitas, H.C., **Hutyra, L.**, Keller, M., Kirchhoff, V., Menton, M., Munger, J.W., Pyle, E.H., Rice, A.H, Silva, H, Carbon fluxes in old-growth Amazonian rainforest: seasonality and disturbance-induced net carbon loss, *Science*, *302*, 1554-1557, 2003.

2001 (2) Barford, C.C., Wofsy, S.C., Goulden, M.L., Munger, J.W., Pyle, E.H., Urbanski, S.P., **Hutyra, L.**, Saleska, S.R., Fitzjarrald, D., Moore, K., Factors controlling long- and short-term sequestration of atmospheric CO_2 in a mid-latitude forest, *Science*, *294*, 1688-1691, 2001.

2000 (1) Zwieniecki, M.A., L. Hutyra, M.V. Thompson, N.M. Holbrook, Dynamic changes in petiole specific conductivity in red maple (*Acer rubrum L.*), tulip tree (*Liriodendron tulipifera L.*), and northern fox grape (*Vitis labrusal L.*), *Plant Cell Environment*, *23* (4), 407-417, 2000.

MAJOR PUBLISHED DATASETS

(23) Mitchell, L., J.C. Lin, L.R. Hutyra, M. Sargent, S.C. Wofsy, N.L. Miles, S.J. Richardson, K.R. Verhulst, R.M. Duren, A. Rice, R.C. Cohen, A. Shusterman, S. Newman, and A. Guha. 2019. NACP: Urban Greenhouse Gases across the CO2 Urban Synthesis and Analysis Network. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/1743 Published 20/31/2019
20 downloads

(22) Gately, C., L.R. Hutyra, and I.S. Wing. 2019. DARTE Annual On-road CO2 Emissions on a 1-km Grid, Conterminous USA, V2, 1980-2017. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/1735 Published 9/20/2019
21,098 downloads.
*featured interactively in the New York Times:
https://www.nytimes.com/interactive/2019/10/10/climate/driving-emissions-map.html

(21) Gately, C., and L.R. Hutyra. 2018. CMS: CO2 Emissions from Fossil Fuels Combustion, ACES Inventory for Northeastern USA. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/1501. Published 11/16/2017
1,144 downloads

(20) Smith, IA, Hutyra, L.R., Reinmann, A.B., Thompson, J.R., Allen, D.W., 2019, "Evidence for edge enhancements of soil respiration in temperate forests", https://doi.org/10.7910/DVN/ZLRKK2, Harvard Dataverse, V2 – Published 2/12/2019
19 downloads

(19) Smith, I.A., Dearborn, C.K., Hutyra L.R., 2019, "Live fast, die young: Accelerated growth, mortality, and turnover in street trees", https://doi.org/10.7910/DVN/3TN2UX, Harvard Dataverse, V1 Published 2/11/2019
39 downloads

(18) Decina, Stephen M., Pamela H. Templar, and Lucy R. Hutyra. 2018. "Atmospheric Inputs of Nitrogen, Carbon, and Phosphorus across an Urban Area: Unaccounted Fluxes and Canopy Influences." Earth's Future, 6: 134-148, https://doi.org/10.1002/2017EF000653 doi: 10.1002/2017EF000653 Published 10/29/2018
7 downloads.

(17) Wang, J.A., Hutyra, L. R., Li, D., & Friedl, M. A., 2019, "Land surface temperature and urban heat island effects on air temperature and vapor pressure deficit in Boston, MA", https://doi.org/10.7910/DVN/J8EDZN, Harvard Dataverse, V1 – Published 1/12/2019
51 downloads

(16) Decina, Stephen; Templer, Pamela; Hutyra, Lucy; Gately, C; Rao, Preeti; Getson, J; Reinmann, A; Short Gianotti, A, 2018, "Atmospheric nitrogen inputs, soil nitrogen cycling, and soil respiration across the greater Boston area", https://doi.org/10.7910/DVN/1PUGSR, Harvard Dataverse, V1. Published 10/24/2018
5 downloads

(15) Trlica, T. 2017, "Urban Land Cover and Urban Heat Island Effect Database", https://doi.org/10.7910/DVN/GLOJVA, Harvard Dataverse, V2 Published 9/6/2017
217 downloads

(14) Reinmann, Andrew, 2016, "Edge effects enhance carbon uptake and its vulnerability to climate change in temperate broadleaf forests", https://doi.org/10.7910/DVN/AZGSQV, Harvard Dataverse, V1 Published 10/7/2016
48 downloads

(13) Raciti, Steve, M.; Hutyra, Lucy, R.; Newell, Jared, D., 2017, "Mapping carbon storage in urban trees withmulti-source remote sensing data: Relationships between biomass, land use, and demographics in Boston neighborhoods", https://doi.org/10.7910/DVN/H8JNA2, Harvard Dataverse, V1 Published 2/23/2017
32 downloads

(12) Gately, Conor, K.; Hutyra, Lucy, R.; Sue Wing, Ian, 2015, "Cities, traffic, and CO2: A multi-decadal assessment of trends, drivers, and scaling relationships", https://doi.org/10.7910/DVN/28999, Harvard Dataverse, V6. Published 6/3/2015
898 downloads.

(11) Gately, Conor; Hutyra, Lucy; Peterson, Scott; Sue Wing, Ian, 2017, "High Resolution Vehicle Air Pollutant Emissions for Eastern Massahusetts", https://doi.org/10.7910/DVN/4YGU5J, Harvard Dataverse, V1. Published 6/5/2017
114 downloads

(10) McKain, K, Down, A., Raciti, S.M., Budney, J., Hutyra, L.R., Floerchinger, C., Herndon, S.C., Nehrkorn, T., Zahniser; Jackson, R.B., Phillips, N., Wofsy, S.C., 2014, "Methane Emissions from Natural Gas Infrastructure and Use in the Urban Region of

Boston, Massachusetts", https://doi.org/10.7910/DVN/28530, Harvard Dataverse, V2 Published 1/1/2015
101 downloads

(9) McKain, K., A. Down, S.M. Raciti, J.W. Budney, L.R. Hutyra, C. Floerchinger, S.C. Herndon, T. Nehrkorn, M.S. Zahniser, R.B. Jackson, N. Phillips, and S.C. Wofsy. 2015. CMS: Atmospheric Methane Concentrations and Prior Emissions, Boston, MA, 2012-2014. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/1291 Published 20/6/2015
85 downloads

