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Curriculum Vita

Conghe Song
Professor & Associate Chair
Director, Graduate Certificate Program in GISc
Department of Geography
The University of North Carolina at Chapel Hill
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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

2014-present: Professor, Department of Geography, UNC, Chapel Hill, NC
2013-present: Associate Chair, Department of Geography, UNC Chapel Hill, NC
2007-2014: Associate Professor of Geography, UNC, Chapel Hill, NC
2001-2007: Assistant Professor of Geography, UNC, Chapel Hill, NC.
2005-2006: Charles Bullard Fellow in Forest Research, Harvard Forest, Harvard University
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 Lecture, Beijing Forestry University, Beijing China.
1988-1991: Graduate Research Assistant, Beijing Forestry University, Beijing, China.

Honors

2016: Academic Leadership Fellow at the Institute for Arts and Humanities, UNC Chapel Hill.
2015-2017: Shanghai Thousand Talent Lecturing Prof., East China Normal Univ., Shanghai.
2014-: Zijiang Professor, East China Normal Univ., Shanghai, China.
2011-2014: Wanjiang Lecturing Professor, Anhui Agricultural Univ., Hefei, China.
2008-2011: Guest Professor, Anhui Agricultural University, Hefei, China.
2006: New Investigator's Program Award, National Aeronautics and Space Administration.
2005-2006: Charles Bullard Fellow, Harvard Forest, Harvard Univ.
2005: Guest Professor, Beijing Normal Univ., Beijing, China.

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

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. 01/25/2017-01/24/2020.

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). National 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 coupled natural-human system in rural China. PI: Conghe Song, Co-I: Lawrence Band, Richard Bilbrough, Pamela Jagger, and Xiaodong Chen; US collaborator: Ge Sun; China collaborators: Xiaoni 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 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

Social-Ecological Consequences of China's Rural land Use Change. University of North Carolina at Chapel Hill, \$27,000. 07/01/2017-06/30/2020.

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.

Brian White and Conghe Song. Ecosystem structure and function at the land-sea interface: a collaborative remote sensing/physical oceanographic study. 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, 05/01/2008-04/30/2009.

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. 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)

*Wang, Y., Bilsborrow, R., *Zhang, Q., Li, J. and **Song, C.** 2019. Effects of payment for ecosystem services and agricultural subsidy programs on rural household land use decisions in China: synergy or trade-off? *Land Use Policy*, 81: 785-801.

*Zhang, Q., Bilsborrow, R., **Song, C.**, Huang, Q. 2018. Determinants of out-migration in rural China: Effects of payment for ecosystem services. *Population and Environment*, doi: 10.1007/s11111-018-0307-5.

Chen, X., *Zhang, Q., Peterson, N. and **Song, C.** 2018. Feedback effect of crop-raiding in payments for ecosystem services. *Ambio*, doi: 10.1007/s13280-018-1105-0.

Hakkenberg, C. R., Dannenberg, M. P., **Song, C.**, and Ensor, K. B. 2018. Characterizing multi-decadal, annual land cover change dynamics in Houston, TX based on automated classification of Landsat imagery, *International Journal of Remote Sensing*, doi: 10.1080/01431161.2018.1516318.

*Dannenberg, M. P., **Song, C.** and Hakkenberg, C. R. 2018. A long-term consistent land cover database for the southern United States using Automatic adaptive Signature Generalization (AASG). *Photogrammetric Engineering and Remote Sensing*, 84(9): 35-44.

Treacy, P., Jagger, P., **Song, C.**, *Zhang, Q. and Bilsborrow, R. E. 2018. Impacts of China's grain for green program on migration and household income. *Environmental Management*, <https://doi.org/10.1007/s00267-018-1047-0>.

*Q. Zhang, **Song, C.**, Chen, X. 2018. Effects of China's payment for ecosystem services on programs on cropland abandonment: a case study in Tiantangzhai Township, Anhui, China. *Land Use Policy*, 73: 239-248.

