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### Education

B.S. 1988-1992	<b>Peking University</b> , China	Geology
M.S. 1992-1995	<b>Peking University</b> , China	Environmental Sciences
Ph.D. 1999-2003	<b>University of California, Berkeley</b>	Ecosystem Sciences
Postdoc 2003-2004	University of California, Berkeley:	Soil respiration
Res. Associate 2004-2006	University of Minnesota:	Forest carbon cycles

### Professional Positions

7/1995-6/1999	Assistant Professor and Lecturer, Center for Environmental Sciences, Peking University, China
10/2006-12/2007	Research Scientist, Chicago Botanic Garden
10/2006-12/2007	Adjunct Assistant Professor, Northwestern University
1/2008-9/2014	Assistant Scientist, The Ecosystems Center, Marine Biological Laboratory
7/2009-10/2014	Assistant Professor, Brown University-MBL joint graduate program (the joint program ended in 2014)
10/2014-present	Associate Scientist, The Ecosystems Center, Marine Biological Laboratory

### Teaching

2008-present	Teaching for the "Semester in Environmental Sciences" at MBL in each fall on the topic of soil respiration and soil-plant interactions.
1/2014-5/2014	Terrestrial Carbon and Nitrogen Cycling (GEO 2920), Brown University.
1/2011-5/2011	Terrestrial Nitrogen and Carbon Cycling (GEO 2920), Brown University.
9/2007-12/2007	Ecosystem Ecology (PBC 405), Northwestern University.
3/2007-5/2007	Soil Ecology (PBC 440), Northwestern University (co-instructor).
1/2006-5/2006	Biosphere-Atmosphere Interactions (FR 5480), University of Minnesota.
1/2002-5/2002	Ecological Modeling (ESPM 254), University of California at Berkeley (co-instructor).
1/2001-5/2001	Ecological Modeling (ESPM 254), University of California at Berkeley (teaching assistant).
7/1995-6/1999	Environmental Sciences, and Ecological Impact Assessment, Peking University, China.

**Publications** (the underscore indicates advisee as the first author)

- Google Scholar citations = 5217, H-Index = **34** as of October 2017.

(<http://scholar.google.com/citations?user=cJs5jJQAAAAAJ&hl=en>)

- Research ID citations = 3161, H-Index = **28** as of October 2017.

([www.researcherid.com/rid/K-6798-2014](http://www.researcherid.com/rid/K-6798-2014))

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- [68] Carey, J.C., T. Parker, N. Fetcher, **J. Tang**, Biogenic silica accumulation varies across tussock tundra plant functional type, **Functional Ecology**. In press.
- [67] Wang, F., Y. Ding, E. Sayer, Q. Li, B. Zou, Q. Mo, Y. Li, X. Lu, **J. Tang**, W. Zhu, Z. Li. Tropical forest restoration: fast resilience of plant biomass contrasts with slow recovery of stable soil C stocks. **Functional Ecology**, In press.
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- Liang, A., Y. Zhang, X. Zhang, X. Yang, N. McLaughlin, X. Chen, Y. Guo, S. Jia, S. Zhang, L. Wang, **J. Tang**, 2017, Impacts of pore structure on microbial distribution and soil organic carbon content within intact soil macroaggregates. *Science of the Total Environment*.
- Mo, Q., Z. Li, E. Sayer, H. Lambers, S. Yu, B. Zou, Y. Li, **J. Tang**, M. Heskell, X. Zheng, F. Wang, 2016. Response of foliar traits and phosphorus fractions to fertilization in a tropical forest: understanding plant adaptations to phosphorus availability, *Global Change Biology*.
- Abdul-Aziz, O. I., K. S. Ishtiaq, M. T. Zaki, A. R. Desai, **J. Tang**, S. F. Oberbauer, P. Blanken, G. Starr, and C. L. Staudhammer, Linking net ecosystem exchange (NEE) with the climatic and ecohydrological indicators across diverse ecosystems using data analytics, *Journal of Geophysical Research: Biogeoscience*.
- Abdul-Aziz, O. I., K. S. Ishtiaq, **J. Tang**, S. Moseman-Valtierra, K. D. Kroeger, M. E. Gonneea, J. Mora, and K. Morkeski, Environmental controls and emergent scaling of greenhouse gas (GHG) fluxes in coastal salt marshes: Data analytics, modeling, and predictions. *Wetlands*.
- Lu, X., X. Cheng, X. Li., J. Tang, J. Chen, P. Pellikka, M. Sun, M. Ji, H. He and S. Wang, Photosynthesis phenology captured by satellite chlorophyll fluorescence in mid-to-high latitude forests, *Scientific Reports*.
- Lu, X., Z. Liu, S. An, D. G. Miralles, W. Maes, Y. Liu, J. Tang, Potential of solar-induced chlorophyll fluorescence to estimate transpiration in a temperate forest. *Agricultural and Forest Meteorology*.

- Schedlbauer, J. L., N. Fetcher, K. Hood, M. L. Moody, and **J. Tang**, Effects of growing season temperature on photosynthetic capacity and respiration in three ecotypes of *Eriophorum vaginatum*
- Lu, X., X. Cheng, P. Pellikka, X. Li., J. Tang, Opportunities and challenges of relatively high-resolution remote sensing of fluorescence. *Science of Total Environment*

### **Book chapters**

- Goreau, T.J., E. Stack, E. Senechal, **J. Tang**, R. Ryals, T. Vanacore, J. Campe, 2013, Basalt Dust and Biochar Interactions at New Harmony Farm, Massachusetts, Chapter 18, 343-360, in: *Geotherapy: Innovative Methods of Soil Fertility Restoration, Carbon Sequestration, and Reversing CO<sub>2</sub> Increase*. CRC Press.
- Tang, J.**, 2011. Ecosystem Ecology: Ecosystem modeling, measurement and manipulation, Chapter 5, 57-63, In: *Ecological Vision: Challenge, Response and Strategy* (Han and Wu Eds.). China Higher Education Press, Beijing (in Chinese).
- Tang, J.**, 2011. Soil respiration: measurement, controls, succession, and acclimation, Chapter 8, 155-174. in: *Modern Ecological Lectures (V)* (Wu & Li Eds). China Higher Education Press, Beijing (in Chinese).
- Wang, L. and **J. Tang**, 2010. Vision for global change studies, in: *Ecological Complexity and Ecological Vision* (Wu and Fan Eds), Chapter 10, 147-157. China Higher Education Press, Beijing (in Chinese).
- Tang, J.**, 2009. Ecosystem photosynthesis and respiration: Key processes in global carbon cycles, in: *Modern Ecological Lectures (IV)* (Wu & Yang Eds), Chapter 5, 102-119. China Higher Education Press, Beijing (in Chinese)
- Tang, J.**, 2001. Theories in environmental planning, Chapter 2 in: *Environmental Planning* (Guo H. et al Eds.), China Higher Education Press. Beijing. 301 p. (in Chinese)
- Tang, J.**, 2000. Economics in environmental management, Chapter 13 in: *Environmental Protection and Sustainable Development* (Qian, Y. and X. Tang Eds.), China Higher Education Press, Beijing. 369p. (in Chinese)
- Qi, Y., **J. Tang**, M. Xu, 2000. Modeling the biosphere in climate change studies: respiration and decomposition, in: *Modern Ecological Lectures (II)*, China Science Press. (in Chinese)
- Tang, J.**, 1996. Discussion on price of air resource, In: *China's Environmental Economics: From Theory to Practice*, 68-70, Chinese Agricultural Technology Publication. (in Chinese)
- Tang, J.**, 1995. Measurement of sustainable development, In: *Resource, Environment and Strategy of Sustainable Development*, 603-606, China Envi. Sci. Publication. (in Chinese)
- Tang, J.**, 1993. From environmental impact assessment to the value of environmental quality, In: *Walking Toward 21<sup>st</sup> Century*, 86-90, China Envi. Sci. Publication. (in Chinese)

