

LIXIN WANG

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Indiana University-Purdue University Indianapolis (IUPUI)
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EDUCATION

- Ph.D.* in Environmental Sciences, May 2008. Department of Environmental Sciences, **University of Virginia**, Charlottesville, VA, USA. Advisors: Dr. Stephen Macko and Dr. Paolo D'Odorico
- M.S.* in Biology, August, 2004. Department of Biology, **University of North Carolina at Greensboro**, Greensboro, NC, USA. Advisor: Dr. Paul P. Mou
- B.S.* in Biology, July, 2001. Department of Biology, **HeBei University**, Baoding, HeBei, China

PROFESSIONAL EMPLOYMENT

- Assistant Professor*, January 2013 Department of Earth Sciences, **Indiana University-Purdue University Indianapolis (IUPUI)**, Indianapolis USA.
- Vice-Chancellor's Post-Doctoral Research Fellowship*, June 2011-Dec 2012 School of Civil & Environmental Engineering, **The University of New South Wales**, Sydney, Australia.
- Postdoctoral Research Associate*, May 2008- May 2011 Department of Civil and Environmental Engineering, **Princeton University**, Princeton, NJ, USA. Mentor: Dr. Kelly Caylor
- Research Assistant*, 2004-2008. Department of Environmental Sciences, **University of Virginia**, Charlottesville, VA, USA
- Research Assistant*, 2002-2004. Department of Biology, **University of North Carolina at Greensboro**, Greensboro, NC, USA
- Research Assistant*, 2001-2002. Institute of Botany, **Chinese Academy of Sciences**, Beijing, China

PUBLICATIONS

JOURNAL ARTICLES

- Wang, L., S. Niu, S. Good, K. Soderberg, M. McCabe, R. Sherry, Y. Luo, X. Zhou, J. Xia and K. Caylor.** 2013. The effect of warming on grassland

- evapotranspiration partitioning using laser-based isotope monitoring techniques. *Geochimica et Cosmochimica Acta*.
- Wang, L., J. Liu, G. Sun, A. Wei, S. Liu and Q. Dong.** 2012. Water, climate, and vegetation: ecohydrology in a changing world. *Hydrology and Earth System Sciences* 16: 4633-4636.
- Wang, L., P. D’Odorico, JP Evans, D Eldridge, M. McCabe, K. Caylor and E. King.** 2012. Dryland ecohydrology and climate change: critical issues and technical advances. *Hydrology and Earth System Sciences* 16:2585-2603.
- Wang, L. S. Good, K. Caylor and L. Cernusak.** 2012. Direct quantification of leaf transpiration isotopic composition. *Agricultural and Forest Meteorology* 154/155: 127-135, doi:10.1016/j.agrformet.2011.10.018.
- Wang, L. C. Zou, F. O’Donnell, S. Good, T. Franz, G.R. Milller, K. K. Caylor, J.M. Cable, B. Bond.** 2012. Characterizing ecohydrological and biogeochemical connectivity across multiple scales: a new conceptual framework. *Ecohydrology* 5:221-233, doi: 10.1002/eco.187.
- Miller, G.R., J.M. Cable, A.K. McDonald, B. Bond, A.P. Tyler, T.E. Franz, L. Wang , and C.B. Zou.** 2012. Understanding ecohydrological connectivity in savannas: a system dynamics modelling approach. *Ecohydrology* 5:200-220.
- Wang, L. and S. Macko.** 2011. Constrained preferences in nitrogen uptake across plant species and environments. *Plant Cell Environment* 34:525-534.
- Zhao, L., H. Xiao, M Zhou, G Cheng, L. Wang, L. Yin, and J. Ren.** 2012. Factors controlling spatial and seasonal distributions of precipitation ¹⁸O in China. *Hydrological Processes* 26(1): 143-152 doi: 10.1002/hyp.8118
- Wang, L. K. K. Caylor, J. Camilo Villegas, G. A. Barron-Gafford, D. D. Breshears, and T. E. Huxman.** 2010. Partitioning evapotranspiration across gradients of woody plant cover: assessment of a stable isotope technique. *Geophysical Research Letters* 37, L09401, doi:10.1029/2010GL043228.
- Wang, L., P. D’Odorico, L. Ries, K. Caylor and S. Macko.** 2010. Combined effect of soil moisture and nitrogen availability variations on grass productivity in African savannas: The case of the Kalahari Transect. *Plant and Soil* 328: 95-108, doi 10.1007/s11104-009-0085-z.

