

# LIXIN WANG

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## EDUCATION

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*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, 2001. Department of Biology, **Hebei University**, Baoding, China

## PROFESSIONAL EMPLOYMENT

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*Associate Professor*, July 2018-present, Department of Earth Sciences, **Indiana University-Purdue University Indianapolis (IUPUI)**, Indianapolis, USA.

*Assistant Professor*, January 2013-June 2018, Department of Earth Sciences, **Indiana University-Purdue University Indianapolis (IUPUI)**, Indianapolis, USA.

*Vice-Chancellor Research Fellow*, 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

## HONORS AND AWARDS

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Indiana University President's Bicentennial Medal, 2021

IUPUI Open Education Award, 2021

IUPUI School of Science Innovative Educator Award, 2021

IUPUI Research Trailblazer Award, 2020

IUPUI Celebration of Teaching and Engaged Learning Honoree, Spring 2020

NSF CAREER award, 2016.

IUPUI School of Science Research Award for untenured faculty (the most prestigious research award from the School of Science at IUPUI), 2016.

Maury Prize, Dept. 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, Dept. of Environ. Sciences, University of Virginia, Fall 2007.

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

## CURRICULUM VITAE FOR LIXIN WANG

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.

### FUNDING (\$3.4 million in total and ~\$2 million directly to my group)

#### **External**

2021-2025. Assessing the ecosystem services of agricultural conservation practices under current and future climate scenarios. **USDA** (PI) \$500,000 (recommended for funding)

2016-2021. CAREER: The effects of non-rainfall moisture inputs on dryland ecosystem functions. **NSF** (Single PI) \$779,879

2017-2020. Drought impacts on species-specific carbon uptake and growth in Eastern U.S. hardwood forests. **USDA** (co-PI) \$470,000

2016-2020. Collaborative Research: Forest water use and the influence of acid deposition, **NSF** (Institutional PI) \$118,669

2017-2020. GP-EXTRA: Building a new generation of urban environmental scholar-citizens through community-based programs for science and impact, **NSF** (co-PI) \$443,497

2014-2017. US-Namibia planning visit: building a research collaboration on the effects of non-rainfall input on dryland ecosystem functions, **NSF** (Single PI) \$67,348

2015-2018. Assessing threshold benefits of conservation tillage during drought years: implications for nutrient-use efficiency and water quality. **USDA** (co-PI) \$666,000

2013-2016. Precipitation and fog stable isotope analyses in Namibia. **IAEA-Stable isotopes in precipitation and paleoclimatic archives in tropical areas to improve regional hydrological and climatic impact models.** Funds four international project meetings in Vienna (PI) ~ \$12,000

2014-2016. The combined effect of drought and CO<sub>2</sub> enrichment on agricultural nutrient export and yield, **Schlumberger Foundation.** (Single PI). \$80,000.

2006-January, Biosphere-Atmosphere Stable Isotope Network (BASIN), travel grant to attend “Isotopes as Tracers of Ecological Changes” meeting, \$1,200

#### **Internal**

2020. IUPUI Open Access Publishing Fund. \$1700 (Single PI)

2018-2020. Moisture recycling in global drylands – a collaborative research between IUPUI and Northwest University in China. **Indiana University President’s International Research Awards** (Single PI) \$100,000

- 2018-2019. Vegetation non-rainfall water use in drylands. Purdue Research Foundation Research Award, **Purdue Research Foundation** (Single PI) \$19,124
- 2018-2019. Purdue Research Foundation Travel Award, **Purdue Research Foundation**. \$550
2018. IUPUI Open Access Publishing Fund. \$3400 (Single PI)
- 2017-2018. Triple oxygen isotope measurements in water and the implications in hydrological cycles. **IUPUI Office of the Vice Chancellor for Research**. (Single PI). \$35,000
- 2014-2015. The drought effects on forest carbon uptake and water use - combining stable isotopes, eddy covariance and process-based modeling. **Indiana University Collaborative Research Grants**. (PI). \$72,500
2015. The mechanisms of global dryland greening. **Purdue Research Foundation**. (Single PI). \$10,400.
- 2015, 2017. IUPUI Open Access Publishing Fund. \$7500 (Single PI)
- 2014 Teaching grants. Building state-of-the-art weather stations for hydrology education. **School of Science at IUPUI**. \$25,470. (Single PI)
- 2013-2014. Solving the dryland greening up mystery through data synthesis and process-based modeling. **IUPUI iM<sub>2</sub>CS-GEIRE**. (Single PI). \$5,999
- 2013-2014. The importance of non-rainfall input to dryland ecosystems-a field and modeling investigation in the Namib Desert. **IUPUI International Development Fund** \$15,000 (Single PI)
- 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 (Single PI)
- 2006-2007, Detecting nitrogen uptake preference using dual-isotope labeling technique. University of Virginia, Moore Research Grant, \$4,000
- 2005-2006, University of Virginia, Exploratory Award Grant, \$1,000

## PUBLICATIONS

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### **JOURNAL ARTICLES (175 in total)** [Google scholar](#)

\*student

†postdoc authors

§visiting scholar authors

\*Jiao, W., **L. Wang\***, W. Smith, Q. Chang, H. Wang, P. D'Odorico. Accepted. Observed increasing water constraint on vegetation growth over the last three decades. *Nature Communications* 12 3777. <https://doi.org/10.1038/s41467-021-24016-9> \*corresponding author

\*Jiao, W., **L. Wang\***, M. McCabe. 2021. Multi-sensor remote sensing for drought characterization: current status, opportunities and a roadmap for the future.

*Remote Sensing of Environment* 256:112313  
<https://doi.org/10.1016/j.rse.2021.112313> \*corresponding author

†Tian, C., W. Jiao, D. Beysens, †K. Kaseke, M. Medici, F. Li, **L. Wang\***. 2021. Investigating the role of evaporation in dew formation under different climates using <sup>17</sup>O-excess. *Journal of Hydrology* 592, 125847. <https://doi.org/10.1016/j.jhydrol.2020.125847> \*corresponding author

\*Weddle, J., M. Lanning, E. Remi, **L. Wang\***. 2021. The impacts of leaf damage on the isotopic composition of leaf transpiration. *Journal of Undergraduate Research and Scholarly Work* 7 <https://hdl.handle.net/20.500.12588/241>  
 †Undergraduate graduate \*corresponding author

§Song, Y., **L. Wang\*** and J. Wang. 2021. Improved understanding of the spatially-heterogeneous relationship between satellite solar-induced chlorophyll fluorescence and ecosystem productivity. *Ecological Indicators*, doi: 10.1016/j.ecolind.2021. \*corresponding author

§Luo, L., W. Zhao\*, **L. Wang\***, I. Ogashawara, Q. Yang, H. Zhou, R. Yang, Q. Duan, C. Zhou, Y. Zhuang. 2021. Are the shoreline and eutrophication of desert lakes related to desert development? *Environmental Monitoring and Assessment* 193, 43 <https://doi.org/10.1007/s10661-020-08806-0>  
 \*corresponding author

Huang, Y., B. Tao, X. Zhu, Y. Yang, L. Liang, **L. Wang**, P. Jacinthe, H. Tian, W. Ren. 2021. Conservation tillage increases corn and soybean water productivity across the Ohio River Basin. *Agricultural Water Management* 254(6) doi: 10.1016/j.agwat.2021.106962

Wang, J., B. Fu, L. Jiao, N. Lu, J. Li, W. Chen, **L. Wang**. 2021. Age-related water use characteristics of *Robinia pseudoacacia* on the Loess Plateau. *Agricultural and Forest Meteorology* 301-302, 108344  
<https://doi.org/10.1016/j.agrformet.2021.108344>

Feng, T., L. Zhang, Q. Chen, Z. Ma, H. Wang, Z. Shanguan, **L. Wang**, J. He. 2021. Dew formation reduction in global warming experiments and the potential consequences. *Journal of Hydrology* 593: 125819  
<https://doi.org/10.1016/j.jhydrol.2020.125819>

Wu, Y., T. Du, **L. Wang**. 2021. Isotope signature of maize stem and leaf and investigation of transpiration and water transport. *Agricultural Water*

*Management* 247, 106727, <https://doi.org/10.1016/j.agwat.2020.106727>

§Zhang, X., J. Wang, Y. Gao, **L. Wang**\* 2021. Variations and controlling factors of vegetation dynamics on the Qingzang Plateau of China over the recent 20 years. *Geography and Sustainability*