(8) Hutyra, L.R., J.W. Munger, E.W. Gottlieb, B.C. Daube, P.B. de Camargo, and S.C. Wofsy. 2007. LBA-ECO CD-10 Temperature Profiles at km 67 Tower Site, Tapajos National Forest. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/863 Published 6/13/2008
158 downloads

(7) Rice, A.H., E.P. Hammond, S.R. Saleska, L.R. Hutyra, M.W. Palace, M.M. Keller, P.B. de Camargo, K. Portilho, D. Marques, and S.C. Wofsy. 2007. LBA-ECO CD-10 Forest Litter Data for km 67 Tower Site, Tapajos National Forest. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/862 Published 6/13/2008
125 downloads

(6) Hutyra, L.R., J.W. Munger, E.W. Gottlieb, B.C. Daube, P.B. de Camargo, and S.C. Wofsy. 2007. LBA-ECO CD-10 H2O Profiles at km 67 Tower Site, Tapajos National Forest. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/861 Published 6/13/2008
150 downloads

(5) Hutyra, L.R., S.C. Wofsy, and S.R. Saleska. 2007. LBA-ECO CD-10 CO2 and H2O Eddy Flux Data at km 67 Tower Site, Tapajos National Forest. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/860 Published 6/13/2008
317 downloads

(4) Wofsy, S.C., S.R. Saleska, E.H. Pyle, and L.R. Hutyra. 2007. LBA-ECO CD-10 Tree DBH Measurements at the km 67 Tower Site, Tapajos National Forest. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/859 Published 6/13/2008
2128 downloads

(3) Wofsy, S.C., A.H. Rice, S.R. Saleska, E.H. Pyle, and L.R. Hutyra. 2007. LBA-ECO CD-10 Coarse Woody Debris Data at km 67 Tower Site, Tapajos National Forest. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/858 Published 6/13/2008
129 downloads

(2) Hutyra, L.R., J.W. Munger, E.W. Gottlieb, B.C. Daube, P.B. de Camargo, and S.C. Wofsy. 2007. LBA-ECO CD-10 CO2 Profiles at km 67 Tower Site, Tapajos National Forest. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/855 Published 6/13/2008
186 downloads

(1) Rice, A.H., E.P. Hammond, S.R. Saleska, L.R. Hutyra, M.W. Palace, M.M. Keller, P.B. de Camargo, K. Portilho, D. Marques, and S.C. Wofsy. 2007. LBA-ECO CD-10 Ground-based Biometry Data at km 67 Tower Site, Tapajos National Forest. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/854 Published 6/13/2008
173 downloads

OTHER PUBLICATIONS

(8) Smith, I.A., Lusk, K., **Hutyra, L.R.** On the use of 'cool roofs' to reduce residential heat exposure disparities in Boston, MA. Initiative on Cities Research Report, December 2022.

(7) Gately, C.K., **Hutyra, L.R**. From pledges to action: Cities need to show their climate progress with hard data. *The Conversation*, December 2018

(6) Templer, P.H., **Hutyra, L.R**., Decina, S. It's raining nitrogen. *Silva Magazine*, Fall 2016.

(5) Hutyra, L.R. Critical Urban Science Questions. Solicited White Paper for the Department of Energy, Biological and Environmental Research Committee, 2015.
(4) Romero-Lankao, P., Gurney, K., Seto, K., Baker, L., Chester, M., Kennedy, C., Duren, R., Ehleringer, J., Feddema, J., Frost, G., Grimm, N.B., Hughes, S., **Hutyra, L.R.**, Marcotullio, P., Patarasuk, R., Pincetl, S., Runfola, D., Sanchez, L., Shrestha, G., Sarzynski, A., Stokes, E. Towards a more Integrated Understanding of Urbanization, Carbon and Climate Change. White Paper for the Carbon Cycle Interagency Working Group, 2014.
(3) Wysmuller, S., Srivastava, B., Rudy, R., Xu, J., Miller, B., Giacomel, A., Gupta, V., Jacob, N., Osgood, C., Parker, K., **Hutyra, L**., A General Approach to Exploit Available Traffic Data for a Smarter City. *ITS World Congress* 2013.
(2) **Hutyra, L.R.**, Raciti, S., Phillips, N.G., Munger, J.W. Exploring Space-time Variation in Urban Carbon Metabolism, *Urbanization and Global Environment Change, Viewpoints*, IV: 11-14, 2011.
(1) **Hutyra, L.R.** Carbon footprints. *World Book Encyclopedia*, 2011.

INTERNATIONAL PRESENTATIONS

(18) January 2024 – "Impacts of urbanization & forest fragmentation on carbon and energy budgets," University of Helsinki, Finland
(17) November 2021 - "The potential & possibilities for ground-based greenhouse gas monitoring networks " Glasgow COP26 Preview Event: "Monitoring Urban Greenhouse Gasses".
(16) October 2021 – "Impacts of urbanization & landscape fragmentation on the carbon cycle" University of Toronto, Global Change Science Distinguished Lecturer Series
(15) November 2020 - "The potential & possibilities for ground-based greenhouse gas monitoring networks " Glasgow COP26 Preview Event: "Monitoring Urban Greenhouse Gasses", November 2020.
(14) February 2019 – "Modeling urban biospheric fluxes" Institute of Geological and Nuclear Sciences, Wellington, New Zealand [Invited]
(13) March 2018 – "The CO_2-Urban Synthesis and Analysis (CO_2-USA) Project" *Cities IPCC 2018 Conference*, Edmonton, Canada.
(12) January 2018 – "Forests, Cities, and the Carbon Cycle" Max Planck Institute for Biogeochemistry, Jena, Germany [Invited]
(11) February 2017 – "Urban forest ecology: a role for terrestrial laser scanning?" The Royal Society, Kavli Meeting, The terrestrial laser scanning revolution in forest ecology, London, England [Invited]
(10) April 2016 – "Emissions of CO2 and criteria air pollutants from mobile sources: Insights from integrating real-time traffic data into local air quality models" European Geophysical Union Meeting, Vienna, Austria.
(9) June 2014 – "CO_2 fluxes in cities" Urban Environmental Pollution (UEP 2014): Climate Change and Urban Environment, Toronto, Canada. [Invited Plenary]
(8) January 2012 – "Lessons learned from micrometeorological measurements in the Amazon" Center for Environmental Sensing and Modeling, 5th Annual Workshop, National University of Singapore, Singapore. [Invited]
(7) November 2009 – "Seasonal and annual controls on forest carbon exchange," New Phytologist Symposium: Carbon cycling in tropical ecosystems. Guangzhou, China. [Invited]
(6) June 2009 – "Detecting Carbon Signatures of Development Patterns across a Gradient of Urbanization: Linking Observations, Models, and Scenarios," Urban Research Symposium 2009 on Cities and Climate Change: Responding to an Urgent Agenda, Marseilles, France.
(5) January 2009 – "Validation of ecosystem carbon exchange estimates," Workshop on monsoon Asia tropical forest dynamics and sustainability, Khon Kaen, Thailand. [Invited]
(4) September 2007 – "Effects of disturbance on biomass, structure and carbon balance in two Amazonian Forests," NASA LBA-ECO, Salvador, Brazil.
(3) October 2006 – "What is the role of climate in controlling the exchange of carbon and water in an Amazonian rainforest?," NASA LBA-ECO conference, Sao Paulo, Brazil.