**Funding***Current*

- NOAA/National Estuarine Research Reserve System Science Collaborative, Expanding Blue Carbon Implementation: Increasing GHG Model Application in Tidally Restricted and Restored Salt Marshes, Science lead PI, 2015-2018, \$181,607 over \$750,000.
- University of Chicago, A workshop proposal to facilitate collaborative research on conservation and restoration coastal wetlands to preserve carbon storage, PI, 2017-2018, \$12,500.
- Foundation for Agricultural Integrity, Quantifying Carbon fluxes and sequestration rates for the Hudson Valley Carbon Farming, PI, 2017-2018, \$50,813.
- NSF/PLR, Collaborative Research: Local adaptation in a dominant Arctic tundra sedge and its effects on ecosystem response in a changing climate, Collaborative PI (other PIs: Ned Fetcher, Michael Moody), 2015-2017, \$433,037 over \$1,000,000.
- NSF/DEB, Collaborative Research: LTREB: Soil warming and forest ecosystem feedbacks to the climate system, 2015-2020, Co-PI (PI: Jerry Melillo), \$345,520.
- NSF/NEON, Soil water release curve and CO<sub>2</sub> diffusivity, PI, 2013-2017, \$458,819.

*Past*

- USGS/Woods Hole Center, Supplement: Advancing understanding of ecosystem responses to climate change with warming experiments: what we have learned and what is unknown? PI, 2015-2016, \$170,227.
- University of Chicago/MBL Lillie Research Innovation Award: Using chlorophyll fluorescence and other hyperspectral reflectance signatures to investigate plant photosynthesis and other ecosystem functions, 2015-2017, PI (co-PIs: Yuki Hamada, Tomomi Tani), \$125,000.
- Brown University/ISES Seed Grant, Biochar's potential for mitigating agricultural nitrogen pollution, Co-PI (PI: Rebecca Ryals), 2014-2017, \$10,455.
- NOAA/National Estuarine Research Reserve System Science Collaborative, Carbon management in coastal wetlands: quantifying carbon storage and greenhouse gas emissions by tidal wetlands to support development of a greenhouse gas protocol and economic assessment, Science PI, 2011-2015, \$378,125 over \$1,325,950.
- NSF/EF, Participant Costs: Building Global Ecological Understanding, Co-PI (PI: Rodrigo Vargas), 2015, \$49,946.
- USGS/Powell Center, Advancing understanding of ecosystem responses to climate change with warming experiments: what we have learned and what is unknown? PI, 2013-2015, \$149,460.
- NOAA/WHOI Sea Grant, Shifts in greenhouse gas emissions and productivity of coastal wetlands in response to anthropogenic N loading and rising sea level, Collaborative PI (other PIs: Serena Moseman-Valtierra, Kevin Kroeger), 2013-2015, \$65,228.

- Rathmann Family Foundation, Poultry manure management and nitrogen cycling in the Chesapeake Bay watershed, co-PI (PI: Rebecca Ryals), 2013-2014, \$48,649.
- DOE/TES, Exploratory: Quantifying the control of plant photosynthesis on root respiration by measuring and manipulating photosynthate transport rates in the tree phloem, PI, 2011-2013, \$149,805.
- NSF/DBI, MRI-R2: Acquisition of trace gas and aerosol instrumentation for ecosystem analysis, Co-PI (PI: Hugh Ducklow), 2010-2012, \$418,048.
- Brown University/Seed Funds for International Research Project on the Environment: Phenological shift in facing climate change: cross-sites comparison between forests in the U.S. and China, PI (Co-PI, Johanna Schmitt, John Mustard), 2010-2012, \$50,000.
- Brown University/Seed Funds, The impact of agricultural practices on greenhouse gas emissions and air quality: a case study in New England, Co-PI (PI: Meredith Hastings), 2011-2012, \$24,279.
- NSF/AGS, EAGER: Differentiating heterotrophic and root respiration through concurrent measurement of CO<sub>2</sub> and O<sub>2</sub> fluxes in soils, PI, 2010-2011, \$149,211.
- NSF/PLR, Effects of lengthening growing season and increasing temperature on soil carbon fluxes and stocks in Arctic tundra, PI, 2010, \$99,879.
- Center for Tropical Forest Science of the Smithsonian Tropical Research Institute, Canopy transpiration, stomatal conductance and wind effects in a tropical forest in Taiwan, Postdoc PI, 2006-2007, \$12,000.
- Monterey Pine Forest Ecology Cooperative from David and Lucile Packard Foundation, Measurement and modeling of ecosystem respiration in a Monterey pine plantation at East San Francisco Bay, Graduate student PI, 2002-2003, \$4,000.

### **Invited seminars**

- Tang, J.**, Recent advances in carbon cycle research: temperature, phenology, and fluorescence, Invited seminar for Department of Geosciences, University of Massachusetts, Amherst, September 22, 2017.
- Tang, J.**, Recent advances in carbon cycle research: abiotic and biotic controls, Invited seminar for Soil and Crop Sciences, Cornell University, September 7, 2017.
- Tang, J.**, Recent advances in carbon cycle research: abiotic and biotic controls, Invited seminar for the Department of Geological Sciences, The University of Texas at El Paso, February 27, 2017.
- Tang, J.**, Recent advances in carbon cycle research: phenology and coastal blue carbon, Invited seminar for Odum School of Ecology, The University of Georgia, February 14, 2017.
- Tang, J.**, Dynamics, controls, and application of ecosystem carbon cycling, invited seminar for the Center for Spatial Information Science and Systems, George Mason University, October 26, 2016.