- Wang, L., P. D'Odorico, L. Ries and S. Macko. 2010. Patterns and implications of plant-soil $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values in African savanna ecosystems. *Quaternary Research* 73: 77-83.
- Wang, J., H. Epstein, and L. Wang. 2010. Soil CO_2 flux and its controlling factors during secondary succession. *Journal of Geophysical Research-Biogeosciences* 115, G02005, doi:10.1029/2009JG001084.
- Wang, L., P. D'Odorico, S. Manzoni, A. Porporato and S. Macko. 2009. Soil carbon and nitrogen dynamics in southern African savannas: the effect of vegetation-induced patch-scale heterogeneities and large scale rainfall gradients. *Climatic Change* 94:63-76.
- Ries, L., H. Shugart, L. Wang, K. Caylor and S. Ringrose. 2010. Nutrient limitation on aboveground grass production in four savanna types along the Kalahari Transect. *Journal of Arid Environments* 74: 284-290, doi:10.1016/j.jaridenv.2009.08.012.
- Wang, L., K. Caylor and D. Dragoni. 2009. On the calibration of continuous, high-precision $\delta^{18}\text{O}$ and $\delta^2\text{H}$ measurements using an off-axis integrated cavity output spectrometer. *Rapid Communications in Mass Spectrometry* 23: 530-536.
- Wang, L., G. Okin, K. Caylor and S. Macko. 2009. Spatial heterogeneity and sources of soil carbon in southern African savannas. *Geoderma* 149:402-408.
- Wang, L., P. D'Odorico, G. Okin and S. Macko. 2009. Isotope composition and anion chemistry of soil profiles along the Kalahari Transect. *Journal of Arid Environments* 73: 480-486.
- Wang, L., G. S. Okin and S. A. Macko. 2009. Satellite prediction of soil $\delta^{13}\text{C}$ distributions in a southern African savanna. *Journal of Geochemical Exploration* 102:137-141.
- Wang, L. and P. D'Odorico. 2008. The limits of water pumps (Letters). *Science* 321:36-37.
- Ravi, S., P. D'Odorico, L. Wang, S.L. Collins, C. White, G. S. Okin and S. Macko. 2009. Post-fire resource redistribution in desert grasslands: a possible negative feedback on land degradation. *Ecosystems* 12:434-444.
- Okin, G.S., N. Mladenov, L. Wang, D. Cassel, K.K. Caylor, S. Ringrose and S. Macko. 2008. Spatial patterns of soil nutrients in two southern African savannas. *Journal of Geophysical Research-Biogeosciences*, 113, G02011, doi:10.1029/2007JG000584.
- Wang, L. 2008. Lost in transliteration (Letters). *Science* 320:745.