*Wu, Q., **Song, C.**, Song, J., Wang, J., Chen, S. and Yu, B. 2018. Impacts of leaf age on canopy spectral signature variation in evergreen Chinese fir forest. *Remote Sensing*, 10(2), 262; doi:10.3390/rs10020262.

*Hakkenberg, C. R., Zhu, K., Peet, R. K. and **Song, C.** 2018. Mapping Multi-scale vascular plant richness in a forest landscape with integrated LiDAR and hyperspectral remote-sensing. *Ecology*, 99(2): 474-487; doi: 10.1002/ecy.2109.

*Hakkenberg, C., Peet, R., Urban, D. and **Song, C.** 2018. Modeling plant composition community-continua in a Piedmont forest landscape with LiDAR-hyperspectral remote sensing. *Ecological Application*, 28(1): 177-190; doi: 10.1002/epa.1638.

Song, C., Bilsborrow, R., Jagger, P., *Zhang, Q., Chen, X. and Huang, Q. 2018. Rural Household Energy Use and its Determinants in China: How Important are Influences of Payment for Ecosystem Services vs. Other Factors? *Ecological Economics*, 145: 148-159; doi: 10.1016/j.ecolecon.2017.08.028.

*Zhang, Q., *Hakkenberg, C. R. and **Song, C.** 2018. Evaluating the Effectiveness of Forest Conservation Policies with Multi-temporal Remotely Sensed Imagery: A case study from Tiantangzhai Township, Anhui, China. In: *Comprehensive Remote Sensing: Remote Sensing Applications for Societal Benefits*, Walsh, S. J. (ed). Elsevier. PP 39-58.

*Qiu, T., **Song, C.** and Li, J. 2017. Impacts of urbanization on vegetation phenology over the past three decades in Shanghai, China. *Remote Sensing*, 9, 970; doi: 10.3390/rs9090970.

Zhang, K., **Song, C.**, *Zhang Y., Dang, H., Cheng, X. and Zhang, Q. 2017. Global-Scale patterns of nutrient density and partitioning in forests in relation to climate. *Global Change Biology*, doi: 10.1111/gcb.13860.

*Zhang, Y., **Song, C.**, Band, L. E., Sun, G. and Li, J. 2017. Reanalysis of global vegetation trends from MODIS products: Browning or Greening? *Remote Sensing of Environment*, 191: 145-155.

Ran, L., Pleim, J., **Song, C.**, Band, L., Walker, J. T. and Binkowski, F. S. 2017. A photosynthesis-based two-leaf canopy stomatal conductance model for meteorology and air quality modeling with WRF/CMAQ PX LSM. *Journal of Geophysical Research-Atmosphere*, 122(3):1930-1952; doi: 10.1002/2016JD025583.

*Dannenber, M. P., *Hakkenberg, C. R. and **Song, C.** 2017. Automatic Adaptive Signature Generalization in R. <https://data.mendeley.com/datasets/s7c3vfr84w/1>; doi: 10.17632/s7c3vfr84w.1.

Zhang, K., **Song, C.**, *Zhang, Y. and Zhang, Q. 2017. Natural Disasters and Economic Development Drive Forest Dynamics and Transition in China. *Forest Policy and Economics*, 76: 56-64; doi: 10.1016/j.forpol.2015.08.010.

Song, C., Chen, J. M., Hwang, T, Gonsamo, A., Croft, H., Zhang, Q., *Dannenber, M., *Zhang, Y., *Hakkenberg, C. and Li, J. 2016. Ecological Characterization of Vegetation using Multi-Sensor Remote Sensing in the Solar Reflective Spectrum. In: *Remote Sensing Handbook*

Vollume II: Land Resources Monitoring, Modeling and Mapping, Thenkabail, P. S. (Ed). Taylor and Francis, ISBN: 13:978-1-4822-1798-8. Pages, 533-574.

*Hakkenberg, C. R., **Song, C.**, Peet, R. K. and White, P. S. 2016. Forest Structure as a Predictor of Tree Species Diversity in the North Carolina Piedmont. *Journal of Vegetation Science*, 27(6): 1,151-1,163; doi: 10.1111/jvs.12451.