(2) November 2005 – "Climatic variance and vulnerability in Amazonia," NASA LBA-ECO Conference, Brasilia, Brazil.
(1) August 2002 – "Factors controlling long- and short-term sequestration of atmospheric CO_2 in a mid-latitude forest," International Congress of Ecology & INTECOL meeting, Seoul, South Korea. [Invited]

INVITED SEMINARS & KEYNOTE ADDRESSES

(61) April 2024 – "Do we really want more trees in our cities?" MacArthur Foundation Fellows Retreat, Wisconsin
(60) April 2024 – "Exploring the impacts of urbanization on the cycling of carbon in our ecosystems" Annual public lecture, Sustaining our World Series, University of Washington
(59) April 2024 – "Exploring the impacts of urbanization on the cycling of carbon in our ecosystems" Thayer Academy
(58) April 2024 – "Impacts of urbanization & forest fragmentation on carbon and energy budgets" 2nd Annual Eastern Regional DGVM Conference
(57) April 2024 – "Exploring the impacts of urbanization on the cycling of carbon in our ecosystems" Northern Arizona University
(56) April 2024 – "Exploring the impacts of urbanization on the cycling of carbon in our ecosystems" Arizona State University
(55) September 2023 – "Heat in the city - Understanding the what, where, and how to advance climate solutions", James B. Francis Lecture on the Built Environment, University of Massachusetts, Lowell
(54) April 2023 - "What's place got to do with it? How urban and rural trees provide different benefits" Boston Public Library Earth Day Lecture
(53) April 2023 – "Impacts of Urbanization & Landscape Fragmentation on the Carbon Cycle" University of Maryland – Baltimore Country, Department of Geography & Environmental Systems
(52) February 2022 – "Fluxes in the city - An exploration of how urban infrastructure, human actions, and biology influence the urban atmosphere" Northeastern University, Marine & Environmental Sciences seminar
(51) February 2022 – "Impacts of urbanization & landscape fragmentation on the carbon cycle" Department of Energy, Brookhaven National Laboratory
(50) May 2021 – "Field validations of SIF and PRI to better estimate GPP" NASA Surface Biology and Geology Calibration & Validation Science Team.
(49) March 2021 – "Urban Heat: Rising Temperatures and Population Vulnerability in Cities" Boston University Trustees and the Advisory Committee for Socially Responsible Investing.
(48) February 2021 – "Impacts of urbanization & landscape fragmentation on the carbon cycle" Clark University
(47) January 2021 – "Impacts of urbanization & landscape fragmentation on the carbon cycle" Michigan State University
(46) July 2020 – "Smart Cities, Sustainability and Well-Being" Gordon Research Conference, Industrial Ecology, Newry, ME [Invited Keynote; cancelled due to COVID]
(45) May 2020 – "COVID-19 & Cities: Pollution and the environment" Boston University Initiative on Cities Webinar
(44) Nov 2019 – "Cities, landscape fragmentation, & the carbon cycle: Are we measuring the right things in the right places?" University of New Hampshire
(43) Oct 2019 – "Cities, landscape fragmentation, & the carbon cycle: Are we measuring the right things in the right places?" Brown University
(42) July 2019 – "Coupling Biology and Chemistry in Cities: Feedbacks Between Urban Vegetation & the Atmosphere" Gordon Research Conference, Atmospheric Composition, Newry, ME [Invited Keynote]
(41) March 2019 – "What is the carbon value of trees across developed landscapes" Ecological Landscaping Association, Amherst, MA [Keynote]
(40) October 2018 – "Piecing together the fragments: Elucidating edge effects on forest carbon dynamics", NASA Jet Propulsion Laboratory, Pasadena, CA
(39) October 2018 – "Forests, Cities, and the Carbon Cycle", University of California, Berkeley

