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Appointments

2017- Associate Dean for Research, College of Science, University of Utah
2016-2017 Associate Dean for Student Affairs, College of Science, University of Utah
2015- Professor, School of Biological Sciences, University of Utah
2014-2015 Program Director, Ecosystem Science Cluster, Division of Environmental Biology,
National Science Foundation
2012-2015 Associate Professor, Department of Biology, University of Utah
2012- Adjunct faculty, Dept. of City & Metropolitan Planning, University of Utah
2012- Adjunct faculty, Ecology Center and Dept. of Landscape
Architecture & Environmental Planning, Utah State University
2007-2012 Associate Professor, Dept. of Earth System Science and Dept. of Ecology &
Evolutionary Biology, University of California, Irvine
2010-2012 Director, Center for Environmental Biology, School of Biological Sciences,
University of California, Irvine
2010-2011 Vice Chair for Undergraduate Programs, Dept. of Earth System Science,
University of California, Irvine
2004-2007 Assistant Professor, University of California, Irvine
2000-2004 Research Assistant Professor, Department of Biology, University of Utah
1999-2003 IGBP-GCTE Focus 1 Program Officer, University of Utah
1998-1999 Post-doctoral Research Associate, Desert Research Institute, Univ. of Nevada

Education

1998 Ph.D. Nicholas School of the Environment, Duke University, Durham, NC
1995 M.S. School of the Environment, Duke University, Durham, NC
1993 B.A. Barnard College, Columbia University, New York, NY

Professional Service and Awards*Honors, Fellowships, and Elected offices*

2019-2021 Vice President for Science, Ecological Society of America
2019 Albert Shimmins International Fellow, University of Melbourne
2015-2016 Leopold Leadership Fellow, Stanford Woods Institute of the Environment
2008 James B. Macelwane Medalist, American Geophysical Union
2008- Fellow, American Geophysical Union
1996 NASA Earth Science Summer Fellow, Jet Propulsion Laboratory
1993 Lillian Berle Dare Award for graduate study
1993 Rice Prize in Geography, Barnard College

Editorial boards

2015- Chief Specialty Editor, Urban Ecology section, *Frontiers in Ecology and Evolution* and
Frontiers in Sociology
2005-2010 Subject Editor, *Global Change Biology*

2004-2011 Board of Advisors to the Editor, *New Phytologist*

Advisory boards and committee memberships

2018- Institutional Leadership Panel, DOE Joint Center for Energy Storage Research
2018- External Advisory Board, Boston University Graduate Program in Urban Biogeoscience & Environmental Health
2018- Meetings Committee, Ecological Society of America
2018- NSF Advisory Committee for Environmental Research and Education
2017- NSF Directorate for Biological Sciences Advisory Committee
2017- Steering Committee, Stories of the Nature of Cities fiction competition
2017- Macelwane Medal selection committee, American Geophysical Union
2016- College of Fellows Task Force, American Geophysical Union
2013-2015 Biogeosciences Fellows selection committee, American Geophysical Union
2012-2014 Urban Ecology Working Group, National Ecological Observatory Network
2012-2014 Water Science Software Institute Steering Committee
2012-2013 Sustained Land Imaging Program committee, National Research Council
2012 Chair, Joint SDSU-UCSB Doctoral Program in Geography Review Committee
2011-2012 Founding Director, Steele Burnand Anza Borrego Desert Research Center
2011-2017 Board of Scientific Counselors, U.S. Environmental Protection Agency
2010-2013 Science Committee, Ecological Society of America
2009-2010 Energy Sustainability subcommittee, U.S. Dept. of Energy, Biological and Environmental Research Strategic Planning Committee
2008 Board Member, Santa Ana College USDA Partnership for Transfer Success
2008 Site reviewer, NSF Baltimore Long-Term Ecological Research site
2008-2011 Carbon Cycle Scientific Steering Group, U.S. Climate Change Science Program
2008-2009 User working group, Carbon Dioxide Information Analysis Center (CDIAC)
2008-2011 Natural Reserve Systemwide Committee, University of California
2007-2009 Membership Committee, University Corporation for Atmospheric Research
2007 Lead Author, U.S. Climate Change Science Program Synthesis and Assessment Product 2.2, State of the Carbon Cycle Report, Chapter 14: Human Settlements
2006-2010 Ecohydrology Executive Committee, American Geophysical Union
2000-2010 Steering Committee, Biosphere-Atmosphere Stable Isotope Network (BASIN)
2000-2005 Steering Committee, Terrestrial Ecosystem Responses to Atmospheric and Climatic Change (TERACC) network

Conferences and Events

2020 Local host chair, 105th Ecological Society of America annual conference, August 2020, Salt Lake City, UT.
2019 Steering committee, "The Nature of Cities Summit", Paris, France, June 4-6, 2019.
2017 Planning committee, Joint Ameriflux and North American Carbon Program Principal Investigators Meeting, March 2017, Washington, DC, USA.
2012 Co-organizer, "Ecological monitoring and research to support adaptive management of Orange County open space." January 27, 2012, Irvine, CA, USA.
2005 Co-organizer, "Non-steady state isotopic enrichment of leaf water" Dec. 4, 2005, San Francisco, CA.
2005 Steering committee, "Modeling ecosystem responses to global change: Techniques and recent advances" January 9-12, 2005, Fort Meyers Fl, USA

- 2004 Co-organizer, "Oxygen isotopes as a tracer linking global O₂, CO₂, and H₂O cycles." September 19-22, 2004, Marshall, California, USA.
- 2004 Co-organizer, "Carbon Respiration from terrestrial ecosystems: Reducing uncertainties in the role played by respiration in the global carbon cycle." January 21-24, 2004, Laguna Beach, California, USA.
- 2003 Steering committee, "Interactions between increasing CO₂ and temperature in terrestrial ecosystems." April 27-30, 2003, Lake Tahoe, California, USA.
- 2002 Co-organizer, "CO₂ and water: The biosphere-atmosphere-hydrosphere loop driven by plant responses to CO₂ enrichment." Aug. 17-20, 2002, Basel, Switzerland.
- 2002 Steering committee, "Biological controls on the stable isotope composition of atmospheric carbon dioxide, methane and nitrous oxide: processes and applications." May 12-14, 2002, Banff, Canada.
- 2002 Steering committee, "From transient to steady state responses of ecosystems to CO₂ enrichment and global warming." April 28-May, 2002, Durham, NH, USA.
- 2001 Co-organizer, "Tracing carbon in elevated CO₂ experiments: a workshop on isotopic analyses of where the carbon is going." Oct. 19-21, 2001, Durham, NC, USA
- 2001 Co-organizer, "Progressive nitrogen limitation of plant and ecosystem responses to elevated CO₂." May 10-12, 2001, Santa Barbara, CA, USA (continuing NCEAS series).
- 2000 Steering committee, "FACE 2000 conference." June 25-30, 2000, Tsukuba, Japan.

