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EDUCATION

Postdoctoral fellow, Stanford University. 1992-94.
Postdoctoral fellow, University of California, Los Angeles. 1991-92. Ph.D. in Ecology,
University of California, Davis. 1991.
B.S. Agronomy, Yangzhou University (formerly Jiangsu Agriculture College), China. 1982.

ACADEMIC APPOINTMENTS

2017-pres. Professor, Center for Ecosystem Sciences and Society, Department of Biological
Sciences, Northern Arizona University
2017. George Lynn Cross Professor, University of Oklahoma
2001-17. Professor, Department of Microbiology and Plant Biology. University of Oklahoma.
2017. Visiting fellow, Ecotron, Montpellier, France.
2017-20. Adjunct Professor, Department of Earth System Science, Tsinghua University,
Beijing, China
2012-2015. Chair Professor, Center for Earth System Science, Tsinghua University, Beijing,
China.
2008-2010. Director, Center of Ecological Forecasting and Data Assimilation, University of
Oklahoma.
2008-2012 Visiting Professor, Department of Ecology and Evolutionary Biology, Fudan Univ.
China
2005-06. Visiting Fellow, Department of Ecology and Evolution, Princeton University.
2005-08. Visiting professor, Institute of Geographical Sciences and Natural Resources
Research, Chinese Academy of Sciences, Beijing, China
2003-09. Interim Director for Global Change Ecology Research Center, University of
Oklahoma.
2003-08. China's Ministry of Education Chang-Jiang Chair Professor, Fudan University, China.
1999-2001. Associate Professor, Department of Botany and Microbiology. University of
Oklahoma.
1997-98. Associate Research Professor. Desert Research Institute, University of Nevada.
1994-97. Assistant Research Professor. Desert Research Institute, University of Nevada.
1997-98. Graduate faculty, Hydrological Sciences program, University of Nevada, Reno.
1996. Visiting lecturer, Department of Economics, University of Nevada, Reno.
1994-98. Graduate faculty, Ecology, Evolution and Conservation Biology program, University
of Nevada, Reno.
1981-85. Lecturer and research associate, Dep't of Agronomy, Yangzhou University, China.

TEACHING AND SUPERVISING EXPERIENCE

Lecturing

2015-17. Climate change and ecosystems, University of Oklahoma

* Pronounced as E-chee

2015 Short course *Data analysis and modeling in soil science*, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
2014 Short course *Ecological Model development, Data Assimilation, and Prediction*, Tsinghua University
2002-pres. BOT 4810/5810. *Ecosystem Ecology*, University of Oklahoma.
2001-pres. BOT/ZOO/MBIO 6003. *Ecological Modeling*. University of Oklahoma
1999-2005 BOT 3453. *Principles of Plant Ecology*. University of Oklahoma
2004. *Research Methods in Global Change and Ecosystem Science in Ecology Lecture Series*, Fudan University, China
2003, 2008, 2009, 2010, 2011, *Global Change Ecology*, a short summer course at Fudan University, China.
2000. BOT 4810/5810. *Global Change Biology*. University of Oklahoma
1998. BIO 325 *Computer acquaintance and applications in biological sciences*. University of Nevada, Reno.
1997. BIO712 *Ecological Modeling*. University of Nevada, Reno.
1996. ECO 350. *Principles of Statistics*. University of Nevada, Reno.
1982-85. *Experimental Design and Biostatistics*. Yangzhou University.
1983. *Regression Analysis*. Yangzhou University.

Teaching Assistant

1990. *Plant-Soil-Water Relationships*. University of California, Davis.
1990. *Energy, Society, and Environment*. University of California, Davis.
1980-82. *Experimental Design and Biostatistics*. Yangzhou University.

HONORS, AWARDS, AND SCHOLARSHIPS

2017. Invited Scientist Fellowship, Centre Méditerranéen Environnement et Biodiversité Université Montpellier, France
2017. ChinaFlux 15th Anniversary Celebration Award
2017. George Lynn Cross Professorship
2016. Fellow of American Geophysical Union (AGU)
2014. Eileen Mary Harris Scholar of the Melbourne School of Land and Environment (MSLE), University of Melbourne, Australia
2013. Fellow of American Association for the Advancement of Science (AAAS)
2013-pres. F1000 Section head, Ecosystem Ecology
2011-2013. Contributing author, Intergovernmental Panel for Climate Change (IPCC) 5th Assessment Report (AR5).
2010-pres. 1000 Talent Plan Scholarship, China
2008. The Best Paper Award in Journal of Integrative Plant Biology 2003-08. Changjiang Scholarship, Minister of Education, China
2001. Honored student adviser, University of Oklahoma Student Association
1999. Research Award to Foreign Specialist, National Institution of Agro-Environmental Science, Japan.
1993. Travel award to present a paper in a symposium in honor of the 60th birthday of Dr. Paul J. Crutzen, a Nobel Laureate, held at Boulder, Colorado.
1988. Honorary membership in Phi Sigma Society, Gamma Delta Chapter. 1985-86. Overseas Study Scholarship. Education Commission, China.
1985. Achievements Award in Science and Technology, Jiangsu Province, China.

RESEARCH GRANTS

Funded projects (Totaling USD \$69,838,252, AUD 460,000; Chinese Yuan ¥10,735,000, 143,100€ EURO's)

62. 2017-2023. Minister of Science and Technology, China, CNY ¥9,720,000 (PI), Development of Evaluation Systems of Performances of Earth System Model Components offline or in coupling.
61. 2017-23. NSF \$5,400,000 (Co-PI, PI: Jennifer Rudgers, University of New Mexico) LTER: Sevilleta (SEV) Site: Climate Variability at Dryland Ecotones (OU portion, \$479,996)
60. 2015-17. DOE ORNL \$150,000 (PI) Active model-experiment integration with Ecological Platform for Assimilating Data with models to make near-time forecasting at SPRUCE.
59. 2015-2018. DOE, \$1,500,000 (Co-PI, PI: Ted Schuur, Northern Arizona University) Multifactor Experiment and Model Integration to Determine the Regional Vulnerability of Permafrost Carbon to Climate Change (OU portion, \$296,438)
58. 2015-2016. US Carbon Cycle Science Program Office \$50,000 (PI) Workshop on "Development of Predictive Carbon Cycle Science"
57. 2015-2018. NASA \$476,912 (Co-PI, PI: S. Crowell), Improved Parameterization of Carbon Cycle Models Across Scales Using OCO-2 Measurements of XCO₂ and SIF
56. 2015-2016. USGS South Central Climate Science Center, \$83,410 (PI), Ecosystem Modeling in the South Central US: A Synthesis of Current Models toward the Developments of Coupled Models
55. 2013-2018. NSF, \$20,000,000 (Co-I, PI: J.P. Wicksted), Adapting Socio-ecological Systems to Increased Climate Variability
54. 2013-2016. DOE, \$3,634,008 (Co-PI, PI: J. Zhou), From Structure to Functions: Metagenomics- Enabled Predictive Understanding of Soil Microbial Feedbacks to Climate Change
53. 2012-2015. National Institute for Mathematical and Biological Synthesis (NIMBioS) (lead organizer) Nonautonomous system and terrestrial carbon cycle.
52. 2013-2016. Australian Research Council, A\$460,000. (Co-I, PI: Tianhua He, Curtin University) Keeping pace with a changing climate: can Australian plants count on rapid evolution?
51. 2012-2014. DOE, \$850,000 (Co-PI, PI: Rich Norby, ORNL) Model-Data Synthesis of Terrestrial Responses to Elevated CO₂: Phase 2 of an ongoing collaboration between ecosystem and global modelers and empirical scientists from long-term CO₂ enrichment experiments
50. 2012-2015. DOE Terrestrial Ecosystem Sciences, \$1,050,000 (Principal Investigator). Data Synthesis and Data Assimilation at Global Change Experiments and FLUXNET toward Improving Land Process Models
49. 2012-2017. NSF Macrosystems Biology. \$3,758,556 (Co-PI, PI: Alan Knapp, Colorado State University) Grassland sensitivity to climate change at local to regional scales: assessing the role of ecosystem attributes vs. environmental context (OU portion: \$499,325)
48. 2011-2012. DOE. \$50,000 (Principle Investigator): Workshop: Strategies to Promote Integrated Experiment-Model Approaches to Terrestrial Ecosystem Study. (Managed through ORISE)
47. 2011-2014. DOE. \$1,024,426 (Co-PI, PI: Ted Schuur, University of Florida) Effects of Warming the Deep Soil and Permafrost on Ecosystem Carbon Balance in Alaskan Tundra: A Coupled Measurement and Modeling Approach. (Subcontract to University of Oklahoma: \$225,000)
46. 2010-2012. U.S. Civilian Research & Development Foundation. \$90,000 (Principal investigator) Nonlinear response of a Ukraine grassland to altered precipitation.
45. 2010-2013. DOE. \$3,000,000 (Co-PI, PI: Jizhong Zhou) From Community Structure to Functions: Metagenomics-Enabled Predictive Understanding of Temperature Sensitivity of Soil Carbon Decomposition to Climate Warming.

44. 2009-2012. The State of Oklahoma, Regents for Higher Education \$300,000 (match) (Co-PI and PI: Paul Risser) “Collaborative Research: EPSCoR RII Track 2 Oklahoma and Kansas: A cyberCommons for Ecological Forecasting”
43. 2009-2012. NSF EPSCoR \$6,000,000 (Co-PI and lead scientist for Oklahoma, PI: Paul Risser) “Collaborative Research: EPSCoR RII Track 2 Oklahoma and Kansas: A cyberCommons for Ecological Forecasting”
42. 2009-2012. NSF \$1,079,454 (Principal Investigator): Development of a Data Assimilation Capability towards Ecological Forecasting in a Data-Rich Era
41. 2009-2010. Oklahoma Bioenergy Center \$250,000 (Co-PI, PI: Liyou Wu) System-level understanding the factors controlling feedstock productivity and sustainability.
40. 2009-2010. NSF \$13,000 and DOE \$15,000 (Principal Investigator): DOE-NSF Workshop: Coordinated Approaches to Address Long-Term Issues in Global Change Experiments
39. 2009-2014. NSF \$500,000 (Principal Investigator): RCN: **F**orecasts **O**f **R**esource and **E**nvironmental **C**hanges: data **A**ssimilation **S**cience and **T**echnology (FORECAST)
38. 2008-2010. NCEAS (National Center for Ecological Analysis and Synthesis) \$86,400 (Co-PI, PI: Richard Norby, Oak Ridge National laboratory), Benchmarking Ecosystem Response Models with Experimental Data from Long-term CO₂ Enrichment Experiments.
37. 2008-2009. University of Oklahoma College Center Investment Fund \$55,000 (PI). Center for Ecological Forecasting and Data Assimilation (CEFDA)
36. 2008-2010. State of Oklahoma \$380,838 (Co-PI, PI: J. Zhou) Linking community structure to functions: Metagenomic analysis of Feedstock-Related Microbial Communities using GeoChip and Pyrosequencing
35. 2008-2013. NSF \$450,000 (Principal Investigator) LTREB: Effects of Warming and Clipping on Coupling of Carbon and Water Cycles in a Tallgrass Prairie (REU supplement, \$7,160, 2011; REU supplement, \$6,240, 2013)
34. 2008-2011. DOE NICCR (National Institute of Climate Change Research) \$388,141 (Principal Investigator) Experimental and modeling study of interactive effects of warming and altered precipitation on function and structure of a tallgrass prairie in the Great Plains.
33. 2007-2011. EPA. \$899,091. (Co-PI, PI: D. Obrist, Desert Research Institute) Effects of Global Change on the Atmospheric Hg Burden and Atmospheric Hg Sequestration through Changes in Ecosystem Carbon Pools.
32. 2007-2008. Bridge fund, Vice President of Research Office, University of Oklahoma, \$22,158.
31. 2007-2008. NSF. \$48,000 (Principal Investigator). Workshop: Data-Model Assimilation in Ecology: Techniques and Applications.
30. 2006-2010. DOE. \$975,000 (Principal Investigator). Data-Model Assimilation at the FACE and AmeriFlux Sites Toward Predictive Understanding of Carbon Sequestration at Ecosystem and Continental Scales
29. 2005-2006. Europe Union Science Foundation, 143,100€ EURO’s (Co-I) EPRECOT: Effects of PREcipitation Change on Terrestrial ecosystems – a workshop and networking activity. (PI: Claus Beier, RISOE National Laboratory, Denmark).
28. 2005-2006. DOE. \$260,000 (Principal Investigator). Data-Model Assimilation at the Duke FACE Site Toward Predictive Understanding of Carbon Sequestration at Ecosystem and Regional Scales
27. 2005-2008 NSF. \$260,000 (Principal Investigator) Data-Model Fusion at AmeriFlux Sites: Towards Predictive Understanding of Seasonal and Interannual Variability in Net Ecosystem Exchange.
27. 2004-2008. Vice President of Research Fund, University of Oklahoma, \$66,308.

