Boston University

Lucy R. Hutyra

Department of Earth & Environment

685 Commonwealth Avenue

Boston, MA 02215 USA

(617) 353-5743 – lrhutyra [at] bu.edu

http://sites.bu.edu/hutyra/

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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. |

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| **Academic Appointments** | **Boston University, *Boston, Massachusetts, USA*** Associate Professor of Earth & Environment, 2015 - PresentCo-Director, Urban Climate Research Initiative, 2018 – presentAssociate Director, Urban NRT Program, 2017 – present Pardee Center Faculty Research Fellows, 2015 - PresentAssistant Professor of Earth & Environment, 2009 - 2015Affiliated 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 |

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| **Education** | **Harvard University, Cambridge, Massachusetts** Ph.D., Department of Earth & Planetary Sciences, April 2007Thesis: 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 |

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| **Honors, Awards, & Distinctions** | 2019 – present: Contributing Author to IPCC WGIII, AR6 Climate Change in 2021: Mitigation of Climate Change2017 – present: NASA Federal Advisory Committee on Earth Sciences2016-2017 Charles Bullard Fellowship, Harvard University2016 National Academy of Sciences, Kavli Fellow (Early Career)2015 Templeton Award for Excellence in Student Advising2012 National Science Foundation CAREER Award |

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| **Grants & Awards** | (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) throughRemote Sensing and Process-based Modeling in South and SoutheastAsia **(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 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 |  |  |
|  | (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. |  |  |
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| NASA Science  | (3) NASA Orbital Carbon Observatory – 3 2018 – present  |  |  |
| Teams | (2) NASA Orbital Carbon Observatory – 2 2015-2018 |  |  |
|  | (1) NASA Carbon Monitoring System 2013 – present |  |  |
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| **Publications** | **Peer-Reviewed Articles & Book Chapter****Underline denotes advisee****(Web of Science H-Index = 35; sum of citations 5,912)** |
| In Review | (88) Reinmann, A.B., Smith, I.A., Thompson, J., **Hutyra, L.R.** Forest fragmentation impacts on carbon balance across urban and rural landscapes. *Proceedings of the National Academy of Sciences of the United States of America* |
|  | (87)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,* in review.  |
|  | (86) 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*, in review.  |
|  | (85) 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*, in review. |
|  | (84) Zoey Werbin, Paige Brochu, Sarabeth Buckley, Lindsey Butler, Catherine Connolly, Leila Heidari, Lucila Houttuijn Bloemendaal, Tempest D. McCabe, Tara Miller, **Lucy R. Hutyra** A Decision Support Tool for Mitigating Urban Heat Island Effects through Tree-planting. *Plos-One*, in review. **\***paper resulted from student practicum course advised in Spring 2019**\*** |
|  | (83) Kaufmann, R., **Hutyra, L.R.,** Munger, W.J. Natural and Anthropogenic Drivers of Local CO2 Concentrations: An Empirical Estimate for a Fossil Fuel Rectifier Effect. *Climatic Change*, in review.  |
| In Press | (82) Jones, T.S., Winbourne, J., **Hutyra. L.R.** Ribbonized sap flux sensor: An integrated sap flow sensor. *Ecospheres*, in press. |
|  | (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*, in press. |
|  | (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,* in press. |
| 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, 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 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. |
| 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 CO2 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. |
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| Other Publications | (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. |
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|  | (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. |
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| **International Presentations** | (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] |

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| **Invited Seminars** | (45) July 2020 – “Smart Cities, Sustainability and Well-Being” Gordon Research Conference, Industrial Ecology, Newry, ME [Invited Keynote] |
| **& Keynote Addresses** | (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. |

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| **Invited Conference &** | (32) January 2020 – “Carbon cycling in cities: Bold policies, but how do we assess progress?” American Meteorology Society Annual Meeting, Boston, MA. [invited] |
| **Workshop Presentations** | (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 andMitigation 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”NASAOrbiting 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. |

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| **Teaching** | Spring 2020: GE/BI/ES 720: Practicum in Biogeochemistry (7 graduate students) |
| Boston University | 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) |
| University of Washington | Fall 2009 – URBDP 498: Environmental Planning (18 students) |

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| Post- Doctoral | Steve Raciti (Ph.D. Cornell Univ.) April 2010 – July 2014 (*Currently an Assistant Professor at Hofstra University*) |
| Fellows Advised | 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-presentJoy Winbourne (PhD UC-Davis) 2018-presentTaylor Jones (PhD Harvard) 2019-present |
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| Graduated Students | 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 CO2 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*” |
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| Current PhD Students | 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] |
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| Workshops & Conferences Organized | 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.** |
| ServiceScientific | 2017-present: NASA Earth Science Advisory Committee (ESAC; Federal Advisory Committee)  |
| Community | 2013-present: 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 Group2013: 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 |
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| Invited Grant | 2020: National Science Foundation, Long-Term Ecological Research |
| Review | 2019: National Science Foundation, Critical Zone Observatory (CZO) |
| Panelist | 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 |
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| Ad-hoc |  2018: National Science Foundation, Data and Technology in Environmental Hazards |
| Grant |  2018: National Science Foundation, Ecosystem Science (DEB) |
| Reviewer |  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 |
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| 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). |
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| Invited Journal Reviewer | Proceedings of the National Academy of the United States of America (PNAS), 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. |
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| Boston | 2020-present: Director, Campus as a Living Lab |
| University | 2018-present: Co-Director for the BU Urban Climate Initiative |
| Service | 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 |

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