- Tang, J.**, Dynamics, controls, and application of ecosystem carbon cycling, invited seminar for the Department of Earth and Planetary Sciences, Johns Hopkins University, October 25, 2016.
- Tang, J.**, Phenology and solar induced fluorescence for understanding ecosystem carbon dynamics, invited seminar for the Argonne National Laboratory, July 19, 2016.
- Tang, J.**, Global synthesis of N<sub>2</sub>O emissions in the ILTER network, invited talk for the ILTER Nitrogen Initiative International Training Course, Hokkaido University, Sapporo, Japan, June 20-24, 2016.
- Tang, J.**, Abiotic and Biotic controls of terrestrial carbon cycles, Invited talk for Cary Institute of Ecosystem Studies, March 31, 2016.
- Tang, J.**, Using spectral signature to image plant function, invited talk for the Informal Scientist Meeting, Marine Biological Laboratory, February 27, 2015.
- Tang, J.**, Improving understanding of carbon and nitrogen cycles with advanced technology, invited talk for Mark Zondlo Lab, Department of Civil and Environmental Engineering, Princeton University, May 8, 2014.
- Tang, J.**, Plant physiological constraints of terrestrial carbon fluxes, invited talk for the Ecosystems Center, April 15, 2014.
- Tang, J.**, Terrestrial carbon cycles: the present, past, and future, invited talk for the Department of Geological Science Colloquium at Brown University, April 3, 2014.
- Tang, J.**, Imaging plants: from cells to the globe, invited presentation for the Brown University-MBL retreat, November 9, 2013.
- Tang, J.**, Development of sensors for plants and gas flux measurement at multiple scales, invited talk for the Argonne National Laboratory/Sensor workshop, July 23, 2013.
- Tang, J.**, N<sub>2</sub>O emissions in response to N fertilization and the climate, invited talk for the ILTER N initiative workshop, Woods Hole, MA, January 29-30, 2013.
- Tang, J.**, Field-based measurement, manipulation, and modeling of greenhouse gas fluxes in ecosystems in response to climate change, invited presentation for the MIT's Joint Program on the Science and Policy of Global Change, Cambridge, MA, April 13, 2012.
- Tang, J.**, Root respiration: measurement and modeling, Invited presentation for the workshop on Scaling Root Processes: Global Impacts, organized by Roser Matamala and funded by DOE, Washington, DC, March 7-9, 2012.
- Tang, J.**, Ecosystem biogeochemistry and phenology, Invited presentation in the Department of Ecology and Evolution Biology Annual Retreat, Brown University, September 9, 2011.
- Tang, J.**, Greenhouse gas emissions from ecosystems: plot-scale measurement, global-scale implication, invited talk for MBL Informal Scientists meeting, Woods Hole, February 11, 2011.
- Tang, J.**, Phenology and climate change, presented in Brown University ECI Retreat, Providence, November 20, 2010.



- Tang, J.**, Ecosystem Carbon Cycling, guest lecture for Boston College BI 486, invited by Serena Moseman, Oct. 20, 2009.
- Tang, J.**, Soil respiration: Components, controls, succession, and acclimation, invited lecture for Graduate University of Chinese Academy of Sciences, July 3, 2009.
- Tang, J.**, Soil respiration: Components, controls, succession, and acclimation, invited lecture for the 5<sup>th</sup> International Symposium on Modern Ecology in Lanzhou, China, June 26-28, 2009.
- Tang, J.**, Soil respiration: Components, controls, succession, and acclimation, Department Seminar, Department of Earth and Planetary Sciences, The Johns Hopkins University, May 7, 2009.
- Tang, J.**, Ecosystem carbon cycles in response to climate change: Controls, succession, and acclimation. Invited seminar for the Toolik Station of the Arctic LTER site in Northern Alaska, July 22, 2008.
- Tang, J.**, Terrestrial ecosystem measurement and modeling: State and flow. Invited for the State Key Laboratory of Remote Sensing, Chinese Academy of Science, Beijing, July 2, 2008.
- Tang, J.**, Ecosystem photosynthesis and respiration: Key processes in global carbon cycling. Invited for International Institute of Earth System Science, Nanjing University, June 26, 2008.
- Tang, J.**, Age-driven decline of forest productivity and respiration: An ecological paradigm of succession revisited. Ecosystems Center Seminar, Marine Biological Laboratory, Woods Hole, MA. April 15, 2008.
- Tang, J.**, Automated measurement of CO<sub>2</sub> profiles and fluxes in soils. Invited by Katalin Szlavecz Lab, The Johns Hopkins University, March 11, 2008.
- Tang, J.**, Ecosystem respiration and photosynthesis: Controls, coupling, and succession. Invited for Environmental Change Initiative, Brown University, Feb. 13, 2008.
- Tang, J.**, Ecosystem respiration and photosynthesis: Controls, coupling, and succession. Invited lecture for Department of Ecology, Peking University, Beijing, China. Dec. 11, 2007.
- Tang, J.**, Ecosystem respiration and photosynthesis: Controls, coupling, and succession. Invited lecture for Institute of Botany, The Chinese Academy of Sciences, Beijing, China. Dec. 10, 2007.
- Tang, J.**, Plant photosynthesis and respiration: key processes in global carbon cycling, invited lecture for Institute of Natural Resources, National Dong Hwa University, Taiwan, Sep. 5, 2007.
- Tang, J.**, Plant photosynthesis and respiration: Controls, coupling, and succession, invited lecture for the Ecosystems Center at the Marine Biological Laboratory, Woods Hole, MA, July 19, 2007.
- Tang, J.**, Plant photosynthesis and respiration: key processes in global carbon cycling, invited lecture for the 4<sup>th</sup> International Symposium on Modern Ecology, Inner Mongolia University, China, May 29 – June 3, 2007.
- Tang, J.**, Ecosystem carbon cycle: from interactions of soil-root to leaf-atmosphere, invited lecture for College of Resources and Environmental Sciences, Chinese Agricultural University, Beijing, June 1, 2007.

- Tang, J.**, Plant photosynthesis and respiration: key processes in global carbon cycling, invited lecture for the 4<sup>th</sup> USCCC (United States China Carbon Consortium) annual workshop, Beijing, China, May 28, 2007.
- Tang, J.**, Plant photosynthesis and respiration: key processes in global carbon cycling, invited lecture for Institute of Remote Sensing Applications, Chinese Academy of Sciences, Beijing, May 22, 2007
- Tang, J.**, Controls, coupling, and succession of ecosystem respiration and photosynthesis, invited Departmental Seminar for Department of Environmental Sciences, University of Toledo, OH, March 30, 2007.
- Tang, J.**, CO<sub>2</sub> emissions from the soil: Components, controls and succession, invited lecture for Chicago Botanic Garden, Chicago, IL, May 31, 2006.
- Tang, J.**, Ecosystem respiration, photosynthesis, and transpiration: Controls, coupling, and succession, invited lecture for Prof. Hsieh's group in Institute of Ecology and Evolutionary Biology, National Taiwan University, Taiwan, May 26, 2006.
- Tang, J.**, Measurement and modeling of carbon and water fluxes: respiration, photosynthesis, and transpiration, invited lecture for Department of Geography, University of Idaho, March 21, 2006.
- Tang, J.**, Ecosystem respiration, photosynthesis, and transpiration: Controls, coupling, and succession, invited lecture for Department of Biological Sciences, University of Illinois at Chicago, March 7, 2006.
- Tang, J.**, Soil respiration: components, controls and succession, invited lecture for Departmental Seminar, Dept. of Soil, Water, and Climate at University of Minnesota, Feb. 13, 2006.
- Tang, J.**, Ecosystem respiration: components, controls and succession. Invited lecture at USGS EROS Data Center, Sioux Falls, SD, Jan. 14, 2005.
- Tang, J.**, Ecosystem respiration, its controls and succession. Presented for Prof. Peter Reich's group at University of Minnesota, Nov. 9, 2004.
- Tang, J.**, Carbon cycles and soil respiration. Presented in the Center for Assessment and Monitoring of Forests and Environmental Resources, UC Berkeley. April 16, 2004.
- Tang, J.**, Spatial and temporal variation of soil respiration. Invited lecture for Prof. Steven Wofsy's group at Harvard University, Dec. 4, 2003.
- Tang, J.**, Spatial and temporal variation and driving factors of soil respiration in forest and savanna ecosystems in California. Presented in the Departmental Symposium, Dept. of Environmental Science, Policy and Management, UC Berkeley, Dec. 1, 2003.
- Tang, J.**, Measurement and modeling of soil respiration in forest and savanna ecosystems of the Sierra Nevada: temporal and spatial patterns and human impact. Presented for ESPM Ph.D. symposium at UC Berkeley, April 24, 2003.
- Tang, J.**, Global climate change and China's strategies: bridging science and policy. Presented for Berkeley China Review at UC Berkeley, April 11, 2003.