26. 2003-2008. China's Ministry of Education, Chinese Yuan ¥1,000,000 (≈ USD \$121,000) (Principal Investigator). Development of a research program at Fudan University and execution of relevant research projects.
25. 2003-2005. DOE Office of Fossil Energy, 1,600,000 (Co-I) Carbon Sequestration Regional Partnerships: Southwest Regional Partnership for Carbon Sequestration. (PI: Brian McPherson, New Mexico Institute of Mining and Technology).
24. 2003-2004. National Institute of Global Environmental Change, DOE, \$108,927. (Principal Investigator) Interannual Variability in Net Ecosystem Exchange in Colorado Subalpine Forest: Partitioning into Causes between Climatic Variability and Functional Changes
23. 2001-2005. DOE. \$981,565 (Principal Investigator). Modeling Studies in the Duke Forest Free-Air CO₂ Enrichment (FACE) program.
22. 2001-2006. NSF. \$499,997 (Co-I) Research Coordination Network: Terrestrial Ecosystem Responses to Atmospheric and Climate Change. (PI: L. Rustad. USDA Forest Service)
21. 2000-2003. National Center of Ecological Analysis and Synthesis (NCEAS). \$38,000. (Principal Investigator) Progressive Nitrogen Limitation of Plant and Ecosystem Responses to Elevated CO₂.
20. 2000-2005. NSF Integrated Research Challenge in Environmental Biology. \$3,000,000. (Co-PI) IRCEB: Interannual climate variability and ecosystem processes – A quantitative assessment combining modeling with field and mesocosm experiments. (PI: J. Arnon III, Desert Research Institute)
19. 2000-2003. National Institute of Global Environmental Change, DOE, \$349,000. (Principal Investigator) Modeling Studies of Forest/Atmosphere Carbon Fluxes in a Colorado Subalpine Ecosystem.
18. 2000-2001. Oklahoma NASA EPSCoR, \$28,527. (Principal Investigator) Human Impacts on Ecosystem Biodiversity and Functions: Development of Partnerships with NASA Goddard Space Flight Center
17. 1998-2001. TECO (Terrestrial Ecosystem and Global Change), a NSF/DOE/NASA/USDA/NOAA joint program through DOE. \$696,693 (Principal Investigator) Transient responses in ecosystem Free-Air CO₂ Enrichment (FACE) experiments and a deconvolution analysis.
16. 1998-2001. DOE. \$2,850,017 (Co-PI) Forest-Atmosphere Carbon Transfer and Storage (FACTS- I): Continuation. (PI: W. Schlesinger, Duke University)
15. 1999-2000. University of Oklahoma Research Council, \$9,995 (Principal Investigator). Effects of global warming on ecosystem structure and function: Establishing a field experiment to collect preliminary data.
14. 1997-2000. Andrew Mellon Foundation and Desert Research Institute. \$500,000 (Co-PI). A mesocosm study of ecosystem N dynamics. (PI: J. Coleman, Desert Research Institute).
13. 1998-99. US Forest Service. \$1,000,000 (Co-PI) Integrative assessments on the forest watershed in Lake Tahoe Basin.
12. 1998. Nevada Applied Research Initiative. \$30,012 (Principal investigator). Watershed research in the Lake Tahoe Basin.
11. 1997. The Canada Center of Remote Sensing. CND\$5,000. (Principal Investigator) Quantification of carbon sink in Canada land area.
10. 1997-98. DOE. \$100,000 (Co-PI) Continuation of CMEAL (CO₂ Models/Experiments Activity for improved Links) project. (PI: C.B. Field, Carnegie Institution of Washington)
9. 1996-98. Desert Research Institute \$13,551 (Principal Investigator) Global terrestrial carbon sink and its spatial distribution

8. 1996-97. DOE EPSCoR \$400,000 (Co-PI) Responses of desert vegetation to elevated atmospheric carbon dioxide: The NTS desert FACE facility. (PI: J.S. Seemann, the University of Nevada, Reno).
7. 1995-98. DOE. \$2,455,000 (Co-PI) Forest-Atmosphere Carbon Transfer and Storage (FACTS-I): The Duke Forest FACE (Free Air CO₂-Enrichment) experiment. (PIs: W. Schlesinger, Duke University, and G. Hendrey, Brookhaven National Laboratory).
6. 1995-97. DOE. \$300,000 (Co-PI) CMEAL: CO₂ Models/Experiments Activity for improved Links. (PI: C.B. Field, Carnegie Institution of Washington).
5. 1995-98. NSF \$415,000 (Co-PI) Effects of elevated CO₂ on a Mojave desert ecosystem (PI: S.D. Smith, University of Nevada, Las Vegas).
4. 1995-96. USDA and Cornell University. \$10,000 (Co-PI) Workshop: Plant acclimation to elevated CO₂. (PI: D. Wolfe, Cornell University).
3. 1994-97. DOE and Electric Power Research Institute (EPRI). \$1,400,000 (Co-PI). Continuation of Experimental Work on Forest Response to CO₂. (PI: J.T. Ball, Desert Research Institute).
2. 1994-96. USDA. \$107,000 (Principal Investigator). Test of a model predicting photosynthetic responses to elevated CO₂.
1. 1982-85. Agriculture and Forestry Department of Jiangsu Province, China. 15,000 Chinese Yuan. Quantitative genetic studies of corn and wheat.

PUBLICATIONS

Books

5. Luo, Y. and X. Zhou. 2006. *Soil Respiration and the Environment*. Academic Press/Elsevier, San Diego. Pp 328. (Translated to Chinese published in 2007 by Higher Education Press, Beijing)
4. Li B, Zhao B, Peng RH, Luo Y. et al. 2005. Translation of book *Principles of Terrestrial Ecosystem Ecology* by Chapin FS, Matson PA, and Mooney HA from English to Chinese. Higher Education Press, Beijing, China.
3. Luo, Y. and H.A. Mooney. (Eds.) 1999. *Carbon Dioxide and Environmental Stress*. Academic Press, San Diego. Pp 418.
2. Mo, H., J. Chang, Y. Luo, J. Kua. 1984. Translation of book *Principles of Crop Improvement* by N.W. Simmonds from English to Chinese. Jiangsu Science & Technology Press, China.
1. Luo, Y. 1983. A Textbook *Agricultural Experimentation: Design and Analysis*. 137p. Jiangsu Agricultural College, China.

Book chapters/encyclopedia essays

26. Hui DF, Q Deng, HQ Tian, and YQ Luo. 2017. Climate Change and Carbon Sequestration in Forest Ecosystems. Pp. 555-594 in book *Handbook of Climate Change Mitigation and Adaptation*, WY Chen et al. (eds.), Springer Science+Business Media New York 2015 1 DOI 10.1007/978-1-4614-6431-0_13-2.
25. Jiang LF, J Jiang, JY Liang, KR Wilcox, SL Collins, AK Knapp, WT Pockman, MD Smith, and YQ Luo. 2016. Frontiers of ecosystem modeling and large scale experiments. In book: *Terrestrial Ecosystem Research Infrastructures Challenges, New developments and Perspectives* edited by Abad Chabbi and Hank Loescher, CPR, Talor and Francis.
24. Niu SL, YL Fu, LH Gu, and YQ Luo, 2013. Temperature Sensitivity of Canopy Photosynthesis Phenology in Northern Ecosystems, in M.D. Schwartz (ed.), *Phenology: An Integrative Environmental Science*, DOI 10.1007/978-94-007-6925-0_27, Springer Science+Business Media B.V. 2013
23. Grimm NB, FS Chapin III, B Bierwagen, P Gonzalez, PM Groffman, YQ Luo, F Melton, K Nadelhoffer, A Pairis, P Raymond, J Schimel, CE Williamson, MJ Bernstein 2012. Chapter 3. Impacts of Climate Change on Ecosystem Structure and Functioning. In: MD Staudinger, NB

- Grimm, A Staudt, SL Carter, FS Chapin III, P Kareiva, M Ruckelshaus, BA Stein. *Impacts of Climate Change on Biodiversity, Ecosystems, and Ecosystem Services: Technical Input to the 2013 National Climate Assessment*. Cooperative Report to the 2013 National Climate Assessment. 296 p. Available at: <http://assessment.globalchange.gov>
22. Luo YQ, ES Weng and YH Yang. 2012. Ecosystem ecology. In *Sourcebook in Theoretical Ecology* edited by Alan Hastings and Louis Gross. Pp. 219-229. The University of California Press.
 21. Schädel C & YQ Luo. 2012. Biofuels and Ecosystem Carbon Balance under Global Change. "Biofuel / Book 3", ISBN 978-953-307-479-5. InTech - Open Access Publisher
 20. Hui DH, HQ Tian, YQ Luo. 2012. Impacts of Climatic Changes on Biogeochemical Cycling in Terrestrial Ecosystems. In WY Chen, JM Seiner, T Suzuki and M Lackner (eds.) *Handbook of Climate Change Mitigation*. SPRINGER. New York.
 19. Zhang L., GR Yu, and YQ Luo. 2009. Data-model assimilation for terrestrial ecosystem carbon cycle modeling. Pp. 106-129. In: KR Li, M Huang, B Tao et al. (eds.) *Process-Based Modeling on the Response and Adaptation of Chinese Terrestrial Ecosystems to Global Change*. China Meteorological Press, Beijing (Chinese).
 18. Luo, Y.Q. 2009. Residence times. In Steven I. Dutch (ed.) *Encyclopedia of Global Warming*, Salem Press, Pasadena, CA
 17. Luo, Y.Q. 2009. Nitrogen fertilization. In Steven I. Dutch (ed.) *Encyclopedia of Global Warming*, Salem Press, Pasadena, CA
 16. Luo, Y.Q. 2009. Carbon Dioxide Fertilization. In Steven I. Dutch (ed.) *Encyclopedia of Global Warming*, Salem Press, Pasadena, CA
 15. Luo, Y.Q. 2009. Ecosystems. In Steven I. Dutch (ed.) *Encyclopedia of Global Warming*, Salem Press, Pasadena, CA.
 14. Yu, GR, MG Cao, JM Chen, YQ Luo, HM Yan, and L. Zhang. 2009. Challenges and missions facing ecology in the 21st century. Pp. 1-28. In: Yu GR et al. (eds). *Human Activities and Ecosystem Dynamics*. Science Press, Beijing (Chinese with English abstract).
 13. Luo, Y. and L. Zhang, 2009. Assimilation of multi-scale and multi-source ecological data: Techniques and its application to carbon cycle research. Pp. 285-297. In: Yu GR et al. (eds). *Human Activities and Ecosystem Dynamics*. Science Press, Beijing (Chinese with English abstract).
 12. Luo, Y. and D. Hui, 2008. Gradual global environmental change in the real world and step manipulative experiments in laboratory and field: the need of inverse analysis. In: Miao SL, Carstenn S, Nungesser M (eds). *Real World Ecology: Large-scale and Long-term Case Studies and Methods*. Springer, New York.
 11. Canadell, J.G., D. Pataki, R. Gifford, R. Houghton, Y. Luo, M. Raupach, P. Smith, W. Steffen. 2007. Saturation of the Terrestrial Carbon Sink. Pp. 81-100. In: Canadell JG, Pataki D, Pitelka L (eds) *Terrestrial Ecosystems in a Changing World*. IGBP Series, Springer, Berlin
 10. Chen, J., B. Lu, Y. Luo, and Q. Don. 2005. Scientific writing and publication procedure. Pp. 198-222. (In Chinese) In. J. Chen, L. Bo, Z. Ma, and B. Zhao (eds.), *Challenges Facing Ecologists: Questions and Approaches*, Higher Education Press, Beijing, China. 244pp
 9. Luo, Y. 2003. Biomes, definitions and determinants. Pp. 147-150. In B.D. Ness (editor). *Magill's Encyclopedia of Science: Plant Life*. Salem Press, Pasadena, California.
 8. Luo, Y. 2003. Nutrient cycling. Pp. 732-734. In B.D. Ness (editor). *Magill's Encyclopedia of Science: Plant Life*. Salem Press, Pasadena, California.
 7. Miao, S., Y. Luo, Y. Liu, D. Hui. 2002. Structure and Functional Response of Plants to Global Climate Change. Pp. 121-143. In Wu, J. and X. Han (eds). *Lectures in Modern Ecology: From*

- Basic Science to Environmental Issues. Science Press, Beijing, China. (In Chinese with English abstract).
6. Luo, Y. 1999. Scaling against environmental and biological variability: General Principles and A case study. Pp. 309-331. In: Luo, Y. and H.A. Mooney. (Eds.) *Carbon Dioxide and Environmental Stress*. Academic Press, San Diego.
 5. Luo, Y., Canadell, J. and H.A. Mooney. 1999. Interactive effects of carbon dioxide and environmental stress on plants and ecosystems: A synthesis. Pp.393-408. In: Luo, Y. and H.A. Mooney. (Eds.) *Carbon Dioxide and Environmental Stress*. Academic Press, San Diego.
 4. Mooney, H.A. and Y. Luo. 1999. Preface. Pp. xiii-xiv. In: Luo, Y. and H.A. Mooney. (Eds.) *Carbon Dioxide and Environmental Stress*. Academic Press, San Diego.
 3. Luo, Y. 1997. Quantifying global terrestrial carbon influx and storage as stimulated by an increase in atmospheric CO₂ concentration. pp. 129-140. In C.M. Isaacs and V.L. Tharp (eds.) *Proceedings of the Thirteen Annual Pacific Climate (PACCLIM) Workshop, April 15-18, 1996*. Interagency Ecological Program, Technical Report 53. California Department of Water Resource.
 2. Luo, Y. and H.A. Mooney. 1996. Stimulation of global photosynthetic carbon influx by an increase in atmospheric carbon dioxide concentration. pp. 381-397. In G.W. Koch and H.A. Mooney (eds.) *Carbon Dioxide and Terrestrial Ecosystems*. Academic Press, San Diego.
 1. Loomis, R.S., Y. Luo, and P. Kooman, 1990. Integration of activities in the higher plant. pp. 105-124. In R. Rabbinge, J. Goudriaan, H. van Keulen, F.W.T. Penning de Vries, and H.H. van Laar (eds.). *Theoretical Production Ecology: reflections and prospects*. Pudoc, Wageningen, The Netherlands. 318p.

