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RESEARCH INTERESTS | Interactions between humans and ecosystems including (1) carbon and water cycling (2) ecosystem responses to stressors (both human and climatic); (3) Atmosphere-biosphere interactions; (4) terrestrial ecology; (5) urban ecology.

ACADEMIC APPOINTMENTS | **Boston University, Boston, Massachusetts, USA**
Professor of Earth & Environment, 2021 - Present
Associate Professor of Earth & Environment, 2015 - Present
Co-Director, Urban Climate Research Initiative, 2018 – present
Associate Director, Urban NRT Program, 2017 – present
Pardee Center Faculty Research Fellows, 2015 - Present
Assistant Professor of Earth & Environment, 2009 - 2015
Affiliated Faculty, Center for Information and Systems Engineering, 2013 – Present
Harvard University
Associate, Department of Earth & Planetary Sciences, 2016-present
Charles Bullard Fellow, 2016-2017
Associate of the Arnold Arboretum of Harvard University, 2015 - Present
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 | 2019 – present: Contributing Author to IPCC WGIII, AR6 Climate Change in 2021: Mitigation of Climate Change
2017 – present: NASA Federal Advisory Committee on Earth Sciences
2016-2017 Charles Bullard Fellowship, Harvard University
2016 National Academy of Sciences, Kavli Fellow (Early Career)
2015 Templeton Award for Excellence in Student Advising
2012 National Science Foundation CAREER Award

GRANTS & AWARDS | (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**). 8/1/2020-7/31-2023
(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). 9/1/2020-8/31/2023
(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

	<p>Peat Dome in Borneo (Institutional PI); National Science Foundation, EAR-1114155, 9/2011 – 8/2015.</p> <p>(10) Prototype Monitoring, Reporting, and Verification System for the Regional Scale: The Boston-DC Corridor (CO-PI); NASA (NNH13CK02C), 9/2013 – 8/2016.</p> <p>(9) Methane Inputs from Natural Gas Infrastructure in Greater Metropolitan Boston (CO-PI); Environment Defense Fund, 10/2012 – 9/2013.</p> <p>(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</p> <p>(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.</p> <p>(6) Collaborative Research: ULTRA-Ex: Metabolism of Boston (CO-PI). National Science Foundation, DEB-0948857, 9/2010-2/2012.</p> <p>(5) Urban carbon metabolism travel grant (PI); Boston University, Mary Erskine Award, 2011.</p> <p>(4) Linking CO₂ 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</p> <p>(3) Estimating rates of methane leakage from Greater Metropolitan Boston (CO-PI); Environment Defense Fund, 5/2012 – 11/2012.</p> <p>(2) Carbon and nitrogen dynamics along an urbanization gradient in Boston, MA. Arnold Arboretum Deland Award granted to PhD Advisee Preeti Rao, 2011-2012.</p> <p>(1) Combating climate change through smarter urban transportation policies (Academic PI); IBM Smarter Cities, 2012.</p>
NASA SCIENCE TEAMS	<p>(3) NASA Orbital Carbon Observatory – 3 2018 – present</p> <p>(2) NASA Orbital Carbon Observatory – 2 2015-2018</p> <p>(1) NASA Carbon Monitoring System 2013 – present</p>
PUBLICATIONS	<p>PEER-REVIEWED ARTICLES & BOOK CHAPTER</p> <p><u>UNDERLINE DENOTES ADVISEE</u></p> <p>(WEB OF SCIENCE H-INDEX = 37; SUM OF CITATIONS 6,732)</p>
IN REVIEW	<p>(95) <u>Hundertmark, W.J., Morreale, L.L.</u>, Reinmann, A.B., Thompson, J.R., Hutyra, L.R. Canopy structure, foliar chemistry, and spatial characteristics of temperate forest edges. <i>Ecology</i>, in review.</p> <p>(94) Tiesken, K., <u>Smith, I.A.</u>, Jimenez Celsi, J.B., Hutyra, L.R., Fabian, M.P. Mapping the Cooling Health Benefits of Greenspace through an Ecosystem Services Framework. <i>Environmental Health Perspectives</i>, in review.</p> <p>(93) <u>Morreale, L.</u>, Thompson, J.R., <u>Tang, X.</u>, Reinmann, A.B., Hutyra L.R., Fragmentation impacts on temperate forest productivity: reversal of the tropical edge paradigm. <i>Nature Communications</i>, in revision.</p> <p>(92) <u>Smith, A.I.</u>, Li, D., <u>Winbourne, J.B.</u>, <u>Jones, T.S.</u>, Tieskens, K., Hutyra, L.R. A satellite-based model for estimating latent heat flux from urban vegetation. <i>Geophysical Research Letters</i>, in review.</p>
2021	<p>(91) <u>Marrs, J.K.</u>, Jones, T.J., Allen, D.W., Hutyra, L.R. Instrumentation sensitivities for tower-based solar-induced fluorescence measurements. <i>Remote Sensing of Environment</i>, in press.</p>

