Curriculum Vita

Conghe Song
Professor and Chair
Department of Geography and Environment
Fellow, Carolina Population Center
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Education

2001: Ph.D., Geography, Boston University, Boston, MA, USA
1991: M.S., Forest Ecology, Beijing Forestry University, Beijing, P. R. China
1988: B.S., Forestry, Anhui Agricultural University, Hefei, P. R. China
1994: Certificate in Education, Capital Normal University, Beijing, P. R. China
2016: Certificate of Training, Center for Creative Leadership, Greensboro, NC, USA

Professional Experience

2023-present: Chair, Department of Geography and Environment, UNC Chapel Hill, NC
2014-present: Professor, Department of Geography, UNC, Chapel Hill, NC
2013-2019: Associate Chair, Department of Geography, UNC Chapel Hill, NC
2013-2019: Director, Graduate Certificate Program in GISc, UNC Chapel Hill, NC
2007-2014: Associate Professor of Geography, UNC, Chapel Hill, NC
2005-2006: Charles Bullard Fellow in Forest Research, Harvard University, MA
2001-2007: Assistant Professor of Geography, UNC, Chapel Hill, NC
1997-2001: Graduate Research Assistant, Boston University, Boston, MA
1995-1997: Graduate Research Assistant, Michigan Technological University, Houghton, MI
1993-1995: Lecturer, Beijing Forestry University, Beijing China
1991-1993: Assistant Lecturer, Beijing Forestry University, Beijing China
1988-1991: Graduate Research Assistant, Beijing Forestry University, Beijing, China

Honors

2017: Academic Leadership Fellow, Institute for Arts and Humanities, UNC Chapel Hill.
2006: New Investigator's Program Award, National Aeronautics and Space Administration.
2005-2006: Charles Bullard Fellow, Harvard Forest, Harvard Univ.
2004: Junior faculty development award, UNC Chapel Hill.
2001: Finalist of Nystrom Dissertation Competition, Association of American Geographers.
2000: Honorable membership to Sigma Xi Research Society, Boston University Chapter.

Grants and Awards

External Grants and Awards

Development and evaluation of AI/ML models and modeling procedures for NRI survey area change, carbon sequestration and greenhouse gas assessment. PI: **Conghe Song**. Funding Agency: USDA Natural Resources Conservation Service (NRCS), $773,750, 07/01/2024-06/30/2027

Mapping Forest Aboveground Biomass Loss from Hurricanes Using Multisource Remotely Sensed Data. PI: **Conghe Song**, Co-PI: Todd Schroeder. USDA Forest Service, $160,000. 09/01/2022-08/31/2024.

BCS-DISES: Influence of Community Forestry on the Dynamics of Socio-Environmental Systems. PI: **Conghe Song** (UNC Chapel Hill), Co-PIs: Richard Bilsborrow (UNC Chapel Hill), Larry Band (UVA), Erin Sills (NCSU), and Rajan Parajuli (NCSU), Collaborators: Ge Sun (USDA Forest Service, Southern Research Station, Raleigh, NC), Elizabeth Shapiro-Gaza (Duke), Naya Paudel (ForestAction, Kathmandu, Nepal), Binod Heyojoo (Institute of Forestry, Pokhara, Nepal), Bir Khanal Chhetri (Institute of Forestry, Pokhara, Nepal). National Science Foundation, $1,599,793, 08/15/2021-07/31/2024.

Developing Nature-based Solutions for Nepal Following a Nexus Approach towards Sustaining Forestry, Water Resources and Livelihood. PI: Lu Hao (Nanjing University of Information Science and Technology, Co-PI: Linxiu Zhang (UNEP), Co-Is: Lang Wang (Chinese University of Hong Kong), Decheng Zhou (Nanjing University of Information Science and Technology), Sunita Chaudhary (International Central for Integrated Mountain Development), Krishna Tiwari (Tribhuvan University), Ridish Pokharel (Tribhuvan University), Rajan Subedi (Tribhuvan University), Ram Pantha (Chure Terai Madhesh Conservation and Development Board, Nepal), Yunli Bai (Chinese Academy of Sciences, Guoqin Wang, (Chinese Academy of Sciences), Mi Zhang (Nanjing University of Information Sciences and Technology). US Collaborators: Ge Sun (USDA Forest Service), Devendra Amatya (USDA Forest Service), Ning Liu (USDA Forest Service), **Conghe Song** (UNC Chapel Hill). NSFC-UNEP, $500,000. 01/01/2021-12/31/2025.

GCR: Climate Resilience in the Coastal Zone. PIs: Elizabeth Frankenberg (Carolina Population Center), Mike Piehler (Institute of Environment), Rich Luettich (Institute of Marine Sciences), Co-Is: Phil Berke, Todd BenDor, Paul Delamater, Babara Enterwisle, Ted Mouw, Tamlin Pavelsky, Miyuki, Hino, Rachel Nobel, **Conghe Song.** National Science Foundation, $1,149,999, 2020-2023.

Impacts of Land-Use/Land-Cover and Climate Changes on the Gross and Net Primary Productivity in the Southeastern USA. PI: **Conghe Song** (UNC Chapel Hill), Co-PI: Taehee Hwang (Indiana University) and Kim Novick (Indiana University). Collaborators: James Vose (US Forest Service), and John Coulston (US Forest Service). National Aeronautics and Space Administration-Carbon Cycle Science Program. $909, 212.00. 01/25/2017-03/24/2021.

Decoupling the Land-Cover/Land Use Change and Climate Change effect on the Net Primary Productivity and Evapotranspiration in Yangtze River Delta. **Conghe Song** (PI), and Junxiang Li (Co-PI). Natural Science Foundation of China, RMB200,000 (~US$30,000), 01/01/2016-12/31/2017.

Understanding the Impact of Land Cover/Land Use Change on Plant Diversity: Scaling from Plots to Landscapes Using Multi-Sensor Remote Sensing. PI: **Conghe Song**, Graduate Student: Christopher Hakkenberg. NASA Earth and Space Science Fellowship. $90,000, 08/01/2014-07/31/2017.

CNH: The effects of China's Grain-for-Green program on the dynamics of the coupled natural-human system in rural China. PI: **Conghe Song**, Co-I: Lawrence Band, Richard Bilsborrow, Pamela Jagger, and Xiaodong Chen; US collaborator: Ge Sun; China collaborators: Xiaoniu Xu, Quanfa Zhang, Zhiqiang Zhang. National Science Foundation, $1,164,984, 08/15/2013-07/31/2018.

Improving the Algorithms Used in WaSSI to Model the Impacts of Land-Cover/Land-Use and Climate Changes on the Carbon and Water Dynamics. PI: **Conghe Song**, Co-PI: Ge Sun. USDA Forest Service, $40,000. 08/15/2014-08/14/2015.

Understanding the social-ecological effects of the "Grain for Green" Reforestation Program in China, PI: **Conghe Song**, Anhui Agricultural University, P. R. China, RMB 230,000 (~$37,000USD), 2012-2015.

Hydrologic Response of Forested Catchments to Climate and Land Cover/Land-Use Changes. PI: **Conghe Song**, NASA Earth and Space Science Graduate Fellowship, Student: Joshua M. Gray. $90,000, 09/01/2010-08/31/2013.

Impacts of Land-cover/land-use change on the terrestrial ecosystem carbon budget. PI: **Conghe Song**. National Aeronautics and Space Administration, $350,000, 08/01/06-07/31/09.

Charles Bullard Fellowship in Forest Research, Harvard University, $40,000, 09/01/2005-05/31/2006.

Understanding Effects of Stand Structure on the Propagation of Photosynthetically Active Radiation (PAR) Through Forest Canopies. PI: **Conghe Song,** Co-I: Matthew Dickinson. USDA Forest Service, $7,500, 05/01/05-04/30/06.

Mapping Landscape Forest Canopy Structure with High Resolution Satellite Imagery. PI: **Conghe Song,** Co-I: Matthew Dickinson. $159,819. USDA Forest Service Agenda 2020, ($120,000) and UNC Chapel Hill ($39,819), 01/01/05-12/31/07.

Recovering missing data of Landsat 7 ETM+ imagery due to SLC-off from overlapping scenes. PI: **Conghe Song**. National Aeronautics and Space Administration, $24,998, 05/01/04-04/30/05.

Scaling up Forest Ecosystem Carbon Budget from Stand to Landscape: Impacts of Forest Structures. PI: **Conghe Song**, Co-PI: Lawrence Band, Collaborators: Ram Oren, Gabriel Katul, National Science Foundation, $159,950, 05/01/04-/04/30/07.

Population-Environment interrelationships in urban areas in Thailand. PI: Walsh, S. J., CO-I: Entwisle, B., Rindfuss, R. R., Prasartkul, P., Rohe, W. and **Song, C**. The Mellon Foundation, $100,000, 09/01/2002-08/31/2005.

Internal Grants and Awards from UNC Chapel Hill

Travel Grant to 7th Annual Forest and Livelihoods, Assessments, Resources and Engagement, $1,000, Carolina Asia Center, 2022.

Understanding Factors Influencing Sustainability of Community Forestry in Nepal. PI: **Conghe Song**, Rajkumar Fellowship, Carolina Asia Center, $5,000. 2020-2021 (Postponed due to Covid-19 Pandemic).

Influence of Community Forestry on the Dynamics of the Coupled Human-Natural Systems in the Middle Mountains of Nepal. PI: **Conghe Song**, Senior Faculty Research Level, Office of Provost, UNC Chapel Hill, $64,000, 2020-2021.

The Dynamics of Extreme Events, People and Places (DEEPP). Elizabeth Frankenberg (PI), Todd BenDor, Paul Delamater, Barbara Entwisle, Miyuki Hino, Rick Luettich, Ted Mouw, Rachel Noble, Tamlin Pavelsky, Mike Piehler, and **Conghe Song**. Creativity Hub, UNC Chapel Hill. $250,000

Social-Ecological Consequences of China's Rural Land Use Change. PI: **Conghe Song**, University of North Carolina at Chapel Hill, $27,000. 07/012017-06/30/2020.

Academic Leadership Program, Institute for Arts and Humanities, University of North Carolina at Chapel Hill, $5,000. 07/01/2016-06/30/2017.

Grier/Woods Presbyterian China Initiative Fellowship in Chinese Studies, Carolina Asian Center, UNC Chapel Hill, $18,000, 07/01/2011-06/30/2012.

Grier/Woods Presbyterian China Initiative Travel Award, Carolina Asian Center, UNC Chapel Hill, $5,000, 07/01/2011-06/30/2012.

Ecosystem structure and function at the land-sea interface: a collaborative remote sensing/physical oceanographic study. Co-PIs: Brian White and **Conghe Song**. Center for Galapagos Studies, $5,000, 05/01/2008-04/30/2009.

Human-Environment Interactions: Impacts of Rural-to-Urban Migration on Land-Use/Land-Cover Change (LCLUC) in the rural area in China. PI: **Conghe Song**, College of Arts and Sciences, UNC Chapel Hill, $6,000, 05/01/2008-04/302009.