Papers in peer-reviewed journals

332. Huang YY, XJ Lu, Z Shi, D Lawrence, C Koven, JY Xia, ZG Du, E Kluzek, YQ Luo. 2017. Matrix approach to land carbon cycle modeling: A case study with Community Land Model. *Global Change Biology*
331. Zhou Z, C Wang, M Zheng, L Jiang, Y Luo. 2017. Patterns and mechanisms of responses by soil microbial communities to nitrogen addition. *Soil Biology and Biochemistry* 115, 433-441
330. Zhou Z, C Wang, L Jiang, Y Luo. 2017. Trends in soil microbial communities during secondary succession. *Soil Biology and Biochemistry* 115, 92-99
329. Fu Z, D Li, O Hararuk, C Schwalm, Y Luo, L Yan, S Niu 2017. Recovery time and state change of terrestrial carbon cycle after disturbance. *Environmental Research Letters*
328. Yuan MM, J Zhang, K Xue, L Wu, Y Deng, J Deng, L Hale, X Zhou, Z He, Y Yang, JD Van Nostrand, EAG Schuur, KT Konstantinidis, CR Penton, JR Cole, JM Tiedje, Y Luo, J Zhou. 2017. Microbial functional diversity covaries with permafrost thaw-induced environmental heterogeneity in tundra soil. *Global Change Biology*
327. Huang YY, J Jiang, S. Ma, D. Ricciuto, P. Hanson, Y. Luo. 2017. Soil thermal dynamics, snow cover and frozen depth under five temperature treatments in an ombrotrophic bog: Constrained forecast with data assimilation, *Journal of Geophysical Research: Biogeosciences*
326. Yu CL, D Hui, Q Deng, EK Dzantor, PA Fay, W Shen, Y Luo. 2017. Responses of switchgrass soil respiration and its components to precipitation gradient in a mesocosm study. *Plant and Soil*.
325. Guo D, J Wang, H Fu, H Wen, Y Luo. Cropland has higher soil carbon residence time than grassland in the subsurface layer on the Loess Plateau, China. *Soil and Tillage Research* 174, 130-138
324. Deng Q, S Aras, CL Yu, EK Dzantor, PA Fay, Y Luo, W Shen, D Hui. 2017. Effects of precipitation changes on aboveground net primary production and soil respiration in a switchgrass field. *Agriculture, Ecosystems & Environment* 248, 29-37

323. Li Q, X Cheng, Y Luo, Z Xu, L Xu, H Ruan, X Xu. 2017. Consistent temperature sensitivity of labile soil organic carbon mineralization along an elevation gradient in the Wuyi Mountains, China. *Applied Soil Ecology* 117, 32-37
322. Zhou Y, X Xiao, P Wagle, R Bajgain, H Mahan, JB Basara, J Dong, Y Qin, G Zhang, Y Luo, PH Gowda, JPS Neel, PJ Starks, JL Steiner. 2017. Examining the short-term impacts of diverse management practices on plant phenology and carbon fluxes of Old World bluestems pasture, *Agricultural and Forest Meteorology* 237, 60-70
321. Wang C, G Wang, P Wu, R Rafique, H Zi, X Li, Y Luo Effects of Ant Mounds on the Plant and Soil Microbial Community in an Alpine Meadow of Qinghai–Tibet Plateau. *Land Degradation & Development*. 28: 1538–1548. doi: 10.1002/ldr.2681.
320. Fu Z, PC Stoy, YQ Luo, JQ Chen, J Sun, L Montagnani, G Wohlfahrt, AF Rahman, S Rambal, C Bernhofer, JS Wang, G Shirkey, SL Niu, 2017. Climate controls over the net carbon uptake period and amplitude of net ecosystem production in temperate and boreal ecosystems, *Agricultural and Forest Meteorology*
319. Luo ZK, WT Feng, YQ Luo, J Baldock, EL Wang, 2017. Soil organic carbon dynamics jointly controlled by climate, carbon inputs, soil properties and soil carbon fractions. *Global Change Biology*
318. Feng WF, JY Liang, LE Hale, CG Jung, J Chen, JZ Zhou, MT Yuan, LY Wu, R Bracho, E Pegoraro, EAG Schuur, YQ Luo. 2017. Enhanced decomposition of stable soil organic carbon and microbial catabolic potentials by long-term warming. *Global Change Biology*
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235. Yingping Wang; Matthew J. Smith; Yiqi Luo; Maria Leite; Folashade Agosto; Benito Chen; Forrest M. Hoffman; Belinda E. Medlyn; Martin Rasmussen Theoretical analysis of the global land carbon cycle: what determines the trajectory of future carbon uptake? Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
234. Nathaniel Mikle; Yiqi Luo Toward identification of a threshold to ecosystem collapse using rain- use efficiency as an indicator. Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
233. Yiqi Luo; Zheng Shi; Nathaniel Mikle; Jianyang Xia; Shuli Niu; Liming Yan Search for Generalizable Mechanisms and Patterns from Variable Ecosystem Responses to Climate Extremes (Invited). Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
232. Jianyang Xia; Yiqi Luo; Shuli Niu; Dafeng Hui; Jinwei Dong; Jiquan Chen; Ensheng Weng; Jianwei Li Convergence of Phenological and Physiological Control on Annual Terrestrial Carbon Dioxide Uptake. Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
231. Kai Xue, Mengting Yuan, Lei Cheng, Jason Shi, Ye Deng, Liyou Wu Zhili He, Joy D. Van Nostrand, Edward A. G. Schuur, Yiqi Luo, Konstantinos Konstantinidis, James Tiedje, Jizhong Zhou. Soil microbial community determines vulnerability of soil carbon exposed to warming in northern permafrost. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
230. Mengting Yuan, Jin Zhang, Liyou Wu, Kai Xue, Lei Cheng, Ye Deng, Tong Yuan, Joy Van Nostrand, Zhili He, Edward A.G. Schuur, Yiqi Luo, James Tiedje, Jizhong Zhou Climate warming induced permafrost thaw changes soil microbial communities. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.

229. Zheng Shi, Yiqi Luo, Alan K. Knapp, Melinda D. Smith, Scott L. Collins, Will Pockman More reduction in plant productivity than respiration under extreme drought across grassland types along a rainfall gradient: A modeling analysis. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
228. Yiqi Luo, Trevor Keeman, Matthew Smith, Predictability of the terrestrial carbon cycle. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
227. Junyi Liang, Yiqi Luo, Less increase in apparent than intrinsic Q10 of soil carbon release. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
226. Meng Lu, Xuhui Zhou, Yiqi Luo, Bo Li, Responses of ecosystem carbon cycle to experimental warming: a meta-analysis. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
225. Jianwei Li, Yiqi Luo, Susan M. Natali, Edward A.G. Schuur, Jianyang Xia, Bernard Pak, Eva Kowalczyk, Yingping Wang Permafrost thaw and ecosystem carbon cycle under multifactor global change at a tundra site: A modeling approach. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
224. Luo, Y., T. Keenan, and M. Smith (2013), Predictability of the terrestrial carbon cycle. The 9th International Carbon Dioxide Conference, Beijing, China, June 3-7.
223. Luo Y, Xia J, Wang YP, Hararuk O (2013), Theoretical Analysis of the Terrestrial Carbon Cycle. 4th NACP All-Investigators Meeting, Albuquerque, New Mexico, USA. Feb. 06. (Poster)
222. Luo Y, Xia J, Wang YP, Hararuk O, Niu S, et al. (2013) A traceability framework to facilitate model evaluation. CESM Land Model and Biogeochemistry Working Group Meetings, 20-22 Feb. 2013. National Center for Atmospheric Research – Boulder, Colorado Mesa Lab, USA. (Oral)
221. Xia, J, Luo Y, Wang YP, Niu S, Hararuk S (2013) Traceable components of modeled carbon storage capacity in terrestrial ecosystem. 4th NACP All-Investigators Meeting, Albuquerque, New Mexico, USA. Feb. 06. (Poster)
220. Xia, J, Luo Y, Wang YP, Niu S, Hararuk S (2013) A traceability framework for model intercomparisons. Multi-Scale Synthesis and Terrestrial Biospheric Model Intercomparison Project (MsTMIP) Workshop, Albuquerque, New Mexico, USA. Feb. 08. (Oral)
219. Luo Y, Xia J, and Ecolab members. (2013) Evaluating and improving performances of global land-surface models through data synthesis and data assimilation. TES/SBR Joint Investigators Meeting, 14-15 May, 2013. U.S. Department of Energy, Office of Science – Potomac, Maryland, USA. (Poster)
218. Luo, Y. Nonautonomous linear system of the terrestrial carbon cycle. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
217. Schaedel C; EA Schuur; R Bracho; B Elberling; C Knoblauch; A Kotowska; H Lee; Y Luo; M Lupascu; S Natali; GR Shaver; MR Turetsky. Pan-arctic permafrost C quality and vulnerability over time: A synthesis of long-term incubation studies (Invited) 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
216. Li J; S Natali; C Schaedel; EA Schuur; Y Luo. Permafrost carbon cycles under multifactor global change: a modeling analysis. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
215. Li D; R Kelly; F Hu; Y Luo Impacts of shifting fire regime on ecosystem carbon storage capacity in the interior Alaskan forests. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
214. De Kauwe MG; BE Medlyn; MC Dietze; PJ Hanson; T Hickler; AK Jain; Y Luo; RJ Norby; R Oren; WJ Parton; IC Prentice; PE Thornton; A Walker; Y Wang; S Wang; J Warren; D Warland; E Weng; S Zaehle Water use and water use efficiency at elevated CO2: a model-data intercomparison at two contrasting temperate forest FACE sites. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.

213. Hararuk O; J Xia; Y Luo Evaluation and Improvement of Two Global Land Models Against Soil Carbon Data Using a Data Assimilation Approach. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
212. Wieder W; GB Bonan; O Hararuk; Y Luo Integrating Observations to Inform Soil Biogeochemistry in CLM4. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
211. Weng E; Y Luo; W Wang; H Wang; DJ Hayes; AD McGuire; A Hastings; D Schimel Ecosystem carbon storage capacity as affected by disturbance regimes: a general theoretical model. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
210. Walker AP; S Zaehle; MG De Kauwe; MC Dietze; PJ Hanson; T Hickler; AK Jain; Y Luo; HR McCarthy; BE Medlyn; WJ Parton; PE Thornton; S Wang; Y Wang; D Warlind; E Weng; R Oren; RJ Norby Climatic drivers of variability in the response of NPP to elevated CO₂. A model-data comparison at two FACE sites in the south eastern US. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
209. Niu S; Y Luo State Changes in Terrestrial Ecosystem Carbon Cycling after Recovering from Disturbance. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
208. Luo Y; J Yuan; S Niu Climate and Biological Controls of Carbon Fluxes along latitudinal gradients (Invited). 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
207. Qi X. and Y Luo Effect of elevated CO₂ on ecosystem nitrogen fluxes and pools: Meta-analysis. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
206. Zhou J, L Wu, K Xue, L Cheng, M Yuan, J Zhang, Y Deng, JD Van Nostrand, Z He, R Penton, J Cole, J Tiedje, R Bracho-Garrillo, EAG Schuur, C Luo, K Konstantinidis, X Xu, D Li, Y Luo, From community structure to function: Metagenomics-enabled predictive understanding of microbial communities to climate warming at the temperate grassland ecosystems in Oklahoma. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
205. Cheng L., Y. Luo, L. Wu, Y Deng, Y. Qin, J. Van Nostrand, Z He, M Beth Leigh, EAG Schuur, J Tiedje, J Zhou. Experimental warming increases old carbon decomposition through shifting functional microbial communities in a tallgrass prairie. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
204. Luo Y, X Xu, RA Sherry, S Niu, D Li, J Xia State transition of US Great Plains prairie under experimental warming. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
203. Xue K, J Xie, Y Deng, L Wu, Z He, JD Van Nostrand, Y Luo, J Zhou, Interactive effects of clipping practice and experimental warming on soil microbial communities involved in nitrogen cycling in a tallgrass prairie. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
202. Xia J, Y Luo, Y Wang Traceable components of modeled carbon storage capacity in terrestrial ecosystem. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
201. Li D, C Schädel, J Zhou, Y Luo, A data-model fusion technique to evaluate the temperature sensitivity of SOC decomposition. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
200. Hararuk O, D Obrist, Y Luo, Modeling the sensitivity of soil mercury storage to climate-induced changes in soil carbon pools. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
199. Luo R, D Li, Y Luo, Global patterns of fire regime analysis based on fire frequency. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
198. Niu S, R Sherry, X Zhou, Y Luo, Ecosystem water fluxes in response to climate warming and biofuel harvest in a tallgrass prairie. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012

197. Niu S., D. Li, O. Hararuk, L. Yan, X. Chen, E. Ali, and Y. Luo. Disturbance and Recovery in Terrestrial Ecosystem Carbon Cycling-a Global Synthesis, European Geosciences Union General Assembly, Vienna, Austria, 22 – 27 April 2012
196. Luo Y., X. Xu, R Sherry, S. Niu, D. Li, and J. Xia. Climate Extremes Triggered State Shifting of US Great Plains Prairie under Experimental Warming, European Geosciences Union General Assembly, Vienna, Austria, 22 – 27 April 2012
195. Luo YQ (2011) Ecological Forecasting System. National Academies Keck Future Initiative, Ecosystem Services: Charting a Path to Sustainability, Nov. 10-13, 2011, Irvine, CA.
194. Luo YQ, Y Yang, X Zhou, E Weng, AC Finzi, and R Norby (2011) Key parameters in determining carbon-nitrogen coupling under elevated CO₂ in Duke and Oak Ridge Forests: Results from inverse analysis. 27th New Phytologist symposium, Biosphere 2, Oracle, AZ, USA, 25–28 September 2011
193. Zhou XH, YQ Luo, PSJ Verburg, JA Arnone, D. Schimel. 2011 Benchmark analysis of parameterization under climate warming for terrestrial carbon cycle model. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
192. Zhou LH, GJ Yang, YQ Luo, Landscape change and human activity analysis on desertification process in northern China. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
191. Luo YQ, Predicting future states of ecosystems in the southern Great Plains. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
190. Qi X, YQ Luo, XH Zhou, Response of ecosystem nitrogen cycle to elevated CO₂: A meta-analysis. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
189. Niu SL, R Sherry, XH Zhou, YQ Luo, Composition of C₃ and C₄ species regulates ecosystem response to climate warming. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
188. Xiao JF, KJ Davis, JQ Chen, M Reichstein, DD Baldocchi, C Beer, L Chasmer, JM Chen, AR Desai, K Ichii, A Ito, R John, M Jung, T Kato, W Knorr, BE Law, S Liu, YQ Luo, M Mirco, Q Mu, K Naithani, D Papale, SW Running, Y Ryu, KM Schaefer, CR Schwalm, G Sun, H Tian, E Tomelleri, CA Williams, B Wylie, W Yuan, L Zhang (2011) Advances in Upscaling of Carbon and Water Fluxes from Towers to Regional, Continental and Global Scales. 3rd North American Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.
187. SL Niu, YQ Luo, S Fei, Z Zhang, D Schimel (2011) Thermal optimality of Net Ecosystem Carbon Exchange and Its Temperature Acclimation. 3rd North American Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.
186. Schwalm CR, CA Williams, K Schaefer, R Anderson, M Arain, I Baker, A Barr, T Black, G Chen, JM Chen, P Ciais, KJ Davis, A Desai, M Dietze, D Dragoni, ML Fischer, LB Flanagan, R Grant, L Gu, DY Hollinger, RC Izaurrealde, C Kucharik, P Lafleur, BE Law, L Li, Z Li, S Liu, EY Lokupitiya, YQ Luo, S Ma, HA Margolis, R Matamala, HJ McCaughey, RK Monson, WC Oechel, C Peng, B Poulter, DT Price, DM Ricciuto, WJ Riley, AK Sahoo, M Sprintsin, J Sun, H Tian, C Tonitto, H Verbeeck, SB Verma (2011) Evaluating Terrestrial Biosphere Models: Comparing Simulated and Observed Net Ecosystem Exchange. 3rd North American Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.
185. XH Zhou, YQ Luo, PS Verburg, JA Arnone, DS Schimel (2011) Benchmark analysis of parameterization under climate warming for terrestrial carbon cycle model. 3rd North American Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.
184. Luo YQ and ES Weng (2011) *A unified concept for carbon research: Dynamic disequilibrium of the terrestrial carbon cycle under global change*. 3rd North