### **Conference presentations and proceedings**

- Tang, J.**, Z. Liu, H. Yang, X. Yang, Reconciling the relationship between solar induced fluorescence and photosynthesis at leaf to canopy scales, poster presented in the 2017 Joint North American Carbon Program (NACP) and AmeriFlux Principal Investigators Meeting, North Bethesda, MD, March 27-30, 2017.
- Tang, J.**, Z. Liu, H. Yang, X. Yang, Solar induced fluorescence as a proxy for photosynthesis, Invited presentation for the 2017 Harvard Forest Ecology Symposium, Harvard Forest, MA, March 21, 2017.
- Tang, J.**, K. Kroeger, S. Moseman-Valtierra, F. Wang, M. Gonnee, Quantifying blue carbon and the impact of salt marsh restoration, invited presentation for the One Health Epigenomics & Microbiomes: From Soil to People Symposium, Framingham, MA, March 16-18, 2017.
- Tang, J.**, T. Parker, M. Moody, N. Fetcher, Ecotype project: Genetic and environmental controls of ecosystem functions, Invited presentation for the Arctic LTER annual meeting, Woods Hole, MA, February 21-24, 2017.
- Tang, J.**, H. Yang, X. Yang, Y. Zhang, M. A. Heskell, X. Lu, S. Sun, J. W. Munger, Relationship between solar induced fluorescence and photosynthesis at leaf to canopy scales, presented in the American Geophysical Union (AGU) fall meeting, San Francisco, CA, Dec. 12-16, 2016.
- Tang, J.**, K. Kroeger, F. Wang, M. Gonnee, Quantifying Greenhouse gas emissions and carbon storage in native and restored salt marshes in northeastern U.S., presented in the 10<sup>th</sup> INTECOL International Wetlands Conference, Changshu, China, Sep. 19-24, 2016.
- Tang, J.**, K. Kroeger, F. Wang, M. Gonnee, Quantifying greenhouse gas emissions in coastal salt marshes and the effect of restoration, invited talk for the Ecological Society of America annual meeting, Lauderdale, FL, August 7-12, 2016.
- Tang, J.**, S. Moseman-Valtierra, K. Kroeger, J. Carey, K. Morkeski, X. Chen, Blue carbon: quantifying CO<sub>2</sub> and CH<sub>4</sub> fluxes in salt marshes in response to nitrogen loading and increasing temperature, presented in the American Geophysical Union (AGU) fall meeting, San Francisco, CA, Dec. 14-18, 2015.
- Tang, J.**, Why does forest growth decline with age, "Ignite" talk presented in the Ecological Society of America annual meeting, Baltimore, MD, August 9-14, 2015.
- Tang, J.**, Using warming experiments to understand soil respiration driven by temperature and moisture, presented in the Ecological Society of America annual meeting, Baltimore, MD, August 9-14, 2015.
- Tang, J.**, S. Moseman-Valtierra, K. Kroeger, J. Carey, K. Morkeski, X. Chen, Quantifying greenhouse gas emissions from salt marshes in response to N loading, presented in the Society of Wetland Scientists meeting, Providence, RI, May 31-June 4, 2015.
- Tang, J.**, S. Moseman-Valtierra, K. Kroeger, J. Carey, K. Morkeski, X. Chen, Building a Salt Marsh Greenhouse Gas Budget: Vertical Fluxes, presented

- in the conference of Capitalizing on Coastal Blue Carbon, Brockton, MA, May 12-13, 2015.
- Tang, J.**, S. Moseman-Valtierra, K. Kroeger, J. Carey, K. Morkeski, X. Chen, Blue carbon: quantifying CO<sub>2</sub> and CH<sub>4</sub> fluxes in salt marshes in response to nitrogen loading and increasing temperature, Poster presented in the NASA Terrestrial Ecology Meeting, College Park, MD, April 22-23, 2015.
- Tang, J.**, S. Moseman-Valtierra, K. Kroeger, J. Carey, K. Morkeski, X. Chen, Quantifying the coastal blue carbon sink and its economic value with advanced methods and technologies, Invited talk at the New England Estuarine Research Society meeting, Bristol, RI, April 16-18, 2015.
- Tang, J.**, S. Moseman-Valtierra, K. Kroeger, J. Carey, K. Morkeski, X. Chen, Blue carbon: quantifying CO<sub>2</sub> and CH<sub>4</sub> fluxes in salt marshes in response to nitrogen loading and increasing temperature, Poster presentation for the 5<sup>th</sup> North American Carbon Program (NACP) and AmeriFlux joint meeting, Washington, DC, Jan. 26–29, 2015.
- Tang, J.**, K. Kroeger, S. Moseman-Valtierra, K. Morkeski, J. Mora, X. Chen, J. Carey, Quantifying greenhouse gas emissions from salt marshes in response to N loading, presented in the American Geophysical Union (AGU) Fall Meeting in San Francisco, CA, Dec. 15-19, 2014.
- Tang, J.**, K. Kroeger, S. Moseman-Valtierra, K. Morkeski, J. Mora, Effects of Nitrogen Loading on Greenhouse Gas Emissions from Salt Marshes, presented in the Restore America's Estuaries 7th National Summit on Coastal and Estuarine Restoration, Washington, DC, Nov. 1-6, 2014.
- J. Tang**, Greenhouse gas emissions in agroecosystems: processes, measurement, and modeling, presented in the 4th iLEAPS Science Conference, Nanjing, China, May 12-16, 2014.
- J. Tang**, Greenhouse gas emissions from agriculture, presentation in the 2<sup>nd</sup> Global Land Project (GLP) Open Science Meeting, Berlin, Germany, March 19-21, 2014.
- J. Tang**, X. Yang, J. Mustard, Tree phenology revealed by camera-based, leaf spectroscopic, and biochemical measurements, presented in the International Association for Ecology (INTECOL) meeting 2013 in London, UK, August 18-23, 2013.
- J. Tang**, Stem respiration and its connection with soil respiration in a temperate forest, Invited talk for the Department of Energy TES/SBR PI Meeting, Potomac, Maryland, May 13-15, 2013.
- J. Tang**, How do stem respiration, root respiration, and heterotrophic respiration influenced by photosynthesis? Poster presented in the 4th NACP All-Investigators Meeting, Albuquerque, NM, February 4-7, 2013.
- J. Tang**, M. Cui, M. Hastings, I. Gelfand, K. Kroeger, S. Moseman-Valtierra, N<sub>2</sub>O and CO<sub>2</sub> fluxes from soils in response to nitrogen addition: Are there any differences between forests, agro-ecosystems, and coastal wetlands? Presented in the American Geophysical Union (AGU) Fall Meeting in San Francisco, CA, Dec. 3-7, 2012.
- J. Tang**, K. Kroeger, S. Moseman-Valtierra, K. Morkeski, Effects of Nitrogen Loading on Greenhouse Gas Emissions from Salt Marshes in the US