Understanding factors of uncertainty in remote sensing for monitoring forest succession. PI: **Conghe Song**. Office of Research Services, University of North Carolina at Chapel Hill, $3,748, 12/01/2001-11/30/2003.

2004 Junior Faculty Development Award, University of North Carolina at Chapel Hill, $5,000, 01/01/2004-12/31/2004.

Understanding Land-Use/Land-Cover Change in the Brazilian Cerrado. Co-PIs: **Conghe Song** and Wendy Wolford. Office of Research Services, University of North Carolina at Chapel Hill, $4,000, 12/15/2003-11/30/2005.

Publications (* Advisee)

*Qi Zhang, Shiqi Tao, Pamela Jagger, Lawrence E. Band, Richard E. Bilsborrow, Zhiqiang Zhang, Qingfeng Huang, Quanfa Zhang, Aaron Moody, **Conghe Song**. 2024. Remittance from migrants reinforces forest recovery for China's reforestation policy. PlosOne, In Press.

Maiti, A. Hasan, M. K., Sannigrahi, S., Bar, S., Chakraborti, S., Mahto, S. S., Chatterjee, S., Pramanik, S., Pilla, F., Auerbach, J. Sonnentag, O., **Song, C.**, Zhang, Q. 2024. Optimal rainfall threshold for monsoon rice production in India varies across space and time. Communications Earth & Environment, doi: 10.1038/s43247-024-04114-7.

Li An, Jianguo Liu, *Qi Zhang, **Conghe Song**, Driss Ezzine-de-Blas, Jie Dai, Huijie Zhang, Rebecca Lewison, Eve Bohnett, Douglas Stow, Weihua Xu, and Brett A Bryan. 2024. Global Hidden spillover effects among concurrent green initiatives. Science of Total Environment, 917, doi: 10.1016/j.scitotenv.2024.169880.

An, L., **Song, C.**, *Zhang, Q. and Wei, X. 2024. Methods for assessing spillover effects between concurrent green initiatives. SSRN, doi: 10.2139/ssrn.4711432.

Sun, G., Tiwari, K. R., Hao, L., Amatya, D., Liu, N. and **Song, C. 2024.** Climate change and forest hydrology in future forests. Future Forests: Mitigation and Adaptation to Climate Change (Ed: McNaulty, S.), Page: 95-124. Elsevier. ISBN: 978-0-323-90430-8.

Meng, C., Wu, C., Wu, J., Zhang, Q., Xin, L., Li, J., Li, D., and **Song, C.** 2023. Spatiotemporal changes of coastal land use land cover and its drivers in Shanghai, China between 1989 and 2015. Ocean and Coastal Management, 244, doi:10.1016/j.ocecoaman.2023.106802.

*Qi Zhang, *Rajesh Bista, Richard E. Bilsborrow, Zhiqiang Zhang, Qingfeng Huang, **Conghe Song**. 2023. Understanding the mediating role of labor out-migration in household income generation and distribution under a reforestation policy in rural China. Journal of Environmental Management, 345, doi: 10.1016/j.jenvman.2023.118539.

*Chao Wang, Tamlin M Pavelsky, Ethan D Kyzivat, Fenix Garcia-Tigreros, Erika Podest, Fangfang Yao, Xiao Yang, Shuai Zhang, **Conghe Song**, Theodore Langhorst, Wayana Dolan, Martin R Kurek, Merritt E Harlan, Laurence C Smith, David E Butman, Robert GM Spencer, Colin J Gleason, Kimberly P Wickland, Robert G Striegl, Daniel L Peters. 2023. Quantification of wetland vegetation communities features with airborne AVIRIS-NG, UAVSAR, and UAV LiDAR data in Peace-Athabasca Delta. Remote Sensing of Environment, 294(15), doi: 10.1016/j.rse.2023.113646.

Dingjie Zhao, Mingqi Sun, Yawen Xue, Qimeng Yang, Baohua Liu, Baoquan Jia, **Conghe Song**, Shouhong Zhang, Zhiqiang Zhang. 2023. Spatial variations of plant species diversity in urban soil seed banks in Beijing, China: implications for plant regeneration and succession. Urban Forestry and Urban Greening, doi: 10.1016/j.ufug.2023.128012.

Xing Bi, Caiyan Wu, Yong Wang, Junxiang Li, Chunfang Wang, Amy Hahs, Suzanne Mavoa, **Conghe Song**, Charles Konrad, and Michael Emch. 2023. Changes in the associations between heatwaves and human mortality during two extreme hot summers in Shanghai, China. Sustainable Cities and Society, doi: 10.1016/j.scs.2023.104581.

Jiong Wu, Caiyan Wu, Qi Zhang, Minghao Zhuang, Huirong Xiao, Hui Wu, Linke Ouyang, Yuhan Liu, Chen Meng, **Conghe Song**, Dagmar Haase, Junxiang Li. Spatiotemporal Evolution of Urban Agglomeration and Its Impact on Landscape Patterns in the Pearl River Delta, China. Remote Sensing, 15, doi: 10.3390/rs15102520

Caiyan Wu, Cheng Li, Linke Ouyang, Huirong Xiao, Jiong Wu, Minghao Zhuang, Xing Bi, Junxiang Li, Chunfang Wang, **Conghe Song**, Tong Qiu, Dagmar Haase, Amy Hahs, and Maroš Finka. 2023. Spatiotemporal evolution of urbanization and its implications to urban planning of the megacity, Shanghai, China. Landscape Ecology, 38(4): 1105-1124.

*Qiaoli Wu, Shaoyuan Chen, Yulong Zhang, **Conghe Song**, Weimin Ju, Li Wang, and Jie Jiang. 2023. Improved Estimation of the Gross Primary Production of Europe by Considering the Spatial and Temporal Changes in Photosynthetic Capacity from 2001 to 2016. Remote Sensing, 15(5), 1172, doi: 10.3390/rs15051172.

*Bista, R., *Graybill, S., *Zhang, Q., Bilsborrow, R. E. and **Song, C**. 2023. Influence of Rural Out-Migration on Household Participation in Community Forest Management? Evidence from the Middle Hills of Nepal. Sustainability. 15(3), 2185, doi: 10.3390/su15032185.

*Zhang, Q., Tao, S., Walsh, S. J., Chen, X., Bilsborrow, R. E., An, L. and **Song, C.** 2022. Agent-based modeling of the effects of conservation policies on social-ecological feedbacks between cropland abandonment and labor migration. Landscape Ecology, doi: 10.1007/s10980-022-01575-w.

Wu, C., Li, C., Ouyang, L., Xiao, H., Wu, J., Zhuang, M., Bi, X., Li, J., Wang, C., **Song, C.**, Qiu, T., Hasse, D., Hahs, A., and Finka, M. 2022, Spatiotemporal evolution of urbanization and

its implications to urban planning of the megacity, Shanghai, China. Landscape Ecology, doi: 10.1007/s10980-022-01578-7.

An, L., **Song, C.**, *Zhang, Q. and Bohnett, E. 2022. Conservation Effectiveness and Concurrent Green Initiatives, Taylor & Francis, ISBN: 978-1-032-26867-5.

*Bista, R, Parajuli, R., Giri, K., Karki, R. and **Song, C.** 2022. Impacts of COVID-19 pandemic on the livelihoods of rural households in the community forestry landscape in the Middle Hills of Nepal. Trees, Forests and People, doi: 10.1016/j.tfp.2022.100312.

*Zhang, Q., Sannigrahi, S., Bilintoh, T., Zhang, R., Xiong, B., Tao, S., Bilsborrow, R., and **Song, C.** 2022. Understanding human-environment interrelationships under constrained land-use decisions with a spatially explicit agent-based model. Athropocene, 38, doi: 10.1016/j.ancene.2022.100337.

Wang, L., De Boeck, H. J., Chen, L., **Song, C.**, Chen, Z, McNulty, S., and Zhang, Z. 2022. Urban warming increases the temperature sensitivity of spring vegetation phenology at 292 cities across China. Science of the Total Environment, 834, doi: 10.1016/j.scitotenv.2022.155154.

Ouyang, L., Wu, C., Li, J., Liu, Y., Wang, M., Han, J. **Song, C.**, Yu, Q. and Haase, D. 2022. Mapping Impervious Surface Using Phenology-Integrated and Fisher Transformed Linear Spectral Mixture Analysis. Remote Sensing, 14(7), 1673, doi:10.3390/rs14071673.

*Ehlers, D., Wang, C., Coulston, J., Zhang, Y., Pavelsky, T., Frankenberg, F., Woodccok, C. and **Song, C.** 2022. Mapping forest aboveground biomass using multisource remotely sensed data. Remote Sensing, 14(5), 1115, doi: 10.3390/rs14051115.

*Wang, C., Pavelsky, T. M., Yao, Y., Yang, X., Zhang, S., Chapman, B., **Song, C.**, Sebastian, A., Frizzelle, B. and Frankenberg, E. 2022. Repeat-pass L-band UAVSAR images for flood extent mapping during Hurricane Florence. Water Resources Research, 58, doi: 10.1029/2021WR030606.

*Xia, H., Chen, Y., **Song, C.**, Li, J., Quan, J. and Zhou, G. 2022. Analysis of surface urban heat island based on local climate zones via spatiotemporally enhanced land surface temperature. Remote Sensing of Environment, 273, doi: 10.1016/j.rse.2022.112972.

*Zhang, J., Zhang, Y., Sun, G., **Song, C.**, Li, J., Hao, L. and Liu, N. 2022. Climate variability masked greening effects on water yield in the Yangtze River Basin during 2001-2018. Water Resources Research, 58(1), doi: 10.1029/22021WR030382.

Bi, Xing, Wu, C., Wang, C., Wang, Y., Wang, X., **Song, C.**, Li, J. and Fu, C. 2022. Impacts of air temperature and its extremes on human mortality in Shanghai, China. Urban Climate, doi: 10.1016/j.uclim.2021.101072.

*Zhang, J., Zhang, Y., Sun, G., **Song, C.**, Dannenberg, M. P., Li, J., Liu, N., Zhang, K., Zhang, Q., and Hao, L. 2021. Vegetation greening weakened the capacity of water supply to China's South-North Water Diversion Project. Hydrology and Earth System Sciences, 5, 5623–5640, doi: 10.5194/hess-25-5623-2021.

*Bista, R. and **Song, C.**, 2021. Human-wildlife conflict in the community forestry landscape: a case study from two Middle Hill districts of Nepal. Human Dimensions of Wildlife. doi: 10.1080/10871209.2021.1980158.

Oldekop, J. A., Gabay, M. Humphreys, D., Kamoto, J. F. M., Mutta, D. N, **Song, C.**, Timko, J., Rasmussen, L. V. and Stoian, D. 2021. A Framework for analysing contextual factors shaping forest-poverty dynamics. Forest Policy and Economics, doi:10.1016/j.forpol.2021.102591.