*Dannenber, M. P., *Hakkenberg, C. R. and **Song, C.** 2016. Consistent classification of Landsat time series with an improved automatic adaptive signature generalization algorithm. *Remote Sensing*, 8, 691. DOI: 10.3390/rs8080691.

*Zhang, Y., **Song, C.**, Sun, G., Band, L. E., McNulty, S., Noormets, A., and Zhang, Q. and Zhang, Z., 2016. Development of a coupled carbon and water model for estimating global gross primary productivity and evapotranspiration based on eddy flux and remote sensing data. *Agricultural and Forest Meteorology*, 223: 116-131.

*Zhang, Y., **Song, C.**, Sun, G., Band, L. E., Noormets, A., and Zhang, Q. 2015. Understanding moisture stress on light-use efficiency across terrestrial ecosystems based on global flux and remote sensing data. *Journal of Geophysical Research-Biogeosciences*, 120; doi: 10.1002/2015JG003023.

*Jones, C., **Song, C.** and Moody, A. 2015. Where's Woolly? An Integrative Use of Remote Sensing to Improve Predictions of the Spatial Distribution of an Invasive Forest Pest the Hemlock Woolly Adelgid. *Forest Ecology and Management*, 358: 222-229.

Cheng, X., Wei, B., Chen, G., Li, J., **Song, C.** 2015. The influence of park size and its surrounding urban landscape patterns on the park cooling effect. *Journal of Urban Planning and Development*, 141(3): A4014002, doi: 10.1061/(ASCE)UP.1943-5444.0000256.

*Dannenber, M. P., **Song, C.**, Hwang, T. and Wise, E. K. 2015. Empirical evidence of El Nino-Southern Oscillation influence on land surface phenology and productivity in the western United States. *Remote Sensing of Environment*, 159: 167-180; doi:10.1016/j.rse.2014.11.026.

Zhou, L., Tian, Y., Myneni, R. B., Ciais, P., Saatchi, Liu, Y. Y., Piao, S., Chen, H., Vermote, E. F., **Song, C.** and Hwang, T. 2014. Widespread decline of Congo rainforest greenness in the past decade. *Nature*, 509(7489), 86-90; doi:10.1038/nature13265.

*Zhang, Y., **Song, C.**, Zhang, K., Cheng, X., Band, L. E. and Zhang, Q. 2014. Effects of land use/land cover and climate changes on terrestrial net primary productivity in the Yangtze River Basin, China from 2001 to 2010. *Journal of Geophysical Research-Biogeosciences*, doi: 10.1002/2014JG002616.

Hwang, T., Band, L. E., Miniati, C. F., **Song, C.**, Bolstad, P. V., Vose, J. M. and Love, J. P. 2014. Divergent phenological response to hydroclimate variability in forested mountain watersheds. *Global Change Biology*, doi:10.1111/gcb.12556.

Song, C., *Zhang, Y., Mei, Y., Liu, H., Zhang, Z., Zhang, Q., Zha, T, Zhang, K., Huang, C., Xu, X., Jagger, P., Chen, X. and Bilsborrow, R. 2014. Sustainability of Forests Created by China's Sloping Land Conversion Program (SLCP): a comparison among three sites in Anhui, Hubei and Shanxi. *Forest Policy and Economics*, 38:161-167.

*Kim, Y., Band, L. E. and **Song, C.** 2014. The influence of forest re-growth on the stream discharge in the North Carolina Piedmont watersheds. *Journal of American Water Resources Association*, 50(1): 57-73; doi: 10.1111/jawr.12115.

Song, C., *Dannenbergh, M. P., and *Hwang, T. 2013. Optical remote sensing of terrestrial ecosystem primary productivity (Invited Progress Report). *Progress in Physical Geography*. 37(6): 834-854.

*Zhang, Y., **Song, C.**, Zhang, K., Cheng, X. and Zhang, Q. 2013. Spatial-temporal variability of terrestrial vegetation productivity in the Yangtze River Basin during 2000-2009. *Journal of Plant Ecology*, 7(1): 10-23; doi: 10.1093/jpe/rtt025.