Memberships

Ecological Society of America
 American Geophysical Union
 American Association for the Advancement of Science

Peer-reviewed Publications (lab members in bold)

117. Cubino JP, Cavendar-Bares J, Hobbie SE, **Pataki DE**, Avolio ML, Darling LE, Larson KL, Hall SJ, Groffman PM, Trammell TLE, Steele MK, Grove JM, Neill C. 2019. Drivers of plant species richness and phylogenetic composition in urban yards at the continental scale. *Landscape Ecology*, In press.
116. Pincetl S, Porse E, Mika KB, **Litvak E**, Manago KF, Hogue TS, Gillespie T, **Pataki DE**, Gold M. 2019. Adapting urban water systems to manage scarcity in the 21st century: The case of Los Angeles. *Environmental Management*, In press.
115. Trammell TLE, **Pataki DE**, Still CJ, Ehleringer JR, Avolio ML, Bettez N, Cavender-Bares J, Groffman PM, Grove M, Hall SJ, Heffernan J, Hobbie SE, Larson KL, Morse JL, Neill C, Nelson KC, O'Neil-Dunne J, Pearse WD, Chowdhury RR, Steele M, Wheeler MM. 2019. Biophysical and social factors control C4 plant distribution in residential lawns across seven U.S. cities. *Ecological Applications*, In press.
114. **Cobley LAE**, **Pataki DE**, McCarthy HR, Martin SA, Ehleringer JR. 2018. Housing age and affluence influence plant and soil nitrogen and carbon cycles in two semi-arid cities. *JGR Biogeosciences* 123(10): 3178-3192, doi/10.1029/2018JG004424
113. Lin JC, Mitchel L, Cros E, Mendoza D, Buchert M, Bares R, Fasoli B, Bowling DR, **Pataki DE**, Catharine D, Strong C, Gurney K, Patarasuk R, Baasandorj M, Jackques A, Hoch S, Horel J, Ehleringer JR. 2018. CO₂ and carbon emissions from cities: Linkages to air quality, socioeconomic activity and stakeholders in the Salt Lake City urban area. *Bulletin of the American Meteorological Society*, doi.org/10.1175/BAMS-D-17-0037.1

112. Ward EJ, Oren R, Kim HS, Kim D, Torngern P, Ewers PE, McCarthy HR, Oishi AC, **Pataki DE**, Palmroth S, Phillips NG, Schäfer KVR. 2018. Evapotranspiration and water yield of a pine-broadleaf forest are not altered by long-term atmospheric CO₂ enrichment under native or enhanced soil fertility. *Global Change Biology* 24(10):4841-4856.
111. **Smith RM**, Williamson JC, **Pataki DE**, Ehleringer JR, Dennison P. 2018. Soil carbon and nitrogen accumulation in residential lawns of the Salt Lake Valley, Utah. *Oecologia* 187(4): 1107-1118.
110. Porse E, Mika KB, **Litvak E**, Manago KF, Hogue TS, Gold M, **Pataki DE**, Pincetl S. 2018. The economic value of local water supplies in Los Angeles. *Nature Sustainability* 1: 289-297.
109. Roman LA, Pearsall H, Eisenman TS, Conway TM, Fahey RT, Landry S, Vogt J, van Doorn NS, Grove JM, Locke DH, Bardekjian AC, Battles JJ, Cadenasso ML, van den Bosch CCK, Avolio ML, Berland A, Jenerette GC, Mincey SK, **Pataki DE**, Staudhammer C. 2018. Human and biophysical legacies shape contemporary urban forests: A literature synthesis. *Urban Forestry & Urban Greening* 31: 157-168.
108. Blaszczyk JR, Steele MK, Badgley BD, Heffernan JB, Hobbie SE, Morse JL, Rivers EN, Hall SJ, Neill C, **Pataki DE**, Groffman PM, Bernhardt E. 2018. Sediment chemistry of urban stormwater ponds and controls on denitrification. *Ecosphere* 9(6): e01318.
107. Locke DH, **Avolio ML**, **Trammell TLE**, Chowdhury RR, Grove MJ, Rogan J, Martin DG, Bettez N, Cavendar-Bares J, Groffman PM, Hall SJ, Heffernan JB, Hobbie SE, Larson KL, Morse JL, Neill C, Ogden LA, O'Neil-Dunne JPM, **Pataki DE**, Pearse WD, Polsky C, Wheeler MM. 2018. A multi-city comparison of front and backyard differences in plant species diversity and nitrogen cycling in residential landscapes. *Landscape and Urban Planning* 178: 102-111.
106. Pearse WD, Bares-Cavender J, Hobbie SE, **Avolio ML**, Bettez N, Roy Chowdhury R, Darling LE, Groffman PM, Grove M, Hall SJ, Heffernan JB, Learned J, Neill C, Nelson KC, **Pataki DE**, Ruddell BL, Steele MK, **Trammell TLE**. 2018. Homogenization of plant diversity, composition, and structure in North American urban yards. *Ecosphere* 9(2):e02105.
105. Mitchell LE, Lin JC, Bowling DR, **Pataki DE**, Strong C, Schauer AJ, Bares R, Bush SE, Stephens BB, Mendoza D, Mallia D, Holland L, Gurney KR, Ehleringer JR. 2018. Long-term urban carbon dioxide observations reveal spatial and temporal dynamics related to urban characteristics and growth. *PNAS* 114(12):2912-2917.
104. **Avolio ML**, **Pataki DE**, **Trammell TLE**, Endter-Wada J. 2018. Biodiverse cities: The nursery industry, homeowners, and neighborhood differences drive urban tree composition. *Ecological Monographs* 88(2):259-276.
103. Raczka B, Biraud SC, Ehleringer JR, Lai C, Miller JB, **Pataki DE**, Saleska S, Torn MS, Vaughn BH, Wehr R, Bowling DR. 2017. Does vapor pressure deficit drive the seasonality of $\delta^{13}\text{C}$ of the net land-atmosphere CO₂ exchange across the United States? *JGR Biogeosciences* 122(8): 1969-1987, doi: 10.1002/2017JG003795.
102. Porse E, Kathryn MB, **Litvak E**, Manago K, Naik K, Glickfield M, Hogue TS, Gold M, **Pataki DE**, Pincetl S. 2017. Optimization of local water supply in Los Angeles: Urban water systems analysis with institutional complexity. *Journal of Water Resources Planning and Management* 143(9):04017049.
101. **Litvak E**, Manago KF, Hogue TS, **Pataki DE**. 2017. Evapotranspiration of urban landscapes in Los Angeles, California at the municipal scale. *Water Resources Research* 53 doi:10.1002/2016WR020254.
100. Groffman PM, Avolio M, Cavender-Bares J, Bettez ND, Grove JM, Hall SJ, Hobbie SE, Larson KL, Lerman SB, Locke DH, Heffernan JB, Morse JL, Neill C, Nelson KC, O'Neil-Dunne J, **Pataki DE**,

