Professor Dr. Zhong Zhao

Personal information

Current position	University Professor
University	Northwest A&F University
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Educational background

From	To	University/Institution	Degree and Major
Sept. 1985	Dec. 1988	Universitaet fuer Bodenkultur, Wien (Austria) / Instituet fuer Forestoekologie	Doctor rerum naturalium technicarum (Forest Ecology)
Mar. 1978	Jan. 1982	Northwestern University of Forestry (China) / College of Forestry	B.S. in Agronomy

Research projects

From	To	Title of Project	Position	Project Description
2012	2016	Researches and Demonstration of the Key Technology for Plantation Sustainable Management in the Loess Plateau	Headed	National Research Special Topic under the auspices of the Forestry Science and Technology Support Plan (China) (2012BAD22B03)
2014	2018	Researches of Key Technology for Protecting Against the Old Tree and Famous Wood Species at the Midstream Area of the Yellow River	Headed	National Forestry Industry Research Special Funds for Public Welfare Projects (China) (201404302)

Selected Publications in Corresponding author

No.	Publication
1	Dang P et al. 2017. Effects of stand age and soil properties on soil bacterial and fungal community composition in Chinese pine plantations on the Loess Plateau. PLoS One, 12(10): e0186501.
2	Zhao J et al. 2017. Effects of ecological restoration projects on changes in land cover: A case study on the Loess Plateau in China. Scientific Reports, 7: 44496 DOI: 0.1038/srep44496
3	Liu JL et al. 2017. Response of soil microbial community dynamics to *Robinia pseudoacacia* L. afforestation in the loess plateau: a chronosequence approach. Plant and soil, 423 (1-2):

	327-338.
4	Dang P et al. 2018. Effects of thinning intensity on understory vegetation and soil microbial communities of a mature Chinese pine plantation in the Loess Plateau. Science of the Total Environment. 630: 171-180.
5	Liu JL et al. 2018. Effects of tree species and soil properties on the composition and diversity of the soil bacterial community following afforestation. Forest ecology and management. 427 : 342-349
6	Liu JL. et al. 2018. Characteristics of bulk and rhizosphere soil microbial community in an ancient Platycladus orientalis forest. Applied soil ecology, 132: 91-98.
7	Dang P et al. 2018. Changes in soil fungal communities and vegetation following afforestation with *Pinus tabulaeformis* on the Loess Plateau. Ecosphere, 9 (8): e02401
8	Zhao QX et al. 2018. Estimating Forest Canopy Cover in Black Locust (*Robinia pseudoacacia* L.) Plantations on the Loess Plateau Using Random Forest. Forest, 9 (10): 623.

Professor information for Kang Yongxiang

Personal information

Current position	Professor
University	Northwest A & F University
Email	yxkang@nwsuaf.edu.cn
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Educational background

From	To	University/Institution	Degree and Major
2006	2012	Northwest A & F University	PH D for Forest Ecology
2001	2002	Central Queensland University of Australia	Visiting scholar for Restoration Ecology
1987	1989	Northwest A & F University	Master for Forest Botany
1980	1984	Northwest A & F University	Bachelor for Forestry

Research projects

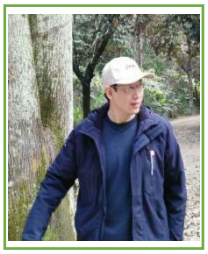
From	To	Title of Project	Position	Project Description
2014	2018	Research on the protection keys technics of ancient trees in middle reach area of Yellow River	Main researcher	The growth restoration of ancient trees by means of improving the fertile ability of the soil.
2016	2018	Research on Endangered plants of Qinling Mts.	Preside	Work on the classification, distribution of endangered plants, and mechanism of endangered plant in Qinling Mts.
2018	2020	Research on cultural technics of *Ulmus elongata*	Preside	Research on the technics of propagation of *Ulmus elongata* , one of endangered plants in China.
2015	2022	Monitoring for carbon sink of energy forest of Shaaxi and Gansu,	Preside	Monitoring the plantation of *Xantoceras sorbifolia* for carbon sink in Shaanxi and Gansu province by means of the growth.
2010	2016	Diversity of Magnolia sprengeri on morphology and DNA in Qinling and Bashan	Preside	Research on diversity of Magnolia sprengeri on morphology and DNA in Qinling and Bashan Mts

		Mts		

Publications

Year	Publication
2018	Responses of leaf morphological and anatomical structure to elevation in an alpine plant *Meconopsis integrifolia*. Chinese Journal of Ecology 2018，37(1) : 35－42
2017	Effect of wood vinegar on soil aggregates and growth of Platycladus orientalis. Journal of Northwest A&F University(Nat.SCI.Ed) 2017,45(6):75-82
2017	Plants as highly diverse sources of construction wood, handicrafts and fibre in the Heihe valley (Qinling Mountains, Shaanxi, China): the importance of minor forest products，Journal of Ethnobiology and Ethnomedicine,2017,13:38 SCI
2017	A study on trunk decay of ancient platycladus orientalis in Tomb of Yellow Emperor. Journal of Northwest Forestry University, 2017,32(2):180-187
2016	Wild food plants and fungi used in themycophilous Tibetan community of Zhagana (Tewo County, Gansu, China)，Journal of Ethnobiology and Ethnomedicine， 2016,12（21）：1-13(SCI)
2014	Soil respiration characteristics in the clear-cutting site of Quercus aliena var. acuteserrata forest in Xiaolong Mountain in Qinling Mountains, Ch inese Journa l of Applied E cology, 2014,25(2):342-350
2013	Antifungal activities of *Potentilla fruticosa* on 12 fungi spp. Allelopathy Journal , 2013,31 (2): 405-414 (SCI)
2013	Chemical constituents of the leaves of *Menispermum dauricum*. Chemistry of Natural Compounds, 2013,Vol. 49, No. 2:338-339 (SCI)
2012	The highly toxic *Aconitum* as a root vegetable in the Qinling Mountains (Shaanxi, China). Genetic Resources and Crop Evolution, 2012，59: 1569~1575 (SCI)
2012	Chemical constituents of the leaves from *Xanthoceras sorbifolia*，Chemistry of Natural Compounds, 2012, Vol. 48, No. 5：876-875 (SCI)
2011	Magnolia *sprengeri* Pamp.: Morphological variation and geographical distribution. Plant Biosystems, 2011，145(4): 906~923 (SCI)

Dr. Tianjian Cao



Personal Information

Current position	Professor of Forest Management
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Education Background

From	To	University/Institution	Degree and Major
2003	2010	University of Helsinki	D.Sc. (Agri. & For.), Business Economics of Forestry
2001	2003	University of Helsinki	M.Sc. (Agri. & For.), Business Economics of Forestry
1987	1991	Fujian Forestry College	B.Sc. (Econ.), Forest Economics and Management

Selected Research Projects

From	To	Title of Project	Position	Project Description
2017	2020	Modeling the uncertainty of regeneration and mortality for mixed forests with stochastic process	Project leader	National Natural Science Foundation of China (NSFC 31670646)
2016	2018	Site evaluation of natural oak forests in Loess Plateau: methodology and applications	Sub-project leader	National Forest Management Programme (1692016-7)
2012	2015	Adaptive management of Forest Ecosystem under the Changing Climate	Project leader	National Natural Science Foundation of China (NSFC 31170586)
2010	2013	Utilization of forest	Project	Northwest A&F University

		bioenergy and its effects on carbon sequestration	leader	(Z111021002)
2007	2010	Eco-economic model linkages toward timber and non-timber production	Project leader	Finnish Ministry of Education

Selected Publications

Year	Publication
2019	Hailian Xue(#), Annikki Mäkelä, Lauri Valsta, Jerome K. Vanclay, Tianjian Cao(*). Comparison of population-based algorithms for optimizing thinnings and rotation using a process-based growth model. Scandinavian Journal of Forest Research, 2019 (accepted), DOI:10.1080/02827581.2019.1581252.
2018	Shuaichao Sun(#), Quang V. Cao, Tianjian Cao(*). Evaluation of distance-independent competition indices in predicting tree survival and diameter growth. Canadian Journal of Forest Research, 2018 (accepted), DOI:10.1139/cjfr-2018-0344.
2017	Henna Hurttala, Tianjian Cao, Lauri Valsta, 2017. Optimization of Scots pine (Pinus sylvestris) management with the total net return from the value chain. Journal of Forest Economics, 28: 1－11.
2015	Tianjian Cao (#)(*)，Kari Hyytiänen，Henna Hurttala，Lauri Valsta，Jerome K. Vanclay, 2015. An integrated assessment approach to forest bioenergy production for young Scots pine stands, Forest Ecosystems, 2（19）：1-10.
2010	Tianjian Cao (#)(*)， Lauri Valsta，Annikki Mäkelä, 2010. A comparison of carbon assessment methods for optimizing timber production and carbon sequestration in Scots pine stands. Forest Ecology and Management. 260, 1726-1734.
2008	Tianjian Cao (#)(*)， Lauri Valsta，Sanna Härkönen, Pekka Saranpää, Annikki Mäkelä, 2008. Effects of thinning and fertilization on wood properties and economic returns for Norway spruce. Forest Ecology and Management. 256: 1280-1289.
2006	Tianjian Cao (#)(*)，Kari Hyytiäinen, Olli Tahvonen, Lauri Valsta, 2006. Effects of initial stand states on optimal thinning and rotation of Picea abies stands. Scandinavian Journal of Forest Research 21: 388-398.