- Ravi, S., P. D'Odorico, **L. Wang** and S.L. Collins. 2008. Form and function of grass ring patterns in arid grasslands: the role of abiotic controls. *Oecologia* 158: 545-555
- Wang, L.**, J. Wang, and J. Huang. 2008. Net nitrogen mineralization and nitrification in three subtropical forests of southwestern China. *Dynamic Soil, Dynamic Plant* 2(1) 33-40.
- Wang, L.**, B. Kgope, P. D'Odorico and S. Macko. 2008. Carbon and nitrogen parasitism by a xylem-tapping mistletoe (*Tapinanthus oleifolius*) along the Kalahari Transect: a stable isotope study. *African Journal of Ecology* 46: 540-546.
- Wang, L.**, G. S. Okin, J. Wang, H. Epstein and S. A. Macko. 2007. Predicting leaf and canopy ¹⁵N compositions from reflectance spectra. *Geophysical Research Letters*, 34, L02401.
- Wang, L.**, P. J. Shaner and S. Macko. 2007. Foliar δ¹⁵N patterns along successional gradients at the plant community and species level. *Geophysical Research Letters*, 34, L16403.
- Wang, L.**, P. P. Mou, J. Huang and J. Wang. 2007. Spatial variation of nitrogen availability in a subtropical evergreen broadleaved forest of southwestern China. *Plant and Soil*, 295: 137-150, doi:10.1007/s11104-007-9271-z.
- Wang, L.**, P. D'Odorico, S. Ringrose, S. Coetzee and S. Macko. 2007. Biogeochemistry of Kalahari sands. *Journal of Arid Environments*, 71(3) 259-279.
- Wang, L.**, P. P. Mou and R. H. Jones. 2006. Nutrient foraging via physiological and morphological plasticity in three plant species. *Canadian Journal of Forest Research*, 36:164-173 doi:10.1139/X05-239.
- Wang, L.**, J. Wang and J. H. Huang. 2003. Comparison of major nutrient release patterns of *Quercus liaotungensis* leaf litter decomposition in different climatic zones. *Acta Botanica Sinica*, 45(4):399-407.
- Zhao, L., H. Xiao, J. Zhou, **L. Wang**,* G Cheng, M. Zhou, L. Yin, and M. McCabe. 2011. Comprehensive comparison between isotope ratio infrared spectroscopy and isotope ratio mass spectrometry for the stable isotope analysis of plant and soil waters. *Rapid Communications in Mass Spectrometry*. 25, 3071-3082.
- *corresponding author
- Wang, L.**, M. Katjiua, P. D'Odorico and G. S. Okin. The interactive nutrient and water effects on vegetation biomass at two African savanna sites with different mean annual precipitation. *African Journal of Ecology*

- 50(4):446-454 DOI: 10.1111/j.1365-2028.2012.01339.x. (**Featured in Cover**)
- Soderberg, K., S. Good, **L. Wang** and KK. Caylor. Stable isotopes of water vapor in the vadose zone: A review of measurement and modeling techniques. *Vadose Zone Journal* doi: 10.2136/vzj2011.0165.
- Liu, P., Z. Liu and **L. Wang**. 2012. The colonization of active sand dunes by rhizomatous plants through vegetative propagation and its role in vegetation restoration. *Ecological Engineering* 44:344-347
- Good, SP., K. Soderberg, **L. Wang** and KK. Caylor. Uncertainties in the assessment of the isotopic composition of surface fluxes: A direct comparison of techniques using laser-based water vapor isotope analyzers. *Journal of Geophysical Research* 117, D15301, doi:10.1029/2011JD017168.
- Wang, L.**, G. Okin, P. D’Odorio, K. Caylor and S. Macko. Ecosystem-scale spatial heterogeneity of stable isotopes of soil nitrogen in African savannas. *Landscape Ecology* doi: 10.1007/s10980-012-9776-6.
- Daryanto, S., D. Eldridge and **L. Wang**. Ploughing and grazing alter the spatial patterning of surface soils in a shrub-encroached woodland. *Geoderma* (in review).
- Daryanto, S., D. Eldridge and **L. Wang**. Grazing and ploughing alter the spatial pattern of soil infiltrability in a shrub-encroached woodland. *Geomorphology* (in review).
- Soderberg, K., S. Good, M. O’Connor, **L. Wang**, K. Ryan and KK. Caylor. Using air parcel trajectories to model the isotopic composition of rainfall in central Kenya. *Ecosphere* (in press).
- Tan, Y., J. Chen, L. Yan, J. Huang, **L. Wang**, S. Chen. Mass loss and nutrient dynamics during litter decomposition under three mixing treatments in a typical steppe in Inner Mongolia. *Plant and Soil*. DOI: 10.1007/s11104-012-1401-6.

BOOK CHAPTERS

- Wang, L.**, M. McCabe. 2013. Ecohydrology: plant water use. In “Handbook of Engineering Hydrology” (Edited by Saeid Eslamian), Taylor & Francis.
- Wang, L.**, G. Okin and S. Macko. 2009. Remote sensing of nitrogen and carbon isotope compositions in terrestrial ecosystems. In “Isoscapes: Understanding movement, pattern and process on Earth through

isotope mapping” (Edited by JB West, GJ Bowen, KP Tu, TE Dawson), Springer, 51-70.

Wang, L. and P. D’Odorico. 2008. Decomposition and Mineralization. *In* Encyclopedia of Ecology, Elsevier, Oxford, UK, 838-844.