<https://doi.org/10.1016/j.geosus.2021.02.001> \*corresponding author

Wei, F., S. Wang, M. Brandt, B. Fu, M. Meadows, **L. Wang**, L. Wang, X. Tong, R. Rensholt. 2021. Responses and feedbacks of African dryland ecosystems to environmental changes. *Current Opinion in Environmental Sustainability*. 48: 29-35. <https://doi.org/10.1016/j.cosust.2020.09.004>

Wang, Y., F. Gao, **L. Wang**\*, T. Guo, L. Qi, H. Zeng, Y. Liang, K. Zhang, Z. Jia\* , R. Zhang. 2021. Crop yield and soil organic carbon under ridge-furrow cultivation in China: A meta-analysis. *Land Degradation & Development* <https://doi.org/10.1002/ldr.3956> \*corresponding author

Gao, D.,S. Wang, Z. Li, F. Wei, P. Chen, S. Song, Y. Wang, **L. Wang**, B. Fu. 2021. Threshold of vapor pressure deficit constraint on light use efficiency varied with soil water content. *Ecohydrology*, doi: 10.1002/eco.2305

Huang, Y., B. Tao, X. Zhu, Y. Yang, L. Liang, **L. Wang**, P. Jacinthe, H. Tian and W. Ren. In press. Conservation tillage increases corn and soybean water productivity across the Ohio River Basin. *Agricultural Water Management*, doi: 10.1016/j.agwat.2021.106962

Zhang, X., M. Hasi, A. Li, Y. Tan, S. Daryanto, **L. Wang**, X. Zhang, S. Chen, J. Huang. Nitrogen addition amplified water effects on species composition shift and productivity increase. *Journal of Plant Ecology*, rtabo34, <https://doi.org/10.1093/jpe/rtabo34>

‡Tian, C., **Wang, L\***, Jiao, W. et al. 2020. Triple isotope variations of monthly tap water in China. *Scientific Data* 7, 336. <https://doi.org/10.1038/s41597-020-00685-x> \*corresponding author

\*Qiao, N., L. Zhang\*, C. Huang, W. Jiao, G. Maggs-Kölling, E. Marais, and **L. Wang**\*. 2020. Satellite observed positive impacts of fog on vegetation. *Geophysical Research Letters* 47(12) e2020GL088428 \*corresponding author

\*Lanning, M., **L. Wang**\*, K. Novick. 2020. The importance of cuticular permeance in assessing plant water-use strategies. *Tree Physiology* 40: 425-432

**\*corresponding author**

- \*Lanning, M., **L. Wang\***, M. Benson, Q. Zhang, K. Novick 2020. Canopy isotopic investigation reveals different water uptake dynamics of maples and oaks. *Phytochemistry* <https://doi.org/10.1016/j.phytochem.2020.112389>
- \*corresponding author**
- \*Adhikari, B. and **L. Wang\***. 2020. The potential contribution of soil moisture to fog formation in the Namib Desert. *Journal of Hydrology* 591: 125326 <https://doi.org/10.1016/j.jhydrol.2020.125326> **\*corresponding author**
- †Daryanto, S., **L. Wang\*** and P. Jacinthe, 2020. No-till is challenged: complementary management is crucial to improve its environmental benefits under a changing climate. *Geography and Sustainability* <https://doi.org/10.1016/j.geosus.2020.09.003> **\*corresponding author**
- †Tian, C., **L. Wang\***, Jiao, W. et al. Triple isotope variations of monthly tap water in China. *Sci Data* 7, 336 (2020). <https://doi.org/10.1038/s41597-020-00685-x>
- \*corresponding author**
- §Yuan, Y., T. Du\*, H. Wang and **L. Wang\***. 2020. Novel Keeling plot based methods to estimate the isotopic composition of ambient water vapor. *Hydrology Earth System Sciences* <https://doi.org/10.5194/hess-2020-1>
- \*corresponding author**
- Deurwaerder, H., M. Visser, M. Detto, P. Boeckx, F. Meunier, K. Kuehnhammer, R. Magh, J. D. Marshall, **L. Wang**, L. Zhao, H. Verbeeck. 2020. Causes and consequences of pronounced variation in the isotope composition of plant xylem water. *Biogeosciences* 17: 4853-4870
- §Zhao, L., C. Xie, X. Liu, N. Wang, Z. Yu, X. Dong, **L. Wang\*** 2020. Water sources of major plant species along a strong climatic gradient in the inland Heihe River Basin. *Plant Soil* 455: 439-466 **\*corresponding author**
- Wei, F., S. Wang, M. Brandt, B. Fu, M. Meadows, **L. Wang**, L. Wang, X. Tong, R. Fensholt. 2021. Responses and feedbacks of African dryland ecosystems to environmental changes. *Current Opinion in Environmental Sustainability*, 48, 29-35
- Song, Y. J. Wang, **L. Wang**. 2020. Satellite solar-induced chlorophyll fluorescence reveals heat stress impacts on wheat yield in India. *Remote Sens.* 12, 3277.
- Wang, Y., T. Tong, L. Qi, H. Zeng, Y. Liang, S. Wei, F. Gao, **L. Wang**, R. Zhang, Z. Jia. 2020. Meta-analysis of ridge-furrow cultivation effects on maize production and water use efficiency. *Agricultural Water Management* **\*corresponding author**
- §Luo, L., Q. Duan, **L. Wang**, W. Zhao, Y. Zhuang. 2020. Increased human pressures on the alpine ecosystem along the Qinghai-Tibet Railway. *Regional Environmental Change* 20:33 <https://doi.org/10.1007/s10113-020-01616-7>
- Cui, J., L. Tian, Z. Wei, C. Huntingford, P. Wang, Z. Cai, N. Ma, **L. Wang**. 2020. Quantifying the controls on evapotranspiration partitioning in the highest

- alpine meadow ecosystems. *Water Resources Research* doi:10.1029/2019WR024815
- §Zhou, Q, Y. Wang, X. Li, Z. Liu, J. Wu, A. Musa, Q. Ma, H. Yu, X. Cui, **L. Wang\***. 2020. Geographical distribution and determining factors of different invasive ranks of alien species across China. *Science of The Total Environment* doi: 10.1016/j.scitotenv.2020.137929 **\*corresponding author**
- §Zhou, Q., **L. Wang**, Z. Jiang, J. Wu, X. Cui, X. Li, Z. Liu, A. Musa, Q. Ma, H. Yu, Y. Wang 2020. Effects of climatic and social factors on dispersal strategies of alien species across China. *Science of Total Environment* 749, 141443, <https://doi.org/10.1016/j.scitotenv.2020.141443>
- Wang, J. B. Fu, **L. Wang**, N. Lu, J. Li. 2020. Water use characteristics of the common tree species in different plantation types in the Loess Plateau of China. *Agricultural and Forest Meteorology* 288/289: 108020
- Wang, K., X. Zeng, X. Liu, M. Lanning, G. Wu, L. Zhao, G. Xu, Y. Wang, L. Zhang, X. Li, Q. Lu, **L. Wang**. 2020. Nitrogen rather than streamflow regulates the growth of riparian trees. *Chemical Geology* 547: 119666
- Malcomb, J., H. Epstein, D. Druckenbrod, M. Vadeboncoeur, M. Lanning, M. Adams, and **L. Wang**. 2020. Assessing temperate forest growth and climate sensitivity in response to a long-term whole-watershed acidification experiment. *JGR Biogeosciences* 125: e2019JG005560
- §Qiao, N., L. Zhang\*, C. Huang, W. Jiao, G. Maggs-Kölling, E. Marais, and **L. Wang\***. 2020. Satellite observed positive impacts of fog on vegetation. *Geophysical Research Letters* 47(12) e2020GL088428 **\*corresponding author**
- Wang, L.**, P. D'Odorico. 2019. Water limitations to large-scale desert agroforestry projects for carbon sequestration. *PNAS* 116 (50) 24925-24926 doi/10.1073/pnas.1917692116
- \*Lanning, M., **L. Wang\***, T. Scanlon, M. Vadeboncoeur, M. Adams, H. Epstein, D. Druckenbrod. 2019. Intensified vegetation water use under acid deposition. *Science Advances* 5(7): eaav5168 **\*corresponding author**
- Craine, J., A. Elmore, **L. Wang**, P. Boeckx, S. Delzon, Y. Fang, A. Gray, R. Guerrieri, M. Gundale, P. Hietz, D. Nelson, P. Peri, P. Templer & C. Werner. 2019. Reply to: Data do not support large-scale oligotrophication of terrestrial ecosystems. *Nature Ecology and Evolution* 3: 1287-1288
- Wang, L.**, K. Kaseke, S. Ravi, W. Jiao, R. Mushi, T. Shuuya and G. Maggs-Kölling. 2019. Convergent vegetation fog and dew water use in the Namib Desert. *Ecohydrology* 12(7) e2130 doi.org/10.1002/eco.2130
- Wang, L.**, T. Lin. 2019. Forests affected by frequent and intense typhoons challenge the intermediate disturbance hypothesis. *Biotropica* 51(6): 797-801 doi.org/10.1111/btp.12711
- §Zhao, L. , X. Liu, N. Wang, Y. Kong, Y. Song, Z. He, Q. Liu, **L. Wang\***. 2019. Contribution of recycled moisture to local precipitation in the inland