- Polsky C, Chowdhury RR, **Trammell TLE**. 2017. Ecological homogenization of residential macrosystems. *Nature Ecology and Evolution* 1, 0191 doi:10.1002/2017JG003795.
99. Wheeler MM, Neill C, Groffman PM, **Avolio M**, Bettez N, Cavender-Bares J, Chowdhury RR, Darling L, Grove JM, Hall SJ, Heffernan JB, Hobbie SE, Larson KL, Morse JL, Nelson KC, Ogden LA, O'Neil-Dunne J, **Pataki DE**, Polsky C, Steele M, Trammell TLE. 2017. Continental-scale homogenization of residential lawn communities. *Landscape and Urban Planning* 165: 54-63.
 98. **Litvak E**, McCarthy HR, **Pataki DE**. 2017. A method for estimating transpiration of irrigated urban trees in California. *Landscape and Urban Planning* 158: 48-61.
 97. Groffman PM, Cadenasso ML, Cavendar-Bares J, Childers DL, Grimm NB, Grove JM, Hobbie SE, Hutrya LR, Jenerette GD, McPhearson T, **Pataki DE**, Pickett STA, Pouyat RV, Rosi-Marshall E, Ruddell BL. 2017. Moving towards a new urban systems science. *Ecosystems* 20:38.
 96. Gillespie TW, de Goede J, Aguilar L, Jenerette GD, Fricker GA, Avolio ML, Pincetl S, Johnston T, Clarke LW. **Pataki DE**. 2017. Predicting tree species richness in urban forests. *Urban Ecosystems* doi:10.1007/s11252-016-0633-2.
 95. Jenerette GD, Clarke LW, Avolio ML, **Pataki DE**, Gillespie TW, Pincetl S, Nowak DJ, Hutrya LR, McHale M, McFadden JP, Alonzo M. 2016. Climate tolerances and trait choices shape continental patterns of urban tree biodiversity. *Global Ecology and Biogeography* 25(11):1367-1376.
 94. **Litvak E**, **Pataki DE**. 2016. Evapotranspiration of urban lawns in a semi-arid environment: an in situ evaluation of microclimatic conditions and watering recommendations. *Journal of Arid Environments* 135: 87-96.
 93. **Trammell TLE**, **Pataki DE**, Cavendar-Bares J, Groffman PM, Hall SJ, Heffernan JB, Hobbie SE, Morse JL, Neill C, Nelson KC. 2016. Plant N concentration and isotopic composition in residential lawns across seven U.S. cities. *Oecologia* 181(1):271-285.
 92. Larson KL, Nelson KC, Samples SR, Hall SJ, Bettez N, Cavender-Bares J, Groffman PM, Grove M, Heffernan JB, Hobbie SE, Learned J, Morse JL, Neill C, Ogden LA, O'Neil-Dunne J, **Pataki DE**, Polsky C, Chowdhury RR, Steele M, **Trammell TLE**. 2016. Ecosystem services in managing residential landscapes: priorities, value dimensions, and cross-regional patterns. *Urban Ecosystems* 19: 95-113.
 91. Groffman PM, Grove JM, Polsky C, Bettez ND, Morse JL, Cavendar-Bares J, Hall SJ, Heffernan JB, Hobbie SE, Larson KL, Neill C, Nelson K, Ogden L, O'Neil-Dunne, **Pataki DE**, Chowdhury R, Locke DH. 2016. Satisfaction, water and fertilizer use in the American residential macrosystem. *Environmental Research Letters* 11: 03004
 90. Hall SJ, Learned J, Ruddell B, Larson KL, Cavender-Bares J, Bettez N, Groffman PM, Grover JM, Heffernan JB, Hobbie SE, Morse JL, Neill C, Nelson KC, O'Neil-Dunne JPM, Ogden L, **Pataki DE**, Pearse WD, Polsky C, Chowdhury RR, Steele MK, **Trammell TLE**. 2016. Convergence of microclimate in residential landscapes across diverse cities in the United States. *Landscape Ecology* 31: 101-117.
 89. **Avolio ML**, **Pataki DE**, Gillespie TW, Jenerette GD, McCarthy HR, Pincetl S, Weller-Clarke L. 2015. Tree biodiversity in southern California's urban forest: The interacting roles of social and environmental variables. *Frontiers in Ecology and Evolution* 3, 00073.
 88. **Pataki DE**. 2015. Grand challenges in urban ecology. *Frontiers in Ecology and Evolution* 3:57. doi: 10.3389/fevo.2015.00057
 87. Schwarz K, Fragkias M, Boone CG, Zhou W, McHale M, Grove JM, O'Neil-Dunne J, McFadden JP, Buckley GL, Childers D, Ogden L, Pincetl S, **Pataki DE**, Whitmer A, Cadenasso ML. 2015. Trees grow

on money: Urban tree canopy cover and environmental justice. PLOS ONE, doi:
10.1371/journal.pone.0122051

86. **Hale RL**, Armstrong A, Baker MA, Bedingfield S, Betts D, Buahin C, Buchert M, Crowl T, Dupont RR, Ehleringer JR, Endter-Wada J, Flint C, Grant J, Hinners S, Horsburgh, JS, Jackson-Smith D, Jones AS, Licon C, Null SE, Odame A, **Pataki DE**, Rosenberg D, Runburg M, Stoker P, Strong C. 2015. ISAW: Integrating Structure, Actors, and Water to study socio-hydro-ecological systems. *Earth's Future* 3(3): 110-132.
85. Tanner CJ, Adler FR, Grimm NB, Groffman PM, Levin SA, Munshi South J, **Pataki DE**, Pavao-Zuckerman M, Wilson WG. 2014. Urban ecology: Advancing science and society. *Frontiers in Ecology and the Environment* 12(10):574-581.
84. Riordan EC, Gillespie TW, Pitcher L, Pincetl S, Jenerette GD, **Pataki DE**. 2015. Threats of future climate change and land use to vulnerable species native to Southern California. *Environmental Conservation* 42(2): 1-12.
83. **Avolio ML**, **Pataki DE**, Pincetl S, Gillespie TW, Jenerette GD, McCarthy HR. 2015. Understanding preferences for tree attributes: the relative effects of socio-economic and local environmental factors. *Urban Ecosystem* 18(1):73-86.
82. **Bijoor NS**, **Pataki DE**, Haver D, Famiglietti JS. 2014. A comparative study of the water budgets of lawns under three management scenarios. *Urban Ecosystems* 17(4):1095-1117.
81. Polsky C, Grove JM, Knudson C, Groffman PM, Bettez N, Cavendar-Bares J, Hall SJ, Heffernan JB, Hobbie SE, Larson KL, Morse JL, Neill C, Nelson KC, Ogden LA, O'Neil-Dunne, **Pataki DE**, Chowdhury RR, Steele MK. 2014. Assessing the homogenization of urban land management with an application US residential lawn care. *PNAS* 111(12):4432-4437.
80. **Pataki DE**, Jenerette GD, Pincetl S, **Trammell TLE**, **Ervin L**. 2014. Urban Ecosystems. *In: Ecosystems of California – A Source Book*. Mooney HA, Zavaleta ES, Eds. University of California Press.
79. **Wang W**, Haver D, **Pataki DE**. 2014. Nitrogen budgets of urban lawns under three different management regimes in southern California. *Biogeochemistry* 121(1):127-148.
78. **Litvak E**, **Bijoor NS**, **Pataki DE**. 2014. Adding trees to irrigated turfgrass lawns may be a water-saving measure in semi-arid environments. *Ecohydrology* 7(5):1314-1330.
77. Steele MK, Heffernan JB, Bettez N, Cavendar-Bares J, Groffman PM, Grove M, Hall S, Hobbie SE, Larson K, Morse JL, Neill C, Nelson KC, O'Neil-Dunne J, Ogden L, **Pataki DE**, Polsky C, Chowdhury RR. 2014. Convergent surface water distributions in U.S. cities. *Ecosystems* 17(4): 685-697.
76. Groffman PM, Cavendar-Bares J, Bettez ND, Grove JM, Hall SJ, Heffernan JB, Hobbie SE, Larson KL, Morse JL, Neill C, Nelson K, O'Neil-Dunne J, Ogden L, **Pataki DE**, Polsky C, Chowdhury RR, Steele MK. 2014. Ecological homogenization of urban USA. *Frontiers in Ecology and the Environment* 12(1): 74-81.
75. **Townsend-Small A**, **Pataki DE**, Liu H, Li Z, Wu Q, Thomas B. 2013. Increasing summer river discharge in southern California, USA linked to urbanization. *Geophysical Research Letters* 40(17): 4643-4647.
74. Jenerette GD, Miller G, Buyantuyev A, **Pataki DE**, Gillespie T, Pincetl S. 2013. Urban vegetation dynamics and income segregation in drylands: A synthesis of seven metropolitan regions in the southwestern United States. *Environmental Research Letters* 8: 044001.
73. **Townsend-Small A**, Tyler SC, **Pataki DE**, Xu X, Christensen LE. 2013. Isotopic measurements of atmospheric methane in Los Angeles, California, USA reveal the influence of "fugitive" fossil fuel