- Northeast, presented in the EcoSummit meeting in Columbus, OH, September 30-October 5, 2012.
- J. Tang**, N<sub>2</sub>O emissions in response to N fertilization and the climate, presented in the ILTER meeting in Lisbon, Portugal, September 17-21, 2012.
- X. Yang, **J. Tang**, J. Mustard, J. Schmitt, Using spectroscopy and digital camera to track leaf trait seasonality in a northern temperate forest, Poster presented in the LTER ASM in Estes Park, CO, September 10-13, 2012.
- J. Tang** and T. Savas, Diel pattern of stem respiration and its linkage with soil respiration, presentation in the Ecological Society of America annual meeting in Portland, OR, August 5-10, 2012.
- J. Tang**, K. Kroger, S. Moseman-Valtierra, CO<sub>2</sub> and N<sub>2</sub>O fluxes from coastal wetlands: Is there any difference between wetlands and uplands? Oral presentation in the 9th INTECOL International Wetlands Conference, Orlando, FL, June 3-8, 2012.
- J. Tang**, T. Savas, M. Hastings, Greenhouse gas emissions from agriculture, Poster presented in the First Conference on Atmospheric Biogeosciences, Boston, MA, May 29-June 1, 2012.
- J. Tang** and T. Savas, How do stem respiration, root respiration, and heterotrophic respiration influenced by photosynthesis? Poster presented in the DOE 2012 Terrestrial Ecosystem Sciences Principal Investigator Meeting, Washington, DC, April 23-24, 2012.
- J. Tang**, Carbon management in coastal wetlands, Invited presentation for the PIE LTER annual meeting, Woods Hole, MA, March 29-30, 2012.
- L. Clark (underrepresented undergraduate student), **J. Tang**, Carbon Fractions Among Different Ecosystems, oral presentation at the 2011 Annual Biomedical Research Conference for Minority Students (ABRCMS), Louis, MO, Nov. 12, 2011.
- X. Yang, **J. Tang**, J. Mustard, Using spectroscopy and digital camera to track leaf trait seasonality in a northern temperate forest, poster presented at the 2011 NASA Carbon Cycle & Ecosystems Joint Science Workshop, Oct. 4, 2011.
- J. Tang**, T. Savas, S. Hackley, X. Yang, J. Melillo, S. Pelini, A. Ellison, How do soil respiration and its sensitivity to temperature change with different warming experiments? Invited presentation in the Ecological Society of America annual meeting in Austin, TX, August 8-12, 2011.
- X. Yang, J. Mustard, **J. Tang**, Regional scale budburst and senescence modeling based on meteorological records and remote sensing observations. Presentation in the Ecological Society of America annual meeting in Austin, TX, August 8-12, 2011.
- J. Tang**, Ecosystem measurement, manipulation and modeling, Invited presentation in the 6<sup>th</sup> International Symposium on Modern Ecology Series, Nanjing, China, August 1-4, 2011.
- J. Blaszczyk (undergraduate student), **J. Tang**, Q. Yu, K. Savage, J. Yavitt, C. Reveles and M. Thomas, Landscape Scale Variation in Soil Respiration in a Northern Hardwood Forest, Massachusetts, presented in the 25th



- National Conference on Undergraduate Research, Ithaca College, NY, April 1, 2011.
- J. Tang**, S. Hackley, Carbon fluxes from soils and plants in Arctic tundra and their responses to warming, presented in the ARC LTER annual meeting, Woods Hole, Feb. 18-20, 2011.
- J. Tang**, K. Savage, E. Davidson, CO<sub>2</sub> diffuse processes in soils: impacts of rainfall, snowpack and closed chambers, presented in the AmeriFlux/NACP meeting 2011 in New Orleans, Jan. 31-Feb. 4, 2011.
- J. Tang**, Soil respiration under snowpack in a temperate forest in Massachusetts: the steady vs. transient state, poster presented in AGU fall meeting, 2010.
- Moseman-Valtierra S., K. Kroeger, **J. Tang**, R. Gonzalez, K. Fisher, S. Baldwin, W. Brooks, A. Green, L. Deegan, J. Crusius, J. Bratton, A. Giblin, Greenhouse gas fluxes in dynamic environments: Comparing effects of short- and long-term nitrogen additions on the climatic roles of coastal marshes, presented in AGU fall meeting, 2010.
- Davidson E. A., K. E. Savage, **J. Tang**, Microbial respiration and root respiration follow divergent seasonal and diel temporal patterns in a temperate forest, presented in AGU fall meeting, 2010.
- J. Tang**, Soil respiration under snowpack at Harvard Forest in Massachusetts, Presented in the Ecological Society of America annual meeting in Pittsburgh, PA, August 1-6, 2010.
- Gonzalez R\*, S. M. Moseman-Valtierra, K.D. Kroeger, **J. Tang**, J. Crusius, J. Shelton, J. Bratton, A. Green and W. Brooks, Enhanced N<sub>2</sub>O Fluxes in Coastal Wetlands Due to Nitrogen Enrichment, Society Advancing Hispanic/Chicanos & Native Americans in Science) conference, California, Sep. 30-Oct.1, 2010. (\*Undergraduate student)
- Hickman J., C. Palm, P.K. Mutuo, **J. Tang**, J.M. Melillo, Impacts of an African Green Revolution on greenhouse gas emissions: Fertilizer-N<sub>2</sub>O response functions in a maize agroecosystem in Maseno, Kenya. Presented in the Ecological Society of America annual meeting in Pittsburgh, PA, August 1-6, 2010.
- Melillo, J.M., S.M. Butler, R.M. Smith, C.L. Vario, A. J. Burton, Y. Zhou, **J. Tang**, J.E. Johnson, J. E. Mohan, Effects of soil warming on the carbon cycle at the Harvard Forest, Massachusetts, USA. Presented in the Ecological Society of America annual meeting in Pittsburgh, PA, August 1-6, 2010.
- Moseman-Valtierra, S.M., K.A. Kroeger, R. Gonzalez, **J. Tang**, J. Crusius, J. Bratton, T. Brooks, and A. Green, Is nitrogen loading shifting coastal wetlands from sinks to sources of greenhouse gases? Presented in the Ecological Society of America annual meeting in Pittsburgh, PA, August 1-6, 2010.
- R.M. Smith, Melillo, J.M., S.M. Butler, C.L. Vario, A. J. Burton, Y. Zhou, **J. Tang**, J.E. Johnson, J. E. Mohan, Effects of soil warming on the carbon cycle at the Harvard Forest, Massachusetts, USA. Presented in the Annual Harvard Forest Ecology Symposium, March 16, 2010.
- K. Morkeski and **J. Tang**, Forest phenology, soil warming, and climate feedbacks. Poster presented for K-12 teachers in Woods Hole Science