- American Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.
183. Luo Y. (2010) *Does nitrogen limit carbon sequestration in terrestrial ecosystems?* The 5th international nitrogen conference. New Delhi, India. 4-9 Dec.
 182. Yang, Y, Zhou, X, Weng, E, Luo, Y (2010) Inversion of coupled carbon-nitrogen model parameters against multiple datasets using Markov chain Monte Carlo methodology. 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
 180. Weng, E, Luo, Y (2010) Relative Information Contributions of Model vs. Data to Constraints of Short- and Long-Term Forecasts of Forest Carbon Dynamics. 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
 180. Xiu, X, Luo, Y, Sherry, R A, Yang, Y, Zhou, X, Niu, S (2010) Increased carbon recalcitrance with depletion of labile organic carbon under a long-term experimental warming in a tallgrass prairie. 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
 179. Luo, Y, Zhou, X, Verburg, P, Arnone, J (2010) Benchmark analysis of parameterization for terrestrial carbon cycle model (Invited) . 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
 178. Schädel, C, Fei, S, Luo, Y (2010) Parameter constraints to reveal temperature sensitivity of soil C decomposition by incubation data. 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
 177. Luo, Y, Niu, S, Fei, S, Yuan, W, Zhang, Z, Schimel, D, FLUXNET PIs. (2010) Thermal Acclimation and Adaptation of Net Ecosystem Carbon Exchange (Invited) . 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
 176. Reichstein, M, Ciais, P, Seneviratne, S I, Carvalhais, N, Dalmonech, D, Jung, M, Luo, Y, Mahecha, M D, Moffat, A M, Tomelleri, E, Zaehle, S (2010) How to ‘Elk-test’ biogeochemical models in a data rich world? (Invited). 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
 175. Weng ES, N Petrov, YQ Luo, WL Wang, and H Wang, Carbon storage capacity under varying disturbance regimes. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010
 174. Luo Y, K Ogle, C Tucker, S Fei, SL LaDeau, JS Clark, and DS Schimel, Data assimilation and ecological forecasting in a data-rich era. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
 173. Niu S, X Yan, and Y Luo, Ecosystem carbon exchange in response to climate warming: short vs long term. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
 172. Zhou X and Y Luo, Effects of climate warming and biofuel feedstock harvest on belowground process in a tallgrass prairie. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
 171. Leuzinger S, Y Luo, C Beier, and C Koerner, Global change experiments overestimate impacts on terrestrial ecosystems. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
 170. Dietze M, Y Luo, R Oren, IC Prentice, PJ Hanson, and RJ Norby, How well are we modeling forest responses to elevated CO₂? Results of the FACE/model inter-comparison project. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
 169. Yang Y, X Zhou, and Y Luo, Inversion of coupled carbon-nitrogen model parameters against multiple datasets using Markov chain Monte Carlo methodology. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
 168. Heisler-White JL, J Morgan, WJ Parton, JM Blair, NR Chiariello, JS Dukes, PA Fay, CB Field, SS Hoeppepner, M Hovenden, AK Knapp, Y Luo, S Niu, E Pendall, and V Suseel, Modeled effect of warming on ecosystem carbon and water dynamics within grassland/old-field ecosystems along a moisture gradient. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.

167. Sherry RA, LL Wallace, and Y Luo, Plant community structure and stability over ten years of warming and harvesting. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
166. Fei S, Z Zhang, and Y Luo, Real time forecast of forest carbon dynamics using ensemble Kalman filtering method. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
165. Arnone J, A Lucchesi, R Jasoni, J Larsen, EA Leger, RA Sherry, LL Wallace, Y Luo, and PSJ Verburg, The role of grassland plant species composition in defining synchronous and lagged responses of NPP and net ecosystem CO₂ balance to interannual temperature variability. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
164. Yang, Y and Luo, Y. Long-term nitrogen regulation of forest carbon sequestration. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
163. Weng, E and : Luo, Y. Comparing intra- and inter- biogeochemical model uncertainties based on the results of the North American Carbon Program Site-level Interim Synthesis. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
162. Luo, Y. Data Assimilation at FLUXNET to Improve Models towards Ecological Forecasting (*Invited*) . American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
161. Niu, S and Luo, Y. Nitrogen regulation of climate-carbon cycle feedback: evidence from a long- term global change experiment. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
160. Arnone, J, Jasoni, R L, Larsen, J D, Coulombe, W, Darrouzet-Nardi, A, Luo, Y, and Verburg, P. Ecosystem respiratory responses to interannual and seasonal temperature variability in intact tallgrass prairie ecosystems in the EcoCELLs. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
159. Fei, S, Weng, E, Zhou, X, and Luo, Y. Real time forest carbon flux dynamics forecasting using Ensemble Kalman Filter. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
159. Luo Y. Grassland biodiversity and ecosystem functions under climate change. Second DIVERSITAS Open Science Conference. 13 – 16 October 2009, Cape Town, South Africa
158. Yang Y and Y Luo. Carbon and nitrogen accumulation during secondary succession. Ecological Society of America Annual Meeting, Albuquerque, New Mexico, August 2-7, 2009
157. Zhou X, Y Luo, PSJ Verburg, J Arnone, and DS Schimel. Concurrent and lagged impacts of an anomalously warm year on components of soil respiration: A deconvolution analysis. Ecological Society of America Annual Meeting, Albuquerque, New Mexico, August 2-7, 2009
156. Luo Y, M Lu, X Zhou, B Li, C Fang, and J Chen. Minor stimulation of soil carbon storage by nitrogen addition. Ecological Society of America Annual Meeting, Albuquerque, New Mexico, August 2-7, 2009
155. Sheik C, M Elshahed, Y Luo, G Wiley, S Macmil, C Qu, P Wang, BA Roe, and L Krumholz. Pyrosequencing reveals the effects of simulated warming on microbial abundances and diversities in a tall grass prairie. Ecological Society of America Annual Meeting, Albuquerque, New Mexico, August 2-7, 2009
154. Luo YQ. Terrestrial Carbon-Cycle Feedback to Climate Warming: Experimental Evidence. Climate Change: Global Risks, Challenges, and Decisions, March 10-12 Copenhagen.
155. Daniel M Ricciuto, Kenneth J. Davis, Ankur R Desai, Andrew M Fox, Michael C Dietze, Shuguang Liu, Yiqi Q Luo, Andrew D Richardson, Kevin Schaefer, Mathew Williams.

- Improving carbon flux predictions in North America from the bottom up: The current state of eddy covariance based model-data fusion North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
154. Xuhui Zhou, Tao Zhou, Yiqi Luo. Uncertainties in carbon residence time and sequestration in terrestrial ecosystems of the conterminous USA: A Bayesian approach North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
 153. Jingfeng Xiao, Kenneth J. Davis, Xuhui Zhou, Tao Zhou, Yiqi Luo, Christian Beer, Ben Bond-Lamberty, Ankur Desai, Martin Jung, Beverly E. Law, Leo Liu, Wilfred M. Post, Markus Reichstein, Daniel Ricciuto, Enrico Tomelleri, David Turner, Steven C. Wofsy, Bruce K. Wylie, Xiangming Xiao, Feihua Yang, Li Zhang, Maosheng Zhao. Regional to Continental Upscaling of AmeriFlux Data for Carbon Cycle Studies: Progress, Challenges, and New Directions. North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
 152. Deb Agarwal, Brian Amiro, Ryan Anderson, Altaf M. Arain, Ian Baker, Dennis Baldocchi, Alan Barr, Andy Black, Tom Boden, Paul Bolstad, Sean Burns, Steve Campbell, Guangsheng Chen, Jing Chen, Philippe Ciais, Bob Cook, David Cook, Peter Curtis, Kenneth J. Davis, Steve Delgrosso, Michael Dietze, Dimitre Dimitrov, Danilo Dragoni, Howard Epstein, Matthias Falk, Marc Fischer, Larry Flanagan, Allen Goldstein, Michael Goulden, Robert F. Grant, Lianhong Gu, Niall Hanan, Iain Hawthorne, Tim Hilton, Forrest Hoffman, David Hollinger, Tara Hudiburg, Misa Ishizawa, Cesar Izaurralde, Jeff Nichols, Robin Kelly, Tony King, Christopher Kucharik, Peter Lafleur, Beverly Law, Zhengpeng Li, Leo Liu, Mingliang Liu, Erandi Lokupitiya, Yiqi Luo, Hank Margolis, Roser Matamala, Harry McCaughey, Tilden Meyers, Russell Monson, Bill Munger, Walt Oechel, Ram Oren, William Parton, Elizabeth Pattey, Changhui Peng, Philippe Peylin, ShiLong Piao, Mac Post, Ben Poulter, David Price, Brett Raczka, Dan Ricciuto, Andrew Richardson, William J. Riley, Michael Ryan, Alok Sahoo, Nick Saliendra, Crystal Schaaf, Kevin Schaefer, Andrew Schuh, Michael Sprintsin, Paul Stoy, Peter Thornton, Hanqin Tian, Christina Tonitto, Margaret Torn, Catharine van Ingen, Rodrigo Vargas, Hans Verbeeck, Shashi Verma, Nicolas Viovy, Weile Wang, Ensheng Weng, Christopher Williams, Xiaofeng Xu, Bai Yang, Wenping Yuan, Tianshan Zha, Xuhui Zhou. Site-level synthesis of modeled and measured carbon, water, and energy fluxes across North America: Evaluation of model and measurement uncertainty. North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
 151. Luo YQ, NM Urban, KJ Davis, K Keller, P Thornton, M Post, ES Weng. Assimilation of Multiple, Heterogeneous Data Sets to Enhance Predictability of Future Carbon Sink dynamics in the North America Terrestrial Ecosystems. North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
 150. Zhou XH, T Zhou, YQ Luo. Uncertainty analysis of carbon turnover time and sequestration potential in terrestrial ecosystems of the conterminous USA. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
 149. Fei SF, RA Sherry, XH Zhou, LL Wallace, J Arnone, DS Schimel, PSJ Verburg, and YQ Luo. Changes of root biomass in response to a one-year temperature and precipitation alteration experiment in a tallgrass prairie. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
 148. Bell JE and YQ Luo. A meta-analysis and modeling approach to understanding climate warming impacts on ecosystem rain use efficiency. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.

147. Hui DF, PSJ Verburg, J Arnone, and YQ Luo. Dynamics and partitioning of whole ecosystem respiration in a controlled grassland ecosystem. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
146. Yuan WP, and YQ Luo. Environmental and biological regulations of interannual variability of net ecosystem exchange across regional scales. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
145. Luo YQ, D Gerten. Modeled interactive effects of precipitation, temperature, and CO₂ on ecosystem carbon and water dynamics in different climatic zones. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
144. Lu M, YQ Luo and B Li. Nitrogen fertilization differentiates carbon and nitrogen sequestrations in terrestrial ecosystem: A meta-analysis. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
143. Gao C, H Wang, S. Lakshmivarahan, ES Weng, YF Zhang, and YQ Luo. Parameter estimation and uncertainty analysis of forest carbon dynamics: Ensemble Kalman filter method. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
142. Weng ES, C Gao, and YQ Luo. Uncertainty analysis with data-model assimilation at Duke FACE. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
141. Luo YQ. Biofuel feedstock production and carbon balance under Climate Changes. Oklahoma Bioenergy Symposium. University of Oklahoma, April 23, 2008.
140. Obrist D, Fain X, Johnson D, Lindberg S, Luo Y (2008) Mercury sequestration in vegetation and soils and consequences for atmospheric mercury levels. USDA Air Pollution Workshop and Symposium, Raleigh, NC, April 2008.
139. Obrist D. Luo Y, Johnson D, Lindberg S. Mercury sequestration in vegetation and soils in US forests and consequences for atmospheric mercury levels (2008). Swiss Soil Monitoring Network (NABO), Federal Office for the Environment, Department of the Environment, Transport, Energy, and Communications, Switzerland.
138. Obrist D, Luo Y, Johnson DW, Lindberg SE (2007). Effects of global change on the atmospheric mercury burden and mercury sequestration through changes in ecosystem carbon pools. Consequences of Global Change for Air Quality Progress Review; US EPA National Center for Environmental Research, February 2007, Raleigh, NC.
137. Zhou, XH, ES Wen, Y. Luo Patterns of nonlinearity in ecosystem responses to multifactor global change. Annual AGU meeting, San Francisco, CA, Dec. 9-14, 2007.
136. Luo Y. R Sherry, X. Zhou. Ecosystem-scale sensitivity of carbon cycling to climate warming. Annual AGU meeting, San Francisco, CA, Dec. 9-14, 2007.
135. Yuan WP, Y. Luo and AmeriFlux and EuroFlux PIs. Latitudinal Patterns of Interannual Variability in Net Ecosystem Exchange. Annual AGU meeting, San Francisco, CA, Dec. 9-14, 2007.
134. Luo YQ Uncertainty analysis with data assimilation. Annual AmeriFlux meeting, Boulder CO. Oct.17-19, 2007.
133. Yuan WP, Y. Luo and AmeriFlux and EuroFlux PIs. Latitudinal Patterns of Interannual Variability in Net Ecosystem Exchange. Annual AmeriFlux meeting, Boulder CO. Oct.17-19, 2007.
132. Luo, Y. Model assimilation of data from manipulative experiments. In NSF workshop: Data-model assimilation in ecology: techniques and applications, Norman, Oklahoma, 22-24 October, 2007
131. Gao, G. H Wang, S Lakshmivarahan, ES Weng, YF Zhang, and YQ Luo. Parameter estimation of forest carbon dynamics using Kalman Filter methods –Preliminary results. In NSF workshop: Data-model assimilation in ecology: techniques and applications, Norman, Oklahoma, 22-24 October, 2007.