- emissions. *JGR Atmospheres* 117: 10.1029/2011JD016826.
72. Pincetl S, Prabhu S, Gillespie TW, Jenerette GD, **Pataki DE**. 2013. Evolution of tree nursery offerings and the cultivated urban forest of Los Angeles. *Landscape and Urban Planning* 118:10-17.
 71. **Pataki DE, McCarthy HR**, Gillespie T, Jenerette GD, Pincetl S. 2013. A trait based ecology of the Los Angeles urban forest. *Ecosphere* 4:art72.
 70. Pincetl S, Gillespie TW, **Pataki DE**, Saatchi S, Saphores J-D. 2013. Urban tree planting programs, function or fashion? Los Angeles and urban tree planting campaigns. *GeoJournal*, 78(3):475-493
 69. **Djuricin S**, Xu X, **Pataki DE**. 2012. The radiocarbon composition of tree rings as a tracer of local fossil fuel emissions in the Los Angeles basin: 1980-2008. *JGR Atmospheres* 117 (D12302), doi:10.1029/2011JD017284.
 68. **Litvak E, McCarthy HR, Pataki DE**. 2012. Transpiration from urban trees in a semi-arid climate is constrained by xylem vulnerability to cavitation. *Tree Physiology*, 32(4): 369-372.
 67. **Bijoor NS, McCarthy HR, Zhang D, Pataki DE**. 2012. Water sources of urban trees in the Los Angeles metropolitan area. *Urban Ecosystems* 15(1):95-214.
 66. **Goedhart CM, Pataki DE**. 2012. Do arid species use less water than mesic species in an irrigated common garden? *Urban ecosystems* 15(1): 215-232.
 65. Gillespie TW, Pincetl S, Brossard S, Smith J, Saatchi S, **Pataki DE**, Saphores J-D. 2012. A time series of urban forestry in Los Angeles. *Urban Ecosystems* 15(1): 233-246.
 64. **Wang W, Pataki DE**. 2012. Drivers of spatial variability in urban plant and soil isotopic composition in the Los Angeles Basin. *Plant and Soil* 350: 323–338.
 63. **Townsend-Small A**, Rosso D, **Pataki DE**, Tseng L, Tsai C-Y. 2011. Nitrous oxide emissions from water reclamation plants in southern California. *Journal of Environmental Quality* 40: 1542-1550.
 62. **McCarthy HR, Pataki DE**, Jenerette GD. 2011. Plant water use efficiency as a metric of urban ecosystem services. *Ecological Applications*, 21(8): 3115–3127.
 61. **Bijoor, NS, Pataki DE**, Rocha AV, Goulden ML. 2011. The application of $\delta^{18}\text{O}$ and δD for understanding water pools and fluxes in a *Typha* marsh. *Plant, Cell and Environment* 34:1761–1775.
 60. McKinley DC, Ryan MG, Birdsey RA, Giardina CP, Harmon ME, Heath LS, Houghton RA, Jackson RB, Morrison JF, Murray BC, **Pataki DE**, Skog KE. 2011. A synthesis of current knowledge on forests and carbon storage in the United States. *Ecological Applications*, 21: 1902-1924..
 59. **Litvak E, McCarthy HR, Pataki DE**. 2011. Water relations of coast redwood planted in the semi-arid climate of southern California. *Plant, Cell and Environment* 34(8): 1384-1400.
 58. **Goedhart CM, Pataki DE**. 2011. Ecosystem effects of groundwater depth in Owens Valley, California. *Ecohydrology*, 4(3): 458-468.
 57. **Pataki DE, McCarthy HR, Litvak E**, Pincetl S. 2011. Transpiration of urban forests in the Los Angeles metropolitan area. *Ecological Applications* 21(3): 661-677.
 56. **Pataki DE**, Boone CG, Hogue TS, Jenerette GD, McFadden JP, Pincetl S. 2011. Socio-ecohydrology and the urban water challenge. *Ecohydrology* 4(2): 341-347.
 55. **Townsend-Small A, Pataki DE**, Czimczik CI, Tyler SC. 2011. Nitrous oxide emissions and isotopic composition in urban and agricultural systems in southern California. *JGR Biogeosciences*, 116, G01013, doi:10.1029/2010JG001494, 2011.

54. **Pataki DE**, Carreiro MM, Cherrier J, Grulke NE, Jennings V, Pincetl S, Pouyat RV, Whitlow TH, Zipperer WC. 2011. Coupling biogeochemical cycles in urban environments: Ecosystem services, green solutions, and misconceptions. *Frontiers in Ecology and the Environment* 9: 27-36.
53. **McCarthy HR, Pataki DE**. 2010. Drivers of variability in water use of native and non-native urban trees in the Greater Los Angeles area. *Urban Ecosystems* 13(4): 393-414.
52. **Djuricin S, Pataki DE**, Xiaomei Xu. 2010. A comparison of tracer methods for quantifying CO₂ sources in an urban region. *JGR Atmospheres* 115, D11303 doi:10.1029/2009JD012236.
51. **Pataki DE**, Randerson JT, **Wang W, Herzenach MK**, Grulke NE. 2010. The carbon isotope composition of plants and soils as biomarkers of pollution. In West JB, Bowen G, Dawson TE, Eds. *Isoscapes: Understanding movement, pattern, and process on Earth through isotope mapping*. Springer, New York.
50. **Goedhart CM, Pataki DE**, Billings SA. 2010. Seasonal variations in plant nitrogen relations and photosynthesis along a grassland to shrubland gradient in Owens Valley, California. *Plant and Soil* 327:213-223.
49. **Wang W, Pataki DE**. 2010. Spatial patterns of plant isotope tracers in the Los Angeles urban region. *Landscape Ecology* 25(1): 35-52.
48. Ryan MG, Harmon ME, Birdsey RA, Giardina CP, Heath LS, Houghton RA, Jackson RB, McKinley DC, Morrison JF, Murray BC, **Pataki DE**, Skog KE. 2010 A synthesis of the science on forests and carbon for U.S. forests. *Issues in Ecology, Report Number 13*.
47. Kennedy C, Steinberger J, Gasson B, Hansen Y, Hillman T, Havranek M, **Pataki D**, Phdungsilp P, Ramaswami A, Mendez GV. 2010. Methodology for inventorying greenhouse gas emissions from global cities. *Energy Policy* 38(9): 4828-4837.
46. Kennedy C, Steinberger J, Gasson B, Hansen Y, Hillman T, Havranek M, **Pataki D**, Phdungsilp P, Ramaswami A, Mendez GV. 2009. Greenhouse gas emissions from global cities. *Environmental Science and Technology*, 43, 7297-7302.
45. Jackson RB, Randerson JT, Canadell JG, Anderson RG, Avissar R, Baldocchi DD, Bonan GB, Caldeira K, Diffenbaugh NS, Field CB, Hungate BA, Jobbagy EG, Kueppers LM, Noretto MD, **Pataki DE**. 2008. Protecting climate with forests. *Environmental Research Letters* 3(4): DOI: 10.1088/1748-9326/3/4/044006.
44. **Pataki DE**, Emmi PC, Forster CB, Mills JI, Pardyjak ER, Peterson TR, Thompson JD, Dudley-Murphy E. 2009. An integrated approach to improving fossil fuel emissions scenarios with urban ecosystem studies. *Ecological Complexity* 6(1):1-14.
43. Riley WJ, Hsueh DJ, Randerson JT, Fischer ML, Hatch JG, **Pataki DE**, Goulden ML. 2008. Where do fossil fuel carbon dioxide emissions from California go? An analysis based on radiocarbon observations and an atmospheric transport model. *JGR Biogeosciences* 113, G04002, doi:10.1029/2007JG000625.
42. Hultine KR, Bush SE, West AG, Burtch KG, **Pataki DE**, Ehleringer JR. 2008. Gender-specific patterns of aboveground allocation, canopy conductance and water use in a dominant riparian tree species: *Acer negundo*. *Tree Physiology* 28(9) 1383-1394.
41. **Bijoor NS**, Czimczik C, **Pataki DE**, Billings SA. 2008. The effects of temperature and fertilization on nitrogen cycling and community composition of an urban lawn. *Global Change Biol.*14(9):2119-2131.
40. **Pataki DE**, Billings SA, Naumburg E, **Goedhart CM**. 2008. Water sources and nitrogen relations of