Guangzhe Liu's information

Personal information

Current position	Associate professor
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Educational background

From	To	University/Institution	Degree and Major
1984	1988	Northwest College of Forestry	Bachelor degree in Agriculture
2000	2001	University Queensland/ Australia	Master degree in Rural System Management
2008	2012	Northwest A&F University	Ph.D in Agricultural and Rural Social Development

Research projects

From	To	Title of Project	Position	Project Description
2016	2019	Honeysuckle drying regulations by air-thermal technology	Chair	Objectives are to determine the parameters of air-thermal technology applied to the drying of honeysuckle flowers to produce quality raw materials.
2016	2018	Exploration and practice of integrated system configuration and management of agriculture-forest-animal Husbandry	Chair /GEF Project	Case study was applied to explore the local (native) experience and models for vegetation restoration and sand control
2016	2017	Comparative study on technical standards for fruit growing in Kyrghyzstan	Co-chair	With technical standard of apple growing as the comparison to find out the difference of growing models between Shaanxi and Kyrghyzstan
2014	2016	Technical regulations on agricultural socialized service extension	Chair Sub-project	Agricultural socialized service become popular. How to regulate the service from the

				key points of the process?
2011	2012	Development of a case study on conflict management in China	Cooperator with RECOFTC	To investigate the conflict existed in nature reserve management in Qinling Mountains

Publications

Year	Publication
2018	Patterns of poverty reduction through forestry in the south of Shaanxi Province. Journal of Temperate Forestry Research. 2018,9(3): 55-62
	Forest-based choice for targeted poverty reduction and its effectiveness in Nanzhen District . Shaanxi Forest Science and Technology. 2018, 4(2): 64-66
2017	Experts' perceptions of the sloping land conversion program in the Loess Plateau, China. Land Use Policy. 69：204–210.
	Influencing factors of farmers' willingness of using forest-based bio-energy products in Shaanxi, China. Journal of Northwest Forestry University, 32: 306-312 (Correspondent author)
2016	Forest-based bioenergy development in a supply chain model in Finland. Journal of Development and Research, 2016, 05:143-147
	Rethinking of the professional forestry master program. Chinese Forestry Education,2016, 01:70-75
2015	Analysis of the problems of walnut industry development in Shaanxi. Shaanxi Forest Science and Technology. 2015, (6): 48-51.
	Analysis of main elements of forest fire in Qinling forest area. Shaanxi Forest Science and Technology. 2015, (6): 24-26.
2013	Effects of organic nitrogen and inorganic nitrogen on quality of Honeysuckle. Journal of Henan Agricultural Sciences. 2013, 42(4): 89-90, 98
2012	Grafting study of *Xanthoceras sorbifolia* Bunge. 2012. Anhui Agricultural Science. 2012, 40(12):7202 -7203

Professor Liu weiguo

Personal information

Current position	Assistant Professor
University	Northwest A&F University
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Educational background

From	To	University/Institution	Degree and Major
2010	2015	West Virginia University	Ph.D. of Forest Resource Science
2007	2010	Beijing Forestry University	Master of Biophysics
2003	2007	Sichuan University	Bachelor of Ecology

Research projects

From	To	Title of Project	Position	Project Description
2017	2019	Environment Impact Simulation and Assessment of Biomass Utilization of Caragana Plantation in Loess Plateau	PI	This project proposes that planting energy crop (Caragana) in these lands and using the biomass to produce pellet fuel could ensure sustainable utilization of returning lands, relief government pressure and strengthen Grain for Green achievements. By field measurements and inventories of sample plots of caragana stands, energy and raw materials consumption in pellet fuel facility, capital and operational costs and cost of supply chain after optimization, we construct life cycle assessment and techno-economic models to evaluate the environmental and economic impact of pellet fuel production.

Publications

Year	Publication
2019	Liu, Weiguo, Qiuan Zhu, Xiaolu Zhou, and Changhui Peng. "Comparative analyses of different biogenic CO2 emission accounting systems in life cycle assessment." Science of The Total Environment 652 (2019): 1456-1462.
2018	Liu, Weiguo, Zhen Yu, Xinfeng Xie, Klaus Von Gadow, and Changhui Peng. "A critical analysis of the carbon neutrality assumption in life cycle assessment of forest bioenergy systems." Environmental Reviews 26, no. 1 (2017): 93-101.
2017	Liu, Weiguo, Jingxin Wang, Debangsu Bhattacharyya, Yuan Jiang, and David DeVallance. "Economic and environmental analyses of coal and biomass to liquid fuels." Energy 141 (2017): 76-86.
2017	Liu, Weiguo, Jingxin Wang, Tom L. Richard, Damon S. Hartley, Sabrina Spatari, and Timothy A. Volk. "Economic and life cycle assessments of biomass utilization for bioenergy products." Biofuels, Bioproducts and Biorefining 11, no. 4 (2017): 633-647.
2017	Liu, Weiguo, Zhonghui Zhang, Xinfeng Xie, Zhen Yu, Klaus Von Gadow, Junming Xu, Shanshan Zhao, and Yuchun Yang. "Analysis of the global warming potential of biogenic CO 2 emission in life cycle assessments." Scientific reports 7 (2017): 39857.

Dr. Fenli ZHENG

Personal Information

Current position	Full Professor
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Educational background

From	To	University/Institution	Degree and Major
1994	1997	Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources, China	PhD in Soil science
1990	1991	UNEP/UNESCO International Postgraduate Course in Environment Management for Developing Countries, Dresden University of Technology, Germany	Diploma and Certification in Environmental management
1983	1986	Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources	M.S. in Soil science
1979	1983	Department of Geography, Northwest University	B.S. in Geography

Main Research Projects

From	To	Title of Project	Position	Project Description
2018	2020	Impacts of climate change on agricultural soil and water environment in the midstream of the Yellow River and the Sava River of Serbia	PI	International Cooperation Key Projects of Chinese Academy of Science
2018	2020	Sediment source tracing and regulation strategies in Chinese Loess Plateau and typical watershed of South Africa: Rill and ephemeral gully development process	PI	National Natural Science Foundation of China
2017	2020	Erosion control mechanisms and regulation techniques in the Chinese Mollisol region	PI	National Key R&D Program of China
2016	2019	Interaction effects of multi-external erosion agency on hillslope soil	PI	National Natural Science Foundation

		erosion process and mechanisms in Chinese mollisol region		of China
2013	2016	Gully development process and its morphology simulation on the loessial hilly-gully region	PI	National Natural Science Foundation of China
2012	2014	A study on sediment delivery ratio on the hillslope-gully catchment	PI	Ministry of Water Resources of China (Non-profit Industry Financial Program)
2010	2012	Potential impact assessment of Climate change on the Loess Plateau	PI	Ministry of Agriculture Foundation of China (948 Program)
2009	2011	Active gully erosion study on the Loess Plateau of China	PI	National Natural Science Foundation of China
2009	2010	Assessment of Soil Erodibility	PI	China-France international cooperation project
2008	2011	Erosion environment evolution in recent ten thousand years	PI	State Key Laboratory Foundation of China
2007	2012	Hillslope soil erosion processes and their mechanisms in the main water erosion regions of China (subproject)	PI	National Basis Research Program (973 project)
2006	2009	Erosion process, control and assessment at steep loess hillslopes	PI	China-US international cooperation project
2006	2006	Interactions among vegetation, soil erosion and soil quality and their mechanisms	PI	National Natural Science Foundation of China (Major research plan)
2004	2006	Research of rill/interrill erosion on slope cropland	PI	China-Austria international cooperation project
2004	2006	Soil N dynamics as affected by different land use in Western and Southern China	PI	China-Germany international cooperation project
2003	2007	Water erosion prediction model at watershed scale on the Loess Plateau	PI	National Natural Science Foundation of China (key program)
2003	2006	Water erosion prediction model	PI	Chinese Academy of Sciences (Innovation