- Heihe River Basin. *Agricultural and Forest Meteorology* 271: 316-335  
**\*corresponding author**
- Zhang, Q., D. Ficklin, S. Manzoni, **L. Wang**, D. Way, R. Phillips and K. Novick. 2019. Response of ecosystem intrinsic water use efficiency and gross primary productivity to rising vapor pressure deficit. *Environmental Research Letters* 14(7) doi: 10.1088/1748-9326/ab2603
- †Tian, C., **L. Wang**, F. Tian, S. Zhao and W. Jiao. 2019. Spatial and temporal variations of tap water <sup>17</sup>O-excess in China. *Geochimica et Cosmochimica Acta* 260: 1-14 **\*corresponding author**
- \*Jiao, W. Q. Chang, **L. Wang\***. 2019. The sensitivity of satellite solar-induced chlorophyll fluorescence (SIF) to meteorological drought. *Earth's Future* 7(5): 558-573 10.1029/2018EF001087 **\*corresponding author**
- \*Jiao, W, **L. Wang\***, K. Novick, Q. Chang. 2019. A new station-enabled multi-sensor integrated index for drought monitoring. *Journal of Hydrology* 574: 169-180 **\*corresponding author**
- Wei, F., S. Wang, B. Fu, **L. Wang**, Y. Liu and Y. Li. 2019. African drylands ecosystem changes controlled by soil water. *Land Degradation & Development* 30(13): 1564-1573
- \*Jiao, W. C. Tian, Q. Chang, K. Novick, **L. Wang\***. 2019. A new multi-sensor integrated index for drought monitoring. *Agricultural and Forest Meteorology* 268: 74-85 **\*corresponding author**
- †Tian, C., **L. Wang\***. 2019. Stable isotope variations of daily precipitation from 2014-2018 in the central United States. *Scientific Data* 6: Article number: 190018 **\*corresponding author**
- †Daryanto, S., B. Fu, **L. Wang**, W. Zhao. 2019. One-hundred years after shrub encroachment: Policy directions towards sustainable rangeland-use. *Land Use Policy* 84: 71-78
- Tong, Y., P. Wang X. Li **L. Wang**, X. Wu, F. Shi, Y. Bai, E. Li, J. Wang, Y. Wang. 2019. Seasonality of the transpiration fraction and Its controls across typical ecosystems within the Heihe River Basin. *Journal of Geophysical Research: Atmospheres* 124(3): 1277-1291 doi: 10.1029/2018JD029680
- †Daryanto, S., P. Jacinthe, B. Fu\*, W. Zhao, **L. Wang**. 2019. Valuing the ecosystem services of cover crops: barriers and pathways forward. *Agriculture, Ecosystems and Environment* 270-271: 76-78.
- Munksgaard, N. N. Kurita, R. Sánchez-Murillo... (**L. Wang**, H. Yacobaccio & C. Zwart. 2019. Data Descriptor: Daily observations of stable isotope ratios of rainfall in the tropics. *Scientific Reports* 9, Article number: 14419
- \*Kaseke, K., **L. Wang\***. 2018. Fog and dew as potable water resources - maximizing harvesting potential and water quality concerns. *GeoHealth* 2(10): 327-332.  
**\*corresponding author**



- \*Lu, X., **L. Wang\***. 2019. Evaluating ecohydrological modeling framework to link atmospheric CO<sub>2</sub> and stomatal conductance. *Ecohydrology* 12(1) doi.org/10.1002/eco.2051. **\*corresponding author**
- †Daryanto, S., B. Fu\*, **L. Wang\***, P. Jacinthe, W. Zhao. 2018. Quantitative synthesis on the ecosystem services of cover crops. *Earth-Science Reviews* 185: 357-373. **\*corresponding author**
- \*Kaseke, KF, **L. Wang\***, H. Wanke, C. Tian, M. Lanning, W. Jiao. in press. Precipitation origins and key drivers of precipitation isotope (<sup>18</sup>O, <sup>2</sup>H, <sup>17</sup>O) compositions over Windhoek. *Journal of Geophysical Research: Atmospheres* 123(14): 7311-7330 **\*corresponding author**
- Craine, J., A. Almore, **L. Wang**, et al. 2018. Isotopic evidence for oligotrophication of terrestrial ecosystems. *Nature Ecology and Evolution* 2: 1735-1744 doi: 10.1038/s41559-018-0694-0
- Huang, Y., W. Ren, **L. Wang**, D. Hui, J. Grove, X. Yang, B. Tao, and B. Goff. 2018. Greenhouse gas emissions and crop yield in no-tillage systems: a meta-analysis. *Agriculture Ecosystems and Environment* 268: 144-153.
- Zhang, X., W. Zhao, **L. Wang**, Y. Liu, Y. Liu, Q. Feng. 2018. Relationship between soil water content and soil particle size on typical slopes of the Loess Plateau during a drought year. *Science of the Total Environment* 648: 943-954.
- Wang, Y., L. Chu, S. Daryanto, L. Lü, M. Ala, **L. Wang\***. 2018. Sand dune stabilization changes the vegetation characteristics and soil seed bank and their correlations with environmental factors. *Science of the Total Environment* 648: 500-507. **\*corresponding author**
- Wang, P., X. Li, **L. Wang**, X. Wu, X. Hu, Y. Fan, Y. Tong. 2018. Divergent evapotranspiration partition dynamics between shrubs and grasses in a shrub-encroached steppe ecosystem. *New Phytologist* 219:1325-1337
- †Tian, C., **L. Wang\***, K. Kaseke, B. Bird. 2018. Stable isotope compositions ( $\delta^2\text{H}$ ,  $\delta^{18}\text{O}$  and  $\delta^{17}\text{O}$ ) of rainfall and snowfall in the central United States. *Scientific Reports* 8:6712 DOI:10.1038/s41598-018-25102-7 **\*corresponding author**
- §Liu, B., Q. Liu, S. Daryanto, X. Ma, S. Guo, **L. Wang\***, Z. Wang.\* 2018. Seedling emergence and early growth of Chinese fir under different light levels and seed positions: implications for natural regeneration. *Canadian Journal of Forest Research* 48(9): 1034-1041 **\*corresponding author**
- §Wang, Y., L. Chu, S. Daryanto, **L. Wang**, J. Lin, A. M. 2018. The impact of grazing on seedling patterns in degraded sparse-elm grassland. *Land Degradation & Development* 29(8): 2330-2337
- §Zhao, L., C. Eastoe, X. Liu, **L. Wang**, N. Wang, C. Xie, and Y. Song. 2018. Origin and residence time of groundwater based on stable and radioactive isotopes in the Heihe River Basin, northwestern China. *Journal of Hydrology: Regional Studies*, 18, 31-49, doi:https://doi.org/10.1016/j.ejrh.2018.05.002.