Li, J., Li, Cheng, Zhu, F., **Song, C.** and Wu, J. 2013. Spatiotemporal pattern of urbanization in Shanghai, China. *Landscape Ecology*, 28: 1545-1565; doi: 10.1007/s10980-013-9901-1.

*Gray, J. and **Song, C.** 2013. Consistent classification of image time series with automatic adaptive signature generalization. *Remote Sensing of Environment*, 134: 333-341.

Song, C., 2013. Optical remote sensing of forest leaf area index and biomass (Invited Progress Report). *Progress in Physical Geography*, 37(1): 98-113.

*Sexton, J. O., Urban, D. L., Donohue, M. J. and **Song, C.** 2013. Long-term land cover dynamics by multi-temporal classification across the Landsat-5 record. *Remote Sensing of Environment*, 128: 246-258.

*Alvarez, J., Allen, H., Albaugh, T. Stape, J., Bullock, B. and **Song, C.** 2013. Factors Influencing the growth of radiata pine plantations in Chile. *Forestry*, 86: 13-16; doi:10.1093/forestry.cps072.

Gao, F., de Colstoun, E. B., Ma, R., Weng, Q., Masek, J. G., Chen, J., Pan, Y. and **Song, C.** 2012. Mapping impervious surface expansion using medium resolution satellite image time series: a case study in the Yangtze River Delta, China. *International Journal of Remote Sensing*, 33:24, 7609-7628.

*Gray, J. M. and **Song, C.** 2012. Mapping leaf area index using spatial, spectral and temporal information from multiple sensors. *Remote Sensing of Environment*, 119: 173-183.

Li, J., **Song, C.**, Cao, L., Zhu, F. Meng, X., Wu, J. 2011. Impacts of landscape structure on urban head islands: A Case Study of Shanghai, China. *Remote Sensing of Environment*, 115: 3249-3263.

*Hwang, T. **Song, C.**, Bolstad, P. V., Band, L. E. 2011a. Downscaling real-time vegetation dynamics by fusing multi-temporal MODIS and Landsat NDVI in topographically complex terrain, *Remote Sensing of Environment*, 115: 2499-2512.

*Hwang, T., **Song, C.**, Vose, J. M. and Band, L. E. 2011b. Topography-mediated controls on local vegetation phenology estimated from MODIS vegetation index. *Landscape Ecology*, doi 10.1007/s10980-011-9580-8.

Song, C., *Gray, J. M. and Gao, F. 2011. Remote Sensing of Vegetation with Landsat Imagery, In: Weng, Q. (ed) *Advances in Environmental Remote Sensing: Sensors, Algorithms, and Applications*, pp 3-29. CRC Press, Taylor and Francis. ISBN-13: 978-1-4200-9175-5.

Song, C., White, B. *Huemann, B. 2011. Hyperspectral Remote Sensing of Salinity Stress on Red (*Rhizophora mangle*) and White (*Laguncularia racemosa*) Mangroves on Galapagos Islands. *Remote Sensing Letters*, 2(3): 221-230.

Song, C., Dickinson, M. B., *Su, L., *Zhang, S. and Yaussey, D. 2010. Estimating Average Tree Crown Size Using Spatial Information from Ikonos and QuickBird Images: Across-Sensor and Across-Site Comparisons. *Remote Sensing of Environment*, 114: 1099-1107.

Song, C. and Zhang, Y. 2010. Forest Cover in China from 1949 to 2006. In: Nagendra, H. and Southworth, J. (Eds.) *Reforesting Landscapes: Linking Pattern and Process*, pp 241-356. Springer, ISBN-13: 978-1-4020-9655-6.

Song C., Katul, G., Oren, R., Band, L. E., Tague, C. L., Stoy, P. C. and McCarthy, H. R. 2009. Energy, Water and Carbon Fluxes in a Loblolly Pine Stand: Results from Uniform and Gappy Canopy Models with Comparisons to Eddy Flux Data. *Journal of Geophysical Research-Biogeosciences*, 114, G04021, doi:10.1029/2009JG000951.