				Project)
2003	2005	Soil erosion and its impacts assessment	PI	Ministry of Agriculture Foundation of China (948 Program)
2001	2003	Detachment and transport on the lossial hillslope	PI	National Natural Science Foundation of China
1999	2001	Soil nutrient loss response to soil erosion on hillslope after deforestation	PI	National Natural Science Foundation of China
1997	1999	Water erosion dynamitic processes and prediction model	PI	National Natural Science Foundation of China

Selected Publications

Year	Selected books
2015	Mathias J. M. Römkens, Wells R R, Wang B, **Zheng Fenli**, Hickey C J. Chapter 8. Soil Erosion on Upland Areas by Rainfall and Overland Flow. *Springer*, 2015.
2014	**Zheng Fenli**, Wang Bin. Chapter 6. Restoration and development of degraded Loess Plateau. *Springer*, 2014.
2012	**Zheng Fenli**. Chaper 5. Hillslope runoff and soil erosion process in T. S. W. Wong (Ed). Overland flow and surface runoff. *Nova Science Publishers, Inc.* 2012.
2009	**Zheng Fenli**, Zhang X.C. and Wang J.X. WEPP Model and Its Application in the Loess Plateau. *Beijing: Science Press*, 2009. (Chinse)
	Zheng Fenli, et al. Gully Erosion and Sediment Yield in the Loess Plateau. *Beijing: Science Press*, 2009. (Chinse)
2008	**Zheng Fenli**, Jiang Z.S. and Gao X.T. Water Erosion Process and Prediction Model. *Beijing: Science Press*, 2008. (Chinse)
2005	Jing Ke, Wang Wan-zhong, **Zheng Fenli**. Soil Erosion and Environment in China. *Beijing: Science Press*, 2005. (Chinse)
2001	**Zheng Fenli**, Gao X.T. Soil erosion process and its simulation on loeessial hillslope. *Xian: Shaanxi Renmin Press*, 2001. (Chinse)
Year	SCI academic papers (*corresponding author)
2018	Feng Z, **Zheng Fenli***, Hu W, Li G, Xu X. Impacts of mollic epipedon thickness and overloaded sediment deposition on corn yield in the Chinese Mollisol region. *Agriculture, Ecosystems & Environment*. 2018, 257:175-182.
	Jiang Y, **Zheng Fenli***, Wen L, Shen H. Effects of sheet and rill erosion on soil aggregates and organic carbon losses for a Mollisol hillslope under rainfall simulation. *Journal of Soils and Sediments*. 2018, DOI: 10.1007/s11368-018-2043-y.
	Qin C, **Zheng Fenli***, Wells R R, Xu X, Wang B, Zhong K. A laboratory study of channel sidewall expansion in upland concentrated flows. *Soil & Tillage Research*. 2018, 178:22-31.

	Qin C, **Zheng Fenli***, Zhang J X, Xu X, Liu G. A simulation of rill bed incision processes in upland concentrated flows. *Catena*. 2018, 165:310-319.
	Wu H, Xu X, **Zheng Fenli***, Qin C, He X. Gully morphological characteristics in the loess hilly-gully region based on 3D laser scanning technique. *Earth Surface Processes and Landforms.* 2018, 43(8):1701-1710.
	Xu X, **Zheng Fenli***, Wilson G V, He C, Lu J, Bian F. Comparison of runoff and soil loss in different tillage systems in the Mollisol region of Northeast China. *Soil & Tillage Research.* 2018, 177:1-11.
	Zhong K, **Zheng Fenli*,** Xu X, Qin C. Discriminating the precipitation phase based on different temperature thresholds in the Songhua River Basin, China. *Atmospheric Research.* 2018, 205:48-59.
	P.I.A. Kinnella, Wang Jianxun, **Zheng Fenli**. Comparison of the abilities of WEPP and the USLE-M to predict event soil loss on steep loessal slopes in China. *Catena.* 2018, 171:99-106.
	Zhang Xunchang, Liu Gang, **`Fenli**. Understanding erosion processes using rare earth element tracers in a preformed interrill-rill system. *Science of the Total Environment.* 2018, 625: 920-927.
	Xiao Hai, Liu Gang, Zhang Qiong, **Zheng Fenli**, Zhang Xunchang, Liu Puling, Zhang Jiaqiong, Hu Feinan, Mohamed A. M. Abd-Elbasit. Quantifying contributions of slaking and mechanical breakdown of soil aggregates to splash erosion for different soils from the Loess plateau of China. *Soil & Tillage Research.* 2018, 178: 150-158
	Liu Gang, Hu Feinan, Mohamed A. M. Abd-Elbasit, **Zheng Fenli**, Liu Puling, Xiao Hai, Zhang Qiong, Zhang Jiaqiong. Holocene erosion triggered by climate change in the central Loess Plateau of China. *Catena*. 2018, 160: 103-111.
	Qin Wei, Guo Qiankun, Cao Wenhong, Yin Zhe, Yan Qinghong, Shan Zhijie, **Zheng Fenli.** A new RUSLE slope length factor and its application to soil erosion assessment in a Loess Plateau watershed. *Soil & Tillage Research.* 2018, 182: 10-24.
2017	Xu X, **Zheng Fenli***, Wilson G V, Wu M. Upslope inflow, hillslope gradient, and rainfall intensity impacts on ephemeral gully erosion. *Land Degradation & Development*. 2017.
	Qin C, **Zheng Fenli***, Xu X, Wu H, Shen H. A laboratory study on rill network development and morphological characteristics on loessial hillslope. *Journal of Soils and Sediments.* 2017, 18(7):1-12.
	Zhong Keyuan, **Zheng Fenli***, Wu Hongyan, Qin Chao, Xu Ximeng. Dynamic changes in temperature extremes and their association with atmospheric circulation patterns in the Songhua River Basin, China. *Atmospheric Research*. 2017, 77-88.
	Xu Ximeng, **Zheng Fenli***, Qin Chao, Wu Hongyan, Glenn V. Wilson. Impact of cornstalk buffer strip on hillslope erosion and its hydrodynamic understanding. *Catena*. 2017, 149, 417-425.
	Han Yong, **Zheng Fenli***, Xu Ximeng. Effects of rainfall regime and its character indices on soil loss at loessial hillslope with ephemeral gully. *Journal of Mountain Science*. 2017, 14 (3): 527-538.
	Wang Bin, Steiner J, **Zheng Fenli,** Gowda P. Impact of rainfall pattern on interrill erosion