- §Zhang, X., W. Zhao, **L. Wang**, Y. Liu, Q. Feng, X. Fang and Y. Liu. 2018. Distribution of Shrubland and Grassland Soil Erodibility on the Loess Plateau. *Int. J. Environ. Res. Public Health*, 15(6), 1193; <https://doi.org/10.3390/ijerph15061193>
- Chang, C., J. Huang, **L. Wang**, Y. Shih and T. Lin. 2018. Shifts in stream hydrochemistry in responses to typhoon and non-typhoon precipitation. *Biogeosciences*, 15, 2379–2391.
- Wang**, L., Wei, X., Bishop, K., Reeves, A. D., Ursino, N., and Winkler, R, 2018. Vegetation changes and water cycle in a changing environment. *Hydrology and Earth System Sciences*, 22, 1731-1734.
- †Daryanto, S., **L. Wang**, W. Gilhooly, P. Jacinthe. 2018. Nitrogen preference across generations under changing ammonium nitrate ratios. *Journal of Plant Ecology* DOI: 10.1093/jpe/rty014
- §Liu, B., Q. Liu, S. Daryanto, S. Guo, Z. Huang, Z. Wang, **L. Wang\***, X. Ma\*, 2018. Responses of Chinese fir and *Schima superba* seedlings to light gradients: implications for the restoration of mixed broadleaf-conifer forests from Chinese fir monocultures. *Forest Ecology and Management* \*corresponding author
- \*Li, B., **L. Wang**, K. Kaseke, R. Vogt, L. Li, M. Seely. 2018. The impact of fog on soil moisture dynamics in the Namib Desert. *Advances in Water Resources* 113:23-29
- Liu, Y, A. Dijk, D. Miralles, M. McCabe, J. Evans, R. de Jeu, P. Gentine, A. Huete, R. Parinussa, **L. Wang**, K. Guan, J. Berry, N. Restrepo-Coupe. In press. Enhanced canopy growth precedes senescence in 2005 and 2010 Amazonian droughts. *Remote Sensing of Environments*
- Yang, Y., **L. Wang**, Z. Yang, C. Xu, J. Xie, G. Chen, C. Lin, J. Guo, X. Liu, D. Xiong, W. Lin, S. Chen, Z. He, K. Lin, M. Jiang and T. Lin. 2018. Large ecosystem service benefits of assisted natural regeneration. *Journal of Geophysical Research Biogeosciences* doi: 10.1002/2017JG004267
- Quan, Q., F. Zhang, D. Tian, Q. Zhou, **L. Wang**, S. Niu. 2018. Transpiration dominants ecosystem water use efficiency in response to warming in an alpine meadow. *Journal of Geophysical Research Biogeosciences* doi: 10.1002/2017JG004362
- †Elias, D., **L. Wang**, P. Jachinte. 2018. A meta-analysis of pesticide loss in runoff under conventional tillage and no-till management. *Environmental Monitoring and Assessment* 190:79
- Wang**, L., \*K. Kaseke, and M. Seely. 2017. Effects of non-rainfall water inputs on ecosystem functions, *WIREs Water* 4(1): e1179. (invited)
- \*Kaseke, K., **Wang**, L., Seely, M. 2017. Non-rainfall water origins and formation mechanisms. *Science Advances* 3(3): e1603131. (Featured by NSF, multiple news reports) doi: 10.1126/sciadv.1603131. \*corresponding author

- †Daryanto S., **L. Wang\***, P. Jachinte. 2017. Impacts of no-tillage management on nitrate loss from corn, soybean and wheat cultivation: A meta-analysis. *Scientific Reports* 7: 12117 doi:10.1038/s41598-017-12383-7 (**multiple news reports**) **\*corresponding author**
- †Daryanto S., **L. Wang\***, P. Jachinte. 2017. Meta-analysis of phosphorus loss from no-till soils. *Journal of Environmental Quality* doi: 10.2134/jeq2017.03.0121 **\*corresponding author (featured in journal cover)**
- Ravi, S., **Wang, L.**, \*Kaseke, K., Buynevich, I., Marais, E. 2017. Ecohydrological interactions within "fairy circles" in the Namib Desert: Revisiting the self-organization hypothesis. *Journal of Geophysical Research Biogeosciences* 122(2): 405-414. (**Featured in the journal cover, featured in EOS, multiple news reports including USA Today**). doi: 10.1002/2016JG003604.
- \*Kaseke K., ‡C. Tian, **L. Wang**, M. Seely, R. Vogt, T. Wassenaar, R. Mushi. 2017. Fog spatial distributions over the Central Namib Desert - an isotope approach. *Aerosol and Air Quality Research* doi: 10.4209/aaqr.2017.01.0062 **\*corresponding author**
- Liu, X., X. Zhang, L. Zhao, G. Xu, **L. Wang**, W. Sun, Q. Zhang, W. Wang, X. Zeng, G. Wu. 2017. Tree-ring  $\delta^{18}\text{O}$  reveals no long-term change of atmospheric water demand since 1800 in the northern Great Hinggan Mountains, China. *Journal of Geophysical Research Atmosphere* 122: 6697–6712.
- Lin K., S. Hamburg, **L. Wang**, C. Duh, C. Huang, C. Chang, and T. Lin. 2017. Impacts of increasing typhoons on the structure and function of a subtropical forest: reflections of a changing climate. *Scientific Reports* 7:4911 doi:10.1038/s41598-017-05288-y
- Lin T., **L. Wang**, C. Zheng, R. McEwan, C. Chang, J. Chiang and C. Chi. 2017. Tropical cyclones disrupt the relationship between tree height and species diversity: Comment. *Ecosphere* article no: e01938
- †Daryanto S., **L. Wang\***, P. Jachinte. in press. Can ridge-furrow plastic mulching replace irrigation in dryland maize and wheat cropping system? *Agricultural Water Management* doi: 10.1016/j.agwat.2017.05.005 **\*corresponding author**
- §Ding, J., W. Zhao\*, ‡S. Daryanto, **L. Wang\***, H. Fan, Q. Feng, Y. Wang. 2017. The spatial distribution and temporal variation of desert riparian forests and their influencing factors in the downstream Heihe River Basin, China. *Hydrology and Earth System Sciences*. doi:10.5194/hess-2016-214. **\*corresponding author**
- §Liu, B., S. Daryanto, **L. Wang**, Y. Li, Q. Liu, C. Zhao, Z. Wang. 2017. Excessive accumulation of Chinese Fir litter inhibits its own seedling emergence and early growth — a greenhouse perspective. *Forests* 8 (9), 341
- Florea, L., B. Bird, J. Lau, **L. Wang**, Y. Lei, T. Yao, L. Thompson. 2017. Stable isotopes of river water and ground water along altitudinal gradients in the High

- Himalayas and the Eastern Nyainqentanghla Mountains. *Journal of Hydrology Regional Studies* doi.org/10.1016/j.ejrh.2017.10.003
- Zhang, H., W. Wei, L. Chen, L. Wang. 2017. Effects of terracing on soil water and canopy transpiration of *Pinus tabulaeformis* in the Loess Plateau of China. *Ecological Engineering* 102 557–564. doi.org/10.1016/j.ecoleng.2017.02.044.
- §Zhou, Q, ‡S. Daryanto, Z. Xin, Z. Liu, M. Liu, X. Cui, L. Wang\*. 2017. Soil phosphorus budget in global grasslands and implications for management. *Journal of Arid Environments*. doi.org/10.1016/j.jaridenv. 2017.04.008.  
\*corresponding author
- Wei, Z., K. Yoshimura, L. Wang, D. Miralles, S. Jasechko and X. Lee. 2017. Revisiting the contribution of transpiration to global terrestrial evapotranspiration. *Geophysical Research Letters*. doi: 10.1002/2016GL 072235
- Chang, C., L. Wang, J. Huang, C. Liu, C. Wang, N. Lin, L. Wang\*, and T. Lin\*. 2017. Precipitation controls on nutrient budget in subtropical and tropical forests and the implications under changing climate. *Advances in Water Resources* 103:44-50. \*corresponding author
- Zhao, S., Hu, H., Tian, F., Tie, Q., Wang, L., Liu, Y., Shi, C. 2017. Divergence of stable isotopes in tap water across China. *Scientific Reports* 7:43653. doi: [10.1038/srep43653](https://doi.org/10.1038/srep43653).
- \*Lu, X., L. L. Liang, \*L. Wang, G. D. Jenerette, M. F. McCabe, and D. A. Grantz. 2017. Partitioning of evapotranspiration using a stable isotope technique in an arid and high temperature agricultural production system. *Agricultural Water Management* 179: 103-109\*corresponding author
- Wu, Y, T. Du, R. Ding, L. Tong, S. Li and L. Wang. 2017. Multiple methods to partition evapotranspiration in a maize field. *Journal of Hydrometeorology* 18: 139-149. doi: [10.1175/JHM-D-16-0138.1](https://doi.org/10.1175/JHM-D-16-0138.1).
- Zhang, X, Y. Tan, B. Zhang, A. Li, S. Daryanto, L. Wang and J. Huang. 2017. The impacts of precipitation increase and nitrogen addition on soil respiration in a semiarid temperate steppe. *Ecosphere* 8(1), e01655. doi: 10.1002/ecs2.1655.
- Parkes, SD, M. McCabe, A. Griffiths, L. Wang, S. Chambers, A. Ershadi, A. Williams, J. Strauss and A. Element. 2017. Response of water vapour d-excess to land-atmosphere interactions in a semi-arid environment. *Hydrology and Earth System Sciences* 21:533-548 doi:10.5194/hess-2016-271
- Novick, K., D. Ficklin, P. Stoy, C. Williams, G. Bohrer, AC. Oishi, S. Papuga, P. Blanken, A. Noormets, B. Sulman, R. Scott, L. Wang, and R. Phillips. 2016. The increasing importance of atmospheric demand for ecosystem water and carbon fluxes. *Nature Climate Change* doi:10.1038/nclimate3114
- §Wei, W., D. Chen, L. Wang, S. Daryanto, L. Chen, Y. Yu, Y. Lu, G. Sun, and T. Feng, 2016. Global synthesis of the classifications, distributions, benefits and issues of terracing. *Earth-Science Reviews* 159: 388–403.
- †Sulman, B., Roman, D., Scanlon, T., Wang, L., Novick, K. 2016. Comparing