- grasses and shrubs in phreatophytic communities of the Great Basin Desert. *Journal of Arid Environments*, 72(9):1581-1593.
39. Grimm NB, Foster D, Groffman P, Grove JM, Hopkinson CS, Nadelhoffer K, **Pataki DE**, Peters D. 2008. The changing landscape: ecosystem responses to urbanization and pollution across climatic and societal gradients. *Frontiers in Ecology and the Environment*, 6(5): 264-272.
 38. **Ngo NS, Pataki DE**. 2008. The energy and mass balance of Los Angeles County, *Urban Ecosystems*, 11:121-139.
 37. **Bush SE, Pataki DE**, Hultine KR, West AG, Sperry JS, Ehleringer JR. 2008. Wood anatomy constrains stomatal responses to atmospheric vapor pressure deficit in irrigated, urban trees. *Oecologia*, 156:13-20.
 36. Bowling DR, **Pataki DE**, Randerson JT. 2008. Carbon isotopes in terrestrial ecosystem pools and CO₂ fluxes. *New Phytologist*, 178(1): 24–40.
 35. Gurney K, Ansely W, Mendoza D, Petron G, Frost G, Gregg J, Fischer, M, **Pataki D**, Acerkman K, Houseling S, Corbin K, Andres R, Blasing TJ. 2007. Research needs for finely resolved fossil carbon emissions. *EOS* 88(40): 542-543
 34. **Pataki DE**, Xu T, Luo YQ, Ehleringer JR. 2007. Inferring biogenic and anthropogenic CO₂ sources across an urban to rural gradient. *Oecologia* 152: 307-322.
 33. **Bush SE, Pataki DE**, Ehleringer JR. 2007. Sources of variation in $\delta^{13}\text{C}$ of fossil fuel emissions in Salt Lake City, USA. *Applied Geochemistry* 22: 715-723.
 32. **Pataki DE**, Lai CT, Keeling CD, Ehleringer JR. 2007. Insights from stable isotopes on the role of terrestrial ecosystems in the global carbon cycle. *In Terrestrial Ecosystems in a Changing World*. Canadell JG, Pataki DE, Pitelka LF, Eds, Springer, Berlin.
 31. Pouyat RV, **Pataki DE**, Belt KT, Groffman PM, Hom J, Band LE. 2007. Effects of urban land use change on biogeochemical cycles. *In Terrestrial Ecosystems in a Changing World*. Canadell JG, Pataki DE, Pitelka LF, Eds, Springer, Berlin.
 30. Canadell JG, **Pataki DE**, Gifford R, Houghton R, Luo Y, Raupach M, Smith P, Steffen W. 2007. Saturation of the terrestrial carbon sink. *In Terrestrial Ecosystems in a Changing World*. Canadell JG, Pataki DE, Pitelka LF, Eds, Springer, Berlin.
 29. Canadell JG, **Pataki DE**, Pitelka LF, Eds. 2007. *Terrestrial Ecosystems in a Changing World*, Springer, Berlin.
 28. **Pataki DE**, Alig RJ, Fung AS, Golubiewski NE, Kennedy CA, McPherson EG, Nowak DJ, Pouyat RV, Romero Lankao P. 2006. Urban ecosystems and the North American Carbon Cycle. *Global Change Biology*, 12: 2092-2101, doi: 10.1111/j.1365-2486.2006.01242.x
 27. **Pataki DE**, Bowling DR, Ehleringer JR, Zobitz JM. 2006. High resolution monitoring of urban carbon dioxide sources. *Geophysical Research Letters*, 33, L03813, doi:10.1029/2005GL024822
 26. Aranibar JN, Berry JA, Riley WJ, **Pataki DE**, Law BE, Ehleringer JR. 2006. Combining meteorology, eddy fluxes, isotope measurements, and modeling to understand environmental controls of carbon isotope discrimination at the canopy scale. *Global Change Biology* 12: 710-730.
 25. **Pataki DE**. 2005. Emerging topics in stable isotope ecology: are there isotope effects in plant respiration? *New Phytologist*, 167: 321-323.
 24. **Pataki DE, Bush SE**, Gardner P, Solomon DK, Ehleringer JR. 2005. Ecohydrology in a Colorado River

- riparian forest: Implications for the decline of *Populus fremontii*. *Ecol. Applications* 15(3):1009-1018.
23. **Pataki DE**, Tyler BJ, Peterson RE, Nair AP, Steenburgh WJ, Pardyjak ER. 2005. Can carbon dioxide be used as a tracer of urban atmospheric transport? *Journal of Geophysical Research – Atmospheres*, 110: D15102.
 22. **Pataki DE, Bush SE**, Ehleringer JR. 2005. Stable isotopes as a tool in urban ecology. *In Stable isotopes and biosphere-atmosphere interactions: Processes and biological controls*. Flanagan LB, Ehleringer JR, Pataki DE, Eds. Elsevier Press, San Diego, pp 199-214.
 21. Flanagan LB, Ehleringer JR, **Pataki DE**, Eds. 2005. *Stable isotopes and biosphere-atmosphere interactions: Processes and biological controls*. Elsevier Press, San Diego.
 20. Luo Y, Su B, Currie WS, Dukes JS, Finzi A, Hartwig U, Hungate B, McMurtrie R, Oren R, Parton WJ, **Pataki DE**, Shaw R, Zak DR, Field C. 2004. Progressive nitrogen limitation of ecosystem responses to rising atmospheric CO₂. *Bioscience* 54(8): 731-739.
 19. Morgan JA, **Pataki DE**, Gruenzweig J, Körner C, Newton P, Niklaus PA, Nippert J, Nowak RS, Parton W, Clark H, Del Grosso SJ, Knapp AK, Mosier AR, Polley W, Shaw R. 2004. Grassland responses to rising atmospheric CO₂ are driven primarily by water relations. *Oecologia* 140: 11-25.
 18. **Pataki DE**, Bowling DR, Ehleringer JR. 2003. Seasonal cycle of carbon dioxide and its isotopic composition in an urban atmosphere: anthropogenic and biogenic effects. *Journal of Geophysical Research – Atmospheres* 108(D23), 4735.
 17. **Pataki DE**, Oren R. Species differences in stomatal control of water loss at the canopy scale in a mature bottomland deciduous forest. 2003. *Advances in Water Resources* 26(12): 1267-1278.
 16. **Pataki DE**, Ellsworth DW, Evans RD, Gonzalez-Meler M, King JS, Leavitt SW, Lin G, Matamala R, Pendall E, Siegwolf R, van Kessel C, Ehleringer JR. 2003. Tracing changes in ecosystem function under elevated CO₂. *Bioscience* 53(9): 805-818.
 15. Bowling DR, **Pataki DE**, Ehleringer JR. 2003. Critical evaluation of micrometeorological methods for measuring ecosystem-atmosphere isotopic exchange of CO₂. *Agricultural and Forest Meteorology* 116: 159-179.
 14. **Pataki DE**, Ehleringer JR, Flanagan LB, Yakir D, Bowling DR, Still C, Buchmann N, Kaplan JO, Berry JA. 2003. The application and interpretation of Keeling plots in terrestrial carbon cycle research. *Global Biogeochemical Cycles* 17(1), 1022
 13. Canadell J, **Pataki DE**. 2002. New advances in carbon cycle research. *Trends in Ecology and Evolution* 17(4): 156-158.
 12. **Pataki DE**. 2002. Atmospheric CO₂, climate and evolution – lessons from the past. *New Phytologist* 154:10-14.
 11. Oren R, **Pataki DE**. 2001. Transpiration in response to variation in microclimate and soil moisture in southeastern deciduous forests. *Oecologia* 127: 549-559.
 10. Oren R, Sperry JS, Ewers BE, **Pataki DE**, Phillips N, Megonigal JP. 2001. Sensitivity of mean canopy stomatal conductance to vapor pressure deficit in a flooded *Taxodium distichum* L. forest: hydraulic and non-hydraulic effects. *Oecologia* 126:21–29.
 9. **Pataki DE**, Huxman TE, Jordan DN, Zitzer SF, Coleman JS, Smith SD, Nowak RS, Seemann JR. 2000. Water use of two Mojave Desert shrubs under elevated CO₂. *Global Change Biology* 6(8): 889-898.
 8. **Pataki DE**, Oren R, Smith WK. 2000. Sap flux of co-occurring species in a western subalpine forest