	process. *Earth Surface Processes and Landforms.* 2017, 42(12): 1833-1846.
	Zhang Xunchang, Liu Gang, **Zheng Fenli**. A simple enrichment correction factor for improving erosion estimation using rare earth oxide tracers. *Vadose Zone Journal.* 2017, 16(12).
	Xiao Hai, Liu Gang, Liu Puling, **Zheng Fenli,** Zhang Jiaqiong, Hu Feinan. Developing equations to explore relationships between aggregate stability and erodibility in Ultisols of subtropical China. *Catena.* 2017, 157: 279-285.
	Xiao Hai, Liu Gang, Liu Puling, **Zheng Fenli**, Zhang Jiaqiong, Hu Feinan. Response of soil detachment rate to the hydraulic parameters of concentrated flow on steep loessial slopes on the Loess Plateau of China. *Hydrological Processes.* 2017, 31: 2613-2621.
	Xiao Hai, Liu Gang, Mohamed A. M. Abd-Elbasit, Zhang Xunchang, Liu Puling, **Zheng Fenli**, Zhang Jiaqiong, Hu Feinan. Effects of slaking and mechanical breakdown on disaggregation and splash erosion. *European Journal of Soil Science.* 2017, DOI: 10.1111/ejss.12482.
2016	Hu W, **Zheng Fenli*,** Bian F. The Directional Components of Splash Erosion at Different Raindrop Kinetic Energy in the Chinese Mollisol Region. *Soil Science Society of America Journal.* 2016, 80(5):1329.
	Li G, **Zheng Fenli***, Lu J, Xu X, Hu W, Han Y. Inflow Rate Impact on Hillslope Erosion Processes and Flow Hydrodynamics. *Soil Science Society of America Journal.* 2016, 80(3):711-719.
	Lu J, **Zheng Fenli***, Li G, Bian F, An J. The effects of raindrop impact and runoff detachment on hillslope soil erosion and soil aggregate loss in the Mollisol region of Northeast China. *Soil & Tillage Research.* 2016, 161:79-85.
	Shen H, **Zheng Fenli***, Wen L, Han Y, Hu W. Impacts of rainfall intensity and slope gradient on rill erosion processes at loessial hillslope. *Soil & Tillage Research.* 2016, 155:429-436.
2015	Guan Yinghui, Zhang Xunchang, **Zheng Fenli***, Wang Bin. Trends and variability of daily temperature extremes during 1960-2012 in the Yangtze River Basin, China. *International Journal of Climatology.* 2015, 124(3): 79-94.
	Guan Yinghui, **Zheng Fenli***, Zhang Peng, Qin Chao. Spatial and temporal changes of meteorological disasters in China during 1950–2013. *Natural Hazards.* 2015, 75: 2607-2623.
	Wen Leilei, **Zheng Fenli***, Shen Haiou, Bian Feng, Jiang Yiliang. Rainfall intensity and inflow rate effects on hillslope soil erosion in the mollisol region of northeast china. *Natural Hazards*. 2015, 79(1):381-395.
	Shen Haiou, **Zheng Fenli***, Wen Leilei, Lu Jia, Jiang Yiliang. An experimental study of rill erosion and morphology. *Geomorphology.* 2015, 231:193-201.
2014	An Juan, **Zheng Fenli***, Wang Bin. Using 137Cs technique to investigate the spatial distribution of erosion and deposition regimes for a small catchment in the black soil region, Northeast China. *Catena.* 2014, 123:243-251.
	An Juan, **Zheng Fenli***, Han Yong. Effects of rainstorm patterns on runoff and sediment yield processes. *Soil Science*. 2014, 179(6), 293-303.

	Baptiste Algayer, Wang Bin, Hocine Bourennane, **Zheng Fenli**, Olive Duval, Y LeBissonnais, Frédéric Darboux. Aggregate stability of a crusted soil: differences between crust and sub-crust material, and consequences for interrill erodibility assessment. An example from the Loess Plateau of China. *European Journal of Soil Science.* 2014, 65(3):325-335.
2013	An Juan, **Zheng Fenli***, Römkens Mathias J.M, Li Guifang. The role of soil surface water regimes and raindrop impact on hillslope soil erosion and nutrient losses. *Natural Hazards.* 2013, 67(2): 411-430.
	Zheng Fenli*, Wang Bin. Soil Erosion in the Loess Plateau Region of China. *Ecohydrology*. 2013, 5:77-92.
	Wang Bin, **Zheng Fenli***, Frederic Darboux, M.J.M. Romkens. Soil Erodibility in Erosion by Water: A Perspective and the Chinese Experience. *Geomorphology.* 2013, 187:1-10.
2012	Qiu Lin-jing, **Zheng Fenli***, Yin Run-sheng. SWAT-based runoff and sediment simulation in a small watershed, the loessial hilly-gullied region of China: capabilities and challenges. *International Journal of Sediment Research.* 2012, 27(2):226-234.
	An J, **Zheng Fenli***, Lu J, Li G. Investigating the Role of Raindrop Impact on Hydrodynamic Mechanism of Soil Erosion Under Simulated Rainfall Conditions. *Soil Science.* 2012, 177(8):517-526.
	Wang B, **Zheng Fenli***, Römkens M J M. Comparison of soil erodibility factors in USLE, RUSLE2, EPIC and Dg models based on a Chinese soil erodibility database. *Acta Agriculturae Scandinavica, Section B - Soil & Plant Science.* 2012, 63(1):69-79.
	Li Z, **Zheng Fenli**, Liu W Z, Jiang D J. Spatially downscaling GCMs outputs to project changes in extreme precipitation and temperature events on the Loess Plateau of China during the 21st Century. *Global and Planetary Change.* 2012, 82-83: 65-73.
	Li Z, **Zheng Fenli**, Liu W Z. Spatiotemporal characteristics of reference evapotranspiration during 1961-2009 and its projected changes during 2011-2099 on the Loess Plateau of China. *Agricultural and Forest Meteorology.* 2012, 154-155: 147-155..
2010	Li Zhi, Liu Wenzhao, Zhang Xunchang, **Zheng Fenli**. Assessing and regulating the impacts of climate change on water resources in the Heihe watershed on the Loess Plateau of China. *Science China (Earth Sciences)*. 2010,(05):710-720.
2009	Hamer, U, Makeschin F, An S, **Zheng Fenli**. Microbial activity and community structure in degraded soils on the Loess Plateau of China. *Journal of Plant nutrition and soil science.* 2007, 172(1): 118-126.
	Li Z, Liu W, Zhang X, **Zheng Fenli**. Impacts of land use change and climate variability on hydrology in an agricultural catchment on the Loess Plateau of China. *Journal of Hydrology*. 2009, 377(1):35-42.
2008	An Shaoshan, **Zheng Fenli***, Zhang Zhang Feng, Van Pelt S, Hamer U, Makeschin F. Soil quality degradation processes along a deforestation chronosequence in the Ziwuling area, China. *Catena.* 2008, 75(3): 248-256.
2005	**Zheng Fenli***, He Xiubin, Gao Xuetian, Zhang Chang-e, Tang Keli. Effects of erosion patterns on nutrient loss following deforestation on the Loess Plateau of China. *Agriculture, Ecosystem & Environment.* 2005, 108: 85-97.

	Zheng Fenli*. Effects of accelerated soil erosion on soil nutrient loss after deforestation on the Loess Plateau. *Peodephere.* 2005, 15(6):707-715.
2004	**Zheng Fenli*,** Xiao P, Gao X. Rill erosion process and rill flow hydraulic parameters. *International Journal of Sediment Research.* 2004, 19(2): 130-141.
	Zheng Fenli*, Huang C., Norton L.D. Effects of near-surface hydraulic gradients on nitrate and phosphorus losses in surface runoff. *Journal of Environment Quality.* 2004, 33(6): 2174-2182.
	Zheng Fenli*, Merrill S D, Huang C, Tanaka D, Darboux F, Liebig M, Halvorson A. Runoff, Soil Erosion, and Erodibility of Conservation Reserve Program Land under Crop and Hay Production. *Soil Science Society of America Journal*, 2004, 68(4):1332-1341.
2000	**Zheng Fenli*,** Chi-hua Huang, L.D. Norton. Vertical hydraulic gradient and run-on water and sediment effects on erosion processes and sediment regimes. *Soil Science Society of America Journal.* 2000, 64(1): 4-10.
1997	**Zheng Fenli*,** Tang Keli. Rill erosion process on steep slope land of the Loess Plateau. *International Journal of Sediment Research.* 1997, 12(1): 52-59.