Song, C., *Lord, W. J., Zhou, L. and *Xiao, J. 2008. Impacts of Internal Migration on Vegetation Dynamics in China from 1982 to 2000. *Sensors*, 8: 5069-5080; DOI: 10.3390/s8085069.

Song, C. and Dickinson, M. B. 2008. Extracting Forest Canopy Structure from Spatial Information of High Resolution Optical Imagery: Tree Crown Size and Leaf Area Index. *International Journal of Remote Sensing*, 29(19): 5605-5622.

Liu, W., **C. Song**, T. A. Schroder, and Cohen, W. B. 2008. Predicting Forest Successional Stages with Multitemporal Landsat Imagery and Forest Inventory and Analysis Data. *International Journal of Remote Sensing*, 29 (13):3855-3872.

Song, C. 2007. Estimating tree crown size with spatial information of high resolution optical remotely sensed imagery. *International Journal of Remote Sensing*, 28(15): 3305-3322.

Song, C., Schroeder, T. A. and Cohen, W. B. 2007. Mapping temperate conifer forest successional stage distributions with multitemporal Landsat Thematic Mapper imagery. *Remote Sensing of Environment*, 106:228-237.

Y. Zhang and **Song, C.** 2006. Impacts of afforestation, reforestation and deforestation on China's Forest Cover from 1949 to 2003. *Journal of Forestry*, 104(7): 383-387.

Schroeder, T. A., Cohen, W. B., **Song, C.**, Canty, M. J. and Yang, Z. 2006, Radiometric correction of multi-temporal Landsat data for characterization of early successional forest patterns in western Oregon. *Remote Sensing of Environment*, 103: 16-26.

Song, C. 2006. Bayesian Spectral Mixture Analysis for Urban Vegetation. In: Weng, Q. and Quattrochi, D., (eds), *Urban Remote Sensing*, pp. 91-107. CRC Press, Taylor and Francis. ISBN: 0-8493-9199-7.

Song, C. 2005. Spectral mixture analysis for subpixel vegetation fractions in the urban environment: How to incorporate endmember variability? *Remote Sensing of Environment*, 95(2):248-263.

Song, C. 2004. Cross-sensor calibration between Ikonos and Landsat ETM+ for spectral mixture analysis. *IEEE Geoscience and Remote Sensing Letters*, 1(4):272-276.

Song, C. and Band, L. E. 2004. MVP: a Model to simulate the spatial pattern of photosynthetically active radiation under discrete forest canopies. *Canadian Journal of Forest Research*, 34:1192-1203.

Song, C. and Woodcock, C. E. 2003a. Monitoring forest succession with multitemporal Landsat images: factors of uncertainty. *IEEE Transactions on Geoscience and Remote Sensing*, 41(11):2557-2567.

Song, C. and Woodcock, C. E. 2003b. Estimating tree crown size from Multiresolution remotely sensed imagery. *Photogrammetric Engineering and Remote Sensing*, 69(11):1263-1270.

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.

Song, C. and Woodcock, C. E. 2002. The spatial manifestation of forest succession in optical imagery: the potential of multiresolution imagery. *Remote Sensing of Environment*, 82:272-285.

Song, C., Woodcock, C. E. and Li, X. 2002. The spectral/temporal manifestation of forest succession in optical imagery: the potential of multitemporal imagery. *Remote Sensing of Environment*, 82:286-303.

Seto, K. C., Woodcock, C.E., **Song, C.**, Huang, X., Kaufmann, R. K., Lu, J. 2002. Measuring landuse change with Landsat TM: evidence from Pearl River Delta. *International Journal of Remote Sensing*, 23:1985-2004.

Song, C., Woodcock, C. E., Seto, K. C., Pax-Lenney, M. and Macomber, S. A. 2001. Classification and Change Detection Using Landsat TM Data: When and How to Correct Atmospheric Effects? *Remote Sensing of Environment*, 75:230-244.