(38) September 2018 – "Cycling of CO2 in urban environments: Disentangling emissions and biological uptake to measure progress in climate action plans", Boston University Medical School, Dept of Environmental Health.
(37) June 2018 – "Urban CO2 Fluxes" National Institute of Standards (NIST), Gaithersburg, MD
(36) June 2018 – "Urban CO2 Fluxes" John Hopkins University, Baltimore, MD
(35) May 2018 – "Boston's forest canopy" City of Boston Parks Department, Boston, MA
(34) April 2018 - "Forests, Cities, and the Carbon Cycle" University of California - Riverside, Riverside, CA
(33) April 2018 – "The Value of Trees & Vegetation in the Urban Landscape" Massachusetts Arborists Association [keynote], Framingham, MA
(32) January 2018 – "Forests, Cities, and the Carbon Cycle" Max Planck Institute for Biogeochemistry, Jena, Germany
(31) June 2017 – "Net productivity of urban vegetation" Massachusetts Department of Conservation and Recreation, Tree City USA Forum, Arlington, MA [Keynote]
(30) November 2016 – "The evolution of a Professor's career", Massachusetts Institute of Technology, Early Career Science Network Workshop, Cambridge, MA
(29) September 2016 – "The urban carbon cycle: Uncertainties & surprises" Department of Energy, Oak Ridge National Laboratory, Oak Ridge, TN.
(28) May 2016 – "The urban carbon cycle: Linkages between biology, fossil fuel emissions, and atmospheric observations" National Institute of Standards (NIST), Gaithersburg, MD.
(27) April 2016 – "The urban carbon cycle: Linkages between biology, fossil fuel emissions, and atmospheric observations" Cornell University, Ithaca, NY.
(26) January 2016 – "The urban carbon cycle: Linkages between biology, fossil fuel emissions, and atmospheric observations" Volpe Center, Department of Transportation, Cambridge, MA.
(25) May 2015 – "The urban carbon cycle" PBA NOVA Science Café Seminar Series, Cambridge, MA
(24) May 2015 – "Quantifying and modeling the urban carbon cycle – An examination of land use change, vegetation responses, and emissions" Oak Ridge National Laboratory, Knoxville, TN.
(23) April 2015 – "Urban carbon cycling - Seeing the city through the trees," Brookline Greenspace alliance, Brookline, MA.
(22) April 2015 – "Quantifying and modeling the urban carbon cycle – An examination of lan use change, vegetation responses, and emissions" University of Utah, Global Change and Sustainability Center Seminar Series, Salt Lake City, UT.
(21) October 2014 – "Cities and the climate challenge" Boston University Development Office Alumni Event, Portland, ME.
(20) October 2014 – 4-D Modeling of the Regional Carbon Cycle in & Around Urban Environments: An Interdisciplinary Study to Advance Observational & Modeling Foundations," NASA Land Cover Land Use Change Webinar Series.
(19) September 2014 – "Advancing the human condition," Boston University, Gitner Lecture Series, Boston, MA.
(18) May 2014 - "Urbanization, land cover change, and the carbon cycle," Harvard University, Environmental Science and Engineering Seminars, Cambridge, MA.
(17) May 2014 – "Urbanization, land cover change, and the carbon cycle," Harvard University, Arnold Arboretum, Boston, MA.
(15) March 2014 - "Urbanization, land cover change, and the carbon cycle," City University of New York, New York, NY.
(14) March 2014 - "Urbanization, land cover change, and the carbon cycle," Worcester State University, Worcester, MA.
(13) October 2013 – "The Climate Crisis: Tracking Boston's Carbon Dioxide and Methane Digestion," Boston University Discovery Series lectures, Boston, MA
(12) May 2013 – "CO_2 in the City" Massachusetts Institute of Technology, Global Technology and Policy Research Seminar, Boston, MA.
(11) March 2013 – "Building a Smarter City" Smarter Cities: A Roadmap for the Future, Boston, MA.

(10) March 2013 – "The urban carbon cycle: Do ecosystems really matter?" Marine Biological Laboratory, Woods Hole, MA.
(9) February 2012 – "Cities and the carbon cycle: Do urban areas only matter in terms of emissions?" Yale University, School of Forestry & Environmental Studies, New Haven, CT
(8) November 2011 – "Atmosphere-biosphere carbon exchange" Guest lecture in ES268 (Chemical Kinetics, Harvard University), Cambridge, MA
(7) January 2011 – "Boston's Urban Metabolism" Harvard University January Term course, Reading and Conserving New England: Interdisciplinary Insights into a landscape's Past, Present, and Future, Cambridge, MA.
(6) November 2010 – "Impacts of disturbance and recovery dynamics in an Amazonian rainforest," Boston University Terrestrial Biogeoscience Seminar Series, Boston, MA.
(5) June 2010 – "Terrestrial carbon cycling across urban to rural gradients," Harvard Forest Summer Seminar Series, Petersham, MA.
(4) October 2009 – "Urbanization, terrestrial vegetation structure, and the carbon cycle: Results from the Seattle, WA region" King County, Land and Water Division – Fall Science Seminar. Seattle, WA.
(3) February 2008 – "Carbon and water exchange in Amazonian rainforests," University of Washington, Water Center Seminar, Seattle, WA.
(2) October 2007 – "Seasonal controls on the exchanges of carbon and water in an Amazonian rainforest," University of Washington, Program on Climate Change Seminar, Seattle, WA.
(1) April 2007 – "Carbon & water exchange in Amazonian rainforests," Massachusetts Institute of Technology, Hydrology Seminar Series, Cambridge, MA.

INVITED CONFERENCE, PANEL & WORKSHOP PRESENTATIONS

(38) August 2022 – "Dynamics of carbon cycling at temperate forest edges", Ecological Society of America Annual Meeting [Invited]
(37) October 2021 – "Pushing boundaries – Women scientists at the forefront of community-engaged research" Boston University Initiative on Cities [Invited]
(36) October 2021 – "Cool, climate-safe cities: New solutions & research", Institute of Sustainable Energy [invited]
(35) March 2021 – "Land Use" Harvard Forest LTER Symposium, Petersham, MA [invited]
(34) February 2021 – "The world after COVID" Pardee Center video series [invited]
(33) December 2020 – "Collaborative networks for information exchange and datasharing", American Geophysical Union Fall Meeting, San Francisco, CA. [invited]
(33) October 2020 – "The world after COVID" Pardee Center video series [invited]
(32) January 2020 – "Carbon cycling in cities: Bold policies, but how do we assess progress?" American Meteorology Society Annual Meeting, Boston, MA. [invited]
(31) December 2019 – "Carbon cycling in cities: Bold policies, but how do we assess progress?" American Geophysical Union Fall Meeting, San Francisco, CA. [invited]
(30) October 2019 – "Biological carbon fluxes in cities", CO2USA Workshop, Boston, MA [Invited]
(30) October 2018 – "Biological carbon fluxes in cities", CO2USA Workshop, Salt Lake City, UT [Invited]
(29) November 2017 – "Biosphere flux inventories for cities", National Institute of Standards, Maryland. [Invited]
(28) September 2017 – "Role of biology in influencing the atmospheric mixing ratios of CO2 in cities," Advancing Urban GHG Inventory Development for Science and Mitigation Management Needs, National Institute of Standards, Maryland. [Invited]
(27) August 2017 – "Future directions for urban ecology and the essential role of long term, social-ecological research" Ecological Society of America annual meeting, Portland, OR [Invited]
(26) November 2016 – "Urban Carbon Cycle Science", Twenty-Eighth Annual Kavli Frontiers of Science Symposium (United States National Academy of Science), Irvine, CA [Invited]
(25) April 2016 – "Boston regional Greenhouse Gas Research Program", National Institute of Standards, Maryland. [Invited]