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Educational background

From	To	University/Institution	Degree and Major
2004.04	2005.3	Imperial College London/ Department of Agricultural Sciences	Scholarship in Landscape Ecology and Restoration.
1996	2000	Northwest A&F University/ College of Water Resources and Architectural Engineering	Ph.D. in Agricultural water and soil engineering
1984	1988	Northwest Agricultural University/Department of Soil Agrochemistry	B.S. in Soil Agrochemistry

Research projects

From	To	Title of Project	Position	Project Description
2018	2021	Characteristics and driving mechanism of soil erosion of typical regions in the extensive third pole	PI	Special project of the strategic leading science and technology Program of CAS (XDA20040202-1)
2018	2021	The response mechanism of sediment connectivity to rainfall and human activities in the hilly and gully Loess Plateau	PI	National Natural Science Foundation of China（41771319）
2016	2020	Soil erosion effectiveness and control mechanism of ecological restoration in the Loess Plateau	PI	Special project of the National Key R&D Program of China

				(2016YFC0501604)

Selected Publications

Year	Publication
	1. Hu Shu, **Jiao Juying***, García-Fayos P, et al. Telling a different story: plant recolonization after landslides under a semi-arid climate [J]. ***Plant & Soil***, 2018:1-16 2. Wei Yanhong, He Zhong, **Jiao Juying***, et al. Variation in the sediment deposition behind check–dams under different soil erosion conditions on the Loess Plateau, China [J]. ***Earth Surface Processes & Landforms,*** 2018, 43: 1899-1912 3. Yu Weijie, **Jiao Juying***. Sustainability of Abandoned Slopes in the Hill and Gully Loess Plateau Region Considering Deep Soil Water [J]. ***Sustainability***, 2018, 10(7):2287 4. Tang Bingzhe, **Jiao Juying***, Yan Fangcheng, Li Hang. Variations in soil infiltration capacity after vegetation restoration in the hilly and gully regions of the Loess Plateau, China. ***Journal of Soils and Sediments***，https://doi.org/10.1007/s11368-018-2121-1
2018	5. Hu Shu, **Jiao Juying***, García-Fayos P, et al. Telling a different story: plant recolonization after landslides under a semi-arid climate [J]. ***Plant & Soil***, 2018:1-16 6. Wei Yanhong, He Zhong, **Jiao Juying***, et al. Variation in the sediment deposition behind check–dams under different soil erosion conditions on the Loess Plateau, China [J]. ***Earth Surface Processes & Landforms,*** 2018, 43: 1899-1912 7. Yu Weijie, **Jiao Juying***. Sustainability of Abandoned Slopes in the Hill and Gully Loess Plateau Region Considering Deep Soil Water [J]. ***Sustainability***, 2018, 10(7):2287 8. Tang Bingzhe, **Jiao Juying***, Yan Fangcheng, Li Hang. Variations in soil infiltration capacity after vegetation restoration in the hilly and gully regions of the Loess Plateau, China. ***Journal of Soils and Sediments***，https://doi.org/10.1007/s11368-018-2121-1
2017	1. Yu Weijie, **Jiao Juying***, Chen Yu, Wang Dongli, Wang Ning, Zhao Hengkang. Seed removal due to overland flow on abandoned slopes in the Chinese hilly gullied Loess Plateau region. ***Land Degradation & Development***, 2017, 28: 274–282 2. Wei Yanhong, He Zhong, Li Yujin, **Jiao Juying***, Zhao Guangju, Mu Xingmin. Sediment yield deduction from check–dams deposition in the weathered sandstone watershed on the north Loess Plateau, China. ***Land Degradation & Development***, 2017, 28: 217–231 3. Shu Hu, Yujin Li, Wanzhong Wang, **Juying Jiao***, Meng Kou, Qiulong Yin, Haiyan Xu. Antioxidation-related functional structure of plant communities: understanding the antioxidation at the plant community level, ***Ecological indicators***, 2017,78:98-107 4. Ning Wang, **Juying Jiao***, Yanfeng Jia，Dongli Wang. Influence of Afforestation on the Species Diversity of the Soil Seed Bank and Understory Vegetation in the Hill-Gullied Loess Plateau, China. ***International journal of environmental research and public health***, 2017,14:1285 5. Du Huadong, **Jiao Juying***, Zhao Xiaoguang. Significance and pedogenic variability of phytogenic mounds on the Loess Plateau of China. J***ournal of Arid Environments***, 2017, 146 : 53-63
2016	1. Kou Meng, **Jiao Juying***, Yin Qiulong, Wang Ning, Wang Zhijie, Li Yujin, Yu Weijie, Wei Yanhong, Yan Fangchen, Cao Bingting. Successional trajectory over 10 years of vegetation restoration of abandoned slope croplands in the hill-gully region of the Loess Plateau. ***Land Degradation & Development***, 2016, 27(4): 919-932. 2. Kou Meng, Garcia-Fayos Patricio, Hu Shu, **Jiao Juying***. The effect of Robinia pseudoacacia afforestation on soil and vegetation properties in the Loess Plateau (China): a chronosequence approach. ***Forest Ecology and Management***, 2016, 375, 146-158. 3. Yu Weijie, **Jiao Juying***, Wang Dongli, Wang Ning, Wang Zhijie, Zhao Hengkang. Seed population dynamics on abandoned slopes in the hill and gully Loess Plateau region of China. ***Ecological Engineering***, 2016, 94, 427-436 4. Yanhong Wei, **Juying Jiao***, Guangju Zhao, Hengkang Zhao, Zhong He, Xingmin Mu.

	Spatial – temporal variation and periodic change in stream flow and suspended sediment discharge along the mainstream of the Yellow River during 1950-2013. ***Catena***, 2016, 140: 105-115 5. Wang Zhijie, **Jiao Juying***, Rayburg Scott, Wang Qiaoli, Su Yuan. Soil erosion resistance of "Grain for Green" vegetation types under extreme rainfall conditions on the Loess Plateau, China. ***Catena***, 2016, 141,109-116. 6. Li Yujin, **Jiao Juying***, Wang Zhijie, Cao Binting, Wei Yanhong, Hu Shu. Effects of Revegetation on Soil Organic Carbon Storage and Erosion-Induced Carbon Loss under Extreme Rainstorms in the Hill and Gully Region of the Loess Plateau. ***International journal of environmental research and public health,*** 2016，13(5):456

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Educational background

From	To	University/Institution	Degree and Major
1995	1998	Northwest Agricultural University	Ph. D, Plant Nutrition
1989	1992	Northwest Agricultural University	Master Degree, Plant Nutrition
1985	1989	Northwest Agricultural University	Bachelor Degree, Plant Nutrition

Research projects

From	To	Title of Project	Position	Project Description
2019	2021	Development and demonstration of comprehensive utilization technology of straw resources in cropland soil	Responsible	The purpose of this project is to clarify the mechanism of increasing carbon sequestration proportion of straw resources in the farmland soil, form the technology system to use straw in cereal crop fields and protected vegetable field by machinery.
2016	2020	Mechanism and regulation of cultivated land fertility affecting nutrient utilization of chemical fertilizer	Participate	Taking the farmland in the Loess Plateau as the research object, the field experiment method was adopted to study the effect of green manure on the fertility of the winter wheat field.
2016	2020	Influencing mechanisms of zinc	Responsible	Low Zn concentration of wheat grain results in health problem of

		foliar application combining with commonly-used organic pesticides as well as inorganic phosphorus on zinc biofortification of wheat grain		human beings especially in arid areas. This project aims to develop the feasible technology of zinc fertilizers application. This project adopted the technology of stable isotope tracer 68Zn and LA-ICP-MS. The study aims to reveal the mechanism of Zn biofitification of wheat grain by researching grain Zn absorption and distribution with spraying Zn and pesticides, or use Zn and P fertilizers and pesticides together.

Publications

Year	Publications
2019	1. Chen Yanlong, Jianglan Shi, **Xiaohong Tian**[*], Zhou Jia, Shaoxia Wang, Juan Chen, Wenling Zhu. Impact of dissolved organic matter on Zn extractability and transfer in calcareous soil with maize straw amendment. ***Journal of Soils and Sediments***, 2019,19(2): 774-784
2018	2. Zhao H L, Shar A G, Li S, Chen Y L, Shi J L, Zhang X Y, **Tian X H**[*]. Effect of straw return mode on soil aggregation and aggregate carbon content in an annual maize-wheat double cropping system. ***Soil & Tillage Research***, 2018, 175: 178-186 3. Li Meng, Shaoxia Wang, **Xiaohong Tian**[*], Yingping Huang[*]. Improving nutritional quality of wheat grain through foliar zinc combined with macronutrients. ***Agronomy Journal***, 2018, 110: 38-46 4. Zhao Aiqing, Shu Yang, Bini Wang, **Xiaohong Tian**[*], Youlin Zhang[**]. Effects of $ZnSO_4$ and Zn-EDTA broadcast or banded to soil on Zn bioavilability in wheat (*Triticum aestivum* L.) and Zn frations in soil. ***Chemosphere***, 2018, 205: 350-360 5. Huili Zhao, Huijie Zhang, Abdul Ghaffar Shar, Jifei Liu, Yanlong Chen, Songjie Chu, **Xiaohong Tian**[*]. Enhancing organic and inorganic carbon sequestration in calcareous soil by the combination of wheat straw and wood ash and/or lime. ***PLoS ONE***, 13(10): e0205361
2017	6. Shuo Li, Juan Chen, Jianglan Shi, **Xiaohong Tian**[*], Xiushuang Li, Youbing Li, Huili Zhao. Impact of straw return on soil carbon indices, enzyme activity, and grain production. ***Soil Science Society of America Journal*, 2017, 81: 1475-1485** 7. Zhao H L, **Tian X H**[*], Chen Y L, Dong J J, Shi J L. Effect of exogenous substances on soil organic and inorganic carbon sequestration under maize stover addition. ***Soil Science and Plant Nutrition***, 2017, 63: 591-598. 8. Zhou Yangxue, Franco Berruti, Charles Greenhalf, **Xiaohong Tian**[*], Hugh A. L. Henry. Increased retention of soil nitrogen over winter by biochar application: implications of biochar pyrolysis temperature for plant nitrogen availability. ***Agriculture, Ecosystems and Environment***, 2017, 236: 61-68 9. Chen Yanlong, Juan Cui, Xiaohong Tian[*], Aiqing Zhao, Meng Li, Shaoxia Wang,