Wang, L., and J. Tang. 2010. Global change-current condition and future trends. In “Ecological Complexity and Ecological Vision” (Edited by Y Wu, J Fan), Higher Education Press, 147-157 (in Chinese).

NON-REFEREED

Riveros-Iregui, D, **L. Wang** and B. Wilcox. 2011. Ecohydrology and the challenges of coming decades. *AGU Hydrology Newsletter*, July issue, 32-34.

Wang, L. and K. K. Caylor. 2010. Measuring the breath of life. *Mpala Memos* 2,11.

PROPOSAL EXPERIENCE

2011-2013. Characterizing Australia’s agricultural water use through stable isotope field observations and novel stochastic modeling. University of New South Wales, Australia. \$260,000 (PI)

2012-2016. Dryland ecohydrological research based on the optimum theory. NSF-China. \$120,000 (¥620,000) (co-I)

2007-September, International Geoscience Programme (IGCP500), travel grant to attend “International Workshop on Environmental Changes and Sustainable Development in Arid and Semi-arid Regions”, China, \$500

2006-2007, Detecting nitrogen uptake preference using dual-isotope labeling technique. University of Virginia, Moore Research Grant, \$4000

2006-January, Biosphere-Atmosphere Stable Isotope Network (BASIN), travel grant to attend “Isotopes as Tracers of Ecological Changes” meeting, \$1200

2005 –October, BASIN, travel grant to attend 2005 AGU Fall meeting, \$650

2005-June, Blandy Experimental Farm of University of Virginia, travel grant to attend 2005 ESA (Ecological Society of America) meeting, \$750

2005-May, University of Virginia, Exploratory Award Grant, \$1000

TEACHING EXPERIENCE AND QUALIFICATIONS

University of New South Wales

2011-present Thesis Mentor.

Supervised two undergraduates and one PhD student in environmental modeling projects.

Students:

Xiaochuan Zhu: Hydrological connectivity in an Australia pasture ecosystem (Summer project)

Tsz Hin Lo: Modeling of soil moisture control on $\delta^{15}\text{N}$ dynamics (Honor thesis)

Man Yiu Leung: Impact of CO_2 enrichment on soil water dynamics (Honor thesis)

Mick Yingzhe Cai: MS student

Princeton University

2008-2009 Undergraduate Honor Thesis co-Mentor.

Supervised one undergraduate in environmental research projects.

University of Virginia

Teaching assistant, Department of Environmental Sciences

Water on Earth (Grader, Spring 2008)

Stable Isotopes in Geochemistry (Laboratory instructor, Spring 2008).

Organic Geochemistry (Laboratory instructor, Fall 2007).

Ecology (Laboratory instructor, Fall 2006).

2005-2008 Undergraduate Mentor.

Supervised and guided four undergraduates in environmental research projects.

Two year's Tomorrow's Professor Today (TPT) program at University of Virginia. 2005- 2007.

The program is designed to facilitate the transition from student to academic professional and the program focuses on improving preparedness in three key areas—teaching, professional development, and adjustment to a university career.

University of North Carolina-Greensboro

Teaching assistant, Department of Biology

General Biology (Laboratory instructor, Spring 2004).

General Biology (Laboratory instructor, Summer 2004).

Fundamental Ecology (Grader, Spring 2003).

SERVICE

- **Associate Editor** *Geophysical Research Letters* (2011-2014)
- **Consulting Editor** *Journal of Arid Environments* (2012-)
- **Lead Guest Editor** of special issue for **HES** (*Hydrology and Earth System Sciences*) entitled “Water, climate, and vegetation: ecohydrology in a changing world” (2011-2012)
- **International Reviewer Panel** *African Journal of Ecology* (2007-present)
- **Convenor and Session Chair**
 - 2012 American Geophysical Union Fall meeting
“H003: Dryland Ecohydrology: Critical Issues and Technical Advances
 - 2011 American Geophysical Union Fall meeting
“B44: Laser-based isotope techniques in biogeosciences”
“H04: Simplifying complexity: Characterizing dynamics of ecohydrological systems”
 - 2010 American Geophysical Union Fall meeting
“H51: Isotopic and Chemical Approaches in Watershed/Ecosystem Interactions.”
 - 2006 American Geophysical Union Fall meeting
“B44: Savanna ecosystems: Field observations and manipulation experiments.”
- **Journal Referee:**
 - Advances in Water Resources
 - African Journal of Ecology
 - African Journal of Biotechnology
 - African Protected Area Conservation and Science
 - Agricultural and Forest Meteorology
 - Applied Soil Ecology
 - Annals of Forest Science
 - Australian Journal of Soil Research
 - Biochemical Systematics and Ecology
 - Ecohydrology