Razafindratsima, O. H., Judith FM Kamoto, Erin O Sills, Doris N Mutta, **Conghe Song**, Gillian Kabwe, Sarah E Castle, Patricia M Kristjanson, Casey M Ryan, Maria Brockhaus, Terry Sunderland. 2021. Reviewing the evidence on the roles of forests and tree-based systems in poverty dynamics. Forest Policy and Economics, 131, 102576, doi: 10.1016/j.forpol.2021.102576.

*Wu, Q., **Song, C.**, Song, J., Wang, J., *Chen, S., Yang, L, Xiang, W., Zhao, Z. and Jiang, J. 2021. Effects of leaf age and canopy structure on gross ecosystem production in a subtropical evergreen Chinese forest. Agricultural and Forest Meteorology, 310, 108618, doi: 10.1016/j.agrformet.2021.108618.

* Zhang, Yulong., **Conghe Song**, Taehee Hwang, Kimberly Novick, John W. Coulston, James Vose Matthew P. Dannenberg, Christopher R. Hakkenberg, Jiafu Mao, and Curtis E. Woodcock. 2021. Land cover change-induced decline in terrestrial gross primary production over the conterminous United States from 2001 to 2016. Agriculture and Forest Meteorology, 308-309, 108609, doi: 10.1016/j.agrformet.2021.108609.

*Bista, R., Zhang, Q., Parajuli, R., Karki, R., Chhetri, B. B. K., and **Song, C.** 2021. Cropland abandonment in the community forestry landscape in the Middle Hills of Nepal. Earth Interactions, 25(1): 136-150, doi: 10.1175/EI-D-21-0006.1.

*Wang, Y., Zhang, Q., Sannigrahi, S., Li, Q., Tao, S., Bilsborrow, R., Li, J., and **Song, C.** 2021. Understanding the Effects of China's Agro-Environmental Policies on Rural Households' Labor and Land Allocation with a Spatially Explicit Agent-Based Model. Journal of Artificial Societies and Social Simulation 24 (3), 1-7.

*Wang, Y., Zhang, Q., Li, Q., Wang, J., Sannigrahi, S., Bilsborrow, R., Bellingrath-Kimura, S. D., Li, J. and **Song, C.** 2021. Role of social networks in building household livelihood resilience under payments for ecosystem services programs in a poor rural community in China. Journal of Rural Studies, doi: 10.1016/j.jrurstud.2021.05.017.

Dannenberg, M. P., Smith, W. K., Zhang, Y., **Song, C.**, Huntzinger, D. N. and Moore, D. J. 2021. Large-scale reductions in terrestrial carbon uptake following central Pacific El Nino. Geophysical Research Letters, doi: 10.1029/2020GL092367.

*Jiang, M., He, Y., **Song, C.**, Pan, Y. Qiu, T. and Tian, S. 2021. Disaggregating climatic and anthropogenic influences on vegetation changes in Beijing-Tianjin-Hebei region of China. Science of the Total Environment, 786: 147574.

Wu, J., **Song, C.**, Dubinsky, E. A., Stewart, J. R. 2021. Tracking major sources of water contamination using machine learning. Frontiers in Microbiology, 11, doi: 10.3389/fmicb.2020.616692.

*Chen, S., *Zhang, Y., *Wu, Q., Liu, S., **Song, C.**, Xiao, J., Band, L. E., and Vose, J. M. 2021. Vegetation structural change and CO_2 fertilization more than offset gross primary production decline caused by reduced solar radiation in China. Agricultural and Forest Meteorology, doi: 10.1016/j.agrformet.2020.108207.

Onja H. Razafindratsima, Judith Kamoto, Erin Sills, Doris N. Mutta, **Conghe Song**, Terry Sunderland, Gillian Kabwe, Casey Ryan, Sarah E. Brown, Patricia M. Kristjanson, Maria Brockhaus, Patrice Bigombe Logo, Blaise-Pascal Ntirumenyerwa Mihigo, Symphorien Ongolo, Jianmin Xiao and Yue Zhao. 2020. Forest-Poverty Dynamics: Current State of Knowledge. In: Forests, Trees, and the Eradication of Poverty: Potential and Limitations-A Global Assessment Report (Daniel C. Miller, Stephanie Mansourian and Christoph Wildburger, Editors), pp 55-94. IUFRO World Series Vol. 39.

Mónica Gabay and Johan A. Oldekop, David Humphreys, Judith Kamoto, Doris N. Mutta, Nitin Rai, **Conghe Song**, Joleen Timko, Laura Vang Rasmussen, Jennifer Zavaleta Cheek Dikshya Devkota and Dietmar Stoian. 2020. Contextual Factors Shaping Forest Poverty Dynamics. In: Forests, Trees, and the Eradication of Poverty: Potential and Limitations-A Global Assessment Report (Daniel C. Miller, Stephanie Mansourian and Christoph Wildburger, Editors), pp 95-124. IUFRO World Series Vol. 39.

Reem Hajjar and Peter Newton, Markus Ihalainen, Arun Agrawal and Mónica Gabay Jennifer Alix-Garcia, Sarah E. Brown, James T. Erbaugh, Karl Hughes, Samuel Mawutor, Pablo Pacheco, George Schoneveld, **Conghe Song**, and Joleen Timko. 2020. Levers for Alleviating Poverty in Forests and Tree-Based Systems. In: Forests, Trees, and the Eradication of Poverty: Potential and Limitations-A Global Assessment Report (Daniel C. Miller, Stephanie Mansourian and Christoph Wildburger, Editors), pp 125-176. IUFRO World Series Vol. 39.

*Qiu T., **Song, C.** and Li, J. 2020. Deriving annual double-season cropland phenology using Landsat imagery. Remote Sensing, 12(20), doi: 10.3390/rs12203275 (Invited Featured Paper).

*Zhang, Q., *Wang, Y., Tao, S., Bilsborrow, R. E., Qiu, T., Liu, C., Sannigrahi, S., Li, Q. and **Song, C.** 2020. Divergent socioeconomic-ecological outcomes of China's conversion of cropland to forest program in the subtropical mountainous area and the semi-arid Loess Plateau. Ecosystem Services, 45, doi: 10.1016/j.ecoser.2020.101167.

*Wang, Y., *Zhang, Q., Bilsborrow, R., Tao, S., Chen, X., Sullivan-Wiley, Huang, Q. Li, J. and **Song, C.** Effects of payments for ecosystem services programs in China on rural household labor allocation and land use: Identifying complex pathways. Land Use Policy, 99, doi: 10.1016/j.landusepol.2020.105024.

*Qiu, T., **Song, C.**, Clark, J. S., Seyednasrollah, B., Ranthnayaka, N. and Li, J. 2020. Understanding the continuous phenological development at daily time step with a Bayesian hierarchical space-time model: impacts of climate change and extreme weather events. Remote Sensing of Environment, doi: 10.1016/j.rse.2020.111956.

*Dannenberg, M. P., **Song, C.**, Wise, E. K., Pederson, N. and Bishop, D. A. 2020. Delineating Environmental Stresses to Primary Production of U.S. Forests from Tree Rings: Effects of Climate Seasonality, Soil, and Topography. Journal of Geophysical Research, doi: 10.1029/2019JG005499.

Hwang, T., Band, L. E., Miniat, C. F., James M. Vose, J. M., Knoepp, J. D., **Song, C.**, Bolstad, P. V. 2020. Climate change may increase the drought stress of mesophytic trees downslope with ongoing forest mesophication under a history of fire suppression. Frontiers in Forests and Global Change, 3, 927.

Wang, M, Li, J., Kuang, S., He, Y., Chen, G., Huang, Y., **Song, C.**, Anderson, P. and Łowicki, D. 2020. Plant Diversity Along the Urban–Rural Gradient and Its Relationship with Urbanization Degree in Shanghai, China. Forests, 11(2), 171, doi:10.3390/f11020171.

Chen, Z., Zhang, Z., Chen, L., Cai, Y., Zhang, H., Lou, J. Xu, Z., Xu, H. and **Song, C.** 2020. Spare Pinus Tabuliformis stands have higher canopy transpiration than dense stands three decades after thinning. Forests, 11, 70; doi: 10.3390/f1010070.

*Qiu, T., **Song, C.**, *Zhang, Y., Liu, H. and Vose, J. M. 2020. Urbanization and climate change jointly shift land surface phenology in the northern mid-latitude large cities. Remote Sensing of Environment, 203, doi: https://doi.org/10.1016/j.rse.2019.111477.

Wu, C., Li, J., Wang, C., **Song, C.**, Chen, Y., Finka, M. and Rosa, D. L. 2019. Understanding the relationship between urban blue infrastructure and land surface temperature. Science of the Total Environment, doi:10.1016/j.scitotenv.2019.133742

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Song, C. and Woodcock, C. E. 2003c. A regional forest ecosystem carbon budget model: impacts of forest age structure and landuse history. Ecological Modelling, 164:33-47.

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Teaching Record

2001 Fall, Geog 070, Introduction to Geographic Information
2002 Spring, Geog 070, Introduction to Geographic Information
2002 Spring, Geog 178, Advanced Remote Sensing
2002 Fall, Geog 070, Introduction to Geographic Information
2003 Spring, Geog 070, Introduction to Geographic Information
2003 Spring, Geog 178, Advanced Remote Sensing
2003 Fall, (Research and Study Assignments)
2004 Spring, Geog 195, Ecological Modeling
2004 Spring, Geog 178, Advanced Remote Sensing
2004 Fall, Geog 410, Modeling of Environmental Systems
2004 Fall, Geog 070, Introduction to Geographic Information
2005 Spring, Geog 195, Ecological Modeling, 13 students
2005 Spring, Geog 178, Advanced Remote Sensing
2005 Fall, (Charles Bullard Fellow at Harvard University)
2006 Spring, (Charles Bullard Fellow at Harvard University)
2006 Fall, Geog 410, Modeling of Environmental Systems 46 students
2007 Spring, Geog 577, Advanced Remote Sensing
2007 Spring, Geog 595, Ecological Modeling, 6 students
2007 Fall, Geog 410, Modeling of Environmental Systems, 45 students
2007 Fall, Geog 801, Seminar in Biophysical Systems, 3 students
2008 Spring, Geog 577, Advanced Remote Sensing
2008 Fall, Geog 410, Modeling of Environmental Systems
2009 Spring (Research and Study Assignments)
2009 Fall, Geog 110, Environmental Systems, 110 students
2009 Fall, Geog 410, Modeling of Environmental Systems, 20 students