during seasonal soil drought. *Ecology* 81(9) 2557-2566.

7. Oren R, Phillips N, Ewers BE, **Pataki DE**, Megonigal JP. 1999. Sap-flux-scaled transpiration responses to light, vapor pressure deficit, and leaf area reduction in a flooded *Taxodium distichum* forest. *Tree Physiology* 19:337-347.
6. Oren R, Sperry JS, Katul GG, **Pataki DE**, Ewers BE, Phillips N, Schäfer KVR. 1999. Survey and synthesis of intra- and interspecific variation in stomatal sensitivity to vapour pressure deficit. *Plant, Cell and Environment* 22: 1515-1526.
5. **Pataki DE**, Oren R, Phillips N. 1998. Responses of sap flux and stomatal conductance of *Pinus taeda* L. trees to stepwise reductions in leaf area. *Journal of Experimental Botany* 49: 871-878.
4. **Pataki DE**, Oren R, Tissue DT. 1998. Elevated carbon dioxide does not affect stomatal conductance of *Pinus taeda* L. *Oecologia* 117: 47-52.
3. **Pataki DE**, Oren R, Katul G, Sigmon J. 1998. Canopy conductance of *Pinus taeda*, *Liquidambar styraciflua* and *Quercus phellos* under varying atmospheric and soil moisture conditions. *Tree Physiology* 18: 307-315.
2. Oren R, Phillips N, Katul G, Ewers BE, **Pataki DE**. 1998. Scaling xylem sap flux and soil water balance, and calculating variance: a method for partitioning water flux in forests. *Annales des Sciences Forestieres* 55: 191-216.
1. Katul G, Todd P, **Pataki DE**, Kabala ZJ, Oren R. 1997. Soil water depletion by oak trees and the influence of root water uptake on the moisture content spatial statistics. *Water Resources Research* 33(4):611-623.

Other publications

- Pataki DE**. 2019. Ecosystem disservices of urban nature. In *Routledge Handbook of Urban Ecology*, 2nd Edition, Anderson P, Douglas I, Goode D, Houck M, Maddox M, Nagendra H, Yok TP, Eds. In press.
- Pataki DE**. 2018. Socioecological science is failing cities. The humanities can help. *The Nature of Cities*, March 24, 2018.
- Pataki DE**. 2017. Is green the new flying car? A visit to the World's Fairs of 1964 and 2064. *The Nature of Cities*, June 14, 2017.
- Pataki DE**, Hinners S, Rothfeder R. 2016. Wouldn't it be better if ecologists and planners talked to each other more? *The Nature of Cities*, November 9, 2016.
- Pataki DE**, Pincetl S. 2015. Is there room for ornamentals in the gardens of "New" California? *The Nature of Cities*, June 23, 2015.
- Whitlow TH, **Pataki DE**, Alberti M, Pincetl S, Setälä H, Cadenasso M, Felson A, McComas K. 2014. Comments on "Modeled PM2.5 removal by trees in ten U.S. cities and associated health effects" by Nowak et al. (2013). *Environmental Pollution* 191:256 and 191:258-259.
- Pataki DE**. 2013. Parks 2050: Growing food, curbing floods, cleaning air. *BBC Future Blog*, <http://www.bbc.com/future/story/20131115-green-wonder-your-park-in-2050>.
- Pataki DE**, Alberti M, Cadenasso ML, Felson AJ, McDonnell MJ, Pincetl S, Pouyat RV, Setälä H, Whitlow TW. 2013. City trees: Urban greening needs better data. *Nature* 502: 624.

Conference and invited presentations

- University of Colorado (invited), Boulder, CO, April 2019
- Boston University (invited), Boston, MA, October 2018
- Ecological Society of America meeting (invited), New Orleans, LA, August 2018.
- American Geophysical Union meeting (invited), New Orleans, LA, December 2017
- Barnard College (invited), New York, NY, November 2017
- Smith College (invited), Northampton, MA, September, 2017
- Ecological Society of America meeting (invited), Portland, OR, August 2017
- Central Arizona Project Long-Term Ecological Research site All Hands Meeting (keynote), Arizona State University, January 2017
- 2nd International Conference on Urban Tree Diversity (keynote), Melbourne, Australia, Feb. 2016
- American Geophysical Union fall meeting (invited), San Francisco, CA, December 2015
- Smithsonian Environmental Research Center (invited), Edgewater, MD, November 2015
- Ecological Society of America meeting (invited), Baltimore, MD, August 2015
- Front Range Student Ecology Symposium (keynote), Fort Collins, CO, February 2015
- NSF Water Sustainability and Climate program meeting, Arlington, VA, February 2015
- Florida A&M University (invited), Tallahassee, FL, March 2014
- Arizona State University (invited), Tempe, AZ, February 2014
- National Science Foundation, Water Sustainability and Climate program meeting, Washington DC, January 2014
- American Geophysical Union fall meeting (invited), San Francisco, CA December 2013
- Yale University (invited), New Haven, CT, November 2013
- American Society of Landscape Architects meeting (invited) November 2013
- Ecological Society of America meeting (invited), Minneapolis, MN, August 2013
- "Ecosystem Services of Urban Forestry" workshop, National Academy of Sciences (invited), Washington, DC, February 2013
- American Geophysical Union fall meeting (invited), San Francisco, CA December 2012
- "Multidisciplinary water science: Linking social, physical, computational and ecological approaches to sustainable water resources", Utah State University (invited), April 2012
- American Geophysical Union fall meeting (invited), San Francisco, CA December 2011
- UK Royal Horticultural Society, John McLeod Annual Lecture (invited), London, November 2011
- Ecological Society of American meeting (invited), Austin, TX, August 2011
- Stanford University, Dept. of Environmental Earth System Science (invited), May 2011
- University of Utah, Global Change and Ecosystem Center (invited), April 2011
- UCLA, Institute of the Environmental and Sustainability (invited), February 2011
- American Geophysical Union fall meeting (invited), December 2010
- ACES conference: A Community of Ecosystem Services (invited), December 2010
- UCLA, Dept. of Ecology & Evol. Biology (invited), October 2010
- Ecological Society of America meeting (invited), Pittsburgh, PA, August 2010
- UC Irvine Discover the Physical Sciences Breakfast Lecture (invited), May 2010
- UCLA, Dept. of Geography (invited), April 2010
- MillionTreesNYC, Green Infrastructure, and Urban Ecology: A research symposium (invited), New York City, March 2010
- Atmospheric Sciences Symposium, UC Berkeley (keynote), February 2010
- American Geophysical Union fall meeting (invited), December 2009