- (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*, in press.
- (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 CO₂ 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, A.G.S., 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.

- 2013 (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.
- (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 CO₂ 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 CO₂ 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.
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- (7) [Gately, C.K.](#), **Hutryra, L.R.** From pledges to action: Cities need to show their climate progress with hard data. *The Conversation*, December 2018
- (6) [Templer, P.H.](#), **Hutryra, L.R.**, [Decina, S.](#) It's raining nitrogen. *Silva Magazine*, Fall 2016.
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- (4) [Romero-Lankao, P.](#), [Gurney, K.](#), [Seto, K.](#), [Baker, L.](#), [Chester, M.](#), [Kennedy, C.](#), [Duren, R.](#), [Ehleringer, J.](#), [Feddesma, J.](#), [Frost, G.](#), [Grimm, N.B.](#), [Hughes, S.](#), **Hutryra, 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.
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- (2) **Hutryra, 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) **Hutryra, L.R.** Carbon footprints. *World Book Encyclopedia*, 2011.

**INTERNATIONAL
PRESENTATIONS**

- (15) November 2020 - "Collaborative networks for information exchange and datasharing" 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 CO₂-Urban Synthesis and Analysis (CO₂-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 – "CO₂ 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 CO₂ in a mid-latitude forest," International Congress of Ecology & INTECOL meeting, Seoul, South Korea. [Invited]

**INVITED
SEMINARS
& KEYNOTE
ADDRESSES**

- (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 land 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 – “CO₂ 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 &
WORKSHOP
PRESENTATIONS**

- (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 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/BE 475/675: Urban Ecology (25 graduate & 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)
Fall 2009 – URBDP 498: Environmental Planning (18 students)

UNIVERSITY OF
WASHINGTON

POST-
DOCTORAL
FELLOWS
ADVISED

Steve Raciti (Ph.D. Cornell Univ.) April 2010 – July 2014 (*Currently an Assistant Professor at Hofstra University*)
Brady Hardiman (Ph.D. Ohio State Univ.) June 2014 – 2015 (*Currently an Assistant 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-present
Joy Winbourne (PhD UC-Davis) 2018-present

GRADUATED
STUDENTS

Taylor Jones (PhD Harvard) 2019-present

- 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. Geography (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 Laboratory)
Thesis: "*Phenology and allocation of plant belowground carbon at local to global scales*"