2010 Spring, Geog 110, Environmental Systems, 69 students
2010 Spring, Geog 595, Ecological Modeling
2010 Fall, Geog 391, Quantitative Methods, 17 students
2010 Fall, Geog 410, Modeling of Environmental Systems, 16 students
2011 Spring, Geog 595, Ecological Modeling, 14 students
2011 Spring, Geog 577, Advanced Remote Sensing, 12 students
2011 Fall, Grier/Woods Fellowship Leave
2012 Spring, Geog 110, Environmental Systems, 90 students
2012 Spring, Geog 577, Advanced Remote Sensing, 17 students,
2012 Fall, Geog410, Modeling of Environmental Systems, 10 students
2012 Fall, Geog 801, Seminar in Biophysical Systems, 6 students
2013 Spring, Geog 577, Advance Remote Sensing, 17 students,
2013 Fall, Geog 410, Modeling of Environmental Systems, 16 students
2014 Spring, Geog 577, Advanced Remote Sensing, 18 students
2014 Fall, Research Study Assignment
2015 Spring, Geog 577, Advanced Remote Sensing, 16 students
2015 Fall, Teaching release for services
2016 Spring, Geog 577, Advanced Remote Sensing, 8 students
2016 Spring, Geog 410, Modeling of Environmental Systems, 12 students
2016 Fall, Teaching release for services
2017 Spring, Geog 410 Modeling of Environmental Systems, 11 students
2017 Spring, Geog 577, Advanced Remote Sensing, 18 students
2017 Fall, Teaching release for services
2018 Spring Geog 577, Advanced Remote Sensing, 18 students
2018 Spring Geog 410 Modeling of Environmental Systems, 13 students.
2018 Fall, Teaching release for services
2019 Spring Geog410 Modeling of Environmental Systems, 14 students
2019 Spring Geog 577 Advanced Remote Sensing, 15 students.
2019 Fall Geog 370 Introduction to Geographic Information, 42 students
2019 Fall Geog 410 Modeling of Environmental Systems, 14 students
2020 Spring: Senior Faculty Research Leave, Office of Provost
2020 Fall: Research Study Assignment
2021 Spring: Geog 577 Advanced Remote Sensing, 14 students
2021 Spring: Geog 410 Modeling of Environmental Systems, 13 students
2021 Fall: Geog 567 Geospatial Data Analysis with GEE (6 students)
2021 Fall: Geog 410 Modeling of Environmental Systems (7 students)
2022 Spring: Geog 577 Advance Remote Sensing (18 students)
2022 Spring: Geog 237 Natural Resources-Forestry (30 students)
2023 Fall: Geog 410 Modeling of Environmental Systems (18 students)
2022 Fall: Geog567 Geospatial Data Analysis with GEE (5 students)
2023 Spring: Geog 237 Natural Resources-Forestry (47 students)
2023 Spring: Geog 577 Advanced Remote Sensing (21 students)
2023 Fall: Geog237 Natural Resources-Forestry (36 students)

Professional Services

To Discipline

Editor, Transactions in Earth, Environment and Sustainability, 2021-
Academic Editor Board, Remote Sensing, 2019-
Editorial Board, The Southern Geographer, 2015-2017, 2017-2019.
Academic Editor, Plos ONE (2018)
Editorial Board, 2014-present, ISPRS Journal of Photogrammetry and Remote Sensing.
Associate Editor, 2013-2014, ISPRS Journal of Photogrammetry and Remote Sensing.
Guest Editor, 2021, Remote Sensing Special Issue on Impacts of Climate Change on Agriculture.
Guest Editor, 2020-2021, Special Issue of IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing on Ecosystem Carbon Cycle Remote Sensing: Observation, Inversion and Applications
Guest Editor, 2020-2021, Earth Interactions on Understanding Complex Human-Environment Systems: Theoretical, Methodological and Application Issues.
Guest Editor, 2018-2019, Remote Sensing Special Issue on Human-Environment Interactions
Guest Editor, 2016-2017, Remote Sensing Special Issue on Urban Ecology
Guest Editor, 2014-2015, Remote Sensing Special Issue on Carbon Cycle, Global Change and Multi-Sensor Remote Sensing.

Reviewer for Journals: Annals of the Association of American Geographers; Annals of GIS; Applied Spectroscopy; Applied Vegetation Science; Conservation Biology; Biogeosciences; Canadian Journal of Remote Sensing; Earth Interactions; Ecological Applications; Ecological Modeling; Ecosystems; Environmental Pollution; Forest Economics and Policy; GeoCarto International; IEEE Transactions of Geoscience and Remote Sensing; International Journal of Remote Sensing; ISPRS Journal of Photogrammetry and Remote Sensing; Journal of Applied Ecology; Journal of Applied Meteorology; Journal of Forest Research; Land Degradation and Development; Landscape and Urban Planning; Landscape Ecology; Land Use Policy; Nature-Communications; Photogrammetric Engineering and Remote Sensing; Plant Ecology; PlosONE; Population and Environment, Professional Geographer; Regional Environmental Change; Remote Sensing; Remote Sensing of Environment, Science of the Total Environment; Sensors; Tree Physiology.

Reviewer for Proposals:
2023: US National Science Foundation
2022: Research Grant Council, Hong Kong
2021: US National Science Foundation; Research Grant Council, Hong Kong
2020: Research Grant Council, Hong Kong
2019: Research Grant Council, Hong Kong
2018: US National Science Foundation; Research Grant Council, Hong Kong.
2017: United Arab Emirates University; Research Grant Council, Hong Kong.
2016: Belgium Remote Sensing Research Program; US National Science Foundation
2015: Academic Sinica, Taiwan, ROC; Chinese University of Hong Kong; US National Science Foundation

2001-2014: Auburn University; City University of New York; Eastern Michigan University; National Science Foundation; National Aeronautics and Space Administration; Sam Huston State University; USDA Forest Service; The National Geographic Society; The State University of New Jersey, University of Wisconsin-Milwaukee.

Panel Services:
2023: NSF DISES Program
2020: NAS USAID PEER Cycle 9: II Environmental Panel
2019: Global Forest Expert Panel, International Union of Forest Research Organization
2014: NSF CNH Large Panel.
2009: NASA Terrestrial Ecology Program.
2009: NASA Earth and Space Science Fellowship Program.
2008: NASA New Investigator's Program.
2006: NASA ACCESS: Advancing Collaborative Connections for Earth System Science.

Program Review
2022: Department of Geography, George Washington University

Reviewer for Promotion and Tenure:

2023: University of California-Berkeley
2023: University of Illinois Urbana-Champaign
2023: Colgate University
2022: University of Hong Kong
2022: American Association of Geographers
2022: Vanderbilt University
2022: University of Georgia
2022: Hong Kong University of Science and Technology (Guangzhou)
2021: American Association of Geographers
2021: West Virginia University
2021: East China Normal University (China)
2020: East China Normal University (China)
2020: University of California Davis
2020: Auburn University
2020: Rutgers University
2019: University of Georgia
2019: North Carolina State University
2019: The University at Buffalo (SUNY)
2019: Shanghai Jiaotong University (China)
2019: Ohio State University
2019: Peking University
2018: University of Maryland, College Park
2018: University of Georgia
2018: Iowa State University
2017: Mississippi State University
2017: The Environmental Protection Agency

2017: University of Florida
2017: University of North Carolina at Chapel Hill
2017: SUNY College of Environmental Science and Forestry
2016: Michigan State University
2016: Saint Louis University
2016: University of Tennessee at Knoxville
2016: University of Hawaii at Manoa
2015: Rutgers University
2014: Michigan State University
2014: West Virginia University
2012: University of Maryland at Baltimore County

Conference Services:

2024: Symposium Co-Organizer: Model interactions between green initiative, people and the environment using a data science approach. 2024 Annual Meeting of the International Association of Landscape Ecology-North America, April 1-5, 2024, Oklahoma City, OK; **Session Chair:** Effects of environmental policy on natural resource conservation and people's livelihoods. 2024 Annual Meeting of AAG, April 16-20, Honolulu, HI. **2023: Organization Committee,** International Symposium on the Forests-Water-Livelihood Nexus in the Lesser Himalaya, Pokhara, Nepal, September 29-30, 2023; **2022:** Panelist, Nepal's Forestry at a crossroad, Second fnnual Conference of Nepali Academics in America (NACA), April. 15-16, 2022; Session Co-Chair, Impacts of Forest Policy on the Dynamics of the Integrared Socio-Environmental Systems, Annual Meeting of the American Association of Geographers, Feb 25 -March 1, 2022. Virtual; **2021:** Symposium Co-Chair, International Symposium on the Dynamics of the Integrated Social-Environmental Systems: Implications for Natural Resource Management in Asia. Carolina Asia Center, UNC Chapel Hill, November 6, 2021; Symposium Co-organizer, Complexities of Payment for Ecosystem Services Programs, Annual Meeting of International Association of Landscape Ecology, North America (Virtual). **2020:** Session Co-organizer, Socioeconomic Consequences of Payment for Ecosystem Services, Annual Meeting of AAG (Virtual); **2018:** Session co-organizer, Out migration, Livelihoods and Payment for Ecosystem Services, 2018 Annual Meeting of AAG, April 10-14, 2018, New Orleans, LA; Judge, Student Paper Competition, Remote Sensing Specialty Group, 2018 Annual Meeting of AAG, April 10-14, 2018, New Orleans; Judge, Student Poster Competition, UNC Annual Climate Change Symposium, April 20, 2018; Program Committee member, Fifth International Workshop on Earth Observation and Remote Sensing Applications (EORSA 2018). **2017:** Session Chair and co-organizer, Impact of Payment for Ecosystem Services on the Dynamics of the Coupled Natural and Human Systems. 2017Annual Meetings of AAG. April 5-9, 2017. Boston MA. Discussant, Discussant, Dynamics of coupled natural and human systems panels: Models, Feedbacks, Analyses and Outcomes. 2017 Annual Meeting of AAG, April 5-9, 2017. Boston, MA. **2016:** Co-Chair, 2nd Congress for the Society of Urban Ecology, Shanghai, China, July 8-10, 2016; Member**,** Scientific Committee, IEEE Geoscience and Remote Sensing Symposium (IGARSS), Beijing, PRC, July 10-15, 2016; 2016 AAG Session Chair and Co-organizer: Impacts of Land-Cover/Land-Use Change on the Dynamics of the Coupled Natural and Human Systems; Scientific Committee: IEEE Geoscience and Remote Sensing Symposium (IGARSS), Beijing, China; **2015**: Scientific Committee: IEEE Geoscience and Remote

Sensing Symposium (IGARSS), Milan, Italy; Organizer and co-Chair, Second International Symposium on the Dynamics of Coupled Natural and Human Systems, Beijing, July 29, 2015; Organizer and Co-Chair: 2015 AAG Session Impacts of Human Caused Land-Cover/Land-Use Changes on Terrestrial Ecosystem Functions; Co-Organizer, International Conference on Carbon Cycle and Global Change, Hangzhou, China, June 10-12, 2015; Plenary Session Chair, International Conference on Carbon Cycle and Global Change, Hangzhou, China, June 10-12, 2015; Session Chair, Interactions of land use/cover change and ecosystem services, International Conference on Carbon Cycle and Global Change, Hangzhou, China, June 10-12, 2015; Panel member, Journal paper preparation and submission, International Conference on Carbon Cycle and Global Change, Hangzhou, China, June 10-12, 2015; **2014:** Co-chair, International Symposium on the Dynamics of Coupled Natural and Human Systems, Wuhan Botanical Garden, Chinese Academy of Sciences, Wuhan, China, June 2-3, 2014; Co-organizer and Session Chair, Paths Toward Sustainable Payments for Ecosystem Services, 2014 Annual AAG Meeting; Program Committee, Third International Conference Workshop on Earth Observation and Remote Sensing Applications, Shanghai, China June 11-14, 2014; **2013**: AAG Session Chair and co-organizer: Towards Social and Ecological Balance in Forested Landscape I&II; Scientific Committee: IEEE Geoscience and Remote Sensing Symposium (IGARSS), Melbourne, Australia; Moderator, Presentation by Undergraduate Recipients of G. H. Stout Award for Innovative Use of GIS, NC 2013 GIS Conference; **2012:** Science Committee, ForestSAT 2012, Corvallis, Oregon State University, September 11-14;
Program Committee, Second International Conference Workshop on Earth Observation and Remote Sensing Applications, Shanghai, China June 8-11, 2012; **2010:** Scientific Committee: IEEE Geoscience and Remote Sensing Symposium (IGARSS), Honolulu, Hawaii; **2009:** Scientific Committee: IEEE Geoscience and Remote Sensing Symposium (IGARSS), Cape Town, South Africa; **2008:** Scientific Committee: IEEE Geoscience and Remote Sensing Symposium (IGARSS), Boston, MA; **2004:** Co-Convener, Multitemporal Remote Sensing of Vegetation I. AGU/CGU Joint Assembly, May 17-21, 2004. Montreal, Quebec; Co-Convener, Multitemporal Remote Sensing of Vegetation II. AGU/CGU Joint Assembly, May 17-21, 2004. Montreal, Quebec.