- Ecological Research
- Environmental and Ecological Statistics
- Geoderma
- Geographical Research
- Geomorphology
- Geophysical Research Letters
- Global Biogeochemical Cycles
- Hydrology and Earth System Sciences
- IEEE-Transactions on Geoscience and Remote Sensing
- Journal of Arid Environments
- Journal of Environmental Management
- Journal of Geophysical Research-Atmospheres
- Journal of Geophysical Research-Biogeosciences
- Kuwait Journal of Science and Engineering
- Methods in Ecology and Evolution
- New Phytologist
- Organic Geochemistry
- Pedosphere
- Plant Ecology
- Plant Soil
- Quaternary Science Reviews
- Rapid Communications in Mass Spectrometry
- Remote Sensing of Environment
- Water Resources Research

➤ **Proposal Referee:**

National Science Foundation

HONORS AND AWARDS

Vice-Chancellor's Postdoctoral Research Fellowship. 2011. University of New South Wales, Sydney, Australia.

Maury Prize, Department of Environmental Sciences, University of Virginia, May 2008.

Award for Excellence in Scholarship in the Sciences & Engineering, University of Virginia, Spring 2008.

National Center for Atmospheric Research, ASP Summer Scholar, 2007

Moore Fellowship, University of Virginia, Fall 2007.

CURRICULUM VITAE FOR LIXIN WANG

Summer Dissertation Acceleration Fellowship (\$6000) from Graduate school of Arts and Sciences, University of Virginia, April 2007.

Arthur A. Pegau Award from Department of Environmental Sciences, University of Virginia, May 2006.

Joseph K. Roberts Award from Department of Environmental Sciences, University of Virginia, May 2006.

Research Fellowship (\$1750 x 2) from Blandy Experimental Farm of University of Virginia for summer 2006 and summer 2007.

INVITED TALKS

2012.

- School of Agriculture and Environment, the University of Sydney (June 2012)
- Center for Agricultural Resources Research, Institute of Genetics and Developmental Biology of Chinese Academy of Sciences (May 17 2012)
- College of Global Change and Earth System Science, Beijing Normal University (May 15 2012)
- Department of Earth Sciences. Indiana University Purdue University Indianapolis (March 2012)
- Odum School of Ecology. University of Georgia (February 2012).
-

2011.

- Department of Biology. University of Pennsylvania
- Department of Earth and Environmental Sciences. Columbia University.
- Department of Meteorology. Pennsylvania State University
- Department of Geology and Planetary Sciences. University of Pittsburgh
- School of Natural Resources. Ohio State University

2010

- Nicholas School of the Environment. Duke University.
- Department of Plant & Soil Sciences. University of Delaware
- Department of Soil and Water Science. University of Florida
- Institute of Applied Ecology, Chinese Academy of Sciences