Pax-Lenney, M., Woodcock, C. E., Macomber, S. A., Gopal, S. and **Song, C.** 2001. Forest mapping with a generalized classifier and Landsat TM data. *Remote Sensing of Environment*, 77: 241-276

Salvucci, G. D. and **Song, C.** 2000. Derived distribution of storm depth and frequency conditioned on monthly total precipitation: adding value to historical and satellite-derived estimates of monthly precipitation. *Journal of Hydrometeorology*, 1:113-120.

He, Q. and **Song, C.** 1994. Effects of Forests on the budgets of water, energy and gases in the environment. *Journal of Beijing Forestry University (English Edition)*. 3:1-12.

Song, C. 1993. The application of Bowen ratio energy balance approach and its error analysis (In Chinese). *Journal of Hebei Forestry College*. 8:85-96.

Song, C., Zhai, B., Zhang, H. and Wang, W. 1992. A study of leaf areas and the light conditions in a Chinese pine Permanent Plot in Taiyue, Shanxi Province (in Chinese with English abstract). *Journal of Beijing Forestry University*. 14:164-170.

Zhai, B., **Song, C.**, Zhang, H. and Wang, W. 1992. A study of biomass and productivity of a Chinese pine Permanent Plot in Taiyue, Shanxi Province (in Chinese with English abstract). *Journal of Beijing Forestry University*. 14:156-163.

Other Publications

Member of Group Author, 2004. Landsat 7 -- Exaggerated Rumors of Its Demise.
<http://landsat.gsfc.nasa.gov/main/17-slc.html>

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

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

Song, C. 2000. Comments on China's forest policy for the 21st century. *Science. Edebate*.
URL: <http://www.sciencemag.org/cgi/eletters/288/5474/2135>.

Pax-lenney, M., Woodcock, C. E., Macomber, S. A. and **Song, C.** 1999 Identification of conifer forests in Landsat imagery: Generalization in time and space in the pacific northwest, USA. Proceedings, ASPRS 1999 Annual Conference, Portland, Oregon, USA, May 17-21, pp.721-725.

Seto, K. C., **Song, C.**, Woodcock, C. E. 1999. Land-use land-cover change in the Pearl River Delta, 1988-1996: Evidence from Landsat TM. Proceedings, ASPRS 1999 Annual Conference, Portland, Oregon, USA, May 17-21, pp. 633-636.

Woodcock, C. E., Macomber, S. A., **Song, C.**, Pax-Lenney, M., Gopal, S. 1999. Regional to continental monitoring of change in temperate conifer forests. Pecora 14: Land Satellite Information III Proceedings, ASPRS, pp. 322-327.

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, Geog4 10, 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

Professional Services

To Discipline

Academic Editor, Plos ONE (2018)

Editorial Board, Remote Sensing, 2019-

Editorial Board, The Southern Geographer, 2015-2017, 2017-2019.

Editorial Board, 2014-present, ISPRS Journal of Photogrammetry and Remote Sensing.

Associate Editor, 2013-2014, ISPRS Journal of Photogrammetry and Remote Sensing.

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:

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 Houston State University; USDA Forest Service; The National Geographic Society; The State University of New Jersey, University of Wisconsin-Milwaukee.

Panel Services:

2006: NASA ACCESS: Advancing Collaborative Connections for Earth System Science.
2008: NASA New Investigator's Program.
2009: NASA Terrestrial Ecology Program.
2009: NASA Earth and Space Science Fellowship Program.
2014: NSF CNH Large Panel.

Reviewer for Promotion:

2012: University of Maryland at Baltimore County.
2014: Michigan State University.
2014: West Virginia University.
2015: Rutgers University.
2016: Michigan State University;
2016: Saint Louis University;
2016: University of Tennessee at Knoxville;
2016: University of Hawaii at Manoa.
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
2018: University of Maryland, College Park
2018: University of Georgia
2018: Iowa State University

Conference Services:

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. 2017 Annual Meetings of AAG. April 5-9, 2017. Boston MA. ^[L]_[SEP] 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. ^[L]_[SEP] **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

Associate Chair, 2013.7-, Department of Geography, University of North Carolina at Chapel Hill.