130. Weng ES, C. Gao, YQ Luo. Uncertainty Analysis with Data-Model Assimilation at Duke FACE. In NSF workshop: Data-model assimilation in ecology: techniques and applications, Norman, Oklahoma, 22-24 October, 2007
129. Zhou XH, T. Zhou, YQ Luo. Uncertainty analysis of carbon turnover time and sequestration potential in terrestrial ecosystems of the Conterminous USA. In NSF workshop: Data-model assimilation in ecology: techniques and applications, Norman, Oklahoma, 22-24 October, 2007
128. Luo Y. Carbon uptake drives nitrogen cycling in terrestrial ecosystem. The 4th international conference on Nitrogen, Salvador, Brazil. Oct 1-5, 2007.
127. Liao CZ, Y. Luo, X. Zhou, X. Wu, J. Chen, and B. Li. Altered ecosystem carbon and nitrogen cycles by plant invasion: A meta-analysis. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
126. Sherry RA, LL Wallace, Y Luo, J Arnone, and DS Schimel Changes in species cover due to interannual variation in temperature and precipitation in a tallgrass prairie experiment. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
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124. Bell JE, Y Luo, and E Weng Impact of climate change on prairie soil water dynamics. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
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 2. Luo, Y., H.A. Mooney, and C.B. Field, 1993. An explanation of variable responses of photosynthesis and root/shoot ratio to elevated CO₂. In annual meeting of ERA held in Madison, Wisconsin, 31 July-4 August 1993. Bulletin of the Ecological Society of America 74: 339.
 1. Luo, Y. and P.S. Nobel, 1992. Carbon partitioning patterns and compartmental analysis for *Opuntia ficus-indica*. In annual meeting of ERA held in Honolulu, Hawaii, 9-13 August 1992. Bulletin of the Ecological Society of America 73: 256-257.

STUDENTS, POST-DOCS, AND VISITORS

Post-docs and research associates (a total of 41, currently 4)

- 2017-pres. Junliang Zou (Tsinghua),
- 2017-pres. Xinjie (Chris) Lu, permafrost regional data assimilation
- 2016-2017. Yuanyuan Huang, Real-time ecological forecasting
- 2015-2016. Jiang Jiang, ecosystem state change
- 2015-pres. Kevin Wilcox, data-model integration for extreme drought study.
- 2015-pres. Zheng Shi, data assimilation with Community Land Model (CLM) and Orbital Carbon Observatory (OCO-2)
- 2014-2016. Wenting Feng, Soil carbon dynamics
- 2014-2016. Manoj KC, modeling global carbon cycle
- 2014 Jie Yin, Modeling analysis.
- 2014-2015 Kathe Todd-Brown, Global carbon cycle modeling.
- 2013-2014. Rashid Rafique, Modeling analysis of coupled carbon-nitrogen cycles
- 2012-2013. Francesc Montané, modeling analysis of carbon cycle
- 2012-pres. Lifen Jiang, meta-analysis and lab management
- 2012-2014. Xia Xu, SOC dynamics
- 2012-2014. Jianwei Li, modeling of microbial processes
- 2011-2013. Liming Yan (Fudan), Terrestrial ecosystem responses to extreme hydrological events.
- 2011-2015. Jianyang Xia, global modeling analysis of biogeochemical cycles.
- 2011-2013. Yaner Yan (Fudan), Emission and absorption of greenhouse gases by natural ecosystems in China.
- 2011-2013. Dejun Li, Deconvolution analysis of soil incubation data and modeling Tundra ecosystems responses to climate change.
- 2010-2011. Christina Schädel, Decomposition of soil organic matter.
- 2009-2012, post-doc, 2012. Research Assistant Prof. Shuli Niu. Warming effects on carbon, water, and nutrient dynamics.
- 2008-2011. Yuanhe Yang, Nitrogen-carbon interactions during forest success and in response to elevated CO₂.

- 2008-09. Xiaoli Cheng, Nutrient dynamics and litter decomposition under warming.
- 2007-2009, Xuhui Zhou, post-doc, 2009-2011. Assistant Research Professor, Inverse analysis.
- 2002-2008, Rebecca A Sherry, Research Associate; 2008-10. Assistant Research Professor, Ecosystem carbon exchange under warming.
- 2007-2008. Wenping Yuan, Interannual variability of net ecosystem exchange of carbon and water.
2005. Tao Xu, Inverse analysis of biogeochemical cycles in terrestrial ecosystems
- 2005-07. Weng, Ensheng, Modeling ecosystem responses to multiple global change factors
2004. Asfaw Tedla. Microbial and genomic responses to experimental warming in tallgrass prairie.
- 2003-2005. Xiaoli Cheng. Trace emission from salt marsh (located in Fudan Univ. Shanghai, China)
- 2003-2005. Lifeng Jiang. Ecosystem C cycling in salt marsh (located in Fudan Univ. Shanghai, China)
- 2003-2005. Tao Zhou. Regional ecosystem modeling
- 2002-04. Dafeng Hui. Interannual variability in terrestrial ecosystem exchange of carbon and water.
- 2002-03. Ilkka Lenenoin, Modeling study of responses of Duke Forest to elevated CO₂.
- 2000-02. Xiaozhong Liu. Plant ecophysiology in response to global environmental change.
- 2000-01. Valérie Le Dantec. Modeling analysis of forest/atmosphere carbon exchange using eddy-flux data.
- 1999-2001. Lianhai Wu. Nutrient cycling in forests as affected by rising atmospheric [CO₂]
- 1999-2000 Uwe Gruters. Hydrological cycle in forests as affected by rising atmospheric [CO₂]
- 1998-99. Shi Kui Xue. Watershed ecology and modeling. (currently Senior Scientist, South Florida Water Management District [so-called Everglade Restoration Program])
- 1996-98. Andrew Peterson, Meta-data analysis.
- 1994-96. Daniel Sims. Plant physiological ecology.
- Graduate students (a total of 36, currently 7, 4 at NAU, 1 at OU and 2 in China)
- 2017-pres. Jingmeng Wang (Ph.D.) at Department of Earth System Science, Tsinghua University
- 2016-pres. Volodymyr Saruta (Ph.D.)
- 2016-pres. Guopeng Liang (Ph.D.) 2015-pres. Ling Du (Ph.D.)
- 2015-pres. Shuang Ma (Ph.D.)
- 2015-pres. Chang Gyo, Jung (Ph.D.)
- 2014-pres. Qiangyue Li (Ph.D.) at Center for Earth System Science, Tsinghua University
- 2013-2014. Nate Mikle (MS), Extreme climate effects on global productivity.
- 2013-2016. Junyi Liang (Ph.D.)
- 2011-2014. Xuecheng Cheng (MS) Litter decomposition
- 2011-2015. Zheng Shi (Ph.D.) Data assimilation and ecological forecasting.
- 2010-2012. Esther Ali (MS) Soil carbon dynamics of tropical forest ecosystems after fire.
- 2010-2013. Xuan Qi (MS). Soil nitrogen dynamics in response to global change.
- 2009-2011. Zhongda Zhang (MS) Computer Sciences
- 2008-2014. Junjiong Shao (Ph.D) Interannual variability of net ecosystem exchange (located at Fudan Univ. Shanghai, China)
- 2008-2014. Oleksandra Hararuk (Ph.D) Modeling study of mercury dynamics in terrestrial ecosystems.
- 2008-2012. Xia Xu (Ph.D.) Temperature sensitivity of soil organic matter.
- 2007-2011. Shenfeng Fei (MS) Root ecology
- 2007-2011. Ensheng Weng (Ph.D.) modeling analysis

- 2006-09. Li Zhang (Ph.D.) Parameter estimation of ecosystem carbon process model at a southern China Forest (located at Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Science, Beijing)
- 2006-08. Chao Gao (MS.) Inverse analysis of carbon processes at Duke Forest CO₂ experiment.
- 2006-09. Yixin Wen (MS) carbon and nitrogen dynamics during litter decomposition (located at Fudan Univ. Shanghai, China)
- 2005-2009. Meng Lu (Ph.D.) Meta-analysis of carbon and nitrogen interactions under fertilization (located at Fudan Univ. Shanghai, China)
- 2004-2009. Jesse Bell (Ph.D.) Plant-soil water relationship under warming.
- 2005-08. Ke Zhao (MS) carbon and nitrogen fluxes in coastal ecosystems (located at Fudan Univ. Shanghai, China)
- 2005-07. Xiaowen Wu (MS) Thesis: “Conditional inversion to estimate parameters from eddy flux observations”.
- 2004-07. Weimin Quan (Ph.D.) Biogeochemical cycles and food webs (located at Fudan Univ. Shanghai, China)
- 2003-05. Xiaowen Wu (MS) modeling study of invasive effects on carbon and nitrogen cycles (located at Fudan Univ. Shanghai, China)
- 2003-07. Chengzhang Liao (Ph.D.) Dissertation: “The effects of invasive alien plants on ecosystem carbon and nitrogen cycles: A case study of *Spartina alterniflora* invasion in the Yangtze estuary and a meta-analysis” (located at Fudan Univ. Shanghai, China)
- 2003-07. Xuhui Zhou (Ph.D.) Dissertation: “Responses of soil respiration and ecosystem productivity to climate change in southern Great Plains”.
- 2002-05. Afzal Subedar (MS). Thesis: “Effects of warming and clipping on carbon and nitrogen content and their isotope ratios in soil organic matter aggregates in a tall grass prairie ecosystem”.
- 2001-04. Asfaw Tedla (MS) Thesis: “Carbon and nitrogen dynamics and microbial community structure of a tall grass prairie soil subjected to simulated global warming and clipping”.
- 2000-02. Sara Bowdish (MS, coadvised with Linda Wallace). Thesis: “The effects of warming and land-use on species composition in the tallgrass prairie”
- 2000-05. Bo Su (Ph.D.) Dissertation: “Interactions Between Ecosystem Carbon, Nitrogen and Water Cycles under Global Change: Results from Field and Mesocosm Experiments”.
- 2000-2002. Shiqiang Wan (Ph.D.) Dissertation: “Responses of a Tallgrass Prairie to Experimental Warming”.
- 1999-2002. Dafeng Hui (Ph.D.) Dissertation: “Experimental and Modeling Studies of Canopy Radiation and Water Use Efficiencies, Soil Respiration and Net Ecosystem Carbon Exchange”.

Undergraduate and high school students (a total of 31, currently 1 in the lab)

2017. Xinyuan Ma
2016. Anh Hoang, Norman High School
2015. Qi Luo, Beijing Normal University as visiting student at OU
2014. Austin McCullough
2014. Shelby K. Thomas
2013. Yueqi Tan, Beijing Normal University as visiting student at OU
- 2013-2014. Andrew Williams
2013. Ashley Eddy
2012. Mark Morrison
2012. Shanshan Luo
- 2011-2012. Erin Weese

- 2010. Zak Barton
- 2009. Kari Kerwin, Jonathon Whalen
- 2008. Nathan Fite, Ecohydrological responses to climate change
- 2008. Michael Kistenmacher, Modeling of species dynamics
- 2007. Connor Ferguson from Norman High School: Summer intern.
- 2007. Rachael Carnes from Hendrix College: Summer intern
- 2007. Christopher Clary: Capstone project on soil crust in grasslands.
- 2006. William Snodgrass: Lab assistance
- 2004, summer. Jack Miller. Lab and office assistance.
- 2002-05. Taylor Clark, Assistance in literature study and office work.
- 2002 Ryan Hook from U. of Oklahoma. Ecosystem warming experiment.
- 2002-2003 Cody Sheik from U. of Oklahoma. Ecosystem warming experiment.
- 2001. Cassy Harnes from U. of Oklahoma. Ecosystem warming experiment.
- 2000. Tze-yuin Loh from U. of Oklahoma, ecosystem nitrogen cycling
- 2000-01. Gwen Cloud from U. of Oklahoma, biocomplexity and global warming effects on prairie.
- 1999. Edmond H. Mamou from Kalamazoo college, MI. Mathematical Ecology of carbon processes.
- 1999-2000. Luke Farbar from U. of Oklahoma, study global warming effects on tallgrass prairie.
- 1998. Vicker Rameker from Colorado State U. Human interactions in the Tahoe Basin ecosystems.
- 1995-97. Gavin Chandler from the University of Nevada, study plant responses to elevated CO₂.
- 1994-95. Susan Pederson from the University of Nevada, study plant responses to elevated CO₂.

Visiting students, professors and Scientists (67, currently 15)

- 2016-pres. Lei Huang, Professor, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Science, Lanzhou, China
- 2016-pres. Qin Peng, Associate Professor, Institute of Geographical Science and Natural Resources Research, Chinese Academy of Science, Beijing, China.
- 2016-pres. Mianhai Zheng, Ph.D. student, South China Botanical Garden, Chinese Academy of Science, Guangzhou, China
- 2016-17. Xuan Wei, Ph.D. student, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Science, Lanzhou, China
- 2016-pres. Guanghui Ming, Ph.D. student, Tsinghua University, Beijing, China
- 2016-pres. Zhenggang Du, Ph.D. Student, East China Normal University, Shanghai, China
- 2016-pres. Zhenghu Zhou, Ph.D. student, Northeast Forestry University, Harbin, China.
- 2016-17. Dayong Zhao, Professor, Hohai University, Nanjing, China
- 2016-17. Yuemin Yue, Associate Professor, Assistant Prof., Institute of Subtropical Agriculture, Chinese Academy of Sciences
- 2016-17. Haijun Yang, Assistant Professor, Institute of Geographical Sciences and Natural Resource Research, Chinese Academy of Sciences, China
- 2016-pres. Xuan Xue, Professor, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, China
- 2016-17. Fei Peng, Assistant Professor, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, China
- 2016-17. Bo Liu, Associate Professor, Nanjing University of Information Science and Technology, Nanjing, China

2016-17. Hanyue Chen, Assistant Professor, Fujian Agricultural and Forestry University, China

2015 Benjamin Quesada, Karlsruhe Institute of Technology (KIT) - Campus Alpin, Garmisch-Partenkirchen (DE)

2015-17. Hui Zhao, Assistant professor, Institute of Mountain Hazards and Environment (IMHE), Chinese Academy of Sciences (CAS), China

2015-16 Yugang Wang, Associate Professor, Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, Urumqi, China.

2015-16 Shengyun Chen, Associate professor, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, Lanzhou, China

2015-16 Yuefang Zhang, Associate Professor, Institute of Agricultural Resources and Environment, Jiangsu Academy of Agricultural Sciences, China.

2015-16 Yuying Wang, Associate Professor, Center for Agricultural Resources Research, Institute of Genetics and Developmental Biology, CAS, Shijiazhuang, China.