2009

- Institute of Atmospheric Physics. Chinese Academy of Sciences

2008

- School of Natural Resources. University of Arizona

2007

- School of Life Sciences. Beijing Normal University

2006

- Harry Oppenheimer Okavango Research Centre. University of Botswana, Botswana

INVITED WORKSHOP PARTICIPATION

- Wang, L., S. Niu; X. Zhou; J. Xia; Y. Luo; S. Good; K. Caylor and M. McCabe.** 2012. The effect of warming on grassland evapotranspiration partition using laser-based isotope monitoring techniques. Joint Beijing Normal University-Princeton Workshop on Water, Food and Climate Change in China (May 15-17), Beijing.
- Wang, L., G. Okin and S. Macko.** 2008. Remote sensing of nitrogen and carbon isotopes in terrestrial ecosystems. Isoscapes 2008 (April 7-9), Santa Barbara.
- Wang, L., S. Macko and P. D'Odorico.** 2006. Patterns of nitrogen limitation along the Kalahari Transect: Results from a stable isotope fertilization experiment. Poster. Second International Young Scientists' Global Change Conference (Limited to around 100 participants worldwide). Beijing, China.
- Wang, L., G. Okin, J. Wang, H. Epstein and S. Macko.** 2006. Predicting ^{15}N concentrations from reflectance spectra (400-2500 nm) at leaf and canopy scales. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L. and S. Macko.** 2006. Implications to natural abundance ^{15}N gradients across different ecosystems. Poster. Isotopes as Tracers of Ecological Changes. (Limited to approx.100 participants worldwide). Tomar, Portugal.

CONFERENCE PRESENTATIONS

- Wang, L., SD. Parkes, MF. McCabe, C. Azurra, J. Wang.** 2012. Evapotranspiration partition at sub-daily scale using laser and chamber techniques. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L., P. D'Odorico, D. Eldridge, K.Caylor, M. McCabe and J. Evans.** 2012. Dryland ecohydrology and climate change: regional research priorities

- and technical advances. Oral. European Geosciences Union (EGU) General Assembly, Vienna, Austria.
- Parkes, S., L. **Wang**, AE Element, DWT Griffith and M. McCabe. 2012. Inter-comparison of in-situ water vapour isotope analysers. Oral. European Geosciences Union (EGU) General Assembly, Vienna, Austria.
- Soderberg, K., S. Good, L. **Wang** and K. Caylor. 2012. Soil water vapor isotopes as a tool for understanding ecohydrological processes. Goldschmidt. June 24-29, Montreal, Canada.
- Wang**, L., S. Niu; X. Zhou; J. Xia; Y. Luo; S. Good; K. Caylor and M. McCabe. 2011. The effect of warming on grassland evapotranspiration partition using laser-based isotope monitoring techniques. Oral. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Good, S., K. Soderberg, L. **Wang** and K. Caylor. 2011. Uncertainty in estimates of the isotopic composition of water vapor fluxes: direct comparison of techniques using laser-based analyzers. Oral. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Element, A., S. Parkes, D. Griffith, L. **Wang** and M. McCabe. 2011. Comparison of in-situ water vapour isotope analysers. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Parkes, S., J. Strauss, L. **Wang**, M. Cai, C. Azcurra, P. Graham and M. McCabe. 2011. Using in-situ stable isotope observations to study rapid changes in land atmosphere exchange within a chamber environment. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Strauss, J., S. Parkes, L. **Wang**, M. Cai, C. Azcurra, M. McCabe, A. Element, A. Griffiths, P. Graham, S. Chambers. 2011. *In-situ* stable isotope observations of local and regional water vapour contributions in an open grassland. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Zhao, L., H. Xiao, J. Zhou, L. **Wang**, G. Cheng, M. Zhou, L. Yin and M. McCabe. 2011. Detailed assessment of isotope ratio infrared spectroscopy and isotope ratio mass spectrometry for the stable isotope analysis of plant and soil waters. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Cai, Y., J. Strauss, L. **Wang**, S. Parkes, M. McCabe, J. Evans and A. Griffiths. 2011. Modelling isotopic fluxes of coastal and inland landscapes using ISOLSM. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.