	<p>2014: Evan Kuras, BS. With Honors, Geography & Environment (Senior Thesis Advisor) Thesis: <i>"Intra-neighborhood Variability in Individual Heat Exposure"</i></p> <p>2014: Andrew Reinmann, Ph.D. Biology (2nd Reader, currently post-doc in Hutyra Lab) Thesis: <i>"Effects of winter climate change on carbon and nitrogen losses from temperate forest ecosystems"</i></p> <p>2013: Preeti Rao, Ph.D. Geography & Environment (Thesis Advisor, currently post-doc at NASA Jet Propulsion Lab) Thesis: <i>"Carbon, nitrogen, and vegetation along an urbanization gradient: A Boston case study using field, remotely sensed and socioeconomic data"</i></p> <p>2013: Poliana Lemos, Ph.D. Biology (2nd Reader, currently Adjunct Professor at Santa Monica College) Thesis: <i>"A Centennial-Time Scale Analysis of New England Forests' Carbon Resiliency to the Hemlock Woolly Adelgid"</i></p> <p>2011: Max Brondfield, A.B. Harvard University (Senior Thesis Advisor; currently UCSF medical student) Thesis: <i>"Defining the urban-to-rural gradient: An analysis of CO₂ emissions inventories and patterns of spatial variation in the greater Boston area"</i></p> <p>2012: Larry Bandoni, Boston University Academy High School (Thesis Advisor, currently BU undergraduate) Thesis: <i>"The effects impervious surfaces have on soils below them and the consequences of further urbanization"</i></p> <p>2010: Jared Newell, M.S. Geography (2nd Reader; currently Environmental Consultant) Thesis: <i>"Combining multi-source remotely sensed data to model carbon budgets of urban ecosystems: A case study in Boston"</i></p>
CURRENT PHD STUDENTS	<p>Julia Marrs, Ph.D. Geography and Environment (Advisor, 2016-present) Luca Morreale, Ph.D. Geography and Environment (Advisor, 2017-present) Sarah Garvey, Ph.D. Geography and Environment (Advisor, 2017-present) Ian Smith, PhD Earth & Environment (Advisor, 2019-present) [NSF Fellowship]</p>
WORKSHOPS & CONFERENCES ORGANIZED	<p>Lead Organizer: Sustainable Urban Systems, <i>Re-envisioning Urban Infrastructure to Address Climate Change: A Comprehensive Regional Framework for Sustainability</i>. https://www.bu.edu/urbanclimate/bu-sus-2019/ August 2019, Boston, MA. 176 people</p> <p>Lead Organizer: 3rd CO₂-Urban Synthesis & Analysis Workshop http://sites.bu.edu/co2usa/454-2/ October 2019, 96 people.</p> <p>Co-Convener: 2nd CO₂-Urban Synthesis & Analysis Workshop, Salt Lake City, UT https://environment.utah.edu/co2-workshop/ October 2018, 75 people.</p> <p>Co-Convener: 1st CO₂-Urban Synthesis & Analysis Workshop, Gaithersburg, MD http://sites.bu.edu/co2usa/november-2017-workshop/ October 2017, 50 people.</p>
SERVICE SCIENTIFIC COMMUNITY	<p>2017-present: NASA Earth Science Advisory Committee (ESAC; Federal Advisory Committee)</p> <p>2013-2020: North American Carbon Program Scientific Steering Group (NACP SSG). Renamed from SSG to Science Leadership Group</p> <p>2014-2019: Oak Ridge National Laboratory, Data Active Archive Center (ORNL-DAAC). User Working Group.</p> <p>2016: Science question reviewer for the U.S. National Science Bowl (associated with the Oak Ridge Associated Universities)</p> <p>2016: Convener for the American Geophysical Union, Outstanding Student Presentation Awards in Global Environmental Change</p> <p>2016: Co-Organizer for Boston University Conference of Urban Sustainability</p> <p>2016: Co-Chair for the North American Carbon Program Science Implementation Review</p> <p>2015: DOE Biological and Environmental Advisory Committee (BERAC) workshop on Urban Carbon Cycle Science.</p> <p>2014: NASA Decadal Survey Working Group</p>