2015-16 Xinji (Chris) Lu, CRISO, Australia

2015-16 Wei Zhang, Associate Professor, Institute of Subtropical Agriculture, CAS, Changsha, China

2015 Junguo Hu, student, Zhejiang Forestry University, Linai, China

2015 Life Sun, Professor, Shaoxing University, Shaoxing, China

2014-15 Jianfeng Guo, Associate professor, Fujia Norman University, Fuzhou, China

2014-15 Yaozhan Xu Ph.D. student, Wuhan Botanical Gardon, Chinese Academy of Science, Wuhan, China

2014 Yizhan Chen, Ph.D. student, Nanjing University, Nanjing, China

2014 Xianotian Xu, Ph.D. student, Peking University, Beijing, China

2014-15 Ji Chen, Ph.D. student, Institute of Earth Environment, Chinese Academy of Science, Xi'an, China

2014-15 Junfeng Wang, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Lanzhou, China.

2013-14. Huatian Wang, Shanghai Technology University, China.

2013 Changfu Huo, Institute of Applied Ecology, Shenyang, China

2013-14. Changting Wang, Professor from Southwest University for Nationalities, China

2013-2014. Shiqiang Wan, Professor from Henan University, China

2013, Anders Ahlström from Lund University, Sweden for three weeks in Oct.

2013- 14. Xiankai Lu, Associate professor from South China Botanical Garden, the Chinese Academy of Sciences, China

2013-14. Guangxuan Han, Associate Research Professor from Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, China

2013 (March-August). Qing Li, Visiting student from Tsinghua University, China.

2013 Kees Jan van Groenigen, Northern Arizona University (one week in Jan.)

2012- 2013. Xiaoming Xu, Research Assistant Professor from Shanxi University, China

2012- 2013. Wei Zhang, Assistant Professor from South China Botanical Garden, the Chinese Academy of Sciences, China

2012-2012. Xinfang Chen, Associate professor from Hehai University, China

2011-2012. Ruisen Luo, Visiting student from Zhejiang University, China.

2010-2011, Huajun Fang, Associate Professor, Institute of Geographical Sciences and Natural Resource Research, Chinese Academy of Science, Beijing, China.

2010-2011, Zhibin He, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Lanzhou, China.

2009-2010, Guojing Yang, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Lanzhou, China.

- 2009-2011, Lihua Zhou, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Lanzhou, China.
- 2009-2011, Ding Guo, visiting student from Lanzhou University, China.
2009. Chuankuan Wang, Professor, Northeastern Forestry University, Herbin, China.
- 2008-2010. Xiaohong Jia, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Lanzhou, China.
2008. Shuli Niu. Associate Professor, Institute of Botany, Chinese Academy of Sciences.
- 2007-09. Xiaoli Cheng, Associate Professor, Wuhan Botanical Garden, Chinese Academy of Sciences.
2006. Sarah Briden, Graduate student, University of West Virginia.
2006. 2007-09. Xian Xue, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Lanzhou, China.
2006. Tao Wang, Director and Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Lanzhou, China.
2006. Wenwei Ren, Associate Professor from Fudan University, Shanghai, China. Environmental Sustainability
- 2003-04 Yuan An, Associate Professor from Jiatong University, Shanghai, China. Grassland ecology.
2003. Jianchan Yang. Professor from Yangzhou University, China. Physiological ecology
2002. 2003. Deqiang, Zhang, Associate Professor of South China Institute of Botany, Guangzhou, China. Global patterns of controlling factors of litter decompositions in terrestrial ecosystems
- 2001-2002. Meichun Yan from Nanjing Agricultural University, China.
- 1999-2000. Asfaw Belay Tedla from University of Pretoria, South Africa
- 1999-2000. Antonio Cueto from Universidade de Santiago de Compostela, Spain.
- 1998-99 Shiqiang Wan. Ecosystem and watershed ecology.
1999. Belinda Medlyn from U. of Edinburgh. Modeling canopy carbon uptake in forests.
1998. Jesus M. Txurruka, Professor from U. of Basque Country, Spain. Growth modeling of *Arion ate*.
- 1997-98. Hui Dafeng from Yangzhou U, China. Ecosystem modeling.
1995. Xueli Cheng from Desert Research Institute, China. Ecophysiology of desert plants.

Technician and Others (6)

6. Wendy Martin, Lab management. 2010.
5. Cory Buchanan, Construction of a warming and precipitation experimental facility. 2008-2009.
4. Lynda Snake, accountant for financial management of research projects. 2000-2010.
3. Solja Lipitsainen. Field technician for the warming experiments. 2002-03.
2. Nancy Zehrbach. Field/lab technician for the warming experiments. 2002-05.
1. DeLora Mowery, Field technician for global warming studies. 2001-02.

PROFESSIONAL ACTIVITIES

Invited seminars/talks 2016 (13)

- Distinguished Lecture for the Biogeosciences (BG) Section at the 13th Annual Meeting of the Asia Oceania Geosciences Society, Beijing from July 31 to 05 August, 2016.
- Workshop “Earth system model coupling”, Beijing, China, June 28 Department of Ecology, Eastern China Normal University, June 24,
- International workshop “Nutrient limitation on land: how accurate are our global land models?”, Yanglin, China, June 15-17
- Northwestern Agricultural and Forest University, Yanglin, China, June 14. Northwestern Polytechnical University, Xi'an, China, June 13.

Department of Hydrology and hydraulic engineering, Tsinghua University, June 2
International Land Model Benchmarking (ILAMB) Workshop, Washington, DC, USA, May 16–18, 2016

Institute of Ecology and Environment, Le Centre national de la recherche scientifique, Montpellier, France, April 16.

CLIMMANI/INTERFACE workshop “After the extreme: Measuring and modeling impacts on terrestrial ecosystems when thresholds are exceeded” *Florence, Italy; 12th-15th April, 2016.*

AnaEE – International Conference, From Experimentation to Global Prediction, 2 - 3 March 2016 - Paris, France

Department of Global Ecology, Carnegie Institution of Sciences, Stanford, CA, Jan. 26

Operationalizing Ecological Forecasts, NEON workshop, USGS Powell Center, Ft. Collins, CO, January 6-8

2015 (22)

DOE workshop on trait methods for representing ecosystem change, Rockville, MD, Nov 17-18

School of Ecological and Environmental Sciences, East China Normal University, Shanghai, China, Sept. 26

Shanghai Academy of Environmental Science, Shanghai, China, Sept. 25

14th annual meeting of Ecological Society of China, Chengdu, China, Sept. 23
Research Center for Eco-Environmental Sciences, CAS, Beijing, China, Sept. 20
Department of Biology, University of New Mexico, Albuquerque, NM, August 20

A joint symposium between Colorado State University and Hawkesbury Institute for the Environment, University of West Sydney, Australia, August 17

Ecology Forum, Institute of Geographical Sciences and Natural Resource Research, CAS, Beijing, China, July 16

FLUXNET Synthesis Workshop: Mining FLUXNET and other carbon data sources to inform Earth system models, Beijing, China, July 14-16

Institute of Botany, Chinese Academy of Sciences, Beijing, China, July 13
School of Environment, Tsinghua University, June 9

College of Global Change and Earth System Science, Beijing Normal University, May 13
College of Biology and the Environment, Nanjing Forestry University, Nanjing, China, May 10

College of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou, China, May 6

Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing, China, May 3

Department of Biological Science, University of Texas at El Paso, April 24

Workshop: Recent developments in data-model fusion for carbon and GHG science, Paris, France, April 21 (delivered through webinar)

Department of Earth and Environmental Sciences, Lehigh University, March 20

Center for Ecological Research, Northeast Forestry University, Harbin, China, March 9.
Institute of Subtropical Agriculture, CAS, Changsha, China, March 5.

5th North American Carbon Program (NACP) PI meeting, Washington DC, Jan. 28.

Department of Physical Geography and Ecosystem Science, Lund University, Sweden, Jan. 20

2014

Department of Biology, West Virginia, Morgantown, WV, December 1

International workshop on Big-Data in Geo-computing. Tsinghua University, Nov. 10
Big Data Forum - HPC China 2014, Guangzhou, China Nov. 7th - 8th

International innovation team meeting, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, Lanzhou, China, Nov. 4.

National Extreme Events Data and Research Center (NEED Center) Workshop, Oak Ridge National Laboratory, Tennessee, July 31.

College of Resources and Environment, Fujian Agriculture and Forestry University, China, May 21

College of geographical Science, Fujian Normal, Fuzhou, Fujian, China, May 21

Institute of Urban Environment Chinese Academy of Sciences, Xiamen, China May 20

College of the Environment and Ecology, Xiamen University, Fujian, China, May 20

The 5th International Forum for Young Ecologists, Henan University, China, May 16

INTERFACE workshop: Using results from global change experiments to inform land model development and calibration, Beijing, May 12 2014

DOE National Lab Belowground mini-workshop, Potomac, MD May 8 2014

Frontier Lecture Series of Earth System Sciences, Beijing Normal University, Beijing China, April 28

International Institute for Earth System Sciences, Nanjing University, China, April 20

Workshop: Advancing software for ecological forecasting, Champaign, IL. March 25

Department of Earth and Environment, Florida International University, Miami, FL, Feb. 28

Soil research group, University of Melbourne, Carlton Vic, Australia, Feb. 7

Melbourne School of Land and Environment, University of Melbourne, Carlton Vic., Australia, Feb. 6

CSIRO Ocean and Atmosphere Flagship, Aspendale, Vic., Australia, Feb. 5

2013

Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China, December 17

International Center for Ecology, Meteorology, and Environment (IceMe), Nanjing University of Information Science and Technology, Nanjing, China, December 17.

Department of Biological Sciences, Tennessee State University Nov. 6

Soil Science Society of America Session “Towards a Conceptual Model of Soil Carbon Cycling Across Scales” Nov. 5

Batsheva de Rothschild Seminar on “Coordinated approaches for studying long-term ecosystem responses to global change”, Ramat Hanadiv Park, Israel - September 29th – October 4th, 2013

OU Botanical Society, September 27.

INTECOL Symposium “Global Change and Ecosystem Ecology: Beyond the Study of Nutrient Cycling” 18 to 23 August 2013, London UK

Global Change Research 2013: Coupled Natural & Human Systems, Nanjing University of Information Science and Technology, Nanjing, China, June 18-20.

US-China Carbon Consortium annual meeting, Haikou, Hainan, China, June 14-17

The 7th ISOME: International Symposium on Modern Ecology, Guangzhou, China, June 9-15

Steve Pacala Lab, Department of Ecology and Evolution, Princeton University, April 29

EGU session Biospheric feedbacks on the Earth system, Vienna, Austria, April 9.

Institute of Botany, Chinese Academy of Science, China, Jan. 10

Annual meeting, Center for Earth System Science, Tsinghua University, China, Jan. 4

2012

Center for Earth System Science, Tsinghua University, Beijing, China Dec. 28

Institute of Tibet Plateau Research, Chinese Academy of Sciences, Beijing, China, Dec. 26.

Department of Plant Sciences, University of Illinois at Urbana-Champaign, Dec. 10

CSIRO, Atmosphere and Marine Science Division, Aspendale, Nov. 15 University of Melbourne, Melbourne, Australia, Nov. 12
CSIRO, Atmosphere and Marine Science Division, Canberra, Nov. 7 Australia National University, Canberra, Australia, Nov. 7 Macquarie University, Sydney, Australia, Oct. 26
RCN FORECAST New Investigators Conference, Woods Hole, MA, Oct. 8-11 Environmental Sciences Division, Oak Ridge National Laboratory, TN, July 10
3rd international young ecologist forum, Henan University, Kaifeng, China, June 12 Institute of Remote Sensing Applications, Chinese Academy of Sciences, Beijing, June 7 Institute of Botany, Chinese Academy of Sciences, Beijing, June 6
College of Global Change and Earth System, Beijing Normal University, Beijing, June 4. Ecological lecture series, Fudan University, Shanghai, May 29-30
Public talk, Star Lecture Series, Fudan University, Shanghai, May 28 National Chiao-Tung University, Taiwan, May 21.
Institute of Geographical Sciences and Natural Resource Research, CAS, April 6.
DOE Workshop: Strategies to Promote Integrated Experiment-Model Approaches to Terrestrial Ecosystem Study, Bethesda, Maryland, March 18-21
School of Natural Sciences, University of California, Merced, March 7-8
Department of Ecology and Evolution, University of California, Irvine, February 16-17
NIMBioS Investigative Workshop: Disturbance Regimes and Climate-Carbon Feedback, Knoxville, TN, Feb 13-15

2011

DataONE-ILAMB workshop on cyberinfrastructure, NCEAS, Santa Barbara, CA, Nov. 14-17
27th New Phytologist symposium “Stoichiometric flexibility in terrestrial ecosystems under global change. Biosphere 2, Oracle, AZ, USA, 25–28 September 2011
Department of Geological Sciences, University of Texas Austin, August 9,
Carbon Cycle and Climate Conference and 3rd Beijing International Summer School (BISS) on Climate and Environment, Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing, China, August 1-5.
The 6th International Symposium on Modern Ecology, “Key Topics in Ecology under Climate Change”, Nanjing University, Nanjing, China, August 1-6.
Wuhan Botanical Garden, Chinese Academy of Sciences, Wuhan, China, July 21.
Northwest Institute of Plant Biology, Chinese Academy of Sciences, Xining, Qinghai, China, July 16. Institute of Botany, Ukraine Academy of Sciences, Kiev, June 2
Department of Ecology, the National University “Kyiv-Mohyla Academy”, Kiev, Ukraine, June 1 “Beta-Gamma” Workshop, University of Exeter, UK, May 2-3.
Joint open conference by Institute of Global Change Studies, Tsinghua University and Global Change and Earth System Sciences, Beijing Normal University, Beijing Normal University, Beijing, China. April 27.
Department of Biology, University of Illinois Urbana-Champaign, March 16.
1st INTERFACE meeting: How Do We Improve Earth System Models? Integrating Earth System Models, Ecosystem Models, Experiments and Long-Term Data. Feb. 28 - March 3, Captiva Island, Florida.
Institute of Biodiversity Science, Fudan University, Shanghai, China, Feb. 21 International Land Model Benchmarking (ILAMB) workshop, Irvine, CA, Jan 24-26.

2010

Washington University, Nov. 15 University of Wyoming, Oct. 15
Oklahoma Partial Differential Equation Workshop, Norman, Oklahoma, Oct. 8-9.