Within UNC Chapel Hill

University Committees:

2021-2022:
Member, Search Committee for the Dean of Arts and Sciences, UNC Chapel Hill
Member, Faculty Advisory Committee, UNC Institute for the Environment
Member, Foreign Language and Area Studies Fellowship Committee, Carolina Asia Center

2020-2021:
Member, Faculty Advisory Committee, UNC Institute for the Environment
Member, Foreign Language and Area Studies Fellowship Committee, Carolina Asia Center
E3P Executive Committee
Member, Search Committee for the Dean of Arts and Sciences, UNC Chapel Hill

2018-2019:

Faculty Advisory Committee, UNC Institute for the Environment (Member)
Geospatial Data Science and Visualization Working Group
E3P Executive Committee

2017-2018:
Faculty Advisory Committee, UNC Institute for the Environment (Member)
Graduate School Graduate Student Impact and Horizon Award Committee (member)
Data Science Symposium Committee
E3P Executive Committee

2016-2017:
Faculty Advisory Committee, UNC Institute for the Environment (Member)
Graduate School Graduate Student Impact and Horizon Award Committee (member)

2015-2016:
Graduate School Graduate Student Impact Award Committee (member)
Graduate School Summer Research Fellowship Committee (member)
Faculty Advisory Committee, UNC Institute for the Environment (member)

2014-2015:
Graduate School Graduate Student Impact Award Committee (member)
Faculty Advisory Committee, UNC Institute for the Environment (member)

2013-2014:
Graduate School Graduate Student Impact Award Committee (member)
Faculty Advisory Committee, UNC Institute for the Environment (member)

 2012-2013:
Graduate School Graduate Student Impact Award Committee (member, 2013)
UNC Innovative Use of GIS Award Committee (chair, 2013)
Faculty Advisory Committee, UNC Institute for the Environment (member)

 2011-2012:
Graduate School Graduate Student Impact Award Committee (member, 2012);
UNC Innovative Use of GIS Award Committee (chair, 2012).

Departmental Committees:

2022-2023:
Member, Graduate Award Committee
Chair, Colloquium Committee

2021-2022:
Chair, Jun Liang Promotion Review Committee
Member, Graduate Committee
Member, Search Committee for Physical Geography position

Member, Post-tenure Review Committee

2020-2021:
Member, Graduate Award Committee (Spring 2021)
Member, Diversity Committee (Spring 2021)

2019-2020:
GISc Graduate Certificate Program Committee (Chair) (Fall 2019, on leave Spring 2020)
Promotion and Tenure Committee (Fall 2019, on leave Spring 2020)
Diversity Committee (Fall 2019, on leave Spring 2020)
Danielle Purifoy Interview Committee

2018-2019:
Technology Committee
Travel and Seed Grant Award Committee
Geography Summer School Liaison

2017-2018:
GISc Graduate Certificate Program Committee (Chair)
Promotion and Tenure Committee
Technology Committee
Travel and Seed Grant Award Committee
Retreat Planning Committee
Geography Summer School Liaison

2016-2017:
GISc Graduate Certificate Program Committee (Chair)
Promotion and Tenure Committee
Technology Committee
Travel and Seed Grant Award Committee
Diversity Committee (Fall 2016 only)
Jason Davis Interview Committee
Strategic Planning Task Force
Geography Summer School Liaison

2015-2016:
GISc Graduate Certificate Program Committee (Chair)
Promotion and Tenure Committee
Technology Committee
Travel and Seed Grant Award Committee
Geography Summer School Liaison

2014-2015:
GISc Graduate Certificate Program Committee (Chair)
Veronica Escamilla Interview Committee (Chair)
Post Tenure Review Committee

Promotion and Tenure Committee
Osment Award Committee
Technology Committee
Travel and Seed Grant Award Committee
CEE Graduate Committee
Geography Summer School Liaison

2013-2014:
GISc Graduate Certificate Program Committee (Chair)
Technology Committee (chair)
Diversity Committee
Travel and Seed Grant Award Committee
CEE Graduate Committee
Post-tenure Review Committee

2012-2013 and before:
Iryna Dronova Interview Committee (member, 2013)
CEE Graduate Committee (member, 2012-2013)
GISc Graduate Certificate Program Committee (Chair, 2012-)
Annual Merit and Review Committee (member, 2011-2013)
Technology Committee (Chair, 2010-2012)
Undergraduate Committee (member,2009-2010)
Post Tenure Review Committee (member, 2009-2011)
Ecology Graduate Admissions Committee (Chair, 2008-2009)
Search Committee for Climate and Environmental Changes (member, 2008)
Undergraduate Committee (member, 2007-2008)
Colloquium Committee (member, 2007-2008)
Search Committee for Health and Environment (member, 2004)
Undergraduate Committee, (member, 2004-2005)
Graduate Committee (member, 2004-2005)
Colloquium Committee (chair, 2003-2004)
 Merit and Annual Review Committee (member, 2002-2004)
Search Committees Earth System Science (member, 2002).

Student Committees:

Committee Chairs/co-Chairs:

Natalia Mushegian, PhD Student, 2023-, Geography

Mallory Alman, PhD student, 2023-, Ecology

Sophia Graybill, PhD student, 2020-2023, PhD candidate 2023-, Geography

Prabisha Shrestha, PhD student, 2019; PhD Candidate, 2022-, Geography

Rajesh Bista, PhD, 2022. Dissertation: Socio-environmental dynamics of community forestry in the middle hills of Nepal: understanding forest ecosystem feedbacks, rural out-migration and land use.

Wilson Thompson, MA, 2020. Thesis: Monitoring canopy change caused by hurricanes: Lidar vs optical remotely sensed data.

Jiehao Zhang, PhD. 2021. (Co-Chair with Dr. Jingfeng Li at China University of Geoscience Wuhan)

Shaoyuan Chen, PhD, 2021. (Co-Chair with Dr. Suhong Liu at Beijing Normal University).

Qiaoli Wu, PhD, 2020. (Co-Chair with Dr. Jinling Song and Dr. Jingdi Wang at Beijing Normal University), PhD 2020. Dissertation: How Leaf age impact the temporal dynamics of canopy reflectance and gross ecosystem production: a case study in evergreen Chinese fir forests

Tong Qiu, PhD. 2020. Dissertation: Characterizing Responses of Land Surface Phenology to Urbanization, Climate Change, and Extreme Weather Events Using Remote Sensing and Bayesian Models.

Meichen Jiang, PhD., 2019. (Co-Chair with her adviser at China University of Geoscience Beijing).

Liu He, MA, 2019. Thesis: Spatial resolution impacts on deep convolutional neural networks performance of land cover classification.

Ying Wang (Co-Chair, Jiangfeng Li at China Geoscience University Wuhan), PhD, 2018. Dissertation: Impacts of Agri-environmental policies on rural household labor allocation and land use decision-making: Experiments with a spatially explicit agent-based model.

Qi Zhang, PhD, 2017, Geography. Dissertation: Social-Ecological Immpacts of China's Payment for Ecosystem Services Programs on Land Use, Migration and Livelihoods.

Matthew P. Dannenberg (Co-Chair with Erika Wise), PhD 2017, Geography. Dissertation: Environmental Limitations to Forest Growth and Productivity in North America.

Christopher Hakkenberg, PhD, 2017, Curriculum in Ecology and the Environment. Dissertation: Mapping Plant Diversity and Composition Across North Carolina Piedmont Forest Landscapes Using Lidar-Hyperspectral Remote Sensing.

Chong Liu (Co-Chair with Dr. Zhengfeng Shao at Wuhan University), PhD. 2015. Dissertation: Extracting Impervious Surface [from Remote Sensing] and Evaluating its Impacts on Terrestrial Ecosystem Carbon and Water Fluxes on the Regional Scale.

Qi Zhang, MA, 2013, Thesis: Land Cover and Land Use Changes Under Forest Protection and Restoration in Tiantangzhai Township, Anhui, China.

Yulong Zhang (Co-Chair with Dr. Quanfa Zhang at Wuhan Botanical Garden, Chinese Academy of Sciences), PhD, 2013, Ecology. Dissertation: Impacts of land-use/land-cover change and climate change on terrestrial net primary productivity in the Yangtze River Basin, China.

Matthew P. Dannenberg, MA, 2013, Thesis: ENSO-induced variability in terrestrial vegetation dynamics in the Western United States.

Christopher Jones, ENST Honor Thesis (Highest Honor), 2013: Integrative use of remote sensing and environmental variables to predict hemlock woolly adelgid spatial distribution.

Josh Gray, PhD, 2012, Geography. Dissertation: Understanding regional water resource dynamics due to land-cover/land-use and climate changes in the North Carolina Piedmont.

Su Zhang, MA, 2010, Thesis: Land-use/land-cover change in Orange County, North Carolina from 1955 to 2001.