- methods for partitioning a decade of carbon dioxide and water vapor fluxes in a temperate forest. *Agricultural and Forest Meteorology* 226-227: 229:245.
- §Zhao L., L. Wang, L.A. Cernusak., X. Liu, H. Xiao, M. Zhou and S. Zhang. 2016 Significant difference in hydrogen isotope composition between xylem and tissue water in *Populus euphratica*. *Plant, Cell & Environment*, doi: 10.1111/pce.12753. (Featured in cover)
- \*Li, B., L. Wang, K. Kaseke, L. Li, M. Seely. 2016. The impact of rainfall on soil moisture dynamics in a foggy desert. *PLoS ONE* 10.1371/journal.pone.0164982
- †Sulman, B, D. Roman, K. Yi, L. Wang, R. Phillips and K. Novick. 2016. High atmospheric demand for water can limit forest carbon uptake and transpiration as severely as dry soil. *Geophysical Research Letters* doi: 10.1002/2016GL069416.
- †Daryanto, S., L. Wang and P. Jacinthe. 2016. Global synthesis of drought effects on maize and wheat production. *PLoS ONE* doi:10.1371/journal.pone.0156362
- †Daryanto, S., L. Wang and P. Jacinthe. 2016. Drought effects on root and tuber production: A meta-analysis. *Agricultural Water Management* doi: 10.1016/j.agwat.2016.05.019
- §Wang, Z., L. Wang, Z. Liu, Y. Li, Q. Liu and B. Liu. 2016. Phylogeny, seed trait, and ecological correlates of seed germination at the community level in a degraded sandy grassland. *Frontiers in Plant Science* 7:1532. doi: 10.3389/fpls.2016.01532
- §Yu, Y., W. Wei, L. Chen, T. Feng, S. Daryanto and L. Wang. in press. Land preparation and vegetation type jointly determine soil conditions after long-term land stabilization measures in a typical hilly catchment, Loess Plateau of China. *Journal of Soils and Sediments*
- \*Lu, X., Wang, L., Ming, P., Kaseke, K., and Li, B. 2016. A multi-scale analysis of Namibian rainfall over the recent decade - comparing TMPA satellite estimates and ground observations. *Journal of Hydrology Regional Studies* 8: 59-68
- †Daryanto, S., L. Wang and P. Jacinthe. 2016. Global synthesis of drought effects on cereal, legume, tuber and root crops production: A review. *Agricultural Water Management* 10.1016/j.agwat.2016.04.022
- \*Kaseke, KF, L. Wang, H. Wanke, V. Turewicz and P. Koeniger. 2016. An analysis of precipitation isotope distributions across Namibia using historical data. *PLoS ONE* 10.1371/journal.pone.0154598
- †Tian, C., L. Wang, and K. A. Novick. 2016. Water vapor  $\delta^2\text{H}$ ,  $\delta^{18}\text{O}$  and  $\delta^{17}\text{O}$  measurements using an off-axis integrated cavity output spectrometer – sensitivity to water vapor concentration, delta value and averaging-time, *Rapid Communications in Mass Spectrometry*. 10.1002/rcm.7714
- §Fang, X., W. Zhao, L. Wang, Q. Feng, J. Ding, Y. Liu and X. Zhang. 2016. Variations of deep soil moisture under different vegetation types and influencing factors

- in a watershed of the Loess Plateau, China. *Hydrology and Earth System Sciences* 20, 3309–3323 doi:10.5194/hess-20-3309-2016.
- §Liu, Y., W. Zhao, **L. Wang**, X. Zhang, S. Daryanto, X. Fang. 2016. Spatial variations of soil moisture under *Caragana korshinskii* from different precipitation zones: field based analysis in the Loess Plateau, China. *Forests*, doi:10.3390/f60x000x
- Yin, Y., Q. Tang, **L. Wang** and X. Liu. 2016. Risk and contributing factors of ecosystem shifts over naturally vegetated land under climate change in China. *Scientific Reports*, 6:20905.
- \*Lu, X., **L. Wang**, and M. McCabe. 2016. Elevated CO<sub>2</sub> as a driver of global dryland greening. *Scientific Reports*, 6:20716, DOI: 20710.21038/srep20716.
- Wang, L.**, X. Yang and G. Rasul. 2016. Climate change and ecosystem responses in China. *Physics and Chemistry of the Earth* 87-88:1-2, doi:10.1016/j.pce.2015.11.003
- Wang, L.** S. Manzoni, S. Ravi, D. Riveros-Iregui and K. Caylor. 2015. Dynamic interactions of ecohydrological and biogeochemical processes in water-limited systems. *Ecosphere*, 10.1890/ES15-00122.1
- Zhang, X., Y. Ta, A. Li, T. Ren, S. Chen, **L. Wang**, and J. Huang. 2015. Water and nitrogen availability co-control ecosystem CO<sub>2</sub> exchange in a semiarid temperate steppe. *Scientific Reports*, 5:15549 doi: 10.1038/srep15549
- Craine J., E. N. J. Brookshire, M.D. Cramer, N.J. Hasselquist, K. Koba, E. Marin-Spiotta and **L. Wang**. 2015. Ecological interpretations of nitrogen isotope ratios of terrestrial plants and soils. *Plant and Soil*. DOI 10.1007/s11104-015-2542-1 (Invited Review)
- †Daryanto, S., **L. Wang** and P. Jacinthe. 2015. Global synthesis of drought effects on food legume production. *PLoS ONE* doi:10.1371/journal.pone.0127401
- Bhattachan, A, \***L. Wang**, M. Miller, K. Licht and P. D’Odorico. 2015. Antarctica’s Dry Valleys: a potential source of soluble iron to the Southern Ocean? *Geophysical Research Letters* doi: 10.1002/2015GL063419 \*corresponding author
- Wang, L.**, Throop, HL and Gill, T 2015. A novel method to continuously monitor litter moisture: a microcosm-based experiment. *Journal of Arid Environments* 115: 10-13.
- Craine, JM, AJ Elmore, **L. Wang**, L. Augusto, W. T. Baisden, E. N. J. Brookshire, M. D. Cramer, N. J. Hasselquist, E. A. Hobbie, A. Kahmen, K. Koba, J. M. Kranabetter, M. C. Mack, E. Marin-Spiotta, J. R. Mayor, K. K. McLauchlan, A. Michelsen, G. B. Nardoto, R. S. Oliveira, S. S. Perakis, P. L. Peri, C. A. Quesada, A. Richter, L. A. Schipper, B. A. Stevenson, B. L. Turner, R. A. G. Viani, W. Wanek and B. Zeller. 2015. Convergence of soil nitrogen isotopes across global climate gradients. *Scientific Reports* 5: 8280, doi:10.1038/srepo8280.