- and Technology Education Partnership (WHSTEP)'s Liaison meeting, October 14, 2009.
- Zhou Y.M., **J. Tang**, J. Melillo, S. Butler, J. Mohan, Root standing crop and chemistry after six years of soil warming in a temperate forest. Presented in the Annual Harvard Forest Ecology Symposium, March 17, 2009.
- Tang, J.**, Age-driven decline in plant productivity and respiration, presented in the Ecological Society of America annual meeting in Milwaukee, WI, August 4-8, 2008.
- Tang, J.**, Automated measurements of CO<sub>2</sub> profiles and fluxes, presented (invited) in the Workshop on Automated Soil Respiration Measurements, Durham, NH, Sep. 10-12, 2007.
- Tang, J.**, Carbon sequestration during prairie restoration, presented in the Ecological Society of America annual meeting in San Jose, CA, August 5-10, 2007.
- Tang, J.**, Successional patterns of carbon cycles in eastern deciduous forests of the U.S., Presented in the 2007 EcoSummit meeting, Beijing, China, May 22-27, 2007.
- Tang, J.**, P.V. Bolstad. Chronosequence of soil carbon fluxes and stocks during forest development after harvest in the Great Lakes Areas. Presented in Soils and Restoration Ecology Conference at DePaul University, Chicago, IL, Dec. 18-20, 2006.
- Tang, J.**, P. V. Bolstad, B. D. Cook, P. Weishampel. Ecosystem carbon stocks, respiration, GPP, NPP and NEP in a wetland in northern Wisconsin. Invited speech for the American Geophysical Union (AGU) Fall Meeting in San Francisco, CA, Dec. 11-15, 2006.
- Tang, J.**, Chronosequence of soil and ecosystem respiration in the deciduous forests in the Great Lakes region of the United States. Presented in the Chequamegon Ecosystem-Atmosphere Study (ChEAS) 2006 Meeting in Woodruff, WI, June 6, 2006.
- Tang, J.**, P.V. Bolstad, J.G. Martin. Decline in soil respiration with age in a chronosequence study of deciduous forests. Poster presented in the 1st Integrated Land Ecosystem-Atmosphere Processes (iLEAPS) Science Conference, Boulder, CO, Jan. 21-26, 2006.
- Tang, J.**, P.V. Bolstad. Simulating soil carbon dynamics in northern hardwood forests using the Century Model. Presented in a Workshop on Soil Carbon Dynamics in Northern U.S. Forests, sponsored by U.S. Forest Service Northern Global Change Research Program. Minneapolis, MN, Jan. 17-18, 2006.
- Tang, J.**, P.V. Bolstad, J.G. Martin. Soil respiration in a chronosequence of deciduous forests in the Great Lakes region of the United States. Presented in the American Geophysical Union (AGU) Fall Meeting in San Francisco, CA, Dec. 5-9, 2005.
- Tang, J.**, P.V. Bolstad, Carbon allocation in an old-growth forest in the Great Lakes region of the United States. Poster presented in the Seventh International Carbon Dioxide Conference, Boulder, CO, September 25-30, 2005.

- Tang, J.**, Ecosystem component respiration, carbon allocation and canopy transpiration in an old-growth forest. Presented in the Chequamegon Ecosystem-Atmosphere Study (ChEAS) 2005 Meeting in Woodruff, WI, June 1, 2005.
- Liang, N., T. Hirano, **J. Tang**, J. Irvine, A. Black. New sensors for soil respiration. Presented in the Global FLUXNET 2004 Workshop in Firenze, Italy, Dec. 14, 2004.
- Tang, J.**, P.V. Bolstad, A.R. Desai, J.G. Martin, K.J. Davis. Forest succession and respiration. Poster presented in the American Geophysical Union (AGU) Fall Meeting in San Francisco, CA, Dec. 2004.
- Tang, J.**, P.V. Bolstad, A.R. Desai, J.G. Martin, K.J. Davis. Ecosystem respiration in an old-growth and a mature northern forest. Poster presented at the AmeriFlux Annual Meeting at Boulder, Colorado, Oct. 2004.
- Misson L., A. Gershenson, **J. Tang**, M. McKay, W. Cheng, A. Goldstein. Controls of canopy photosynthesis on roots and soil carbon dynamics in a young ponderosa pine plantation. Poster presented at the AmeriFlux Annual Meeting at Boulder, Colorado, Oct. 2004.
- Baldocchi, D.D., **J. Tang**, L. Xu, Evaluating autotrophic and heterotrophic respiration in an oak grass savanna using flux-gradient measurements of soil respiration with new infra-red CO<sub>2</sub> sensors. Presented in the American Meteorological Society 26<sup>th</sup> Conference in Vancouver, BC, Canada, August 24, 2004.
- Tang, J.**, D.D. Baldocchi, A. Goldstein, and L. Xu. Pulse effects of soil respiration after rain events in California. Presented in the American Geophysical Union (AGU) Fall Meeting in San Francisco, CA, Dec. 12, 2003.
- Tang, J.**, D.D. Baldocchi. Spatial variation and partitioning of soil respiration in an oak-grass savanna ecosystem in California. Poster presented at the AmeriFlux Annual Meeting and NIGEC Soils Workshop at Boulder, Colorado, Oct. 13-16, 2003.
- Tang, J.**, D.D. Baldocchi. Spatial variation and partitioning of soil respiration in an oak-grass savanna ecosystem in California. Poster presented for the Kearney Foundation of Soil Science, Soil Carbon Sequestration Workshop: The Interface Between Science and Policy, University of California, Davis, September 22-23, 2003.
- Tang, J.**, Y. Qi, A. Goldstein. Separating root respiration from soil respiration in a ponderosa pine plantation in the Sierra Nevada. Poster presented for the Kearney Foundation of Soil Science, Soil Carbon Sequestration Workshop: The Interface Between Science and Policy, University of California, Davis, September 22-23, 2003.
- Tang, J.**, Y. Qi, A. Goldstein. Separating root respiration from soil respiration in a ponderosa pine plantation in the Sierra Nevada. Presented in the 88<sup>th</sup> Ecological Society of America Annual Meeting in Savannah, Georgia, August 3-8, 2003.
- Tang, J.**, Separating root respiration from soil CO<sub>2</sub> efflux in a ponderosa pine plantation in the Sierra Nevada, California. Presented in the Annual

- Blodgett Symposium in the Blodgett Forest Station, California, February 2003.
- Tang, J.**, L. Wang, Y. Qi, P. Gong, M. Xu. Modeling ecosystem respiration in a ponderosa pine plantation in the Sierra Nevada Mountains, California: integrating high resolution remote sensing, chamber measurement of flux, and forest inventory. Presented in the 2002 CPGIS (the Association of Chinese Professionals in Geographic Information Systems) Annual Conference in Nanjing, June 1, 2002.
- Tang, J.**, Y. Qi, M. Xu. Comparison of soil respiration before and after thinning in a Sierra Nevada forest. Presented in the Annual Blodgett Symposium in the Blodgett Forest Station, California on January 25, 2002.
- Tang, J.**, Y. Qi, M. Xu. Comparison of soil respiration before and after thinning in a Sierra Nevada forest. Presented in the American Geophysical Union (AGU) 2001 Fall Meeting in San Francisco, CA, Dec. 2001.
- Tang, J.**, M. Xu, Y. Qi. The impact of forest thinning on soil respiration. Presented in the 16th Annual Symposium of the US Regional Chapter of the International Association of Landscape Ecology at Arizona State University, April 25-29, 2001.
- Tang, J.**, M. Henderson, Y. Qi. Digitalized natural vegetation of California. Map presented in ESRI User Conference in San Diego, 2000.