(24) December 2015 - "Attribution of urban greenhouse gas fluxes: Does the biosphere in cities matter?" American Geophysical Union Fall Meeting, San Francisco, CA. [Invited]
(23) January 2015 – "Urban Carbon Cycle" North American Carbon Cycle All Investigators Meeting, Washington D.C. [Breakout session convener]
(22) January 2015 – "Integrated Field Laboratory" Department of Energy, Biological and Environmental Advisory Committee Workshop, Washington D.C.
(21) November 2014 – "Sea level rise and the future of coast cities," Boston University, Initiative of Cities, Boston, MA [Invited conference moderator]
(20) October 2014 – " The Resilient City," Boston University, Initiative of Cities, Boston, MA [Invited Speaker and Discussant]
(19) May 2014 – "Boston's Trees and Climate Change", Community meeting for revision of Boston's Climate Action Plan, Boston, MA. [Invited Speaker and Discussant]
(18) April 2014 – "*4-D Modeling of the Regional Carbon Cycle in & Around Urban Environments: An Interdisciplinary Study to Advance Observational & Modeling Foundations*", NASA Land Cover, Land Use Change Science Team Meeting, Rockville, MD. [Invited]
(17) April 2014 – "Urban carbon/climate and air quality applications of OCO2" NASA Orbiting Carbon Observatory: Applications Workshop, Baltimore, MD. [Invited]
(16) February 2014 – "Interdisciplinary Distributed Courses: A Hybrid Approach to Teaching" Boston University Sixth Annual Instructional Innovation Conference, Boston, MA.
(15) December 2013 – "Impacts of Urbanization on the Carbon Cycle" American Geophysical Union Fall Meeting, San Francisco, CA. [Invited]
(14) September 2013 – "Local science informing local policies: Opportunities in regional carbon management" Massachusetts Institute of Technology workshop on Modeling Social, Technical and Natural Systems for Policy, Boston, MA [Invited]
(13) March 2013 - "The urban carbon cycle: Do ecosystems really matter?" Northeastern Ecosystem Research Cooperative 2013 annual conference, Saratoga Springs, NY. [Invited]
(12) September 2012 – "Assessing urban influences on ecosystems and the atmosphere" National Atmospheric Deposition Program annual meeting, Portland, ME. [Invited]
(11) June 2012 – "Carbon cycling across the Boston urban to rural gradient: Integrating emissions estimates and atmospheric observations" Conference on Agricultural and Forest Meteorology, Boston, MA.
(10) March 2012 – "ULTRA opportunities to bridge ecosystems, people, and land management" Harvard Forest Long-Term Ecological Research Area Annual Meeting, Petersham, MA. [Invited]
(9) August 2011 –"Carbon cycling across the Boston urban to rural gradient: Integrating emissions estimates and atmospheric observations" Ecological Society of America, Austin, TX.
(8) April 2011 –"The Carbon Metabolism of Boston" International Associate for Landscape Ecology Annual Meeting, Portland, OR. [Invited]
(7) March 2011 –"Boston's Urban Metabolism" Harvard Forest Long-Term Ecological Research Area Annual Meeting, Petersham, MA. [Invited]
(6) February 2011 – "Coupled Human-Natural Systems: ULTRA" Boston University Earth Systems Forum, Boston, MA [Invited]
(5) December 2010 – "Carbon dynamics across gradients of urbanization: Contrasting results from Boston and Seattle," American Geophysical Union Fall Meeting, San Francisco, CA.
(4) April 2010 – "Terrestrial carbon dynamics across gradients of urbanization," Emerging Issues Along Urban-Rural Gradients, Atlanta, GA.
(3) December 2008 – "Biodiversity in human dominated landscape: An urban ecology perspective," Biodiversity in a rapidly changing world, 9th national conference on science, policy, and the environment, Washington DC.
(2) May 2008 – "Impacts of alternative development patterns on aquatic ecosystems: Evidence from Puget Sound lowland sub-basins," Western Division of the American Fisheries Societies Symposium, Portland, OR. [Invited]

(1) April 2008 – "Discontinuities, criticality, & resilience in urban landscapes," US-IALE Symposium, Madison, WI.

TEACHING

BOSTON UNIVERSITY

Spring 2024 - Sabbatical
Fall 2023 - Sabbatical
Spring 2023 – EE475: Urban Ecology (29 undergraduates)
Fall 2022 – EE456/656: Terrestrial Ecosystems and the Carbon Cycle (8 undergraduate, 15 graduate students)
Spring 2022 – EE765/BI 765/EH797 (12 graduate students)
Spring 2022 - EE/BI 475/675: Urban Ecology (15 graduate & 14 undergraduate students)
Fall 2021 – EE764/BI764/EH799 Urban Colloquium (12 graduate students)
Spring 2021 – No courses taught
Fall 2020 – EE 270 – Data, Models, and Analysis in Earth & Environment (30 undergraduates)
Spring 2020: GE/BI/ES 720: Practicum in Biogeochemistry (7 graduate students)
Spring 2020 – GE 456/656: Terrestrial Ecosystems and the Carbon Cycle (10 undergraduate, 9 graduate students)
Fall 2019 – GE/BI/ES 719: Colloquium in Biogeochemistry (8 graduate students)
Spring 2019 – GE/BI 475/675: Urban Ecology (25 graduate & 5 undergraduate students)
Spring 2019 - GE/BI/ES 720: Practicum in Biogeochemistry (17 graduate students)
Fall 2018 - GE/BI/ES 719: Colloquium in Biogeochemistry (24 graduate students)
Spring 2018 – No courses taught
Fall 2017 – GE 270: Data, Models, and Analysis in Earth & Environment (31 undergraduates)
Spring 2017 – Sabbatical Leave
Fall 2016 – Sabbatical Leave
Spring 2016 – GE 475/675: Urban Ecology (12 undergraduates, 7 graduate students)
Fall 2015 – GE 456/656: Terrestrial Ecosystems and the Carbon Cycle (1 undergraduate, 6 graduate students)
Spring 2015 – GE 475/675: Urban Ecology (8 undergraduates, 3 graduate students)
Fall 2014 – GE 456/656: Terrestrial Ecosystems and the Carbon Cycle (1 undergraduate, 11 graduate students)
Spring 2014 – GE/BI/ES 720: Practicum in Biogeochemistry (8 students)
Fall 2013 – GE 475/675: Urban Ecology (8 undergraduates, 13 graduate students)
Fall 2013 – GE/BI/ES 719: Colloquium in Biogeochemistry (7 students)
Spring 2013 – GE 456/656: Terrestrial Ecosystems and the Carbon Cycle (5 undergraduates, 7 graduate students, 1 auditor)
Fall 2012 – no courses taught, Family Medical Leave
Spring 2012 – GE 104: Natural Environments: The Physical Landscape (34 undergraduates, Teaching Fellow with 3 lab sections)
Fall 2011 – GE 456/656: Terrestrial Ecosystems and the Carbon Cycle (12 graduate students, 1 auditor)
Spring 2011 – GE 104: Natural Environments: The Physical Landscape (25 undergraduates, Teaching Fellow with 3 lab sections)
Fall 2010 – GE 456/656: Terrestrial Ecosystems and the Carbon Cycle (4 undergraduates, 7 graduate students)
Spring 2010 – GE 104: Natural Environments: The Physical Landscape (22 undergraduates, Teaching Fellow with 3 lab sections)