Fudan University Global Environmental Change Research Institute, Shanghai, China, May 19
University of Toronto, Ontario, Canada, Jan. 26.
Tsinghua University, Beijing, China, Jan. 18
Max Planck Institute of Biogeochemistry, Jena, German, Jan. 14.

2009

University of Alberta, Edmonton, Alberta, Canada, Dec. 4.
Keynote speech, ClimMani workshop “Climate change, effects on water availability and terrestrial ecosystem responses”. in Basel, Switzerland, 21-23rd October 2009.
AmeriFlux annual meeting at DC, Sept. 21-23.
Keynote speech, 8th International Carbon Dioxide Conference, Jena, Germany, Sept 14-18.
High School teachers workshop, Oklahoma School of Science and Mathematics, Oklahoma City, June 10
Carbo-Extreme, European research project, Jena, Germany, June 2. Fudan Ecology Summer School, Shanghai, China, May 22.
National Oceanic and Atmospheric Administration (NOAA) Earth System Research laboratory, Boulder, CO. April 2.
National Center for Atmosphere Research (NCAR) Land Modeling working group (LMWG) and Biogeochemistry working group (BGCWG) annual meeting, Boulder CO. March 30-April 1.
Department of Ecosystem Science and Management, Texas A&M University, March 24. Blackland Research Center, Texas A&M University, Temple March 23.
North America Carbon Program 2nd open science conference, San Diego, CA, Feb. 19.
Department of Biological Sciences, University of Arkansas, Jan. 22.
Department of Ecology and Evolution, College of Life sciences, Fudan University (Jan. 4)

2008

Department of Biological Science, College of Life Sciences, Zhejiang University, China, Dec. 29
School of Life Sciences, Nanjing University, China, Dec. 25
China’s Ecology Lecture Series, Chinese Academy of Sciences, Beijing, Dec. 21
Department of Ecosystem Science and Management, Texas A&M University, September 26.
Laboratoire des Sciences du Climat et de l’Environnement, UMR CEA-CNRS-UVSQ, France, June 9.
Land surface models and FluxNET data workshop, Edinburgh, UK June 5.
Department of Ecology, Nanjing Forestry University, May 23.
International Institute of Earth System Sciences, Nanjing University, May 23.
Southern China Botany Garden, Chinese Academy of Sciences, Guangzhou, China, April 30.
Department of Environmental and Natural Resources, Haiyin Engineering College, China, April 28.

2007

Department of Ecology, Beijing University, (Dec. 26)
Department of Ecology and Evolution, College of Life sciences, Fudan University (Dec. 20)
NSF workshop on data-model assimilation in ecology: Techniques and application, Norman, OK (Oct. 22-24)
AmeriFlux annual meeting, Boulder CO (Oct. 17-19)
International workshop on Automatic soil respiration measurement and analysis, Durham, New Hampshire, (Sep 10-12)
4th international conference on nitrogen, Salvador, Brazil (Oct. 1-5)
EcoVision seminar series, Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China (May 21)
Oklahoma EPSCoR, Oklahoma City, (Apr 25)
C-QUEST open science meeting, Oxford, UK (Mar 26-28)

2006

Kessler Farm Field Laboratory seminar series, University of Oklahoma (Nov. 6) Chinese Science and Technology Association, Changchun, China (Sept. 26).

Department of Physical and Atmospheric Sciences, Jackson State University, Mississippi (Sept 11)

Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science (July 31)

NSF-funded workshop on effects of changes in precipitation on ecosystem functioning in terrestrial ecosystems in Helsingør, Denmark, (May 22-25)

Grazingland Research Laboratory, USDA, El Reno, Oklahoma (Feb. 24)

Symposium on Environmental Sustainability in Rapidly Developing Countries, Lessons from China to be held at the annual AAAS meeting at St Louis in February.

2005

Institute of Geographical Sciences and Natural Resource Research, Chinese Academy of Science (Dec. 30)

Labtea, Department of Ecology and Evolutionary Biology, Princeton University (Dec. 7) Steve Pacala's lab, Princeton University (Nov. 22)

Ecology Graduate Program, Pennsylvania State University (Oct. 26) Ecology Graduate Program, Rutgers University (Oct. 7)

Lars Hedin's lab, Princeton University (Sept 20)

Advance Training Class of Ecology, Fudan University, Shanghai, China (Jul. 8) Institute of Geography and Natural Resources, Chinese Academy of Science (Feb. 24) Program of geography, Beijing Normal University (Feb. 22)

Institute of Botany, Chinese Academy of Science, China (Feb 21)

Planning workshop on data-model fusion at Duke FACE, Durham, NC (Jan. 13-14)

NSF-funded workshop Modeling Ecosystem Responses to Global Change: Techniques and Recent Advances, Ft Myers, Florida (Jan. 9-12)

2004

Department of Ecology and Evolutionary Biology, University of Arizona (Feb. 9) Department of Biological Science, University of Oregon (Jan. 28)

NSF-funded workshop, Carbon Respired by Terrestrial Ecosystems. (Jan. 21-23)

2003

College of Agricultural Sciences, Yangzhou University (Dec. 28) Division of Biological Sciences, Kansas State University. (Nov. 20)

6th Meeting of the Carbon Cycle Science Steering Group, Arlington, VA (May 15)

International workshop on "CO₂ x Temperature Interactions" organized by Terrestrial Ecosystem Responses to Atmospheric and Climate Change, Lake Tahoe, CA (April 28-May 1).

Department of Environmental Science, Policy, and Management, University of California at Berkeley (Feb 10)

2002

Steve Wofsy's labs, Harvard University (May 2).

International workshop on "Transient and Long-Term Responses of Ecosystems to Warming and Elevated CO₂" organized by Terrestrial Ecosystem Responses to Atmospheric and Climate Change, Durham, New Hampshire. (April 28-May 1).

2nd International conference on Astrobiology, Ames, California (April 7-11)

Department of Urban Environment, Beijing University, Beijing, China (March 21) Institute of Botany, Chinese Academy of Science, Beijing, China (March 18) College of Agronomy, Yangzhou University, Yangzhou, China (March 14)
College of Hydrological Science, Yangzhou University, Yangzhou, China (March 13) Biodiversity Science Institute, Fudan University, Shanghai, China (March 9)

2001

6th International Carbon Dioxide Conference, Sendai, Japan (October 1-5)
College of Agriculture, Shanghai Jiaotong (transportation) University, Shanghai, China (March 22)
Institute of Applied Ecology, Chinese Academy of Science, Shenyang, China (March 14)
Workshop on the Rice-Wheat Free-Air CO₂ Enrichment (FACE) study organized jointly by Japan National Institution of Agro-Environmental Science and Institute of Soil Research, Chinese Academy of Science, Nanjing, China (March 5-9)
Workshop on Biocomplexity in Pinyon-Juniper Woodlands, Northern Arizona University (Jan. 29-31)
Department of Ecology, Evolution, and Organism Biology, The Ohio State University (Jan 11)

2000

Applied Biomathematics, Stony Brook, NY (Nov. 30) Oklahoma School of Science and Mathematics (Nov. 28)
FACE2000, Synthesis of Free-Air CO₂ Enrichment (FACE) research results workshop at Tsukuba, Japan (June 23-30)
AmeriFlux NEP Workshop, Michigan (May 4-7)
Department of Plant Biology, University of Illinois at Urbana-Champaign (March 30) Department of Biological Sciences, University of Illinois at Chicago (March 28) Department of Plant and Soil Sciences, Oklahoma State University (January 24)

1999

Department of Biological Sciences, Tohoku University, Sendai, Japan (Dec) National Institute of Agro-Environmental Sciences at Tsukuba, Japan (Dec) Tohoku National Agricultural Experimental Station, at Morioka, Japan (Dec)
Symposium: Plant Responses to the Environment: From Molecules to Populations. Oklahoma Academy of Science, Oklahoma City (Nov)
Department of Botany, Oklahoma State University (September) Department of Botany, Duke University (March)

1998

Department of Botany and Microbiology, University of Oklahoma Department of Biological Sciences, University of Pittsburgh, Pennsylvania Atmospheric Sciences Center, Desert Research Institute, 1997
Westvaco Forest Science Laboratory, South Carolina Canada Centre of Remote Sensing, Ottawa, Canada
Daniel B. Warnell School of Forest Resources. University of Georgia.
An IGBP (International Geosphere-Biosphere Programme)-GCTE (Global Change and Terrestrial Ecosystems)/EUROFLUX Workshop "Representing structure and function in ecosystem models -- simplification vs. Complexity in approaches for regional and climate change assessments", Duke University, North Carolina.
Department of Integrative Biology, University of California, Berkeley

Department of Environmental Studies and Regional Planning, Washington State University.
Department of Biology, Hong Kong University of Science and Technology.
Department of Agronomy, Nanjing Agricultural University, China Agricultural College, Yangzhou University, China.

1996

Department of Biology, New Mexico State University.
Department of Biology and Microbiology, South Dakota State University.
Annual meeting of the DOE Terrestrial Carbon Processes funding program, Lake Tahoe. An IGBP-GCTE workshop "Plant Acclimation to Elevated CO₂", Lake Tahoe, USA. Center of Environmental Sciences and Resources, Portland State University
Center for Environmental Sciences and Education, Northern Arizona University

1995

An IGBP-GCTE workshop "Plant-Soil Carbon Belowground: The Effects of Elevated CO₂", Oxford, UK.
An EPRI global carbon cycle modeling meeting, Garmisch-Partenkirchen, Germany.
An IGBP-GCTE workshop "Stress Effects on Future Terrestrial Carbon Fluxes", Lake Tahoe, USA. Scripps Institution of Oceanography, University of California, San Diego
Jiangsu Agricultural College, Yangzhou University, China.

1994

International Society of Ecological Modeling. Symposium on Modularity in Models of Plant Growth.

1993

National Center of Atmospheric Research. Symposium on Challenges in Atmospheric Chemistry and Global Change: Yesterday, Today and Tomorrow.
Desert Research Institute, University and Community College System of Nevada. Department of Botany, Duke University.

1992. Department of Biological Sciences, Stanford University.

1990. Department of Plant Biology, Carnegie Institution of Washington.

Memberships

American Association for the Advancement of Science (1988-pres.). American Association of Agronomy (1988-1998).
American Geophysical Union. (1998-pres.)
American Institute of Biological Sciences (1990-95, 2001-2005) Crop Science Society of America (1988-1998).
Botany Society of America (2003-04) Ecology Society of America (1988-pres.) Soil Science Society of America (1988-1998). Society for Experimental Biology, UK (2003-04).

Advisory services

2015-pres. Scientific Steering Committee for The State Key Laboratory of Earth Surface Processes and Resource Ecology, Beijing Normal University
2015-2020, Steering committee for "RCN: Drought-Net: A global network to assess terrestrial ecosystem sensitivity to drought"
2013-2016. Scientific Steering Committee of Joint Center for Global Change Studies, Beijing, China.

2013-2016, International innovation research team, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, Lanzhou, China

2013-2015. Chair of the scientific advisory committee for International Center for Ecology, Meteorology and Environment, Nanjing University of Information Science and Technology

2011-2016. External Advisory Committee for Center for Analysis and Predictions of storms, University of Oklahoma.

2010-2015. Steering committee for “An Integrated Network for Terrestrial Ecosystem Research on Feedbacks to the Atmosphere and Climate (INTERFACE): Linking experimentalists, ecosystem modelers, and Earth system modelers”

2011-2016, Key Laboratory of Alpine Ecology and Biodiversity, Institute of Tibetan Plateau Research, Chinese Academy of Sciences

2009-pres. Science Advisory Board for the Max-Planck-Institute for Biogeochemistry, Germany

2009-2013. Scientific Steering Committee of the Earth Science Initiative of Tsinghua University, Beijing, China.

2009-2012. External Advisory Board for an European Union project “The terrestrial Carbon cycle under Climate Variability and Extremes – a Pan-European synthesis: *CARBO-Extreme*”

2000-2007 Steering Committee for “Terrestrial Ecosystem Responses to Atmosphere and Climate Change (TERACC), International Global Warming and Elevated CO₂ Research Consortium.”

Editorial Services

Editorial boards, Global Change Biology (2009-pres.), Carbon Balance and Management (2012- pres.), Ecological Applications (2005-2009), Integrative Journal of Plant Biology (2005- pres.), Journal of Plant Ecology (2007-pres.), Journal of Resources and Ecology (2010-pres.), Acta Agronomica Sinica (2007-2011)

Guest editor, Biogeosciences (2013-2014) “Extreme Climate Events and Ecosystem Responses”; Journal of Geophysical Research-Biogeoscience (2012-2013) "data-model integration" (2012-13); Ecosphere (2012-2013) "Opportunities and Challenges of data assimilation" Journal of Plant Ecology (2011-12) for a special feature on "Plants, Temperature Stress, and Global Change: From Organism to Ecosystem."

Guest editor, Ecological Applications (2009-2010) for an Invited Feature on Data assimilation and ecological forecasting.

Advisory boards to editors, Global Change Biology (2007-2008), New Phytologist (2007-2012). Guest editor, Ecology (2004-06) for a special feature on Pool-Based Nitrogen Limitation Hypotheses.

Review of portfolios of professors for tenure and promotion Harvard University (2015)

Harvard University (2013)

Rutgers University (2012, 2013) University of Maryland (2011) University of California at Davis (2011) Harvard University (2006) Indiana University (2006)

University of California at Berkeley (2005) University of California at Santa Cruz (2004)

University of Illinois at Chicago (2004) University of Toledo (2000, 2002).

Review services

2015 DOE Review of the Carbon Dioxide Information Analysis Center Funding Proposal for Fiscal Years 2016-2018 Led by Oak Ridge National Laboratory (ORNL), May 19

2011. Oversea reviewer on major grant proposals, National Science Foundation of China. 2008. Panel for the Midwest Center of the National Institute of Climate Change Research. Oct.