## **Mentoring**

### ***Postdocs***

- Faming Wang, Postdoc, Marine Biological Laboratory, 3/2015-present. Research field: wetland carbon and nitrogen cycling.
- Mary Heskell, Postdoc, Marine Biological Laboratory, 11/2014-present. Research field: Ecosystem carbon cycle and phenology.
- Thomas Parker, Postdoc, Marine Biological Laboratory, 5/2015-2/2017. Research field: Arctic ecosystem science.
- Joanna Carey, Postdoc, Marine Biological Laboratory, 5/2014-12/2016. Research field: Ecosystem responses to warming. Starting 1/2017: **Assistant Professor** at Babson College.
- Rebecca Ryals, Postdoc, Brown University-MBL, 10/2012-8/2015 (co-advised with Meredith Hastings at Brown University). Research field: Impacts of agricultural management on ecosystems. Current: **Assistant Professor** at University of Hawaii.

### ***Graduate students***

- Xi Yang, Ph.D. student, Brown University, 9/2009-5/2014 (co-advised with John Mustard at Brown University). Research field: phenology and carbon cycles. Starting 9/2016, **Assistant Professor** at University of Virginia.
- Mengdi Cui, Master degree student, Brown University, 9/2011-5/2014 (co-advised with Meredith Hastings at Brown University). Research field: carbon and nitrogen cycles.
- Hualei Yang, visiting Ph.D. student from Nanjing University, China, 9/2013-8/2015. Research field: phenology and carbon cycles.

Zhunqiao Liu, visiting Ph.D. student from Nanjing University, China, 9/2015-8/2017. Research field: phenology and carbon cycles.

***Full-time research assistants (technicians)***

Steven Unger, 5/2017-present  
Elizabeth de la Reguera, 3/2015-present.  
Margot McKlveen, 4/2016-4/2017.  
Kate Morkeski, 2/2012-9/30/2015.  
Jennifer Fanzutti, 4/2013-11/2014.  
Jordan Mora, 5/2013-4/2014.  
Tim Savas, 6/2010-12/2012.  
Skyler Hackley, 4/2010- 8/2011.

***Undergraduate students***

Victoria Roberson (Auburn University), summer intern for the Woods Hole Partnership Education Program (PEP) program, 6/2017-8/2017.  
John Hayes (Northwestern University), MBL Semester in Environmental Sciences (SES) student, 9/2016-12/2016.  
Yi-Jia Cheng and Yan-Huei Wu (National Chiayi University, Taiwan), 6/2016-8/2016.  
Jon Gewirtzman (Brown University), thesis research, 6/2016-5/2017.  
Calvin Fok (Humboldt State University), summer PEP intern, 6/2016-8/2016.  
Kayla Williams (University of Delaware), summer intern for the Woods Hole Partnership Education Program (PEP) program, 6/2016-8/2016.  
Erica Moretti (Allegheny College), Olivia Box (Hamilton College), Nia Bartolucci (Mount Holyoke College), MBL Semester in Environmental Sciences (SES) student, 9/2015-12/2015.  
Jon Gewirtzman and Jonathan Ang, Brown University LINK summer intern, 6/2015-8/2015.  
Jonathan Michelsen, University of Chicago SURF Metcalf Internship, 6/2015-9/2015.  
Jasmine Pratt (University of Santa Barbara), MBL REU summer intern, 6/2015-8/2015.  
Camila Fishtahler (The College of William and Mary), summer intern for the Woods Hole Partnership Education Program (PEP) program, 6/2015-8/2015.  
Mahalia Clark, MBL Semester in Environmental Sciences (SES) student, 9/2014-12/2014.  
Fangyuan Hong, MBL Semester in Environmental Sciences (SES) student, 9/2014-12/2014.  
Mahalia Clark, MBL Semester in Environmental Sciences (SES) student, 9/2014-12/2014.  
Fangyuan Hong, MBL Semester in Environmental Sciences (SES) student, 9/2014-12/2014.  
Olamide Olawoyin (Philander Smith College), summer intern for the Woods Hole Partnership Education Program (PEP) program, 6/2014-8/2014.



- Emma Hauser, MBL Semester in Environmental Sciences (SES) student, 9/2013-12/2013.
- Veronica Alston (Tuskegee University), summer intern for the Woods Hole Partnership Education Program (PEP) program, 6/2013-8/2013.
- Shalanda Grier (Hampton University), MBL Research Experiences for Undergraduates (REU) student, 6/2013-8/2013.
- Christine Pardo (Florida International University), Harvard Forest Research Experiences for Undergraduates (REU) student, 7/2013-8/2013.
- Shelly Xia, Elizabeth de la Reguera, Zach Pinto, MBL Semester in Environmental Sciences (SES) students, 9/2012-12/2012.
- Candice Hilliard (*female, underrepresented*, Cornell University), Margaret Garcia (Villanova University), Adalyn Naka (Brown University), Harvard Forest Research Experiences for Undergraduates (REU) students, 7/2012-8/2012.
- Ellen Tisdale, summer intern for the Woods Hole Partnership Education Program (PEP) (*female, underrepresented*) from Tuskegee University, 7-8/2012.
- Cindy Troy, Ellen Yeatman, Xiao Yang, MBL Semester in Environmental Sciences (SES) students, 9/2011-12/2011.
- Moussa Bakari (*underrepresented*, Lincoln University), Leticia Delgado (*female, underrepresented*, Northern Arizona University), Julianna Brunini (Harvard University), Harvard Forest Experiences for Undergraduates (REU) students, 7/2011-8/2011.
- Lakiah Clark, summer intern for the Woods Hole Partnership Education Program (PEP) (*female, underrepresented*) from Tuskegee University, 7-8/2011.
- Katherine Laushman, MBL Experiences for Undergraduates (REU) student from Earlham College, 7/2011-8/2011.
- Sarah Naramore, MBL Semester in Environmental Sciences (SES) student, 9/2010-12/2010.
- Claudia Reveles (*female, underrepresented*), Maya Thoma (*female, underrepresented*), and Joanna Blaszcak, Harvard Forest Experiences for Undergraduates (REU) students, 7-8/2010.
- Victoria Morgan, summer intern for the Woods Hole Partnership Education Program (PEP) (*female, underrepresented*) from Cornell University, 7-8/2010.
- Danielle Pinaud, Mashpee High School, science project on soil respiration, 2/2010-5/2011.
- Haruka Fujimaki & Ayala Ben-Chaim, MBL Semester in Environmental Sciences (SES) students, 9/2009-12/2009.
- James Shelton, summer intern for the Woods Hole Partnership Education Program (PEP) (*underrepresented*) from Arkansas State University, 7-8/2009.
- Paliza Shrestha, MBL Semester in Environmental Sciences (SES) student (*International*), 9/2008-12/2008.

***Visiting scholars and short-term visitors***

- Xiaohong Sun, visiting scholar, Shandong University, China, 4/2017-10/2017.