UNIVERSITY OF WASHINGTON

Fall 2009 – URBDP 498: Environmental Planning (18 students)

POST-DOCTORAL

Steve Raciti (Ph.D. Cornell Univ.) April 2010 – July 2014 (*Currently an Associate Professor at Hofstra University*)

FELLOWS ADVISED

Brady Hardiman (Ph.D. Ohio State Univ.) June 2014 – 2015 (*Currently an Associate Professor at Purdue University*)
Andrew Reinmann (Ph.D. Boston Univ.) April 2014 – 2017 (*Currently an Assistant Professor at City University of New York*)
Afshin Pourmokhtarian (Ph.D. Syracuse University) 2015-2017 (*Currently an Assistant Professor at Wentworth College*)
Laura Schifman (PhD University of Rhode Island) 2018-2019 (*Currently Scientist at MADEP*)
Conor Gately (Ph.D. Boston University) 2015-2019 (*currently Research Analyst MAPC*)
Xiaoxing Tang (PhD Boston University) 2018-2020 (*Currently Post-doctoral Fellow with Professor Curtis Woodcock)*
Joy Winbourne (PhD UC-Davis) 2018-2021 (*Currently Assistant Professor at University of Massachusetts - Lowell)*
Taylor Jones (PhD Harvard) 2019-2023 (*Currently Assistant Professor Georgetown University)*
Ian Smith (PhD Boston University)
Yorum Hwang (Soule National University)

GRADUATED PHD STUDENTS

2023: Sarah Garvey (1st Reader)
Thesis: *Forest Fragments and urbanization effects on belowground processes and soil carbon cycling*
2023: Ian Smith (1st Reader)
Thesis: *Urbanization impacts on vegetation, heat, and water for improved climate adaption*
2023: Luca Morreale (1st Reader)
Thesis: *The effects of fragmentation on temperate forests in the northeastern United States: Measuring the extent and impacts on forest growth and structure*
2023: Stephen Goughney (3rd Reader)
Thesis: *Nutrient allocation and conservation mechanisms in trees: Intraspecific variation, reproductive costs, and global scale comparisons*
2023: Paige Bruchu (3rd Reader)
Thesis: Exposure to greenness and the natural landscape: Understanding the impacts on urban health and heat
2022: Raquel Jimenez Celsi (3rd Reader)
Thesis: *School greenness and individual-level academic performance in elementary-aged students: Evidence from the global south*
2022: Leticia Lee, PhD Earth & Environment (3rd Reader)
Thesis: *Phenology, light use efficiency, and ecosystem productivity in temperate deciduous forests*
2022: Anthony Wong, PhD Earth & Environment (2nd Reader)
Thesis: I*mportance of Terrestrial Ecosystem Functioning on Air Quality - The Cases of Ozone Deposition and Land Change*
2021: Julia Marrs, PhD Geography **(Thesis Advisor)**
Thesis: "*Solar induced fluorescence as a tool to understand carbon exchange*"
2020: Wiley Hundertmark, BA/MA Earth & Environment (Senior **Thesis Advisor)**
Thesis: Analyzing Spatial Forest Characteristics Using LiDAR and Foliar Measurements
2020: Ryan Quinn, MS Biology (3rd Reader)
Thesis: "*Autotrophic belowground carbon fluxes in two bioenergy crops*"
2019: Andrew Trlica, PhD Geography **(Thesis Advisor)**
Thesis: "*Spatial patterning in albedo and biogenic carbon exchange in urban areas***"**
2019: Paulo Arevola, PhD Geography (3rd Reader)
Thesis: *"Land change and carbon dynamics in the Columbian Amazon"*
2019: Sarabeth Buckley, Ph.D. Georgraphy (Committee Chair)
Thesis: "*Enhancing plant growth and carbon harvesting for sustainable agriculture*"
2019: Jonathan Wang, Ph.D Geography (3rd Reader)
Thesis: *"Interactions among land cover, disturbance, and productivity across artic-boreal ecosystems of northwestern North America from remote sensing."*
2019: Erin Pierce, MA Biology (2nd Reader)

Thesis: *"Effects of air quality, urbanization, and fragmentation on above-ground carbon storage of temperate forest ecosystems."*

2018: Steven Decina, PhD Biology (**Thesis Co-Advisor**, currently AAAS Fellow at Environmental Protection Agency)
Thesis: "*Urban biogeochemical cycles of carbon, nitrogen, and phosphorus: The city of Boston as a case study*"

2017: Ha Nguyen, PhD Geography (**Thesis Advisor**, currently post-doc at University of Technology, Sydney)
Thesis: "*Ecological impacts of deforestation and forest degradation in Northwestern Borean peat swamp forests*"

2017: Ian Smith, BS, with Honors, Environmental Science (**Senior Thesis Advisor)**
Thesis: Piecing together the fragments: Elucidating edge effects on forest carbon dynamics.