- UC Irvine Allergan Lecture, October, 2009
- AGU Chapman Conference: Examining Ecohydrological Feedbacks of Landscape Change Along Elevation Gradients in Semiarid Regions (invited), Sun Valley, ID October, 2009
- National Science Foundation Environmental Research and Education (ERE) committee presentation (invited), September 2009
- Ecological Society of America meeting (Recent advances keynote address), Albuquerque, NM, August 2009
- Ecological Society of America Congressional Briefing (invited), U.S. Congress, Washington DC, July 2009
- University of Maryland, Baltimore County (invited), February 2009
- American Geophysical Union meeting (invited), San Francisco, CA, December 2008
- Arizona State University, Tempe, AZ (invited), September 2008
- California Energy Commission Climate Change conference (invited), Sacramento, CA Sept. 2008
- Oxford University (invited), Oxford, UK, July 2008
- Center for Urban Horticulture, UC Davis (invited), May 2008
- Isoscapes Conference (invited), Santa Barbara, CA, April 2008
- University of Illinois (invited), Chicago, IL, April 2008
- Northeast Section of the American Society of Plant Biologists (keynote), Storrs, CT, April 2008
- San Diego State University (invited), March 2008
- National Center for Ecological Analysis and Synthesis (invited), January 2008
- American Geophysical Union meeting, San Francisco, CA, December 2007
- Cornell University (invited), November 2007
- Ecological Society of America meeting, San Jose, CA, August 2007
- Cites and Global Climate Change Conference (invited), Irvine, CA April 2007
- Stanford University (invited), Palo Alto, CA, February 2007
- American Geophysical Union meeting, San Francisco, CA, December 2006
- IUFRO Canopy Processes workshop: Regional forest responses to environmental change (invited), Northeastern U.S., October 2006.
- 3rd Annual California Energy Commission Climate Change Conference, September 2006
- Global Carbon Project Conference: Carbon Management at Urban and Regional Levels - Connecting Development Decisions to Global Issues, Mexico City, September 2006
- Isotopes as Tracers of Ecological Change, Tomar, Portugal, March 2006
- University of New Hampshire (invited), Durham, NC, February 2006
- University of California, Riverside (invited), January 2006
- American Geophysical Union meeting, San Francisco, CA, December 2005
- CSIRO, Australia (invited), April 2005
- 11th Annual U.S.-Japan Workshop on Global Change (invited), Yokohama, Japan 2005
- University of Illinois, Urbana-Champaign (invited), March 2005
- California State University, Los Angeles (invited), February 2005
- Ecological Society of America meeting, Montreal, Canada, August 2005
- 21st Conference on Weather Analysis and Forecasting/17th Conference on Numerical Weather Prediction, Washington D.C., August 2005
- American Geophysical Union meeting, San Francisco, CA, December 2004
- BASIN/SIBAE meeting: Partitioning of fluxes between the biosphere and the atmosphere across spatial scales, Interlaken, Switzerland, April 2004.
- BASIN/SIBAE meeting: Oxygen isotopes as a tracer linking global O₂, CO₂, and H₂O cycles, Marshall, California, September 2004.

- American Geophysical Union meeting, San Francisco, CA, December 2003
- Ecological Society of America Conference, Savannah, GA, August 2003
- Integrating Science and Management on the Colorado Plateau, Flagstaff, AZ., November 2003
- CO₂ and Water Workshop, Basel, Switzerland, August 2002
- Ecological Society of America Conference, Tuscon, AZ, August 2002
- BASIN workshop, Banff, Canada, May 2002
- Ninth Annual Workshop on Weather Prediction in the Intermountain West, Salt Lake City, UT, November 2002.
- American Geophysical Union meeting, San Francisco, CA, December 2001
- Ecological Society of America meeting Madison, WI, August 2001.
- Sixth CO₂ conference, Sendai, Japan, October 2001
- American Geophysical Union meeting, San Francisco, CA, December 2000
- Great Basin Biological Research Conference, Reno, NV, October 1999
- Ecological Society of America meeting, Spokane, WA, August 1999
- American Geophysical Union meeting, San Francisco, CA, December 1998
- Ecological Society of America meeting, Albuquerque, NM, August 1997
- Ecological Society of America meeting, Providence, RI, August 1996

Grants

- "NSF INCLUDES: Alliance to strengthen the STEM Tapestry (ASSisT): Motivating critical identity shifts to weave the STEM disenfranchised into science and the sustainability workforce." NSF, \$299,975, 1/1/17-12/31/18, Nadkarni, Cheek-O'Donnell, Gerton, Isabella, Pataki
- "MSB-FRA: Alternative futures for the American residential macroystems." NSF, UU portion \$400,102, 1/1/17-12/31/20, Groffman, Grove, Lerman, Hall, Larson, Pataki, Hobbie, Cavendar-Bares, Nelson, Morse, Chowdhury, Heffernan, Neill, Trammell, Avolio
- "Predicting CO₂ emissions associated with urban development in the western U.S." NOAA, \$848,181, 1/1/14-12/30/17, Lin, Pataki, Buchert, Bowling, Strong, Ehleringer
- "iUtah-innovative Urban Transitions and Aridregion Hydro-sustainability", NSF EPSCoR, \$20,000,000, 7/1/12-6/30/17, Crowl, Baker, Ehleringer, Jackson-Smith, Pataki
- "MRI: Acquisition of an Isotope Ratio Mass Spectrometer for Tracing Human-Environment Interactions," NSF \$629,938, 8/15/13-8/14/17, Bowen, Bowling, Pataki, Ehleringer, Cerling
- "WSC-Category 3: Collaborative: The role of local water resources in the water sustainability of Los Angeles," NSF, \$1,484,781, 7/1/12-6/30/17, Pataki, Pincetl, Hogue
- "Mobile greenhouse gas flux analyzer for unmanned aerial vehicles," NASA SBIR, Univ of Utah subcontract \$75,000, 1/1/13-03/31/16, Pataki, primary awardee Los Gatos Research, Inc.
- "Collaborative research: Mechanisms for the decline of leaf hydraulic conductance with dehydration, and plant- and environment-level impacts dehydration, and plant- and environment-level impacts," NSF IOS, UCI portion \$198,849, 2/1/12-1/31/16, Sack, Pataki, Buckley
- "Collaborative research: Ecological homogenization of urban America," NSF-Macrosystems, UCI portion \$222,634, 6/30/11-7/1/15, Groffman, Grove, Hobbie, Cavender-Bares, Nelson, Polsky, Hall, Larson, Heffernan, Ogden, Neill, Pataki, Chowdhury
- "Collaborative Research: Toward a biogeography of urban forests," NSF-DEB, \$691,498, 9/1/09-8/31/12, Pataki, Jenerette, Pincetl, Gillespie