- \*Cai, Y, **L. Wang**, SD. Parkes, J. Strauss, MF. McCabe, JP. Evans, A.D. Griffiths. 2015. Stable water isotope and surface heat flux simulation using ISOLSM: evaluation against in-situ measurements. *Journal of Hydrology* 523, 67-78.
- Wang, L.**, S. Good and K. Caylor. 2014. Global synthesis of vegetation control on evapotranspiration partitioning. *Geophysical Research Letters* 41 (19): 6753–6757 10.1002/2014GL061439
- \*Zhao, L., **L. Wang**, X. Liu, H. Xiao, Y. Ruan and M. Zhou. 2014. The patterns and implications of diurnal variations in d-excess of plant water, shallow soil water and air moisture. *Hydrology and Earth System Sciences* 11: 4433-4476.
- §Liu, B., Z. Liu, **L. Wang** and Z. Wang. 2014. Responses of rhizomatous grass *Phragmites communis* to wind erosion: effects on of biomass allocation. *Plant Soil* 380:389-398.
- Eldridge, D, **L. Wang** and M. Ruiz-Colmenero. 2014. Shrub encroachment alters the spatial patterns of infiltration. *Ecohydrology* doi: 10.1002/eco.1490.
- 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* 111: 28-38.
- Wang, L.**, G. Okin, P. D’Odorio, K. Caylor and S. Macko. 2013. Ecosystem-scale spatial heterogeneity of stable isotopes of soil nitrogen in African savannas. *Landscape Ecology* 28:685–698. doi: 10.1007/s10980-012-9776-6.
- §Zhao, L., **L. Wang**, H. Xiao, X. Liu, G Cheng and Y. Ruan. 2013. The effects of short-term rainfall variability on leaf isotopic traits of desert plants in sand-binding ecosystems. *Ecological Engineering* 60: 116-125
- †Daryanto, S., D. Eldridge and **L. Wang**. 2013. Ploughing and grazing alter the spatial patterning of surface soils in a shrub-encroached woodland. *Geoderma* 200-201: 67-76.
- †Daryanto, S., D. Eldridge and **L. Wang**. 2013. Spatial patterns of infiltration vary with disturbance in a shrub-encroached woodland. *Geomorphology* 194: 57-64.
- Soderberg, K., S. Good, M. O’Connor, **L. Wang**, K. Ryan and KK. Caylor. 2013. Using air parcel trajectories to model the isotopic composition of rainfall in central Kenya. *Ecosphere* 4(3):33. <http://dx.doi.org/10.1890/ES12-00160.1>.
- Tan, Y., J. Chen, L. Yan, J. Huang, **L. Wang**, S. Chen. 2013. Mass loss and nutrient dynamics during litter decomposition under three mixing treatments in a typical steppe in Inner Mongolia. *Plant and Soil*. 366: 107-118.
- Liu, B., Z. Liu, X. Lü, F. Maestre and **L. Wang**. 2013. Sand burial compensates for the negative effects of erosion on the dune-building shrub *Artemisia wudanica*. *Plant and Soil* 374:263-273

- Ren, H, Z. Xu, W. Zhang, L. Jiang, J. Huang, S. Chen, **L. Wang**, X. Han. 2013. Linking ethylene to nitrogen-dependent leaf longevity of grass species in a temperate steppe. *Annals of Botany* 112 (9): 1879-1885
- Soderberg, K., S. Good, **L. Wang** and K.K. Caylor. 2013. Stable isotopes of water vapor in the vadose zone: A review of measurement and modeling techniques. *Vadose Zone Journal* doi: 10.2136/vzj2011.0165.
- 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.
- Good, SP., K. Soderberg, **L. Wang** and K.K. 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.** 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.
- Liu, B., 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
- Wang, L.** C. Zou, F. O'Donnell, S. Good, T. Franz, G.R. Miller, 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.
- Wang, L.**, M. Katjiua, P. D'Odorico and G. S. Okin. 2012. 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)
- 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 <sup>18</sup>O in China. *Hydrological Processes* 26(1): 143-152 doi: 10.1002/hyp.8118
- 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. 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  $\text{CO}_2$  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. (Featured in Cover)
- 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 <sup>15</sup>N compositions from reflectance spectra. *Geophysical Research Letters*, 34, L02401.
- Wang, L.**, P. J. Shaner and S. Macko. 2007. Foliar δ<sup>15</sup>N 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: 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.

#### BOOK CHAPTERS

- Wilcox, B., D. Maitre, E. Jobbagy, **L. Wang** and D. Breshears. 2017. Ecohydrology: processes and implications for rangelands. In "Rangeland Systems" (Edited by David D. Briske), Springer, 85-129, doi: 10.1007/978-3-319-46709-2\_3
- Wang, L.**, M. McCabe. 2013. Ecohydrology: plant water use. In "Handbook of Engineering Hydrology" (Edited by Saeid Eslamian), Taylor & Francis.

- Wang, L. and P. D’Odorico. 2013. Ecological Processes: Decomposition and Mineralization. *In Earth Systems and Environmental Sciences*, Elsevier.
- 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.

## TEACHING EXPERIENCE AND QUALIFICATIONS

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### 1. TEACHING

#### ***Indiana University-Purdue University Indianapolis***

Instructor, Department of Earth Sciences

Climate Change and Society (Spring 2018, 2019, 2020, 2021)

Principles of Hydrology (Fall 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021)

Earth and our Environment (Spring 2014, 2015, 2017, 2020)

#### ***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).

#### ***University of North Carolina-Greensboro***

Teaching assistant, Department of Biology

General Biology (Laboratory instructor, Spring, Summer 2004).

Fundamental Ecology (Grader, Spring 2003).

### 2. MENTORING

#### ***Indiana University-Purdue University Indianapolis***

Students and postdocs:

Chao Tian (postdoc mentor) - 2015-2020

Stefani Daryanto (postdoc mentor) - 2014-2017

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Daniel Elias (postdoc mentor) - 2016-2017  
Kudzai Kaseke (PhD advisor) - 2013-2018  
Xuefei Lu (PhD advisor) - 2014-2018  
Matt Lanning (PhD advisor) - 2016-present  
Wenzhe Jiao (PhD advisor) - 2017-present  
Bishwodeep Adhikari (MS advisor) - 2017-2019  
Bonan Li (MS advisor) - 2015-2017  
Emilee Abigayle Darling (MS committee member) - 2017-2019  
Melanie Perello (PhD committee member) - 2015-present  
Amber Rollings (PhD committee member) - 2014-present  
Koong Yi (PhD committee member) - 2014-2019  
Scott Collins (MS committee member) - 2014-2016  
Austin Curran Stanforth (PhD committee member) - 2013-2017  
Kristiana Cox (MS advisory committee) - 2014-2016  
Amy Noel-Smith (PhD committee member) - 2013-2014  
Dawei Liu (PhD committee member) - 2013-2015  
Hilary A.S. Hubbard (MS advisor) - 2013-2015

John Weddle (Undergraduate Research Mentor) - 12/2019-present  
Paula Robert (Undergraduate Research Mentor) - 7/2019-present  
Bailey McDaniels (Undergraduate Research Mentor) - 7/2018-present  
Laura Murillo (Undergraduate Research Mentor) - 7/2018-12/2018  
Sunshine Gambill (Undergraduate Research Mentor) - 7/2018-12/2019  
Amanda Evans (Undergraduate Research Mentor) - 8/2017-12/2018  
Justin Lazaro (Undergraduate Research Mentor) - 8/2017-12/2017  
Rhiannon Bengé (Undergraduate Research Mentor) - 8/2017-12/2017  
Remi Ewing (Undergraduate Research Mentor) - 8/2017-5/2018  
Thomas Utter (Undergraduate Research Mentor) - 1/2017-12/2017  
India Medaris (Undergraduate Research Mentor) - 6/2016 - 8/2016  
Reina Hiramatsu (Undergraduate Research Mentor) - 7/2015 - 2017  
Garrett Goff (Undergraduate Research Mentor) - 1/2015 - 1/2016  
Timothy Gill (Undergraduate Research Mentor) - 9/2013 - 12/2013

Fortuna Gerezgher (High School Student Research Mentor) - 6-8/2019  
Julianne Cooper (High School Student Research Mentor) - 6-8/2019  
Khadijah Jallow (High School Student Research Mentor) - 6-8/2018  
Aldo Medina (High School Student Research Mentor) - 6-8/2018  
Maria Bashmakov (High School Student Research Mentor) - 6-8/2017  
Danielle Metangmo (High School Student Research Mentor) - 6-8/2017  
Angelica Murillo (High School Student Research Mentor) - 6-8/2016  
Truc Kha (High School Student Research Mentor) - 6-8/2016

Lara Martinez (High School Student Research Mentor) -6-8/2014, 2015  
Stephanie Zhang (High School Student Research Mentor) -6/2015-8/2015  
Rachel Chouinard (High School Student) AP Research Mentor 6/2015-8/2016

**University of New South Wales**

2012-2013 Undergraduate students: Xiaochuan Zhu, Tsz Hin Lo, Man Yiu Leung  
MS student: Mick Yingzhe Cai

**Princeton University**

2008-2009 Undergraduate Honor Thesis co-Mentor.  
Co-supervised one undergraduate on environmental research project.