Committee Members:

Graduate Committees:
Neely Law (PhD 2003, Geography, Major Advisor: Dr. Band)
David Tenenbaum (PhD 2004, Geography, Major Advisor: Dr. Band)
Sean McKnight (MA 2004, Geography, Major Advisor: Dr. Walsh)
Even Hammer (MA 2004, Geography, Major Advisor: Dr. Walsh)
Daehyok Shin (PhD 2005, Geography, Major Advisor: Dr. Band)
Adam Smith (MA 2005, Geography, Major Advisor: Dr. Konrad)
Jingfeng Xiao (PhD 2006, Geography, Major Advisor: Dr. Moody)
Carlos Mena (PhD 2007, Geography, Major Advisor: Dr. Walsh)
Yang Shao (PhD 2007, Geography, Major Advisor: Dr. Walsh)
Catherine Shields (MA 2007, Geography, Major Advisor: Dr. Band)
Christine Erlien (PhD 2008, Geography, Major Advisor: Dr. Walsh)
Dan Weiss (PhD 2009, Geography, Major Advisor: Dr. Walsh)
Joseph Saxton (PhD 2009, Environmental Science, Duke Univ. Major Advisor: Dr. Urban)
Taehee Huang (PhD 2009; Geography, Major Advisor: Dr. Band)
Monica Smith (PhD 2009, Geography, Major Advisor: Dr. Band)
Jose Alvarez (PhD 2010, Forest Science, Major Advisor, Dr. Allen, NCSU)
Anne Trainor (PhD 2011, Geography, Major Advisor: Dr. Moody)
Benjamin Huemann (PhD 2011, Geography, Major Advisor: Dr. Walsh)
Ian Breckheimer (MA 2012, Geography, Major Advisor: Dr. Moody)
D. J. Perkins (MA 2011, Geography, Major Advisor: Dr. Konrad/Dr. Robinson)
Christine Urbanowicz (MA 2012, Geography, Major Advisor: Dr. Moody)
Yuri Kim (PhD 2012, Geography, Major Advisor: Dr. Band)
Amy McCleary (PhD 2012, Geography, Major Advisor: Dr. Walsh)

Timothy Morrissey (MA, 2012, Geography, Major Advisor: Dr. Walsh)
Jonathan Duncan (PhD 2014, Geography, Major Advisor: Dr. Band)
Brian Miles (PhD 2014, Geography, Major Advisor: Dr. Band)
Maggie Kovach (PhD 2015, Geography, Major Advisor: Dr. Konrad)
Matthew Cooper (MA 2015, Geography, Major Advisor: Dr. Persha))
Limei Ran (PhD 2015, Ecology, Major Advisor: Dr. Band)
Julie Tuttle (PhD 2019, Ecology, Major Advisor: Dr. White)
Mark Jenko (PhD 2017, Geography, Major Advisor: Dr. Emch)
Maia Call (PhD 2017, Geography, Major Advisor: Dr. Gray)
Christopher Jones (PhD 2017, Geography, Major Advisor: Dr. Moody)
Christopher Payne (PhD 2018, Ecology, Major Advisor: Dr. Peet)
Sarah Schmitt (PhD 2018, Geography, Major Advisor: Dr. Riveros-Iregui)
Alyssa Brown (PhD 2019, Ecology, Major Advisor: Dr. Peet)
Corina Keeler (PhD 2019, Geography, Major Advisor: Dr. Michael Emch)
Francisco Laso (PhD 2021, Geography, Major Advisor: Dr. Walsh)
Angelica Gomez (PhD 2021, Major Advisor: Dr. Erika Wise)
Manuel Hernandez (PhD 2022, Major Advisor: Dr. Erika Wise)
Grace Di Cecco (PhD 2022, Biology, Major Advisor: Dr. Allen Hurlbert)
Julia Cardwell (MA 2022, Geography, Major Advisor: Dr. Charles Konrad)
Jordan Clark (PhD 2023, Geography, Major Advisor: Dr. Charles Konrad)
Andew Murray (PhD 2023, Major Advisor: Dr. Diego Riveros-Iregui)
Kreddie Whitmore (PhD Student, Geography, Major Advisor: Dr. Diego Riveros-Iregui)
Xijing Li (PhD Student, Urban Planning, Major Advisor: Dr. Yan Song)
Devon Maloney (PhD Student, Geography, Major Advisor: Dr. Aaron Moody)
Carl Jurkowski (PhD Student, Geography, Major Advisor: Dr. Erika Wise)
Ivara Goulden (PhD student, Biology, Major Advisor: Dr. Allen Hurlbert)
Sara Ghebremicael (PhD student, Geography, Major Advisor: Clark Gray)

Undergraduate Honor Thesis Committee:
Emily Snow (Finished 2010, Advisor: Dr. Kirsch)
Ashly Ward (Finished 2005, Advisor: Dr. Meade)

Invited Talks
"Implications of Vegetation and Climate Interactions on Carbon Sequestration and Freshwater Supply," College of Forestry, Wildlife, and Environment, Auburn University, March 27, 2024.

"Mechanisms of Forest Policies Influence on Land-Use and Land-Cover," International Center for Climate and Global Change Research, College of Forestry, Wildlife and Environment, Auburn University, March 27, 2024.

"Coupled Nature and Human Systems (CHANS): Case Studies in Nepal." International Symposium on the Forests-Water-Livelihood Nexus in the Lesser Himalaya, Pokhara, Nepal, September 29-30, 2023.

"The Socioeconomic Effects of China's Recent Forest Restoration and Conservation Programs," College of Economics and Management, Northwest A&F University, P. R. China, April 7, 2023.

"Remote Sensing of Urban Heat Islands: Progress and Prospects,", Beijing Normal University, July 11, 2022.

"Forest-Water-Climate Interactions at the Watershed Scale", Aid for India's Development, UNC Chapter. October 6, 2021.

"Recent Global Land Surface Greening and Its Implications to Global Carbon Cycle," Department of Geography and Geographic Information Science, University of Illinois Urbana-Champaign, September 18, 2020.

"The Socioeconomic Effects of China's Recent Forest Restoration and Conservation Programs," Department of Geography, San Diego State University, September 4, 2020.

"From Li-Strahler Model to Estimating Global Terrestrial Primary Productivity", University of Electronic Science and Technology of China, Chengdu, China. July 19, 2019.

"From Li-Strahler Model to Estimating Global Terrestrial Primary Productivity", Beijing Normal University, Beijing, China. July 15, 2019.

"Recent Global Greening and Its Implications in Global Carbon Cycle", Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China. July 12, 2019.

"The Socio-Economic Effects of China's Forest Restoration and Conservation Programs," Office of Cropland Conversion to Forest Program, China's State Administration of Forest and Grassland, Beijing, China. July 12, 2019.

"Estimating Global Terrestrial Primary Productivity with Remote Sensing", Student Association for Geospatial Analysis, Duke University, November 16, 2018.

"The Socio-Economic Effects of China's Forest Restoration and Conservation Programs," Carolina Population Center, University of North Carolina at Chapel Hill, November 9, 2018.

"The Socio-Economic Effects of China's Forest Restoration and Conservation Programs," Department of Geography and Confucius Institute, the University at Buffalo State University of New York, October 19, 2018.

"The Socio-Economic Effects of China's Forest Restoration and Conservation Programs," East China Normal University, Shanghai, September 30, 2018.

"Role of Remote Sensing in Estimating Vegetation Productivity on Islands: Challenges and Opportunities", Island Cities and Urban Archipelagos, September 26-28, 2018.

"The Socio-Economic Effects of China's Forest Restoration and Conservation Programs," Institute of Forestry, Tribhuvan University, Nepal, June 1, 2018.

"No Proportional Gross Carbon Sequestration from the Recent Greening Earth", NASA Land-Cover/Land-Use Change Science Team Meeting, April 3, 2018, Gaithersburg, MD.

"The Socio-Economic Effects of China's Forest Restoration and Conservation Programs," School of Geography, Institute for Population and Social Research, Mahidol University, Bangkok, Thailand, December 13, 2017.

"Understanding Global Vegetation Dynamics with Remote Sensing and the Coupled Carbon and Water Model", School of Ecological and Environmental Sciences, East China Normal University, December 5, 2017.

"Understanding Global Vegetation Dynamics with Remote Sensing and the Coupled Carbon and Water Model", Department of Geography, University of North Carolina at Charlotte, September 22, 2017.

"The Socio-Economic Effects of China's Forest Restoration and Conservation Programs," School of Geography, Beijing Normal University, July 18, 2017.

"The Socio-Economic Effects of China's Forest Restoration and Conservation Programs," School of Geography, Beijing Forestry University, July 1, 2017.

"The Socio-Economic Effects of China's Forest Restoration and Conservation Programs," Key Laboratory of Poyang Lake Wetland and Watershed Research, Jiangxi Normal University, July 4, 2017.

"From Li-Strahler Geometric Optical Model to Forest Ecosystem Energy, Carbon and Water Fluxes," Wuhan Botanical Garden, Chinese Academy of Sciences, June 22, 2017.

"Understanding Impact of Climate Change on Forest Primary Productivity Based on Remotely Sensed Data," Keynote Speech, Third Carolina Climate Change Symposium, April 22, 2016.

"Integrating Satellite and Ground Observations to Understand Global Terrestrial Ecosystem Productivity in the 21st Century", Geospatial Forum, North Carolina State University, Feb 25, 2016.

"Monitoring Biodiversity with Remote Sensing: Opportunities and Challenges". US-China Biodiversity Joint Workshop, North Carolina State University, Raleigh, NC. Oct 16-18, 2015.

"Influence of Cropland Conversion to Forest Program on Cropland Abandonment: A Case Study in Tiantangzhai Township, Anhui, China." XIV World Forestry Congress, Durban, South Africa, September 7-11, 2015.

"From Li-Strahler Geometric-Optical Model to Forest Ecosystem Energy, Carbon and Water Fluxes", Institute of Space and Earth Information Science, Chinse University of Hong Kong, Hong Kong, July 16, 2015.

"Deriving Forest Biophysical Parameters from Optical Remote Sensing", School of Information Science and Technology, Beijing Forestry University, June 25, 2015.

"From Li-Strahler Geometric-Optical Model to Forest Ecosystem Energy, Carbon and Water Fluxes", Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, June 24, 2015.

"Understanding Human Impacts on the Environment", Anhui Lujiang County Scientific Society, June 1, 2015.

"Monitoring Land-Cover/Land-Use Change and Modeling its Environmental Consequences with Remote Sensing", School of Earth Science and School of Public Administration, China University of Geosciences, Wuhan, May 29, 2015.

"From Li-Straher Geometric-Optical Model to Forest Ecosystem Energy, Carbon and Water Fluxes", State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing, Wuhan University, May 28, 2015.

"Scaling as a Process of Information Extraction from Optical Remotely Sensed Imagery", Beijing Normal University, June 29, 2014.

"Impacts of Land-Use/Land-Cover Change and Climate Change on the Net Primary Productivity in Yangtze River Basin 2001-2010.", School of Forestry and Landscape Architecture, Anhui Agricultural University, June 25, 2014.

"Mapping Plant Productivity with Optical Remote Sensing : Theory and Practice", East China Normal University, June 8, 2014.

"Sustainability of Forests Created by China's Sloping Land Conversion Program: A Comparison Among Three Sites", East China Normal University, June 6, 2014.

"Graduate Education in the United States", Graduate School, Beijing Forestry University, May 8, 2014.

"Monitoring Land-Cover/Land-Use Change and Modeling its Environmental Consequences", School of Land Science and Technology, China Geoscience University Beijing, May 7, 2014.