2016: Margaret Hendrick, PhD Geography (2nd reader, currently Post-doc at Boston University)
Thesis: "*The environmental and political ecology of natural gas*"

2016: Gabrielle Jackson, Boston University Academy High School (**Senior Thesis Advisor**, currently Barnard College undergraduate)
Thesis: *"On the Edge: Impacts of the Edge Effect on Climate Change and Urban Forest Carbon Dynamics in the Greater Boston Area"*

2016: Ramona Hiln, MA Geography (2nd Reader)
Thesis: *"The Relationship Between Urban Climate And Vegetation, A Review Through Two Yearlong Case Studies In Massachusetts"*

2015: Conor Gately, Ph.D. Geography (**Thesis Co-Advisor,** currently Post-doc at Boston University)
Thesis: "*Greenhouse Gas Emissions from Mobile Sources: Improved Understanding of the Drivers of Emissions and Spatial Patterns*"

2015: Brittain Briber, Ph.D. Geography (**Thesis Advisor**)
Thesis: *"Urbanization, carbon fluxes, and Ecosystems: An Exploration of Coupled Dynamics and Feedbacks"*

2015: Victoria Dearborn, BS. With Honors, Geography & Environment (**Senior Thesis Advisor**)
Thesis: *"Carbon dynamics of urban street trees"*

2015: Ji Hyun Kim, Ph.D. Geography (4th Reader, currently a post-doc at University of Illinois)
Thesis: Carbon and water cycles in mixed-forest catchments: Ecohydrological modeling of the influences of climate variability and invasive insect infestation

2015: Zhan Li, Ph.D. Geography (3rd Reader)
Thesis: "Advances in measuring forest structure by terrestrial laser scanning with the dual wavelength echidna lidar"

2015: Rose Ambramoff, Ph.D. Biology (2nd Reader, currently a post-doc at Lawrence Livermore National Laboratrory)
Thesis: *"Phenology and allocation of plant belowground carbon at local to global scales"*

2014: Evan Kuras, BS. With Honors, Geography & Environment (**Senior Thesis Advisor**)
Thesis: *"Intra-neighborhood Variability in Individual Heat Exposure"*

2014: Andrew Reinmann, Ph.D. Biology (2nd Reader, currently post-doc in Hutyra Lab)
Thesis: *"Effects of winter climate change on carbon and nitrogen losses from temperate forest ecosystems"*

2013: Preeti Rao, Ph.D. Geography & Environment (**Thesis Advisor**, currently post-doc at NASA Jet Propulsion Lab)
Thesis: *"Carbon, nitrogen, and vegetation along an urbanization gradient: A Boston case study using field, remotely sensed and socioeconomic data"*

2013: Poliana Lemos, Ph.D. Biology (2nd Reader, currently Adjunct Professor at Santa Monica College)
Thesis: *"A Centennial-Time Scale Analysis of New England Forests' Carbon Resiliency to the Hemlock Woolly Adelgid"*

2011: Max Brondfield, A.B. Harvard University (**Senior Thesis Advisor**; currently UCSF

medical student)
Thesis: *"Defining the urban-to-rural gradient: An analysis of CO_2 emissions inventories and patterns of spatial variation in the greater Boston area"*
2012: Larry Bandoni, Boston University Academy High School (**Thesis Advisor**, currently BU undergraduate)
Thesis: *"The effects impervious surfaces have on soils below them and the consequences of further urbanization"*
2010: Jared Newell, M.S. Geography (2nd Reader; currently Environmental Consultant)
Thesis: "*Combining multi-source remotely sensed data to model carbon budgets of urban ecosystems: A case study in Boston*"

CURRENT PHD STUDENTS

Sophie Kaye, MA Earth & Environment (Advisor, 2021-present)
Hristiana Stoynova, Ph.D. Earth & Environment (Advisor, 2022-present)
Leeza Maldavchuk, Ph.D. Earth & Environment (Advisor, 2022-present)

WORKSHOPS & CONFERENCES ORGANIZED

Co-Organizer: Mapping Urban Air: Linking Observations and Processes, Telluride Science Meeting, Telluride, CO. July 2023 20 people
Co-Organizer: Mapping Urban Air: Linking Observations and Processes, Telluride Science Meeting, Telluride, CO. July 2021 20 people
Lead Organizer: Sustainable Urban Systems, *Re-envisioning Urban Infrastructure to Address Climate Change: A Comprehensive Regional Framework for Sustainability.* https://www.bu.edu/urbanclimate/bu-sus-2019/ August 2019, Boston, MA. 176 people
Lead Organizer: 3rd CO2-Urban Synthesis & Analysis Workshop http://sites.bu.edu/co2usa/454-2/ October 2019, 96 people.
Co-Convener: 2rd CO2-Urban Synthesis & Analysis Workshop, Salt Lake City, UT https://environment.utah.edu/co2-workshop/ October 2018, 75 people.
Co-Convener: 1st CO2-Urban Synthesis & Analysis Workshop, Gaithersburg, MD http://sites.bu.edu/co2usa/november-2017-workshop/ October 2017, 50 people.

SERVICE SCIENTIFIC COMMUNITY

2017-present: NASA Earth Science Advisory Committee (ESAC; Federal Advisory Committee)
2021-present: Advisory Broad for *Environmental Science: Atmospheres* journal
2013-2020: North American Carbon Program Scientific Steering Group (NACP SSG). Renamed from SSG to Science Leadership Group
2014-2019: Oak Ridge National Laboratory, Data Active Archive Center (ORNL-DAAC). User Working Group.
2016: Science question reviewer for the U.S. National Science Bowl (associated with the Oak Ridge Associated Universities)
2016: Convener for the American Geophysical Union, Outstanding Student Presentation Awards in Global Environmental Change
2016: Co-Organizer for Boston University Conference of Urban Sustainability
2016: Co-Chair for the North American Carbon Program Science Implementation Review
2015: DOE Biological and Environmental Advisory Committee (BERAC) workshop on Urban Carbon Cycle Science.
2014: NASA Decadal Survey Working Group
2014-2015: Urban National Ecological Observatory Network (NEON) Design Working Group
2013: North American Carbon Program 2013 All Investigators Meeting (Scientific Steering Committee member)
2013: National Socio-Environmental Synthesis Center (SESYNC) working group "The Megaregion as Socio-Ecological Unit"
2010: Columbia University, Lamont-Doherty Earth Observatory, Women Faculty in Science panelist