2006. Panel for the Northeast Center of the National Institute of Climate Change Research. April. Oversea reviewers of applications to Changjian Scholarship program, China’s Minister of

- Education (2005, 2006)
2004. Scientific Program Panel Review on DOE Consortium for Research on Carbon Sequestration in Terrestrial Ecosystems (CSITE). *8-9 December 2004, Washington, DC*
2002. WESTGEC Regional Scientific Review Board of National Institute of Global Environmental Change (NIGEC), US DOE.
2000. Panelist for the NSF Biocomplexity program. 1994-pres. Review grant proposals for EPA (Environmental Protection Agency), Water and Watersheds
NSF (National Science Foundation), International, Ecosystem, Evolution and Ecology
Physiology, Biocomplexity.
USDA NRI (Department of Agriculture, National Research Initiative), Plant responses.
DOE Terrestrial Carbon Processes
NICCR (National Institute of Global Environmental Change), US Department of Energy
NIGEC DOE (National Institute of Global Environmental Change, Department of Energy)
Water Resources Research, Regional Competitive Grants Program, Western Region
1994-pres. Review papers for Science, Nature, Nature Climate Change, Ecology, Ecological Applications, Global Biogeochemical Cycles, Journal of Geophysical Research, Oecologia, Ecological Modeling, Plant, Cell & Environment, Global Change Biology, Tree Physiology, Functional Ecology, Environmental Science -- International Journal of Policy & Research, Plant Ecology, New Phytologists, Annals of botany, Environmental Science & Technology, Physiologia Plantarum, Acta Ecologica Sinica, Ecology Letter.
- 1989-92. Associate editor. CAASS (Chinese Association of Agricultural Students and Scholars in America) Journal.
- 1981-85. Editor for English abstracts. Journal of Jiangsu Agriculture College, China.
- Organization of national and international workshops, conferences, and symposia (51)
- 2015-16, Organizer, NACP Workshop: Development of Predictive Carbon Cycle Science, College Park, Maryland, March 7-9, 2016
- 2015-16, Co-organizer, Enhancing existing experiments of precipitation manipulations, Sevilleta LTER, New Mexico, May 4-6, 2016.
- 2015-16, Co-organizer, Frontiers in terrestrial climate feedbacks: Integrating models and experiments to explore climate feedbacks in an increasingly managed and warming world. St. Pete's Beach, Florida, January 31 - February 3, 2016
- 2015, Co-organizer, Processes Linked to Uncertainty Modelling Ecosystems, *PLUME-MIP Workshop, East China Normal University Shanghai, 25-29 September 2015*
- 2015, Co-organizer, FLUXNET Synthesis Workshop: Mining FLUXNET and other carbon data sources to inform Earth system models, Beijing, China, July 14-16, 2015
- 2014-2015, An ESA Organized Oral Session: Terrestrial Carbon Cycle and Nonautonomous System. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
- 2014-2015, Co-organizer, An ESA Organized Oral Session: The Ecological Impacts of Drought as Revealed Through Experimental Approaches. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
- 2014-2015, Co-organizer, An ESA Organized Oral Session: Understanding soil microbial responses to climate change with integrated experimental and quantitative approaches at molecular to global scales. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
- 2014-2015, Co-organizer, an EGU session: Climate extremes, ecosystems and biogeochemical cycles, Vienna, 12-17 April, 2015.

- 2014-2015, Co-organizer, an EGU session: Earth observation for monitoring and modeling the global energy, water and carbon cycles over land using model-data integration, Vienna, 12-17 April, 2015.
- 2014, 3rd meeting of NIMBioS working group on terrestrial carbon cycle and nonautonomous system, November
- 2014, 2nd meeting of NIMBioS working group on terrestrial carbon cycle and nonautonomous system, March
- 2013-2014, Co-organizer, an EGU session: Climate extremes, ecosystems and biogeochemical cycles, Vienna, 27 April – 02 May, 2014.
- 2013-2014, Co-organizer, an EGU session: Developments in terrestrial biogeochemical models using model-data integration, Vienna, 27 April – 02 May, 2014.
- 2013-2014, Organizer, RCN FORECAST Workshop 2014: Representing Soil Carbon Dynamics in Global Land Models to Improve Future IPCC Assessments. June 11-14, 2014, Breckenridge, CO
- 2013, Co-organizer, AGU session “Data-Model Integration for Improving Biogeochemistry-Climate Feedbacks in Earth System Models With Explicit Microbial Mechanisms with Xiaofeng Xu, Gangsheng Wang and Melanie Mayes. December 9-13, San Francisco.
- 2012-2015, Organizer, a National Institute for Mathematical and Biological Synthesis (NIMBioS) working group on “Non-autonomous system and terrestrial carbon cycle”.
- 2012-2013, Co-organizer, an EGU session: Climate extremes, ecosystems and biogeochemical cycles, Vienna, 7-12 April 2013.
- 2012-2013, Co-organizer, an EGU session: Developments in terrestrial biogeochemical models using model-data integration, Vienna, 7-12 April 2013.
- 2012-2013, Co-Organizer, the 9th International Carbon Dioxide Conference, Beijing, China, June 3-7, 2013
- 2012, Co-organizer of an AGU session: improving terrestrial biogeochemical models through integrating models with data. San Francisco December 3-7
- 2011-2013, Co-organizer of a joint USA-Europe conference: Climate extremes and their impact on ecosystems and biogeochemical cycles at Obergurgl, Austria April 2 - 5, 2013
- 2011-2012, Co-organizer of European Union of Geosciences (EGU) session BG1.6: Climate extremes, ecosystems and biogeochemical cycles. Vienna, Austria, 22 – 27 April 2012
- 2011-2012, Organizer of an open conference on data assimilation and ecological forecasting at Woods Hole, October 2012.
- 2011-2012, Chair of the organizing committee for DOE workshop: Strategy to promote integrated experiment-model integration approaches to terrestrial ecosystem study. Washington DC, March 19-21, 2012.
- 2011-2012. Organizer of National Institute for Mathematical and Biological Synthesis (NIMBioS) Investigative Workshop: *Integration of disturbance ecology and biogeochemistry to predict future dynamics of terrestrial carbon cycle under global change*. Knoxville, Tennessee, USA, Feb 13-15, 2012
2011. Co-organizer of a conference “How Do We Improve Earth System Models: Integrating Earth System Models, Ecosystem Models, Experiments and Long-Term Data”, Captiva Island, FL, February 28 –March 3.
2010. Co-organizer of an AGU session “Data assimilation to improve biogeochemical models across multiple scales”, San Francisco, December.
2010. Co-organizer of an organized oral session “Long-term warming experiment: what we have learned and what is unknown” at ESA annual meeting, Pittsburgh, PA, August.

2010. Co-organizer of an organized oral session “Combining Experiments, Process Studies, and Models to Forecast the Future of Ecosystems, Communities, and Populations” at ESA annual meeting, Pittsburgh, PA, August.
2010. Organizer of a workshop “Data assimilation and ecological forecasting” held at NEON HQ, Boulder CO, July
2009. Co-organizer of a symposium: “The role of biodiversity for ecosystem processes and services under climate change” for the DIVERSITAS Open Science Conference, Cape Town, October.
- 2008-11. Co-organizer of National Center for Ecological Analysis and Synthesis working group on Benchmarking ecosystem response models with experimental data from long-term CO₂ enrichment.
- 2008-09. Organizing committee for North America Carbon Program open science meeting, February 2009, San Diego, CA
- 2008-09. Co-organizer of New Phytologist Symposium: Carbon cycling in tropical forests, Guangzhou, China, November 2009.
2008. Organizer of an Ecological Society of America Symposium “Toward ecological forecasting, Applications of data-model fusion techniques.
2007. Organizer of a NSF workshop: Data-Model Assimilation in Ecology: Techniques and Applications to be held at Norman, Oklahoma in October
2007. Organizer of one session in Annual AmeriFlux meeting on “Data assimilation and uncertainty analysis”
2007. Co-organizer of organized oral session for 2007 ESA meeting: Ecosystem responses to experimental warming and other global change factors to be held in San Jose, CA in August
2007. Co-organizer of an international symposium for the 2007 Eco-Summit: Back to the Primaries of Ecosystem Mass Transfer: Carbon and Water Cycles, to be held in Beijing, China in May
- 2006 Organizer of the symposium on Environmental Sustainability in Rapidly Developing Countries, Lessons from China held at the annual AAAS meeting at St Louis in February, 2006.
2006. Co-organizer of the international workshop on effects of changes in precipitation on ecosystem functioning in terrestrial ecosystems held in Helsingør, Denmark, May 2006
2005. Co-organizer of an international workshop on Modeling Ecosystem Responses to Global Change: Techniques and Recent Advances held at Sannibel, FL in January 2005.
2003. Organizer of ESA symposium “Progressive Nitrogen Limitation of Plant and Ecosystem Responses to Elevated CO₂”
2003. Co-organizer of an international workshop on interactive responses of ecosystems to elevated CO₂ and global warming held at Lake Tahoe, CA.
- 2002 Co-organizer of the international workshop on Transient and long-term responses of ecosystems to elevated CO₂ and global warming.
2000. Co-organizer of the International conference FACE 2000 at Tsukuba, Japan
1997. Co-organizer of an international symposium "Changing Water Regime in Drylands" held at Lake Tahoe, California, June 9-13, 1997.
1996. Chair of the poster session "Plant Physiology: Effects of external variables" in ESA meeting at Providence, August, 1996
1996. Co-organizer of an IGBP-GCTE international workshop on plant acclimation to elevated CO₂ held at Lake Tahoe, May 19-23, 1996.
1995. Co-organizer of an IGBP-GCTE international workshop "Stress Effects on Future Terrestrial Carbon Fluxes" held at Lake Tahoe May 14-18, 1995.

Other synergistic activities

- 2012-2015, National Institute for Mathematical and Biological Synthesis (NIMBioS) working group on Terrestrial carbon cycle and nonautonomous systems
- 2011-2012. National Climate Assessment, Biodiversity/Ecosystems/Ecosystem Services Chapter, Technical Input.
- 2009-2014, Contributing author, Intergovernment Panel of Climate Change (IPCC) 5th Assessment Report.
- 2002-04. Working group member, IBRCS (Infrastructure for Biology at Regional to Continental Scales) – a version of NEON (National Ecological Observation Network), American Institute of Biological Sciences.
2001. Invited participant for the strategic planning meeting on the National Phytotron at Duke University, Durham, NC. (Oct. 25-27)
2001. Member, the US science delegation to participate the 9th US-Japan workshop on global change, Toyko, Japan (Oct. 8-10)
2001. Invited participant, workshop on nonlinear responses to global environmental change: critical thresholds and feedbacks. Durham, NC May 26-29.
- 2000-2003. Leader of an international working group on carbon and nitrogen interactions under elevated CO₂. sponsored by NCEAS.
- 2000-01. Chair, Asian Ecology Section, Ecological Society of America
1999. Invited participant, An IGBP (International Geosphere-Biosphere Programme)-GCTE (Global Change and Terrestrial Ecosystems) Workshop "Intercomparison of Gap Models and Examination of How Much Physiology is Needed in Them" Pingree Park (Colorado). (July)
1999. Judge for the Billings Award and the Graduate Student Poster Award, Ecological Society of America.
- 1998-99. Science Core Team member for the Lake Tahoe Basin Watershed Assessment, US Forest Service

Institutional Services (University of Oklahoma)

- 2016-pres. Search Committee, Microbial Ecology, Department of Microbiology and Plant Biology
- 2014-Pres. Retention and promotion committee, Department of Microbiology and Plant Biology
- 2011-2012. Search Committee for Regional Climate science position, Department of Meteorology.
- 2010-2011. Search Committee for a plant ecology position, Department of Botany and Microbiology.
- 2010-pres. Graduate Admission Committee, Department of Botany and Microbiology
2009. Search Committee for mathematics professor
2008. A planning committee on development a new degree program in Geospatial Information and Sustainability Science (GISS), College of Atmospheric and Geographic Sciences
2008. Graduate student recruitment committee, Department of Botany and Microbiology
- 2007-2009. Graduate Admission Committee, Department of Botany and Microbiology
- 2007-08, Search Committee for Data assimilation and radar mechanics in meteorology.
- 2006-07. Search committee for Remote Sensing and GIS, Department of Geography
- 2006-07. Search committee for Microbial Ecology, Department of Botany and Microbiology.
- 2006-2009. Committee member on University Research Council, the University of Oklahoma.
- 2004-05. Executive committee for Ecology, Evolutionary Biology graduate program
- 2004-05. Search Committee for Environmental Microbiologist, Dept. of Botany and Microbiology.

2003-04. Search Committee for Chinese Politics Professorship, International Study Program
 2003. Search Committee for Ecologist/Statistician, Department of Zoology, Univ. of Oklahoma
 2003. Committee member on University Research Council, the University of Oklahoma. 2001-04. Leading a task force to establish a graduate program in Ecology and Evolutionary Biology.
 2001-pres. Promotion committee. Department of Botany and Microbiology, Univ. of Oklahoma. 2001-2003. Committee for the Support of Teaching and Research, College of Arts and Sciences, University of Oklahoma
 2001-05. Adviser for Chinese Student and Scholar Association at the University of Oklahoma.
 2001-02. Search committee for a faculty position: Geomicrobiology. Department of Botany and Microbiology, University of Oklahoma.
 2001. *Ad hoc* Committee for evaluating the New Program "Master of Science in Natural Gas Engineering & Management". Graduate College, University of Oklahoma.
 2000. Planning committee of Global Environmental Studies, International Programs Centers, University of Oklahoma.
 1999-pres. Greenhouse committee, Department of Botany and Microbiology, Univ. of Oklahoma. (2001-, Committee Chair)
 1999-pres. Committee for the George Lynn Cross Lecturer, University of Oklahoma. 1999-2001. Budget Committee, Department of Botany and Microbiology, University of Oklahoma.
 1999-pres. Undergraduate Advising Committee, College of Art and Science, University of Oklahoma

Institutional Services (Desert Research Institute, University of Nevada Reno) 1998 Search Committee for the position of root physiologist at UNR.

1998 Search Committee for the position of professional writer at DRI. 1998 Search Committee for the position of Ecologist at DRI.
 1997 Curriculum Committee of the EECB graduate program
 1997 Search Committee for the position of Ecosystem Ecologist at DRI. 1997-98. Nevada Metal Fellowship Selection Panel at DRI
 1996-97 Search Committee for the position of Executive Director of Biological Sciences Center at DRI.
 1996 Chair, Search Committee for the position of Assistant Research Professor at DRI. 1995-96 Project PI representing DRI in the Mojave Desert FACE study.
 1995- Student comprehensive examination committee for the graduate program of EECB.
 1995-97. The Colin Warden Award committee for best student research papers at DRI.
 1995-98. Hosting seminar speakers for the graduate program of EECB.