Director, 2013.1-, Geographic Information Sciences Graduate Certificate Program, University of North Carolina at Chapel Hill.

University Committees:

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:

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):

Liu He, PhD Student, 2017-, Geography

Rajesh Bista, PhD Student, 2017-, Geography

Tong Qiu, PhD Candidate, 2015-, Geography

Qiaoli Wu (Co-Chair with Dr. Jingdi Wang at Beijing Normal University), PhD Student 2016-

Shaoyuan Chen (Co-Chair with Dr. Suhong Liu at Beijing Normal University), PhD Student, 2017-

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 Impacts 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, Major Advisor: Dr. Band)
David Tenenbaum (PhD 2004, Major Advisor: Dr. Band)
Sean McKnight (MA 2004, Major Advisor: Dr. Walsh)
Even Hammer (MA 2004, Major Advisor: Dr. Walsh)
Daehyok Shin (PhD 2005, Major Advisor: Dr. Band)
Adam Smith (MA 2005, Major Advisor: Dr. Konrad)
Jingfeng Xiao (PhD 2006, Major Advisor: Dr. Moody)
Carlos Mena (PhD 2007, Major Advisor: Dr. Walsh)
Yang Shao (PhD 2007, Major Advisor: Dr. Walsh)
Catherine Shields (MA 2007, Major Advisor: Dr. Band)
Christine Erlien (PhD 2008, Major Advisor: Dr. Walsh)
Dan Weiss (PhD 2009, Major Advisor: Dr. Walsh)
Joseph Saxton (PhD 2009, Duke Univ. Major Advisor: Dr. Urban)
Taehee Huang (PhD 2009; Major Advisor: Dr. Band)
Monica Smith (PhD 2009, Major Advisor: Dr. Band)
Jose Alvarez (PhD 2010, Major Advisor, Dr. Allen, NCSU)
Anne Trainor (PhD 2011, Major Advisor: Dr. Moody)
Benjamin Huemann (PhD, 2011, Major Advisor: Dr. Walsh)
Ian Breckheimer (MA, 2012; Major Advisor: Dr. Moody)

D. J. Perkins (MA 2011, Major Advisor: Dr. Konrad/Dr. Robinson)
Christine Urbanowicz (MA, 2012; Major Advisor: Dr. Moody)
Yuri Kim (PhD 2012, Major Advisor: Dr. Band)
Amy McCleary (PhD 2012; Major Advisor: Dr. Walsh)
Timothy Morrissey (MA, 2012; Major Advisor: Dr. Walsh)
Jonathan Duncan (PhD 2014, Major Advisor: Dr. Band)
Brian Miles (PhD 2014, Major Advisor: Dr. Band)
Maggie Kovach (PhD Spring 2015, Major Advisor: Dr. Konrad)
Matthew Cooper (MA 2015, Major Advisor: Dr. Persha))
Limei Ran (CEE PhD, December 2015, Major Advisor: Dr. Band)
Julie Tuttle (CEE PhD October 2015, Major Advisor: Dr. White)
Mark Jenko (PhD 2017, Major Advisor: Dr. Emch)
Maia Call (PhD 2017, Major Advisor: Dr. Gray)
Christopher Jones (PhD 2017, Major Advisor: Dr. Moody)
Christopher Payne (PhD 2018, Ecology, Major Advisor: Dr. Peet)
Alyssa Brown (Biology PhD Candidate, Major Advisor: Dr. Peet)
Francisco Laso (PhD Candidate, Major Advisor: Dr. Walsh)
Sarah Schmitt (PhD 2018, Major Advisor: Dr. Riveros-Iregui)
Corina Keeler (PhD Candidate, Major Advisor: Dr. Michael Emch)
Angelica Gomez (PhD student, Major Advisor: Dr. Erika Wise)

Undergraduate Honor Thesis Committee:

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

Invited Talks

“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, Chinese 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-Strahler 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: 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 model 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 Bilbrough 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 .

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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, San Francisco, CA.

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