"Dynamics of urban ecosystem services and their relationship to ecohydrology: Exploratory study for a Los Angeles Urban Long-term Research Site (LA-ULTRA)", NSF-ULTRA, \$299,429, 1/1/10-12/31/12, Pincetl, Boone, Hogue, McFadden, Pataki

"Reductions in urban outdoor water use as an adaptation to rising temperatures and declining water supplies in southern California," California Energy Commission PIER, \$199,737, 4/1/10 – 3/31/12, Pataki, Hogue, Pincetl

"Forest-Atmosphere Carbon Transfer and Storage (FACTS-1)", U.S. Dept. of Energy, UCI subcontract \$66,068, 12/1/09-11/30/12, Oren

"Creating sustainability indicators to assess the physical, social, and economic values of greening cities," EPA-STAR, \$369,577, 5/07-8/10, Saphores and Pataki, UCI, Pincetl and Saatchi, UCLA

"Distinguishing between greenhouse gas emissions from cropland, animal operations, and urban land cover with isotopic tracers," USDA Air Quality, \$499,276, 1/1/07 – 12/31/10, Pataki, Tyler, Trumbore

"Collaborative Research: A study in the dynamics of human behavior in institutional innovation and learning," NSF-HSD, \$748,712, 9/1/06 – 10/31/10, Pincetl, Saatchi, UCLA, Pataki, Saphores, UCI

"The spatial distribution of isotopic tracers in urban organic matter: understanding multiple and confounding effects of human activities on urban vegetation," NSF Geography, \$299,914, 8/06 – 1/10, Pataki

"Sources of dissolved nitrogen to urban watersheds in Orange County, California," UCI CORCLR, \$24,876, 7/1/07-6/30/06, Pataki and Cooper

"Acquisition of capability for single-compound AMS measurement of organic matter at the W.M. Keck Carbon Cycle Accelerator Mass Spectrometry Facility at UC Irvine" NSF EAR, \$411,163, Druffel, Pataki, Southon, Treseder, Trumbore, 11/05 – 10/08

"Improving greenhouse gas emissions inventories in California with atmospheric measurements," UC Energy Institute, \$35,000, 7/06 – 6/07, Pataki

"Controls on C and N cycling in a Southern California urban turfgrass ecosystem" Kearney Foundation of Soil Science, \$39,951, 1/06 – 12/06, Pataki

"Plant water use in Owens Valley, CA: Understanding the influence of climate and depth to groundwater." UC Center for Water Resources, \$57,882, Pataki, 7/05 – 6/07

Research Experience for Undergraduates, NSF cross-directorate, \$30,000, Forster, Pataki, Emmi, Klewicki and Peterson, 1/04-2/07

"Urban trace-gas emissions study (UTES): Interactions between canopy processes, anthropogenic emissions, and social institutions in the Salt Lake Valley, Utah." NSF-biocomplexity, \$1,498,173, Pataki, Emmi, Forster, Klewicki, Peterson, 9/02-2/07

"Is carbon sequestration a feasible management goal for urban soils? Exploratory research in the Los Angeles Basin" Newkirk Center for Science and Society, \$12,500, Pataki and Trumbore, 9/05 – 9/06

Workshop: "Carbon respiration from terrestrial ecosystems – reducing uncertainties in the role played by respiration in the global carbon cycle." NSF-CaRTE, \$72,277, Trumbore, 9/02-8/04

"Support of the GCTE Focus 1 Office (Ecosystem Processes in Biogeochemical Cycles)", NASA, \$170,660, Ehleringer and Pataki, 2/02-12/03

Workshop: "Tracing carbon in elevated CO₂ experiments: A workshop on isotopic analyses of where the carbon is going." DOE \$19,774, Ellsworth and Pataki, 1/01-1/02

Teaching

Courses Taught at the University of Utah:

SCI 6990 Professional Development Seminar (graduate)

BIOL 5440/CMP 6610 Urban Ecology (upper division undergraduate/graduate)

BIOL 7406 Speakerfest (graduate)

Courses Taught at UC Irvine:

BIO E127/ESS 168/268 Physiological Plant Ecology (undergraduate upper division/graduate)

BIO 2B The Ecology of Your Backyard (freshman seminar)

BIO 2B Water in the West (freshman seminar)

BIO 2B Trees of the World (freshman seminar)

ESS 60B Local and Regional Environmental Issues (undergraduate lower division)

ESS 218 Terrestrial Ecology (graduate)

ESS 226 Land Surface Processes (graduate)

US 13A Environmental Studies (undergraduate lower division)

Graduate students supervised:

Neeta Bijoor, Ph.D., 2010, now a Water Conservation Specialist, Santa Clara Valley Water District, California

Christine Goedhart, Ph.D., 2010, now an Assistant Professor, Citrus College

Sonja Djuricin Burd, Ph.D., 2011, now an Assistant Professor, College of Southern Nevada

Elizaveta Litvak, Ph.D. 2012, now a post-doctoral researcher, University of Utah

Wenwen Wang, Ph.D. 2012, now a patent lawyer

Moumita Kundu, MCMP, 2014

Carolina Gomez-Navarro, current

La'Shaye Ervin Cobby, current

Other thesis and advancement to candidacy committees:

Mariah Carbone, Allison Chan, Chris Doughty, Brandon Finley, Noortje Griseels, David Lebauer, Aaron Fellows, Leah Goldstein, Yusuf Jameel, Anne Kelly, Hsiao-wen Lin, David Love, Nicole Nowinski, Calen May-Tobin, Adrian Rocha, Jeffrey Ross, Gerald Schneider, Marko Spasojevic, Jennifer Talbot, Matthew Whiteside, David Love, Gerald Schneider, Robin Rothfeder

Post-doctoral researchers supervised:

Heather McCarthy, now an Assistant Professor, University of Oklahoma

Amy Townsend-Small, now an Assistant Professor, University of Cincinnati

Tara Trammell, now an Assistant Professor, University of Delaware

Chalita Sriladda Forgotson, now a Research Scientist, NASA

Meghan Avolio, now an Assistant Professor, Johns Hopkins University

Rebecca Hale, now a Research Assistant Professor, Idaho State University

Kendra Chritz, now an Assistant Professor, Oregon State University

Elizaveta Litvak, current

Rose Smith, current

Undergraduate researchers supervised at the University of Utah: William Borrowman (Honors Biology thesis), Eden Brush (visiting from U Oregon), Claire O'Donnell, Thomas Reiersen, Barbara Uhl, Lily Wetterlin, Grant Doxey, Michael Navidsomksis, Samantha King, Elmera Azadpour (Honors Biology thesis)

Undergraduate researchers supervised at UC Irvine: Kristine Adan, Anait Arsenyan, Ryan Babadi, Melissa

Benitez, Patti Chi, David Choi (undergraduate thesis), Madina Chowdhury, Ibrahima Diallo, Aaron Ellis (undergraduate thesis), Hannah Erbele, Gabriel Giannini, Thomas Gocke, MaryKay Herzenach, Heather Hee, Sophia Ko, Justine Law, Fabian Maganas, Greg Maler, Nicole Ngo (undergraduate thesis), Dave Nguyen, Katherine Nguyen, Thien Nguyen, Trung Nguyen, Boyang Pan, Liz Seward, Aubrey Stills, Anthony Trung, Leon Tsoi (undergraduate thesis), Eric Sun