	Xiushaung Li, Zhou Jia, Ke Liu. Effect of straw amendment on soil Zn availability and ageing of exogenous water-soluble Zn applied to calcareous soil. ***Plos One***, 2017, 12(1): e0169776 10. Chen Yanlong, Zhou Jia, Ke Liu, **Xiaohong Tian***, Song Wang, Shaoxia Wang, Xiushuang Li, Huili Zhao, Abdul Ghaffar Shar. Response of exogenous zinc availability and transformation to maize straw as affected by soil organic matter. ***Soil Science Society of America Journal***, 2017, 81: 814–827 11. **Li Meng, Tian Xiao-hong*, Li Xiu-li, Wang Shao-xia.** Effect of Zn application methods on Zn distribution and bioavailability in wheat pearling fractions of two wheat genotypes. ***Journal of Integrative Agriculture***, 2017, 16(7): 1617-1623 12. Wang Shaoxia, Meng Li, Ke Liu, **Xiaohong Tian***, Shuo Li, Yanlong Chen, Zhou Jia. Effects of Zn, macronutrients, and their interactions through foliar applications on winter wheat grain nutritional quality. ***Plos One***, 2017, 12(7): e0181276
2016	13. Meng Li, Shaoxia Wang, **Xiaohong Tian***, Shuo Li, Yanlong Chen, Zhou Jia, Ke Liu, Aiqing Zhao. Zinc and iron concentrations in grain milling fractions through combined foliar aplicaitons of Zn and macronutrients. ***Field Crops Research***, 2016, 186: 135-141 14. Shuo Li, Youbing Li, Xiushuang Li, **Xiaohong Tian***, Aiqing Zhao, Shujuan Wang, Shaoxia Wang, Jianglan Shi. Effect of straw management on carbon sequestration and grain production in a maize–wheat cropping system in Anthrosol of the Guanzhong Plain. ***Soil & Tillage Research***, 2016, 157: 43-51
2015	15. Meng Li, Shaoxia Wang, **Xiaohong Tian***, Jihong Zhao, Hongyun Li, Chunhui Guo, Yanlong Chen, Aiqing Zhao. Zn distribution and bioavailability in whole grain and grain fractions of winter wheat as affected by applications of soil N and foliar Zn combined with N or P. ***Journal of Cereal Science***, 2015, 61: 26-32 16. Shaoxia Wang, Meng Li, **Xiaohong Tian***, Jin Li, Hongyun Li, Yijun Ni, Jihong Zhao, Yanlong Chen, Chunhui Guo, Aiqing Zhao. Foliar zinc, nitrogen, and phosphorus application effects on micronutrient concentrations in winter wheat. ***Agronomy Journal***, 2015, 107: 61-70 17. Yanlong Chen, Ting Liu, **Xiaohong Tian***, Xiaofeng Wang, Meng Li, Shaoxia Wang, Zhaohui Wang. Effects of plastic film combined with straw mulch on grain yield and water use efficiency of winter wheat in Loess Plateau. ***Field Crops Research***, 2015, 172: 53-58 18. Yanlong Chen, Ting Liu, **Xiaohong Tian***, Xiaofeng Wang, Huilin Chen, Meng Li, Shaoxia Wang, Zhaohui Wang. Improving winter wheat grain yield and water use efficiency through fertilization and mulch in the Loess Plateau. ***Agronomy Journal***, 2015, 107: 2059-2068 19. Aiqing Zhao, **Xiaohong Tian***, Yanlong Chen, Shuo Li. Application of $ZnSO_4$ or Zn-EDTA fertilizer to a calcareous soil: Zn diffusion in soil and its uptake by wheat plants. ***Journal of the Science of Food and Agriculture***, 2015, 96(5): 1484-1491

Li Zhi (李志)

Personal information

Current position	Professor
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Educational background

From	To	University/Institution	Degree and Major
2004	2007	Institute of Soil and Water Conservation, Chinese Academy of Sciences	Ph.D, Ecohydrology
2001	2004	Northwest University	Master, Environmental Science
1997	2001	Yantai Normal University	Bachelor, Geographical Science

Work experience

From	To	University/Institution	Position
2015	2017	University of Saskatchewan	Visiting Professor
2015	now	Northwest A&F University	Professor
2011	2012	University of Quebec	Visiting Scholar
2009	2014	Northwest A&F University	Associate Professor
2007	2009	Northwest A&F University	Lecturer

Research projects

From	To	Title of Project	Position	Project Description
2018	2020	Projection of hydrological variability in arid region based on GCM statistical-dynamic downscaling	PI	Develop new techniques to downscale GCM with combined dynamic and statistical methods to generate future climate change scenarios. Then use the generated scenarios as inputs of hydrological models to project runoff and erosion changes.
2018	2020	Source identification and countermeasures of sediment in typical watersheds of China and South Africa	Co-PI	Identify the sediment sources and quantify the impacts of land use and climate change, and further discuss the countermeasures in China and South Africa
2018	2020	Groundwater recharge	PI	Estimate groundwater recharge using

		estimation in the loess tableland based on tritium mass balance methods		tritium as tracer, and quantity the impacts of land use change.
2018	2020	Impact and countermeasures of climate change on agricultural soil and water resources in the middle reaches of China's Yellow River and Serbian Sava watershed	Co-PI	Based on modeling technique, quantify the impacts of climate change on runoff and soil erosion in the Yellow River and Sava watershed, and further discuss the countermeasures

Publications

Year	Publication
2018	[1] Song Xiaoyan, Song Songbai*, **Li Zhi***, Liu Wenbin, Li Jiuyi, Kang Yan, Sun Wenyi. Past and future changes in regional crop water requirements in Northwest China. Theoretical and Applied Climatology, 2018. DOI: 10.1007/s00704-018-2739-3. [2] Peng Shouzhang, **Li Zhi***. Incorporation of potential natural vegetation into revegetation programs for sustainable land management. Land Degradation & Development, 2018, 29(10): 3503-3511. DOI: 10.1002/ldr.3124. [3] Peng Shouzhang, **Li Zhi***. Potential land use adjustment for future climate change adaptation in revegetated regions. Science of the Total Environment, 2018, 639: 476-484. DOI: 10.1016/j.scitotenv.2018.05.194. [4] Huang Yanan, Chang Qingrui, **Li Zhi***. Land use change impacts on the amount and quality of recharge water in the loess tablelands of China. Science of the Total Environment, 2018, 628–629**:** 443-452. DOI: 10.1016/j.scitotenv.2018.02.076. [5] **Li Zhi***, Shi Xiaoping. Stochastic generation of daily precipitation considering diverse model complexity and climates. Theoretical and Applied Climatology, 2018, DOI: 10.1007/s00704-018-2638-7. [6] **Li Zhi***, Si Bingcheng*. Reconstructed precipitation tritium leads to overestimated groundwater recharge. Journal of Geophysical Research: Atmospheres, 2018, 123(17): 9858-9867. DOI: 10.1029/2018JD028405.
2017	[7] Li Jingjing, Peng Shouzhang, **Li Zhi***. Detecting and attributing vegetation changes on China's Loess Plateau. Agricultural and Forest Meteorology, 2017, 247: 260-270. DOI: 10.1016/j.agrformet.2017.08.005. [8] **Li Zhi***, Jin Jiming*. Evaluating climate change impacts on streamflow variability based on a multisite multivariate GCM downscaling method in the Jing River of China. Hydrology and Earth System Sciences, 2017, 21(11): 5531-5546. DOI: 10.5194/hess-21-5531-2017. [9] **Li Zhi***, Chen Xi, Liu Wenzhao, Si Bingcheng*****. Determination of groundwater recharge mechanism in the deep loessial unsaturated zone by environmental tracers. Science of the Total Environment, 2017, 586: 827-835. DOI: 10.1016/j.scitotenv.2017.02.061. [10] **Li Zhi***, Lin Xueqing, Cloes Anna, Chen Xi. Catchment-scale surface water-groundwater connectivity on China's Loess Plateau. CATENA, 2017, 152: 268-276. DOI: 10.1016/j.catena.2017.01.026. [11] **Li Zhi***, Ning Tingting, Li Jingjing, Yang Daqing. Spatiotemporal variation in the attribution of

streamflow changes in a catchment on China's Loess Plateau. CATENA, 2017, 158: 1-8. DOI: 10.1016/j.catena.2017.06.008.