- Chieh-Yu Liao, National Chiayi University, Taiwan, 7/2016-8/2016
- Jing Jiang, visiting graduate student, Boston University, 6/2016-7/2016.
- Yanling Wang, visiting scholar, Nanjing University of Information Science and Technology, China, 11/2014-10/2015. Research field: soil science.
- Xuechu Chen, visiting scholar, East China Normal University, China, 6/2014-5/2015. Research field: wetland N cycle.
- Aizhen Liang, visiting scholar, Chinese Academy of Science, Changchun, China, 9/2013-8/2014. Research field: soil carbon.
- Yumei Zhou, MBL Visiting Scholar from Institute of Applied Ecology, Chinese Academy of Science, China, 5/2008-5/2009.
- Wei-Chun Chao, Visiting postdoc from National Taiwan University, 5/2009-8/2009.
- Lin Wang, MBL visiting graduate student from Institute of Remote Sensing, Chinese Academy of Science, China, 5/2008-9/2008.
- Cassie Dai, Falmouth High School, Science project on salt marsh carbon, 10/2015- 5/2016 (the first-place winner of both the Regional Science Fair and the Falmouth Science Fair).
- Yuri Dai, Falmouth High School, Science project on phenology, 10/2014- 5/2015 (the first-place winner of the Falmouth Science Fair and the second-place in the Regional Science Fair).
- Vincent Lin, Falmouth High School, Science project on carbon cycling, 12/2009-5/2013 (The first student from Massachusetts to qualify for the Intel International Science and Engineering Fair for three consecutive years; the overall winner of both the Regional Science Fair and the Falmouth Science Fair twice).

### **Synergistic activities**

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| 2017 | Organizer (with A. Sutton-Grier, T. Troxler, K. Kroeger), Breakout: Coastal blue carbon: an essential component of the global carbon cycle, 2017 Joint North American Carbon Program (NACP) and AmeriFlux Principal Investigators Meeting, North Bethesda, MD, March 27-30, 2017. |
| 2016 | Convener, Coastal blue carbon: recent advances in measurement and modeling, American Geophysical Union (AGU) fall meeting, 2016.  |
| 2016 | Convener, Symposium: Coastal blue carbon in a changing environment, the 10th INTECOL International Wetlands Conference, Changshu, China, Sep. 19-24, 2016.  |
| 2016 | Co-convener, Symposium: Eco-evolutionary dynamics in anthropocene ecosystems, the Ecological Society of America annual meeting, Lauderdale, FL, August 7-12, 2016.  |
| 2015 | Convener, Establishing a Global Science and Data Network for Coastal Blue Carbon, Town-Hall meeting, American Geophysical Union (AGU) fall meeting, 2015.   |
| 2015 | Co-convener, Wetland Greenhouse Gas (GHG) Fluxes and Carbon Sequestration under a Changing Climate, Sea Level and   |

- Environment. American Geophysical Union (AGU) fall meeting, 2015.
- 2015 Convener, Effects of evolutionary processes on ecosystem biogeochemical cycles: Integration of evolutionary biology and ecosystem science, Ignite Session for Ecological Society of America (ESA) meeting, 2015.
- 2014 Convener, N<sub>2</sub>O emissions as a component of carbon and nitrogen cycles: processes, measurement, and modeling, American Geophysical Union (AGU) fall meeting, 2014.
- 2014 Co-convener, Carbon Sequestration and Greenhouse Gas (GHG) Fluxes from Wetland Ecosystems: Implications for Climate Change, Coastal Management, and Adaptation, American Geophysical Union (AGU) fall meeting, 2014.
- 2014 Convener, Breakout Discussion: Belowground Processes, AmeriFlux annual meeting 2014, May 4-5, 2014.
- 2014 Convener, Greenhouse gas exchange and other land-atmosphere-interactions under human management, the 4th iLEAPS Science Conference, Nanjing, China, May 12-16, 2014.
- 2013 Convener, N<sub>2</sub>O fluxes and the role in carbon and nitrogen cycles: processes, measurement, and modeling, American Geophysical Union (AGU) fall meeting 2013.
- 2013 Co-organizer (with K. Vanderbilt), Phenology and Climate Change: Perspectives from Ecosystems across the International Long Term Ecological Research Network (ILTER), Symposium for the International Association for Ecology (INTECOL) meeting 2013 in London, UK, August 18-23, 2013.
- 2012 Convener, Measurement and modeling of N<sub>2</sub>O fluxes and the coupling with CO<sub>2</sub> and CH<sub>4</sub> fluxes, American Geophysical Union (AGU) fall meeting, 2012.
- 2012 Co-organizer (with G. Lin and C. Craft), Effects of climate change and human disturbance on carbon dynamics of coastal wetlands, organized symposium for the EcoSummit meeting in Columbus, OH, September 30-October 5, 2012.
- 2012 Organizer, Synthesizing long-term phenology data: Perspectives across the International Long Term Ecological Research Network (ILTER), organized working group meeting for the LTER All Scientist Meeting, Estes Park, Colorado, September 11, 2012.
- 2011 Convener, Measurement and modeling of N<sub>2</sub>O fluxes and the coupling with CO<sub>2</sub> and CH<sub>4</sub> fluxes, American Geophysical Union (AGU) fall meeting, 2011.
- 2010 Organizer and presider for the Organized Oral Session: Long-term warming experiment: what we have learned and what is unknown, Ecological Society of America (ESA) meeting, Pittsburgh, PA, August 1-6, 2010.
- 2009 Organizer and presider for the Organized Oral Session: Roles of Ecological Science in Combating Global Change and Natural

- Disasters and Working Toward Sustainability of a Global Society: Lessons from China, Ecological Society of America (ESA) meeting, Albuquerque, NM, August 2-7, 2009.
- 2009 Organizer for the First International Young Ecologist Forum, Lanzhou, China, June 29, 2010.
- 2008 Presider, Ecosystem Function: NPP, for the Ecological Society of America (ESA) meeting, August 4-8, 2008.
- 2007 Presider, Climate Change: Effects on ecosystem function and biogeochemistry, for the Ecological Society of America (ESA) meeting, August 6-10, 2007.
- 2007 Convener, Recent Advances in Soil Ecology and Soil Carbon Dynamics, for EcoSummit 2007, May 22-27, 2007.
- 2006 Convener, Cross-scale studies on carbon cycles: from biometric measurements, eddy covariance, to remote sensing, for West Pacific Geophysical Meeting, Beijing, China. July 24-27, 2006.

### **Services**

- National Academies of Sciences, Engineering, and Medicine's Committee on Developing a Research Agenda for Carbon Dioxide Removal and Reliable Sequestration (2017-2018).
- Global Science and Data Network for Coastal Blue Carbon (SBC), funded by the Carbon Cycle Interagency Working Group (CCIWG), Steering Committee (2015-present).
- U.S. National Ecological Observatory Network (NEON)-Chinese Ecological Research Network (CERN), Steering Committee member (2014-present).
- LTER (Long Term Ecological Research) International Committee member (2010-present).
- National Ecological Observatory Network (NEON)/Fundamental Instrument Unit (FIU) Technical Working Group for soils, Co-Chair (2011-present).
- MBL Corporation Housing, Food Service, and Child Care Committee (2011-2013).

### **Subject Editor/Editorial Board for journals**

- Ecosystem Health and Sustainability*  
*Ecological Processes*

### **Professional memberships**

- American Geophysical Union (AGU).  
Ecological Society of America (ESA).  
Sino-Ecologists Association Overseas (Sino-Eco) (President 2010-2012, Vice president 2008-2010).  
International Association of Chinese Professionals in Geographic Information Science (CPGIS) (Vice president, 2006-2007).