**University of Virginia**

2005-2008 Undergraduate Mentor.  
Supervised and guided four undergraduates on environmental research projects.

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**SERVICE**

**1. Editorship**

- **Editor** *Hydrology and Earth System Sciences* (2013-present)
- **Editor** *Journal of Arid Environments* (2012-present)
- **Associate Editor** *Journal of Hydrology* (2019-present)
- **Associate Editor** *Geophysical Research Letters* (2011-2015)

**2. Convener and Session Chair**

American Geophysical Union Fall meeting, 2006, 2010-2020

**3. Journal Referee (> 100 times):**

- Advances in Water Resources
- Agricultural and Forest Meteorology
- Applied Soil Ecology
- Annals of Forest Science
- Biogeosciences
- Catena
- Chemosphere
- Ecohydrology
- Ecological Research
- Ecology
- Environmental Science and Technology
- Environmental and Ecological Statistics
- Field Crops Research
- Geochimica et Cosmochimica Acta
- Geoderma
- Geographical Research

- Geomorphology
- Geophysical Research Letters
- Global Biogeochemical Cycles
- Global Change Biology
- Hydrological Processes
- 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
- Methods in Ecology and Evolution
- Nature
- Nature Climate Change
- Nature Geoscience
- New Phytologist
- Pedosphere
- Plant Ecology
- Plant Soil
- Plos One
- Quaternary Science Reviews
- Rapid Communications in Mass Spectrometry
- Remote Sensing of Environment
- Water Resources Research

**4. Proposal Referee:**

National Science Foundation  
United States Department of Agriculture  
Israel Science Foundation  
Netherlands Organisation for Scientific Research

**5. University committee:**

IUPUI Faculty Council (elected since 2018)  
Central Indiana Technical and Environmental Societies Scholarship (CITES)  
committee  
Graduate committee, Department of Earth Sciences, IUPUI  
Undergraduate committee, Department of Earth Sciences, IUPUI  
Graduate Education committee, School of Science, IUPUI

**6. PhD dissertation examiner:**

University of New South Wales, 2013

Flinders University 2015

## INVITED TALKS

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2021.

- Department of Geography. Indiana University

2019.

- Department of Earth System Science. University of California Irvine
- Department of Earth and Planetary Sciences. Purdue University

2018.

- Workshop to Strengthen Indiana's Framework for Load Reduction Estimation
- College of Global Change and Earth System Science. Beijing Normal University
- College of Urban and Environmental Sciences. Northwest University

2017.

- School of Natural Resources. University of Arizona
- W.K. Kellogg Biological Station. Michigan State University
- Department of Mathematics. IUPUI
- Department of Earth and Atmospheric Sciences. Indiana University Bloomington
- Jackson School of Geosciences. University of Texas Austin
- Department of Geography. Indiana University Bloomington

2016.

- Department of Forestry. University of Kentucky
- Department of Earth and Environmental Sciences. University of Illinois Chicago

2015.

- Department of Geology. University of Cincinnati
- Department of Natural Resources and Environmental Sciences. University of Illinois at Urbana-Champaign

2014.

- Department of Soil, Water and Climate. University of Minnesota
- Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign
- Department of Biology, IUPUI
- Gobabeb Research and Training Center, Namibia

2013.

- International Atomic Energy Agency, Vienna, L. Wang and W. Gilhooly
- School of Public and Environmental Affairs, Indiana University

## CURRICULUM VITAE FOR LIXIN WANG

- Department of Geological Sciences. Ball State University
- Institute of Botany. Chinese Academy of Sciences
- Department of Hydraulic Engineering. Tsinghua University

2012.

- School of Agriculture and Environment. University of Sydney
- Center for Agricultural Resources Research, Institute of Genetics and Developmental Biology of Chinese Academy of Sciences
- College of Global Change and Earth System Science, Beijing Normal University
- Department of Earth Sciences. IUPUI
- Odum School of Ecology. University of Georgia

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

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**Wang, L.** 2018. Ecohydrology research at IUPUI. Workshop on ecohydrology research collaborations between IU and Chinese institutions, Beijing.

**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, 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.** and S. Macko. 2006. Implications to natural abundance  $^{15}\text{N}$  gradients across different ecosystems. Poster. Isotopes as Tracers of Ecological Changes. (Limited to approx.100 participants worldwide). Tomar, Portugal.

### **SELECTED CONFERENCE PRESENTATIONS**

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\*student or postdoc presenter

- Wang, L.** 2019. Isotopic perspectives of vegetation water use – opportunities, challenges and future directions. Oral. The American Geophysical Union (AGU), Fall Meeting, San Francisco. (**Invited**)
- Wang, L.** K. Kaseke, S. Ravi, W. Jiao, R. Mushi, T. Shuuya and G. Maggs-Kolling. 2019. Convergent vegetation fog and dew water use in the Namib Desert. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Jiao, W., **L. Wang**, K. Novick and Q. Chang. 2019. A new remote sensing framework for drought monitoring. Oral. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Lanning, M., **L. Wang**, T. Scanlon, M. Vadeboncoeur, M. Adams, H. Epstein, D. Druckenbrod, J. Malcomb, W. Gilhooly. 2019. Unexpected decrease in forest water use efficiency: legacy impacts of acid deposition. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Tian, C., **L. Wang**, K. Kaseke, B. Bird, F. Tian, S. Zhao, W. Jiao, D. Beysens and M. Medici. 2019.  $^{17}\text{O}$ -excess in precipitation and non-rainfall waters across different climatic conditions. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Yuan, Y., T. Du, H. Wang and **L. Wang**. 2019. Insight into Keeling plot curve using intermediate value theorem. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Qiao, N., **L. Wang**, L. Zhang, C. Huang, G. Maggs-Kolling and E. Marais. 2019. Remote sensing evaluation of the impacts of fog on vegetation dynamics in the Namib Desert. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Malcomb, J., T. Scanlon, H. Epstein, M. Vadeboncoeur, D. Druckerbrod, **L. Wang**, and M. Lanning. 2019. Atmospheric deposition as a control on forest productivity and water use efficiency: evidence from whole-watershed nutrient manipulation experiments. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.

- Wang, L., M. Lanning.** 2018. New method for quantification of light elements in organic material using x-ray fluorescence spectrometry. Poster. The American Geophysical Union (AGU), Fall Meeting, Washington DC.
- \***Adhikari, B., L. Wang.** 2018. Groundwater and soil moisture contribution in fog formation and its future in the Namib Desert. Poster. The American Geophysical Union (AGU), Fall Meeting, Washington DC.
- \***Daryanto, S., B. Fu, L. Wang, W. Zhao.** 2018. Trade-offs between forage provisioning and soil-related ecosystem services after fire in shrub-encroached lands. Poster. The American Geophysical Union (AGU), Fall Meeting, Washington DC.
- \***Jiao, W., L. Wang, Q. Chang.** 2018. Assessing the sensitivity of satellite solar-induced chlorophyll fluorescence (SIF) to meteorological drought. Poster. The American Geophysical Union (AGU), Fall Meeting, Washington DC.
- Wang, L., M. Lanning, K. Kaseke.** 2018. Enhancing students' research experiences through field trips and laboratory experiments. Poster. The American Geophysical Union (AGU), Fall Meeting, Washington DC.
- \***Malcomb, J., T. Scanlon, H. Epstein, M. Vadeboncoeur, D. Druckenbrod, M. Lanning, L. Wang.** 2018. Examining the influence of acid deposition on tree productivity and water use efficiency in a temperate deciduous forest. Poster. The American Geophysical Union (AGU), Fall Meeting, Washington DC.
- \***Lanning, M., L. Wang, T. Scanlon, M. Vadeboncoeur, M. Adams, H. Epstein, D. Druckenbrod.** 2018. Decreased forest water efficiency under acid deposition. Poster. The American Geophysical Union (AGU), Fall Meeting, Washington DC.
- \***Tian, C., L. Wang, D. Beysens, K. Kaseke.** 2018. Dew origins and formation mechanisms under different climate. Poster. The American Geophysical Union (AGU), Fall Meeting, Washington DC.
- \***Tian, C., L. Wang, D. Beysens, K. Kaseke.** 2018. Analysis of dew  $^{17}\text{O}$ -excess variation and formation characteristics in three different climatic environments. Poster. The Geological Society of America (GSA), Indianapolis. doi: 10.1130/abs/2018AM-318101
- \***Lanning, M., L. Wang, T. Scanlon, M. Vadeboncoeur, M. Adams, H. Epstein, D. Druckenbrod.** 2018. Decreased forest water efficiency under acid deposition. Poster. The Geological Society of America (GSA), Indianapolis. doi: 10.1130/abs/2018AM-318225
- \***Adhikari, B., L. Wang.** 2018. Groundwater and soil water-potential sources of fog in the Namib Desert? Poster. The Geological Society of America (GSA), Indianapolis. doi: 10.1130/abs/2018AM-321475
- \***Jiao, W., L. Wang.** 2018. Use of satellite solar-induced chlorophyll fluorescence for meteorological drought assessing: merits and limitations. Oral. The Geological Society of America (GSA), doi: 10.1130/abs/2018AM-318086