- Good, S., K. Soderberg., **L. Wang**, K. Ryan and K. Caylor. 2011. Using back trajectories to understand precipitation isotope signatures. Isoscapes 2011. September 25-27, Purdue University, USA.
- Soderberg, K., S. Good, **L. Wang** and K. Caylor. 2011. Using the stable isotopes of water in the Soil-Plant-Atmosphere Continuum as a basis for understanding ecosystem functioning in a semi-arid African savanna. Hydrogen Isotopes as environmental recorders. September 15-26, Orleans, France.
- Good, S., K. Soderberg, **L. Wang** and K. Caylor. 2011. A direct comparison of stable isotope evapotranspiration flux measurement techniques with closed path water vapor isotope analyzers. 9th International Symposium on Applied Isotope Geochemistry. September 19-23, Tarragona, Spain.
- Soderberg, K, S. Good, **L. Wang**, and K. Caylor. 2011. Soil water vapor isotopes: combining continuous field measurements with experimental and modeling approaches in a semi-arid ecosystem. 9th International Symposium on Applied Isotope Geochemistry. September 19-23, Tarragona, Spain.
- Wang, L.**, K. Caylor and P. Odorico. 2011. Interplay between soil, water and vegetation in water- limited systems. The 8th IALE World Conference. Oral. August 18-23, Beijing, China.
- Cai, Y., J. Strauss, **L. Wang**, S. Parkes, M. McCabe, J. Evans and A. Griffiths. 2011. Stable water isotopes in land surface modeling: comparison with in-situ isotopic measurements. 11th Australasian Environmental Isotope Conference. Poster. July 12-14, Cairns, Australia.
- Wang, L.**, S. Good and K.Caylor. 2011. Landscape-scale evapotranspiration partition using continuous stable isotope monitoring. 11th Australasian Environmental Isotope Conference. Oral. July 12-14, Cairns, Australia.
- Soderberg, K, S. Good, **L. Wang**, and K. Caylor. 2011. Measurement of soil water vapor isotopes for evapotranspiration partitioning. Oral. European Geosciences Union (EGU) General Assembly, Vienna, Austria.
- Wang, L.**, S. Good and K.Caylor. 2010. A new method to quantify the isotopic signature of leaf transpiration: implications for landscape-scale evapotranspiration partitioning studies. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L.**, K.Caylor, S. Good, J. Villegas and D. Breshears. 2009. Landscape-scale observations of plant water use using continuous stable isotope

- monitoring. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L., K.Caylor, J. Villegas and D. Breshears.** 2009. Refining the partitioning of evapotranspiration as a function of woody plant cover-continuous stable isotope monitoring provides bridge from glasshouse to field conditions. Poster. AGU Chapman Conference, Boise and Sun Valley, Idaho, USA.
- Wang, L., K.Caylor, S. Macko and H. Shugart.** 2009. Integrating hydrology and biogeochemistry in drylands: the Kalahari Transect as a model ecosystem. Oral. European Geosciences Union (EGU) General Assembly 2009, Vienna, Austria.
- Wang, L., K.Caylor and D. Dragoni.** 2009. Continuous measurements of water vapor isotopic compositions using an integrated cavity output spectrometer: calibrations and applications. Poster. European Geosciences Union (EGU) General Assembly 2009, Vienna, Austria.
- Wang, L., K.Caylor and D. Dragoni.** 2008. Measuring $\delta^{18}\text{O}$ and $\delta^2\text{H}$ dynamics in a mixed hardwood forest using an integrated cavity output spectrometer. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L., S. Macko and G. Okin.** 2008. Soil carbon sources and variations in southern African savannas. Poster. European Geosciences Union (EGU) General Assembly 2008, Vienna, Austria.
- Wang, L., S. Macko, P. D'Odorico and L. Ries.** 2007. Patterns and implications of plant-soil C and N isotopic compositions in African savanna ecosystems. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Macko, S, L. Wang and G. Okin.** 2007. Spatial heterogeneity and sources of soil carbon in southern African savannas. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Ravi, S, P D'Odorico, L Wang, SL Collins, CS White, GS Okin.** 2007 Resource homogenization in degraded arid landscapes induced by fire-erosion interactions. Talk. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L., S. Macko and P. D'Odorico.** 2007. Vegetation and soil responses to fertilization along the Kalahari Transect. Oral Presentation International Workshop on Environmental Changes and Sustainable Development in Arid and Semi-arid Regions, Alashan Left Banner, China