INVITED GRANT

2023: National Science Foundation, Science & Technology Center site review team

REVIEW PANELIST

2021: National Science Foundation, Dynamics of Integrated Socio-Environmental Systems (DISES)
2020: National Science Foundation, Long-Term Ecological Research
2019: National Science Foundation, Critical Zone Observatory (CZO)
2016: National Science Foundation, Coupled Natural-Human Systems (CNH)
2015: National Science Foundation, Ecosystem Science (DEB)
2014: National Aeronautics and Space Administration: New Investigator Program (NIP)
2013: National Science Foundation, Ecosystem Science (DEB)
2013: National Ocean and Atmospheric Administration: Climate Program (CPO)
2012: National Science Foundation, Ecosystem Science (DEB)
2011: Department of Defense: Strategic Environmental Research and Development Program
2011: United States Department of Agriculture: Soils and Global Change Program
2010: National Aeronautics and Space Administration: Terrestrial Ecology Program
2009: National Aeronautics and Space Administration: Terrestrial Ecology Program

AD-HOC GRANT REVIEWER

2023: National Ocean and Atmospheric Administration: Climate Program (CPO)
2018: National Science Foundation, Data and Technology in Environmental Hazards
2018: National Science Foundation, Ecosystem Science (DEB)
2017: National Ocean and Atmospheric Administration: Climate Program (CPO)
2017: National Science Foundation, Ecosystem Science (DEB)
2016: German Research Foundation
2015: National Science Foundation: Hydrology
2015: National Aeronautics and Space Administration: Post-Doctoral Fellowship
2014: National Aeronautics and Space Administration: Post-Doctoral Fellowship
2013: National Aeronautics and Space Administration: Post-Doctoral Fellowship
2012: National Science Foundation: Partnerships for International Research and Education
2012: National Aeronautics and Space Administration: Post-Doctoral Fellowship
2011: German Research Foundation
2011: National Science Foundation: Geography & Spatial Sciences
2010: National Science Foundation: Climate & Large Scale Dynamics

CONFERENCE SESSION CONVENER

2017: North American Carbon Cycle Program Implementation Plan - Updates, Syntheses, & New Opportunities (Breakout group convener, North American Carbon Cycle Science Program, All Investigator Meeting)
2015: Urban Carbon Cycle Breakout Session (Session Convener, North American Carbon Cycle Science Program, All Investigator Meeting)
2015: Biogeochemistry of Rivers and Soils in the Urban Ecosystem and Their Climate Impacts session convener, American Geophysical Union Annual Meeting)
2013: Measurements, Modeling, and Evaluation of Emissions (session convener, American Geophysical Union Annual Meeting; 6 oral sessions granted)
2012: Urbanization and Global Change (Union session convener, American Geophysical Union Annual Meeting)
2011: Modeling and Extending Urban Metabolism (Session convener, American Geophysical Union Annual Meeting, December 2011)
2009: Integration studies, monitoring, and modeling studies (Workshop on Monsoon Asia Tropical Forest Carbon Dynamics and Sustainability, January 2009, Khon Kaen, Thailand)
2007: Forest Dynamics and Disturbance (NASA LBA-ECO Science Team Meeting, Salvador, Brazil)
2006: Carbon Fluxes in Upland Ecosystems (NASA LBA-ECO Science Team Meeting, Sao Paulo, Brazil).

INVITED JOURNAL REVIEWER

Proceedings of the National Academy of the United States of America (PNAS), Science, Nature, Nature Ecology & Evolution, Global Change Biology; Environmental Science and Technology; Trends in Ecology & Evolution; Agricultural & Forest Meteorology; Biogeochemistry (Named as 2013 Outstanding Reviewer), Climate Dynamics, Forest Ecology and Management; Ecological Applications; Journal Climate; Journal of Geophysical Research – Biogeosciences; Journal of Geophysical Research – Atmospheres; Remote Sensing; New Phytologist; Journal of Photogrammetry and Remote Sensing; Science of the Total Environment; Atmospheric Chemistry and Physics.

BOSTON UNIVERSITY SERVICE

2023 - present: Associate Director, Initiative on Cities
2021-present: Director of Biogeosciences
2017-present: Associated Director for the Boston University Urban NRT graduate training program
2023: CAS STEM Research Support Committee
2023: CAS Teaching Awards Committee
2022-2023: Dalton Environmental Data Science Endowed Chair search Committee
2021-2022: Interim Director, Initiative on Cities
2017-present: Advisory board member for the Boston University Initiative on Cities
2021: Biogeosciences student awards committee
2021: Earth & Environment Merit review committee
2021: Initiative of Cities Director Search Committee member
2020 & 2021: Sustainability Research Institute Director Search Committee member
2020-2022: Director, Campus as a Living Lab
2018-2022: Co-Director for the BU Urban Climate Initiative
2019-2020: Earth & Environment faculty search committee member (Coupled Human-Natural Systems)
2018-2019: Earth & Environment faculty search committee member (Coupled Human-Natural Systems)
2018-2019: Biology faculty search committee member (Global Change Biology)
2017-2018: Associate Chair for Curriculum, Department of Earth & Environment
2016-2017: Task Force on the Boston University Climate Action Plan
2015-2016: Graduate Academic Affairs Committee
2015-2016: Director of Graduate Studies for Earth & Environment
2015-2016: Earth & Environment faculty search committee member (Remote Sensing)
2014-2015: Chair, Natural Sciences Curriculum Committee, College of Arts and Sciences
2014: Graduate Women in Science & Engineering panel discussant on career-life balance.
2010 – 2014: Natural Sciences Curriculum Committee, College of Arts and Sciences
2013: Earth & Environment faculty search committee member (Tectonics search)
2013: Terrestrial Biogeosciences Advisory Board member
2013: Faculty Organizer for BU-IBM "Building a Smarter City" Conference
2012: Geography & Environment faculty search committee member (Remote Sensing search)
2011: Faculty Advisor for Boston University Alumni College "Sustainability in the City"
2011: Science & Engineering Day Judge
2011: New Faculty Orientation Panelist
2011: Earth Systems Forum Breakout Group Leader
2010: Geography & Environment faculty search committee member (Human Dimensions of global change search)
2010: New Faculty Orientation Panelist
2010: Science & Engineering Day Judge

OTHER EMPLOYMENT

Google
Visiting Faculty Fellow, Cambridge, Massachusetts, June 2023 – present

Harvard University, Cambridge, Massachusetts
Research Assistant, under Dr. Steven C. Wofsy, June 1999 – September 2002
Weyerhaeuser Co., Federal Way, Washington, USA
Environmental & Analytical Sciences Research Technician, April 1996 – May 1998