"Sustainability of Forests Created by China's Sloping Land Conversion Program: A Comparison Among Three Sites", School of Soil and Water Conservation, Beijing Forestry University, December 29, 2013.

"Forest Science and Practice: A personal career path and experience", School of Forestry and Landscape Architecture, Anhui Agricultural University, June 29, 2013

"Understanding Net Primary Productivity in Yangtze River Basin: Impacts of Land-Cover/Land-Use and Climate Changes", Beijing Forestry University, May 22, 2013.

"Understanding Vegetation Structure and Ecosystem Functions with Remote Sensing and Ecological Models", Univ. of North Carolina at Wilmington, November 11th, 2011.

"Modeling Energy, Water and Carbon Fluxes of Forest Ecosystems: Theory and Practice.", School of Soil and Water Conservation, Beijing Forestry University. October 20, 2011.

"Impacts of Vegetation Structure on Energy, Water and Carbon Fluxes: How Remote Sensing Can Help?" Institute of Forestry, Chinese Academy of Forest Sciences. October 10, 2011.

"Empirical Evidence of Impacts of Migration on Vegetation Dynamics," School of Environment and Natural Resources, Anhui Agricultural University, October 8, 2011.

"Impacts of Vegetation Structure on Energy, Water, and Carbon Fluxes: How Remote Sensing Can Help?" Wuhan Botanical Garden, Chinese Academy of Sciences, September, 28, 2011.

"Understanding Terrestrial Ecosystem Functions with Remote Sensing: Theory and Practice." School of Environment and Natural Resources, Anhui Agricultural University, September 26, 2011.

"Understanding Coupled Human-Natural Systems to Achieve Harmonic Coexistence between Human and Nature." Anhui Agricultural University, September 14, 2011.

"Understanding Terrestrial Ecosystem Functions with Remote Sensing: Theory and Practice." School of Forestry and Landscape Architecture, Anhui Agricultural University, September 14, 2011.

"Remote Sensing of Forest Canopy Structure and its Impacts on Energy, Water and Carbon Fluxes", Department of Geological Sciences, University of North Carolina at Chapel Hill, September 30, 2010.

"Remote Sensing of Forest Canopy Structure and its Impacts on Energy, Water and Carbon Fluxes", East China Normal University, Shanghai, China, June 23, 2010.

"Remote Sensing of Forest Canopy Structure and its Impacts on Energy, Water and Carbon Fluxes", Nanjing University, Nanjing, China, June 20, 2010.

"Estimating Forest Ecosystem Carbon Budgets: Theory, Needs and Strategies", Workshop for China's State Forestry Administration Delegation to USA. North Carolina State University, Dec 10, 2009.

"Understanding Earth System Sciences with Remote Sensing", Beijing Forestry University, Beijing, China, June 16, 2008.

"Understanding Earth System Sciences with Remote Sensing", Anhui Agricultural University, Hefei, China, June 5, 2008.

"Modeling Terrestrial Ecosystem Carbon Fluxes: How can remote sensing help?", East China Normal University, June 2, 2008.

"Impacts of Land-Cover/Land-Use and Climate Changes on Terrestrial Ecosystem Processes", University of San Francisco, Quito, Ecuador, May 16, 2008.

"Impacts of Canopy Structure on Forest Ecosystem Energy, Carbon and Water Dynamics", Southern Global Change Program, US Forest Service, Raleigh, NC. Feb 22, 2008.

"Leaves, Trees and Stands: Can we Measure Them From the Space and why do we Care?" Department of Geography, University of North Carolina at Chapel Hill, September 8, 2006.

"Integrative Use of Remote Sensing and Ecological Models to Understand Terrestrial Ecosystem Processes", Informal Discussions with Wofsy and Moorcroft Groups, Harvard University, Feb 9, 2006.

"Effects of Canopy Structure on Energy, Water and Carbon Fluxes in a Loblolly Pine Stand, Southeast USA", Department of Geography, Boston University, Nov 18, 2005.

"Use of Remote Sensing Information from Space to Understand Forest Ecosystem Processes", College of Forestry and Natural Resources, Beijing Forestry University, Oct 19, 2005.

"Remote Sensing of Vegetation: Potential for Biodiversity Studies", Wuhan Botanical Garden, Chinese Academy of Sciences. October 10, 2005.

"Impacts of Land-Use History on Regional Carbon Budget: A Remote Sensing Approach," Harvard Forest, Harvard University, September 23, 2005.

"Monitoring Changes in Forest Ecosystems with Multitemporal Remotely Sensed Imagery: Implications for Estimating Regional Carbon Budget," International Conference on LCLUC Processes in Northeast Asia Region, Feb 2-5, 2005. Harbin, China.

"Recovering Landsat 7 ETM+ Missing Data Due to SLC-Off: Comparison of Algorithms", Song, C., Quirk, P. J. and Woodcock, C. E. (Talk given by Woodcock). Phase 3 Landsat SLC-Off product, USGS and Landsat Science Program Office, Jan 13, 2005. University of Maryland, College Park, MD.

"Remote Sensing of Forest Succession: Implications for Estimating Regional Forest Ecosystem Carbon Budget", School of Forestry and Wildlife Sciences, Auburn University, Auburn, AL. September 21, 2004.

"Remote Sensing of Forest Succession: Implications for Estimating Regional Forest Ecosystem Carbon Budget", Center for Remote Sensing and GIS, Beijing Normal University, Nanjing, PR China. August 16, 2004.

"Remote Sensing of Forest Succession: Implications for Estimating Regional Forest Ecosystem Carbon Budget", International Institute of Earth System Sciences, Nanjing University, Nanjing, PR China. August 5, 2004.

"Recovering Landsat 7 ETM+ Missing Data Due to SLC Off from Overlapping Scenes," Landsat 7 SLC-off New Products Brainstorming Workshop, NASA, Oct 28-29, 2003, Greenbelt, MD.

 "Integrating Remote Sensing with Ecological Models to Estimate Regional Forest Ecosystem Carbon Budget", Curriculum in Ecology, University of North Carolina at Chapel Hill. February 6, 2003.

 "Remote Sensing of Vegetation for Terrestrial Carbon Budget Estimation: MODIS vs Landsat" at Workshop on Application of Remote Sensing in Support of Canada's National Forest Carbon Monitoring, Accounting and Reporting System. Sponsored by Canadian Forest Service. Victoria, BC, January 22-24, 2003.

 "Experience from Atmospheric Correction and Change Detection: Implications for Landsat Data Continuity Mission" at Workshop for Landsat Data Continuity Mission. Sponsored by NASA Goddard Space Flight Center. Beltsville, MD. May 15-16, 2001.

 "Atmospheric Correction of Landsat Images" at Workshop on Surface Reflectance Retrieval from Landsat Imagery of Forested Terrain in the Context of the Earth Observations for Sustainable Development (EOSD) Program". Sponsored by Canadian Forest Service. Ottawa, Ontario, March 15-16, 2001.

Conference Presentations and Posters

Oral Presentation (Virtual): Conghe Song. Forest-Water-Climate Interactions at the Watershed Scale. Aid for India's Development, UNC Chapter. October 6, 2021.

Post-Presentation: Chao Wang, Tamlin Pavelsky, Ethan D Kyzivat, Fangfang Yao, Xiao Yang, Fenix Garcia Tigreros, Conghe Song, Shuai Zhang, Theodore Langhorst, Laurence C Smith, Mark Dornblaser, Kimberly Wickland, Martin Kurek, Robert G Spencer, Robert G Striegl, David E Butman. Arctic-Boreal Wetland Vegetation Communities Mapping in the Peace-Athabasca Delta Using AVIRIS-NG Hyperspectral Data. AGU 2021 Fall Meeting.

Poster Presentation: Elizabeth Frankenberg, Todd BenDor, Philip Berke, Cassandra Davis, Nathan Dollar, Anna Gardner, Miyuki Hino, Nikhil Kothegal, Rene Iwo, Richard A Luettich, Tamlin Pavelsky, Brian Frizzelle, Michael Piehler, Nora Schwaller, John Ratcliff, Anne Smiley, Antonia Sebastian, Conghe Song, Chao Wang, Ted Mouw. The Dynamics of Extreme Events, People and Places—a Convergent Approach to Understanding Flooding Exposures and Impacts. AGU 2021 Fall Meeting.

Oral Presentation (Virtual): Rajesh Bista and Conghe Song, Rural out-migration and community forest governance: a case study from two Middle hills districts of Nepal. 2022 Annual Meeting of the American Association of Geographers, New York, 2/25-3/2, 2022.

Oral presentation (virtual): Zhang, Q. and Song, C. Interactions between cropland abandonment and labor migration under forest conservation policies. Annual Meeting of American Association of Geographers, Seattle, Washington, April 8, 2021.

Oral presentation (virtual): Wang, Y., Zhang, Q., Song, C., and Bilsborrow, R. Understanding the Effects of China's Agro-Environmental Policies on Rural Households' Labor and Land Allocation with a Spatially Explicit Agent-Based Model. Annual Meeting of American Association of Geographers, Seattle, Washington, April 8, 2021.

Oral presentation (virtual): Bista, R. and Song, C. What drives cropland abandonment in community-forest landscape? A case study from mid hills of Nepal. Annual Meeting of American Association of Geographers, Seattle, Washington, April 8, 2021.

Oral presentation (virtual): Shrestha, P., Song, C. and Bista, R. Socioeconomic determinants of fuel choice, fuelwood use and dependence in middle-hills of Nepal. Annual Meeting of American Association of Geographers, Seattle, Washington April 8, 2021.

Oral presentation (virtual): Zhang, Q., Song, C., Bilsborrow. Divergent socioeconomic-ecological outcomes of China's conversion of cropland to forest program in the subtropical mountainous area and the semi-arid Loess Plateau. Symposium of Complexities in Payments for Ecosystem Services Programs, International Association of Landscape Ecology-North America. April 16, 2021.

Oral presentation (virtual): Wang, Y., Zhang, Q., Song, C. Understanding the Effects of China's Agro-Environmental Policies on Rural Households' Labor and Land Allocation with a Spatially Explicit Agent-Based Model. Symposium of Complexities in Payments for Ecosystem Services Programs, International Association of Landscape Ecology-North America. April 16, 2021.

Poster: Qiu, T., Song, C., Zhang, Y. and Liu, H. Characterizing the impacts of urbanization and climate change on land surface phenology in the Northern Hemisphere. UNC Annual Global Climate Change Symposium, April 12, 2019.

Oral Presentation: Bista, R. and Song, C. Crop raiding from community forestry to agriculture in the Mid Hills of Nepal: Implications to community forestry sustainability. 2019 annual meeting of AAG, Washington D. C.

Poster: Zhang, Y., Dannenberg, M. P., Song, C. and Hwang, T. The linkage of global GPP variation to ENSO during the satellite era. 2018 AGU Fall meeting, Washington D. C.