- Ravi, S., P. D'Odorico., **L. Wang**., S.L. Collins., C. White and G.S. Okin, 2007. Hydrological and aeolian controls on the dynamics of "resource islands" in fire-prone arid landscapes. Oral Presentation. International Workshop on Environmental Changes and Sustainable Development in Arid and Semi-arid Regions, Alashan Left Banner, China.
- Ravi, S., **L. Wang** and P. D'Odorico., 2007. Form and function of grass ring patterns in arid grasslands: the effect of abiotic controls, Poster. COMLAND- International Workshop on Environmental Changes and Sustainable Development in Arid and Semi-arid Regions, Inner Mongolia, China.
- Wang, L.**, P. D'Odorico, S. Manzoni, A. Porporato and S. Macko. 2007. Carbon and nitrogen dynamics in southern African savannas. Oral Presentation. The Ecological Society of America (ESA) Annual Conference, San Jose, CA, 92nd meeting.
- Ries, L. P., Shugart, H. H. and **L. Wang**. 2007. Nutrient and light limitations on grass productivity along the Kalahari Transect in southern Africa. Poster. The Ecological Society of America (ESA) Annual Conference, San Jose, CA 92th.
- Wang, L.** and S. Macko. 2007. Natural abundance of ¹³C and ¹⁵N trends in Kalahari Transect. Poster. European Geosciences Union (EGU) General Assembly 2007, Vienna, Austria.
- Wang, L.**, K. Caylor, P. D'Odorico, L. Ries, G. Okin, R. Swap, H. Shugart, T. Scanlon and S. Macko. 2006. Vegetation and soil responses to fertilization along the Kalahari Transect. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L.**, S. Macko. 2006. Plants nitrogen uptake preferences in arid and semiarid ecosystems. Poster. Third International Symposium on Isotopomers, La Jolla, California, USA.
- Wang, L.**, S. Macko and P. D'Odorico. 2006. Nitrogen uptake preferences by plants in African savannas. Oral Presentation. The Ecological Society of America (ESA) Annual Conference, Memphis, Tennessee, 91st meeting.
- Macko, S. and **Wang, L.** 2006. Natural abundance d¹⁵N gradients across different ecosystems. Poster (#71). The Ecological Society of America (ESA) Annual Conference, Memphis, Tennessee, 91th.
- Wang, L.**, B. Kgope, S. Ringrose, P. D'Odorico, L. Ries and S. Macko. 2006. Patterns of nitrogen limitation along the Kalahari Transect. Poster. European Geosciences Union (EGU) Meeting, Vienna, Austria.

- Wang, L., P. L. Shaner and S. Macko.** 2005. Foliar isotopic changes in different successional stage on community and species level. Oral Presentation. The Ecological Society of America (ESA) Annual Conference, Montreal, Canada, 90th meeting.
- Huang, J., L. Wang, J. Wang and P. P. Mou.** 2005. Geostatistical analysis on total and available nitrogen patterns in an evergreen broad-leaf forest of southwestern China. Poster. The Ecological Society of America (ESA) Annual Conference, Montreal, Candana, 90th.
- Wang, L., S. Macko and P. D'Odorico.** 2005. Natural Abundance of ¹³C and ¹⁵N in vegetation and soil of Kalahari transect in southern Africa. Poster. The 20th Annual Department of Environmental Sciences Student Research Symposium.
- Wang, L., S. Macko, P. D'Odorico and L. Ries.** 2005. Nitrogen limitation along the Kalahari Transect: preliminary results from a stable isotope fertilization experiment. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Macko, S., L. Wang and P. D'Odorico.** 2005. Nitrogen uptake preferences by plants in arid and semiarid ecosystems. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L., P. P. Mou and R. H. Jones.** 2003. Physiological and morphological plasticity of plants nutrient foraging. Poster. The Ecological Society of America (ESA) Annual Conference, Savannah, GA 88th meeting.

PROFESSIONAL TRAINING

- OzFlux workshop. CSIRO Black Mountain Laboratories, Canberra, Australia. September 26-30, 2011. Instructors: **Ray Leuning, Peter Isaac and James Cleverly.**
- Flux Measurement Fundamentals, A technical short course in the use of micrometeorological methods to obtain and analyze fluxes of momentum, heat, and chemical species by eddy-covariance, eddy accumulation and related techniques. University of Michigan Biological Station. July 6-12, 2008. Instructors: **HaPe Schmid and Alex Guenther.**
- Advanced Study Program's Summer Colloquium, "Regional Biogeochemistry: Needs and Methodologies", Boulder, National Center for Atmospheric Research (NCAR). June 4-15, 2007 (full financially supported participant).

PROFESSIONAL ORGANIZATIONS

The Ecological Society of America (ESA), Member (2003-present)

The American Geophysical Union (AGU), Member (2005-present)

The Sigma Xi, The Scientific Research Society, Elected Full Member (March 2006-present)

Marquis Who's Who in America (2012-)