- \*Lanning, M., **L. Wang**, K. Novick, M. Benson, Q. Zhang. 2018. Identification of water sources and their physiological impacts for two dominant forest species. Poster. 2018 AmeriFlux PI Meeting, Bloomington, IN.
- Wang, L.**, K. Kaseke, M. Seely. 2018. Non-rainfall water origins and formation mechanisms in the Namib Desert. Oral. IsoEcol 2018, Vina del Mar, Chile.
- Wang, L.** 2018. Evapotranspiration partitioning using isotope-based approaches. Poster. IsoEcol 2018, Vina del Mar, Chile.
- \*Lanning, M., **L. Wang**, T. Scanlon, M. Vadeboncoeur, M. Adams, H. Epstein, D. Druckenbrod. 2018.  $\Delta^{13}\text{C}$  helps identify causes of intensified forest water use in an acidified catchment. Oral. Workshop on collaborative research: forest water use and the influence of acid deposition, Charlottesville, VA
- Wang, L.**, Daryanto, S., P. Jacinthe. 2017. Can plastic mulching replace irrigation in dryland agriculture? Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Tian, C., **L. Wang**, F. Tian, S. Han. 2017. Spatial and seasonal variation in  $^{17}\text{O}$ -excess of tap water in China. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Daryanto, S., **L. Wang**, P. Jacinthe. 2017. The impacts of no-till practice on nitrate and phosphorus loss: A meta-analysis. Oral. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Kaseke, K., **L. Wang**, H. Wanke. 2017. Key drivers of precipitation isotopes in Windhoek, Namibia (2012-2016). Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Jiao, W., **L. Wang**, Q. Chang. 2017. A new multi-sensor integrated index for drought monitoring. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Lanning, M., **L. Wang**, T. Scanlon et al. 2017. Intensified vegetation water use due to soil calcium leaching under acid deposition. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L.**, S. Daryanto, and P. Jacinthe. 2016. Can no-tillage reduce nitrate and phosphorus loss? a meta-analysis. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Daryanto, S., **L. Wang** and P. Jacinthe. 2016. Survival or productivity? Global synthesis of root and tuber production during drought. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Li, B., **L. Wang**, K. Kaseke, L. Li, M. Seely. 2016. The soil moisture dynamics and its control in a foggy desert. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Kaseke, K., **L. Wang** and H. Wanke. 2016. The dynamics of rainfall isotopic compositions ( $\delta^2\text{H}$ ,  $\delta^{18}\text{O}$  and  $\delta^{17}\text{O}$ ) from Windhoek, Namibia. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.

- Wang, L.,** K. Kaseke, S. Daryanto, S. Ravi. 2015. Integrating teaching and research in the field and laboratory settings. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L.,** S. Manzoni, S. Ravi, D. Riveros-Iregui and K. Caylor. 2015. Dynamic interactions of ecohydrological and biogeochemical processes in water-stressed environments. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Daryanto, S., **L. Wang** and P. Jacinthe. 2015. Global synthesis of drought effects on cereal production. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Lu, X., L. Liang, **L. Wang**, D. Jenerette and D. Grantz. 2015. Partitioning of evapotranspiration using a stable water isotope technique in a high temperature agricultural production system. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Kaseke, K., **L. Wang**, H. Wanke, V. Turewicz, P. Koeniger. 2015. An Analysis of Stable Water Isotope distributions across Namibia: Rainfall and Groundwater Isoscapes. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Dintwe, K., W. Gilhooly, **L. Wang**, F. O'Donnell, A. Bhattachan, P. D'Odorico and G. Okin, 2015. Variations of soil  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  across a precipitation gradient in a savanna ecosystem: Implications of climate change on the carbon cycle. Oral. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Bhattachan, A, **L. Wang**, M. Miller, K. Licht and P. D'Odorico. 2015. Antarctica's Dry Valleys: a potential source of soluble iron to the Southern Ocean? Transantarctic Mountain Science Meeting, Boulder, CO
- \*Daryanto, S., **L. Wang** and P. Jacinthe. 2015. Global synthesis of drought effects on cereal production. Poster. The Soil Science Society of America Annual Meeting, Minnesota.
- \*Martinez, L., **L. Wang**. 2014. A novel method to continuously monitor litter moisture. Poster. Project SEED conference, Indianapolis
- \*Lu, X., **L. Wang**, M. Pan and K. Kaseke. 2014. A multi-scale analysis of Namibian rainfall: comparing TRMM satellite data and ground observations. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Daryanto, S., **L. Wang**, P. Jacinthe. 2014. Drought effects on agricultural yield: comparison across regions and crop types. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Kaseke, K., **L. Wang**. 2014. Stable isotope analyses of rainfall and non-rainfall inputs in the Namib Desert. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.

- Wang, L.,** \*K. Kaseke. 2014. Environmental monitoring without borders. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L.,** S. Good, K. Caylr. 2014. Global synthesis of vegetation control on evapotranspiration partition. Oral. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- \*Lu, X., **L. Wang,** MF. McCabe and M. Leung. 2013. Impact of elevated atmospheric CO<sub>2</sub> on soil moisture: a meta-analysis. Oral. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- Wang, L.,** SD. Parkes, MF. McCabe, C. Azurra and J. Wang. 2013. Isotope-based evapotranspiration partition in semi-arid environments. Oral. European Geosciences Union (EGU) General Assembly, Vienna, Austria.
- Wang, L.,** SD. Parkes, MF. McCabe, C. Azurra and J. Wang. 2012. Evapotranspiration partition at sub-daily scale using laser and chamber techniques. Poster. The American Geophysical Union (AGU), Fall Meeting, San Francisco.
- 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.
- Wang, L.,** K. Caylor and P. D'Odorico. 2011. Interplay between soil, water and vegetation in water- limited systems. The 8<sup>th</sup> IALE World Conference. Oral. August 18-23, Beijing, China.
- Wang, L.,** S. Good and K. Caylor. 2011. Landscape-scale evapotranspiration partition using continuous stable isotope monitoring. 11<sup>th</sup> Australasian Environmental Isotope Conference. Oral. July 12-14, Cairns, Australia.
- 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. 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 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. AGU, Fall Meeting, San Francisco.

- 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. AGU, Fall Meeting, San Francisco.
- 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, 92<sup>nd</sup> meeting.
- 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. AGU, Fall Meeting, San Francisco.
- 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, 91<sup>st</sup> meeting.
- 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. 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 88<sup>th</sup> meeting.

## PROFESSIONAL DEVELOPMENT

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- Full day workshop entitled "Culturally Aware Mentor Training", National Research Mentoring Network, Indianapolis, March 1, 2019
- Full day training entitled "Culturally Aware Mentor Training", IUPUI graduate education council, IUPUI, February 15, 2019
- Grant Training Center workshop entitled "Writing & Designing NSF Proposals Workshop". Indianapolis, August 1, 2013. Instructor: Nokware Adesegun
- NSF supported workshop entitled "Facilitating Classroom Innovation in the Geosciences Through the NSF Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (TUES) Program". University of South Florida, Tampa. March 14-17, 2013. Organizer: **Jeffrey Ryan and Jill Singer.**
- OzFlux workshop. CSIRO Black Mountain Laboratories, Canberra, Australia. September 26-30, 2011. Instructors: **Ray Leuning and Peter Isaac**
- Flux Measurement Fundamentals, 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**

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

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

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