[12] **Li Zhi***, Li Yanping, Shi Xiaoping, Li Jingjing. The characteristics of wet and dry spells for the diverse climate in China. Global and Planetary Change, 2017, 149: 14-19. DOI: 10.1016/j.gloplacha.2016.12.015.

[13] **Li Zhi***, Xiang Wei, Lin Xueqing, Chen Xi, Huang Tianming. Stable isotope tracing of headwater sources in a river on the Loess Plateau of China. Hydrological Sciences Journal, 2017, 62(13): 2150-2159. DOI: 10.1080/02626667.2017.1368519.

[14] **Li Zhi***, Lü Zhemin, Li Jingjing, Shi Xiaoping. Links between the spatial structure of weather generator and hydrological modeling. Theoretical and Applied Climatology, 2017, 128(1): 103-111. DOI: 10.1007/s00704-015-1691-8.

[15] **Li Zhi***, Shi Xiaoping, Li Jingjing. Multisite and multivariate GCM downscaling using a distribution-free shuffle procedure for correlation reconstruction. Climate Research, 2017, 72(2): 141-151. DOI: 10.3354/cr01460.

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Educational background

From	To	University/Institution	Degree and Major
2008	2009	Visiting scholar	Plant and soil Lab. University of natural resources and life sciences, Vienna
2000	2004	Northwestern A&F University, College of Resources and Environment	Ph.D. Major in soil and ecology science
1997	2000	Northwestern A&F University, College of Resources and Environment	M.F.S. Major in soil science
1990	1994	Northwestern Agriculture University, Department of Resources and Environment	B.S. Major in soil science

Research projects

From	To	Title of Project	Position	Project Description
2019	2023	Pan-Third Pole Environment Study for a Green Silk Road (Pan-TPE)	Main preside	Strategic science and technology project of the Chinese academy of sciences. 2019-2023. PI. ¥1460,000
2017	2020	Root productivity and its contribution to soil organic carbon sequestration during the revegetation on the hilly-gully	Main preside	Natural Science Foundation of China (NSFC) 2017-2020. PI. ¥660,000

		region in Southern Ningxia		
2016	2020	Evaluation and regulation of soil service function in Loess Plateau	Main preside	Special-Funds of Scientific Research Programs of State Key Laboratory of Soil Erosion and Dryland Farming on the Loess Plateau. 2016-2020. PI. ¥1900,000
2016	2020	Analysis of soil organic carbon sequestration and its sources due to vegetation restoration in Loess Plateau	Main preside	Strategic Priority Research Program of Chinese Academy of Sciences. 2016-2020. PI. ¥1000,000
2015	2019	Integration and demonstration in fragile ecosystem restoration in ningnan mountain, China	Main preside	Key Projects in the National Science & Technology Pillar Program during the Twelfth Five-year Plan Period. 2015-2019. PI. ¥300,000
2012	2016	Effects of litters on soil microbial diversity and carbon sequestration in loess hilly regions of China	Main preside	Natural Science Foundation of China (NSFC) 2012-2016. PI. ¥700,000

Publications

Year	Publication
2018	Liu Dong, Huang Yimei, An Shaohan, Sun Haiying, Bhople Parag, Chen Zhiwei. (2018). Soil physicochemical and microbial characteristics of contrasting land-use types along soil depth gradients. Catena, 162,345-353.
2018	Liu Dong, Huang Yimei, An Shaohan. (2018). The restoration age of robinia pseudoacacia, plantation impacts soil microbial biomass and microbial community structure in the loess plateau. Catena, 165, 192–200.
2018	Liu Dong, Yang Yang, An Shaoshan, Wang Hong l, Wang Ying. (2018). The biogeographical distribution of soil bacterial communities in the Loess Plateau as revealed by high-throughput sequencing. Frontiers in Microbiology, doi: 10.3389/fmicb.2018.02456.
2018	Yang Yang, Dou Yanxing, An Shaoshan. (2018). Testing association between soil bacterial diversity and soil carbon storage on the loess plateau. Science of the Total Environment, 626, 48.

2018	Yang Yang, Dou Yanxing, An Shaoshan, Zhu Zhaolong. (2018). Abiotic and biotic factors modulate plant biomass and root/shoot (r/s) ratios in grassland on the loess plateau, china. Science of the Total Environment, 636, 621-631.
2018	Bai Xuejuan, Zeng Quanchao, Abbas Fakher, Dong Yanghong, An Shaoshan. (2018): Characteristics of soil enzyme activities and microbial biomass carbon and nitrogen under different vegetation zones on the Loess Plateau, China, Arid Land Research and Management, DOI: 10.1080/15324982.2018.1501621.
2017	Yang Y, Dou Y X, An S S. Environmental driving factors affecting plant biomass in natural grassland in the Loess Plateau, China. Ecological Indicators. 2017, 82: 250–259.
2017	Yang Y, Dou Y X, An S S. Environmental driving factors affecting plant biomass in natural grassland in the Loess Plateau, China. Ecological Indicators. 2017, 82: 250–259.
2017	Yang Y, Dou Y X, Huang Y M, An S S. Links between Soil Fungal Diversity and Plant and Soil Properties on the Loess Plateau. Frontiers in Microbiology. 2017, 07: 1-13.
2017	Zeng Q C, An S, Liu Y. Soil bacterial community response to vegetation succession after fencing in the grassland of China. Science of the Total Environment, 2017, 609: 2-10.
2016	Quanchao Zeng, Xin Li , Yanghong Dong, Shaoshan An, Frédéric Darboux. Soil and plant components ecological stoichiometry in four steppe communities in the Loess Plateau of China. Catena 147 (2016) 481–488.
2015	Cheng M, Xiang Y, Xue Z, et al. Soil aggregation and intra-aggregate carbon fractions in relation to vegetation succession on the Loess Plateau, China. Catena, 2015, 125: 135-145
2015	Cheng M, Xue Z, An S. Response of soil chemical and microbial properties to vegetation restoration on the Loess Plateau, China. Nature Environment and Pollution Technology, 2015, 14(1):1-8
2015	Cheng M, Xue Z, Xiang Y, et al. Soil organic carbon sequestration in relation to revegetation on the Loess Plateau, China. Plant and Soil, 2015, 397(1):31-42.
2014	Xue Z, Fang X, Wang W, et al. Soil organic carbon distribution under different land uses and landscape positions in two typical watersheds of the Loess Plateau, China. Nature Environment & Pollution Technology, 2014, 13(4):396-700
2014	Xue Z J, An S S, Cheng M, et al. Plant functional traits and soil microbial biomass in different vegetation zones on the Loess Plateau. Journal of Plant Interactions, 2014, 9(1): 889-900
2013	An Shao-Shan, Frédéric Darboux, Man Cheng. Revegetation as an efficient means of increasing soil aggregate stability on the Loess Plateau (China). Geoderma, 2013, 209–210: 75–85.
2013	An Shao-Shan, Cheng Yi, Huang Yi-Mei, Liu Dong, Acosta-Martínez Veronica. Effects of revegetation on soil microbial biomass and activities of nutrient cycling enzymes on the Loess Plateau in China. Restoration Ecology, 2013, 21: 600–607.

2013	Xue Zhijing, Cheng Man, An Shaoshan *. Soil nitrogen distributions for different land uses and landscape positions in a small watershed on Loess Plateau, China. Ecological Engineering, 2013, 60:204– 213.