Poster: Qiu, T., Song, C., Zhang, Y. and Liu, H. Characterizing the impacts of urbanization and climate change on land surface phenology in the Northern Hemisphere. 2018 AGU Fall Meeting, Washington D. C.

Oral Presentation: Qi Zhang and Conghe Song, Rural out-migration following payments for ecosystem services under China's reforestation policy. April 12, 2018. Annual Meeting of American Association of Geographers, New Orleans, LA.

Poster: Tong Qiu and Conghe Song, Understanding the effects of urban expansion on spatio-temporal variations of vegetation phenology at global scale from 1993 to 2014. 2017 AGU Fall Meeting, New Orleans, LA.

Poster: Yulong Zhang, Kimberly A. Novick, Conghe Song, Quan Zhang, and Taehee Hwang. Representation of physiological drought at ecosystem level based on model and eddy covariance measurements. 2017 AGU Fall Meeting, New Orleans, LA.

Oral Presentation: Conghe Song, Impact of China's Forest Restoration and Conservation Programs on Farmers' Fuelwood Use: A Case Study in Tiantangzhai, Anhui. March 29, 2016. Annual Meeting of the American Association of Geographers, March 29-April 2, 2016. San Francisco, CA.

Oral Presentation: Conghe Song, Fuelwood use in Rural China: A case study in Tiantangzhai, Anhui. Second International Symposium on the Dynamics of the Coupled Natural and Human Systems, Beijing Forestry University, July 29, 2015.

Oral Presentation: Conghe Song and Yulong Zhang, Effects of land-use/land-cover and climate changes on terrestrial net primary productivity in the Yangtze River Basin, China from 2001 to 2010. International Conference on Carbon Cycle and Global Change, Zhejiang A&F University, June 10-12, 2015.

Oral Presentation: Conghe Song, Effects of land-use/land-cover and climate changes on terrestrial net primary productivity in the Yangtze River Basin, China from 2001 to 2010. Annual Meeting of the Association of American Geographers, Chicago, IL, April 21-25, 2015

Oral Presentation: Chong Liu, Zhenfeng Shao, Conghe Song and Ge Sun. The impacts of urbanization on evapotranspiration using WaSSI mdoel in Yangtze River Delta during 2001-2010. Annual Meeting of the Association of American Geographers, Chicago, IL, April 21-25, 2015

Oral Presentation: Determinants of cropland abandonment in Tianma Natural Reserve in Anhui, China. Qi Zhang, Conghe Song, Richard Bilsborrow, and Xiaodong Chen. Annual Meeting of the Association of American Geographers, Chicago, IL, April 21-25, 2015.

Oral Presentation: An Improved Automatic Adaptive Signature Generalization (AASG) Algorithm for Land-Cover Classification of Landsat Image Time Series. Matthew Dannenberg, Conghe Song, Christopher Hakkenberg, and Qi Zhang. Annual Meeting of the Association of American Geographers, Chicago, IL, April 21-25, 2015.

Oral Presentation: Conghe Song, Contrasting the impacts of China's sloping land conversion program and natural forest protection program on participating farmer's livelihood. 2014 Annual Meeting of the Association of American Geographers, Tampa, FL, April 8-12, 2014. Poster Presentation: Yulong Zhang, Conghe Song, and Ge Sun. Understanding moisture stress on light-use efficiency based on MODIS and global flux data. 2014 Fall Meeting of American Geophysical Union, San Francisco, CA, December 15-19, 2014.

Oral Presentation: Conghe Song, Sustainability of China's Sloping Land Conversion Program: A Comparison Among Three Sites", 2013 Annual Meeting of the Association of American Geographers, Los Angeles, CA. April 9-13.

Poster Presentation: Conghe Song, Understanding regional water resources dynamics due to land-cover/land-use and climate changes in the North Carolina Piedmont. Fall AGU Meeting, 2012. San Francisco, CA.

Oral Presentation: Conghe Song, Using spatial, spectral, and temporal information for mapping forest LAI. ForestSat meeting, September 14-15, 2012. Corvallis, OR.

Oral Presentation: Conghe Song, Estimating Average Tree Crown Size Using Spatial Information from Ikonos and QuickBird Images: Across-Sensor and Across-Site Comparisons. 2010 Annual Meeting of the Association of American Geographers, Washington DC, April 13-17, 2010.

Oral Presentation: Conghe Song, Impacts of canopy structure on forest ecosystem energy, water, and carbon fluxes in a loblolly pine stand: gappy vs. uniform canopies. 2nd International Conference on Forests and Water in a Changing, Environment, Sept 14-16, 2009. Raleigh, North Carolina.

Oral Presentation: Conghe Song. Impacts of Canopy Structure on Energy, Water and Carbon Fluxes in a Loblolly Pine Stand: Uniform vs. Gappy Canopies. 2009 Annual Meeting of the Association of American Geographers, Los Vegas, NV, March 22-27, 2009.

Poster Presentation: Joshua M. Gray, Su Zhang, Conghe Song. Retrieving LAI from remotely sensed images: spectral indices vs. spatial texture. 2009 Annual Meeting of the Association of American Geographers, Los Vegas, NV, March 22-27, 2009.

Poster: Lihong Su and Conghe Song, Derivation of leaf clumping index using BRDF models and MISR/MODIS data. NASA Carbon Cycle and Ecosystems Program Joint Workshop, April 28-May 2, 2008, Adelphi, MD .

Oral Presentation: Lihong Su and Conghe Song. Calculation of Foliage Clumping Index Using Bidirectional Reflectance Models and Spectral Variances of Components at Pixel Scale. 2008 Annual Meeting of Association of American Geographers, April 15-19, 2008. Boston, MA.

Oral Presentation: Conghe Song and Matthew B. Dickinson. Extracting Forest Canopy Structure from Spatial Information of High Resolution Optical Imagery: Tree Crown Size vs. Leaf Area Index. 2008 Annual Meeting of Association of American Geographers, April 15-19, 2008. Boston, MA.

Poster: Su Zhang, Joshua Gray, Paul McCall, Conghe Song. Scaling-up Eddy Covariance Measurements with Remote Sensing to Estimate Regional Scale Transpiration. 2008 Annual Meeting of Association of American Geographers, April 15-19, 2008. Boston, MA.

Poster: Lihong Su and Conghe Song, Derivation of leaf clumping index using BRDF models and MISR/MODIS data. 2007 Fall meeting of American Geophysical Union, Dec 10-14, 2007, Scan Francisco, CA.

Oral Presentation: Conghe Song, Gabriel G. Katul, Ram Oren, Lawrence E. Band, Christina L. Tague, Paul C. Stoy, Heather McCarthy. Modeling the Impacts of Canopy Structure on Energy, Water, and Carbon Fluxes through a Loblolly Pine Stand: Uniform vs. Gappy Canopies. April 17-21, 2007 Annual meeting of the Association of American Geographers, San Francisco, CA.

Poster: Conghe Song, Patricia E. Polo Almeida, Laura Brewington, Joseph T. Forrest, Warren C. Jochem, Jackson W. Lord, Steven T. Loy , Paul McCall, Brantley W. Moats, Julie Tuttle, Dahl C. Winters, Jessica L. Wooten, Su Zhang. A Preliminary Study of Land-cover/Land-use Changes from 1938 to 2002 in the North Carolina Piedmont. NASA Land-Cover/Land-Use Change Science meeting, April 4-6, 2007, Adelphi, MD.

Oral presentation: Song, C. Extracting forest canopy structure using spatial information of remotely sensed imagery. March 7-11, 2006 Annual Meeting of the Association of American Geographers, Chicago, IL.

Oral Presentation: Song, C. Mapping Successional Stages of Temperate Conifer Forests with Multitemporal Landsat Thematic Mapper Imagery. Ninth International Symposium of Physical Measurements and Signature in Remote Sensing. Oct 17-19, 2005, Beijing, PRC.

Oral Presentation: Song, C., Band, L. E., Tague, C. L., Randolph, A., Oren, R. and Katul, G. 2005. Modeling energy, water, and carbon dynamics for a Loblolly pine stand in Southeastern USA: Impacts of Canopy Structure. AAG 2005 Annual Meeting, Apr 5-9, 2005. Denver, CO.

Poster: Song, C., Band, L. E., Tague, C. L., Randolph, A. Oren, R. and Katul, G. Impact of Canopy structure on water, energy and carbon exchange in a Loblolly Pine Forest in Southeast USA. AGU Fall meeting, Dec 13-17, 2004.

Poster: Factors of uncertainty in monitoring forest succession using multitemporal Landsat images. Conghe Song. AGU/CGU Joint Assembly, May 17-21, 2004. Montreal, Quebec.

Oral Presentation: "Spectral mixture analysis for subpixel vegetation fractions: how to incorporate endmember variations?" Conghe Song. AAG 2004 Annual meeting, Philadelphia, PA, March 15-19, 2004.

Poster: "MVP: A model to simulate the spatial patterns of photosynthetically active radiation under discrete forest canopies." Conghe Song and Lawrence E. Band, AGU Fall Meeting, San Francisco, CA. December 8-12, 2003.

Poster: "Monitoring Forest Succession with Remote Sensing: The potential of Multitemporal and Multiresolution Imagery." Conghe Song. NASA Workshop on Multi-Dimensional Forested Structure: Requirements for Remote Sensing Observations. Annapolis, MD. June 22-25, 2003.

Oral Presentation: "Modeling of Mean and Variation of PAR (MVP) Under Discrete Forest Canopies." Conghe Song and Larry Band. Vinton Furnace Experimental Forest, Dundas, OH. May 29, 2003.

Poster: "The Importance of Stand Age Structure and Land Use History on Regional Forest Ecosystem Carbon Budget." Conghe Song. AGU Fall Meeting, San Francisco, CA. December 6-10, 2002.

Oral Presentation for AAG Nystrom Dissertation Award Competition: "The Spatial Characteristics of Remotely Sensed Imagery Associated with Forest Succession." Conghe Song. AAG 2002 Annual Meeting, Los Angeles, CA. March 17-23, 2002.

Oral Presentation: "Vegetation temperature condition index and its application for drought Monitoring." Wang, P. X., Li, X. Gong, J. Y. and Song, C. IEEE 2001 International Geoscience And Remote Sensing Symposium (IGARSS), 9-13 July 2001, The University of New South Wales, Sydney, Australia.

Poster: "Manifestation of forest succession in optical imagery." Conghe Song, Curtis E. Woodcock and Xiaowen Li. IEEE 2001 International Geoscience And Remote Sensing Symposium (IGARSS), The University of New South Wales, Sydney, Australia, 9-13 July 2001.

Poster: "Monitoring Succession in Temperate Conifer Forests with Remote Sensing: Implications for Terrestrial Carbon Budgets." Conghe Song and Curtis E. Woodcock, Landsat Science Team meeting, Airlie Conference Center, Warrenton, VA. Nov 7-9, 2000.

Oral Presentation: "Modeling Forest Succession in Temperate Conifer Forests." Landsat Science Team Pre-Meeting. University of Colorado, Boulder, CO. May 8, 2000.

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