	<p>2014-2015: Urban National Ecological Observatory Network (NEON) Design Working Group</p> <p>2013: North American Carbon Program 2013 All Investigators Meeting (Scientific Steering Committee member)</p> <p>2013: National Socio-Environmental Synthesis Center (SESYNC) working group “The Megaregion as Socio-Ecological Unit”</p> <p>2010: Columbia University, Lamont-Doherty Earth Observatory, Women Faculty in Science panelist</p>
<p>INVITED GRANT REVIEW PANELIST</p>	<p>2021: National Science Foundation, Dynamics of Integrated Socio-Environmental Systems (DISES)</p> <p>2020: National Science Foundation, Long-Term Ecological Research</p> <p>2019: National Science Foundation, Critical Zone Observatory (CZO)</p> <p>2016: National Science Foundation, Coupled Natural-Human Systems (CNH)</p> <p>2015: National Science Foundation, Ecosystem Science (DEB)</p> <p>2014: National Aeronautics and Space Administration: New Investigator Program (NIP)</p> <p>2013: National Science Foundation, Ecosystem Science (DEB)</p> <p>2013: National Ocean and Atmospheric Administration: Climate Program (CPO)</p> <p>2012: National Science Foundation, Ecosystem Science (DEB)</p> <p>2011: Department of Defense: Strategic Environmental Research and Development Program</p> <p>2011: United States Department of Agriculture: Soils and Global Change Program</p> <p>2010: National Aeronautics and Space Administration: Terrestrial Ecology Program</p> <p>2009: National Aeronautics and Space Administration: Terrestrial Ecology Program</p>
<p>AD-HOC GRANT REVIEWER</p>	<p>2018: National Science Foundation, Data and Technology in Environmental Hazards</p> <p>2018: National Science Foundation, Ecosystem Science (DEB)</p> <p>2017: National Ocean and Atmospheric Administration: Climate Program (CPO)</p> <p>2017: National Science Foundation, Ecosystem Science (DEB)</p> <p>2016: German Research Foundation</p> <p>2015: National Science Foundation: Hydrology</p> <p>2015: National Aeronautics and Space Administration: Post-Doctoral Fellowship</p> <p>2014: National Aeronautics and Space Administration: Post-Doctoral Fellowship</p> <p>2013: National Aeronautics and Space Administration: Post-Doctoral Fellowship</p> <p>2012: National Science Foundation: Partnerships for International Research and Education</p> <p>2012: National Aeronautics and Space Administration: Post-Doctoral Fellowship</p> <p>2011: German Research Foundation</p> <p>2011: National Science Foundation: Geography & Spatial Sciences</p> <p>2010: National Science Foundation: Climate & Large Scale Dynamics</p>
<p>CONFERENCE SESSION CONVENER</p>	<p>2017: North American Carbon Cycle Program Implementation Plan - Updates, Syntheses, & New Opportunities (Breakout group convener, North American Carbon Cycle Science Program, All Investigator Meeting)</p> <p>2015: Urban Carbon Cycle Breakout Session (Session Convener, North American Carbon Cycle Science Program, All Investigator Meeting)</p> <p>2015: Biogeochemistry of Rivers and Soils in the Urban Ecosystem and Their Climate Impacts session convener, American Geophysical Union Annual Meeting)</p> <p>2013: Measurements, Modeling, and Evaluation of Emissions (session convener, American Geophysical Union Annual Meeting; 6 oral sessions granted)</p> <p>2012: Urbanization and Global Change (Union session convener, American Geophysical Union Annual Meeting)</p> <p>2011: Modeling and Extending Urban Metabolism (Session convener, American Geophysical Union Annual Meeting, December 2011)</p>

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 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**

2021: Initiative of Cities Director Search Committee member
2020 & 2021: Sustainability Research Institute Director Search Committee member
2020-present: Director, Campus as a Living Lab
2018-present: Co-Director for the BU Urban Climate Initiative
2017-present: Advisory board member for the Boston University Initiative on Cities
2017-present: Associated Director for the Boston University Urban NRT graduate training program
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**

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