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Personal information

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Educational background

From	To	University/Institution	Degree and Major
2018	2019	Meiji University (Japan)	Visiting Professor/postdoc
2009	2015	University of Alberta (Canada)	PhD, Water and Land Resources
2003	2009	Northwest A&F University (China)	BSc and Master, Soil and Water Conservation and Desertification control

Research projects (selected)

From	To	Title of Project	Position	Project Description
2019	2020	Terrestrial water storage change and ecological sustainability assessment of the Loess Plateau based on remote sensing and numerical simulations	PI	To assess the ecological sustainability, reginal climate change, ground water recharge on the Loess Plateau after the "Grain for Green" project using numerical simulations (e.g., GLDAS, WGHM, CLM), remote sensing data (e.g., GRACE, MODIS, TRMM), monitoring network records, and expiermtnal data etc.
2019	2020	Development of thermo-FDR for measurement of unfrozen water, ice and thermal properties of frozen soils	PI	To develop new heat pulse and frequency-domain reflectometry method to accurately measure unfrozen water, ice and thermal properties of frozen soils with experimental and numerical studies
2017	2020	Soil remediation and land reclamation	Co-PI	Physical, chemical and biological method for reclamation of coal mining and polluted soils
2017	2020	Reduced use and improved use efficiency of P fertilizer for calcareous soil in Northern China	Co-PI	Experimental investigations and technical extension of approaches for reduced use and improved use efficiency of P fertilizer for calcareous soil in Northern China while maintaining food security and sustainable agriculture

Publications (selected)

Year	Publication
2019	Qifan Wu, Bingcheng Si*****, **Hailong He***, Pute Wu. Determining regional-scale ground water recharge with GRACE and GLDAS. **Remote Sensing**. 2019, 11(2), 154. doi: 10.3390/rs11020154.
2018	**Hailong He***, Miles F. Dyck, Robert Horton, Tusheng Ren, Keith Bristow, Jialong Lv, Bingcheng Si*. Development and applications of heat pulse method for soil physic measurement. **Reviews of Geophysics**. 2018, 56(4): 567-620. doi: 10.1029/2017RG000584. (invited review, IF2017=13.5)
2018	**Hailong He***, Mile F. Dyck, Bingcheng Si*. Distributed temperature sensing for soil physical measurements and its similarity to heat pulse method. **Advances in Agronomy**. 2018, 148:173-230. doi: 10.1016/bs.agron.2017.11.003. (invited review, IF2017=5)
2017	**Hailong He**, Ying Zhao, Miles Dyck, Huijun Jin, Bingcheng Si, Jialong Lv*, Jinxin Wang*. A modified normalized model for predicting effective soil thermal conductivity, **Acta Geotechnica**, 2017, 12(6), 1281-1300. doi:10.1007/s11440-017-0563-z.
2017	Kosuke Noborio*, Yuki Ito, **Hailong He**, Min Li, Yuki Kojima, Hirofumi Hara, Masaru Mizoguchi. A new and simple method for measuring in situ field-saturated hydraulic conductivity using a falling-head single cylinder. **Paddy and Water Environmen**t. 2017, 16(1), 81-87. doi：10.1007/s10333-017-0617-8
2016	**Hailong He**, Miles F. Dyck, Ying Zhao, Bingcheng Si, Huijun Jin, Tingjun Zhang, Jialong Lv*, and Jinxing Wang*. Evaluation of five composite dielectric mixing models for understanding relationships between effective permittivity and unfrozen water content. **Cold Regions Science and Technology**. 2016, 130:33-42. doi: 10.1016/j.coldregions.2016.07.006.
2016	Rengui Jiang*, Jiancang Xie, **Hailong He***, Chun-Chao Kuo, and Jiwei Zhu. Spatiotemporal variability and predictability of Normalized Difference Vegetation Index (NDVI) in Alberta, Canada. **International Journal of Biometeorology**. 2016. doi: 10.1007/s00484-015-1132-5.
2015	**Hailong He**, Mile F. Dyck*, Jinxing Wang, and Jialong Lv*. Evaluation of TDR for Quantifying Heat-Pulse-Method-Induced Ice Melting in Frozen Soils. **Soil Science Society of America Journal**. 2015, 79(5):1275-1288. doi:10.2136/sssaj2014.12.0499.
2015	Rengui Jiang *, Jianchang Xie, **Hailong He**, Jungang Luo, and Jiwei Zhu. Use of four drought indices for evaluating drought characteristics under climate change in Shaanxi, China: 1951-2012. **Natural Hazards**. 2015, 75(3): 2885-2903. doi: 10.1007/s11069-014-1468-x.

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Educational background

From	To	University/Institution	Degree and Major
2002	2005	Swedish University of Agricultural Sciences (Sweden) /Faculty of Forestry	PhD in Soil Science
1989	1992	Northwest Agricultural University (China) / Department of Soil and Agriculture Chemistry	M.S. in Plant Nutrition and Fertilization
1985	1989	Northwest Agricultural University (China) / Department of Soil and Agriculture Chemistry	B.S. in Soil and Agriculture Chemistry

Research projects

From	To	Title of Project	Position	Project Description
2018	2020	Integrating technology research and demonstration on reduction of chemical fertilizer and pesticide in wheat in Fen-Wei plain	Leader	National Key R&D Program of China
2017	2020	Using process of pre-sowing soil water by film mulched winter wheat and its regulating mechanism in the Loess Plateau	Leader	National Natural Science Foundation of China
2016	2020	Research on mechanism and measures of controlling nitrogen and phosphorus leaching in cinnamon soil	PI	National Key R&D Program of China

Selected Publications

Year	Publication
2019	Hu C., Sadras V., Lu G., Zhang R., Yang X., **Zhang S.*** Root pruning enhances wheat yield, harvest index and water-use efficiency in semiarid area. *Field Crops Research*. 2019, 230,62-71.

2018	Asif Khan, Guoyan Lu, Muhammed Ayaz, Hongtao Zhang, Renjie Wang, Fenglian Lv, Xueyun Yang, Benhua Sun, **Shulan Zhang***. Phosphorus efficiency, soil phosphorus dynamics and critical phosphorus level under long-term fertilization for single and double cropping systems. *Agriculture, Ecosystems and Environment.* 2018,256, 1–11.
	J. Xie, B. Peng, R. Wang, J. Batbayar, M. Hoogmoed, Y, Yang, **S. Zhang***, X. Yang*, B. Sun.2018. Responses of crop productivity and physical protection of organic carbon by macroaggregates to long-term fertilization of an Anthrosol. *European Journal of Soil Science*, 2018, 69,555-567.
2017	Junyu Xie, Miaomiao Hou, Yingtian Zhou, Renjie Wang, **Shulan Zhang***, Xueyun Yang*, Benhua Sun. Carbon sequestration and mineralization of aggregate-associated carbon in an intensively cultivated Anthrosol in north Chian as affected by long term fertilization. *Geoderma*, 2017, 296, 1-9.
	Zheng Wang, V.O. Sadras, Xueyun Yang, Xiaoyu Han, Fang Huang, **Shulan Zhang*.** Synergy between breeding for yield in winter wheat and high-input agriculture in North-West China. *Field Crops Research*, 2017,209, 136-143.
	Zheng Wang, V.O. Sadras, Marianne Hoogmoed, Xueyun Yang, Fang Huang, Xiaoyu Han, **Shulan Zhang***. Shifts in nitrogen and phosphorus uptake and allocation in response to selection for yield in Chinese winter wheat. *Crop & Pasture Science.* 2017, 68, 807-816.
2016	**Shulan Zhang**, Renjie Wang, Xueyun Yang, Benhua Sun & Qinghui Li. Soil aggregation and aggregating agents as affected by long term contrasting management of an Anthrosol. *Scientific Reports 2016*,6:39107,|DOI: 10.1038/srep39107
	Shulan Zhang, Jie Li, Xueyun Yang, Benhua Sun Long-term effects of soil management regimes on carbon contents and respiration rates of aggregate size fractions. *Soil Use and Management.* 2016, 32,525-534.
	Shi, Y., Zhao, X., Gao, X., **Zhang, S.***， Wu, P*. The Effects of Long-term Fertiliser Applications on Soil Organic Carbon and Hydraulic Properties of a Loess Soil in China. *Land Degrad. Develop.*. 2016, 27, 60–67.