Dr. Yeqiao (Y.Q.) Wang
Editor-in-Chief, *All Earth* (Editorial 2023: *Our Changing Planet in a Changing World*)
Professor, Department of Natural Resources Science
Track Chair, Remote Sensing and Spatial Analysis specialization, Master of Environmental Science and Management (MESM) program
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Research, Education, and Outreach Interests

His research interests and teaching responsibilities are in terrestrial remote sensing and quantitative modeling in natural resources analysis and mapping. Particular areas of interests include remote sensing of dynamics of landscape and land-cover/land-use change. His research projects include mapping and monitoring changes and ecological conditions of coastal environments, wetlands, mountainous regions, protected areas, and urban landscapes, in order to improve understanding of intertwined human and natural systems, and sustainability, vulnerability, resilience, conservation and management of land and water resources. His study areas include regions in the United States, East and West Africa, and China.

Education

- M.Sc. and Ph.D., University of Connecticut, 1992, 1995
- M.Sc., Chinese Academy of Science, 1987
- B.Sc., Northeast Normal University, China, 1982

Professional Experiences

- 1999-Present: Asst.- (1999-2001), Assoc.- (2001-2005) and Full Professor (2005-present), Department of Natural Resources Science, University of Rhode Island, Kingston, Rhode Island
- 08/1995-08/1999: Assistant Professor, Department of Geography, Department of Anthropology, University of Illinois at Chicago, Chicago
- 07/1998-07/2003: Adjunct Research Associate, Environmental and Conservation Program, The Field Museum of Natural History, Chicago

Selected Awards

- 2008: Research Scientist Excellence Award, College of Environment and Life Science, URI
- 2003: Outstanding Contributions to Research, University of Rhode Island
- 2002: Fellow, Kavli Frontiers of Science (KFoS) (2002 German-American Frontiers), U.S. National Academy of Sciences
- 2002: 1st place winner of the ESRI Award for Best Scientific Paper in Geographic Information System, American Society for Photogrammetry and Remote Sensing
- 2000: Presidential Early Career Award for Scientists and Engineers (PECASE) by former U.S. President W.J. Clinton
- 1999: NASA New Investigator Award

Selected Representative Extramural Grants

- PI: “Post-Hurricane Sandy Salt Marsh Change Detection and Development of Salt Marsh Change Detection Protocol for the Northeast Coastal Parks,” National Park Service, DOI.
- PI: “A decision support system for monitoring, reporting and forecasting the ecological conditions of the Appalachian National Scenic Trail,” NASA
- PI: “Impacts of Land Cover Change on the National Parks of the Northeast Temperate Network,” NPS
- PI: “Remote Sensing of Terrestrial and Submerged Aquatic Vegetation in Fire Island National Seashore: Towards Long-term Resource Management and Monitoring,” National Park Service, DOI.
- Co-PI (Science PI): "Geographic Information for Sustainable Development: Tanzania/Kenya Coastal Land Cover Change Study", USAID
- PI: "Multiple Innovative Models in Regional Land Cover Change Study", NASA
- Co-PI (Science PI), "Tracking Natural Community Fragmentation and Changes in Land Use and Land Cover: A Case Study of Chicago Wilderness", NASA

Selected Recent and Representative Refereed Publications

- Wang, Y. (2023). Our changing planet in a changing world, *All Earth*, 35:1, 1-2. https://doi.org/10.1080/27669645.2022.2163747
- Xu, J., Jian, J., Wang, Y., Fang, C., Hu, Q. (2023). Spatial–seasonal characteristics and influencing factors of dissolved organic carbon and chromophoric dissolved organic matter in Poyang Lake, *Environmental Earth Sciences*, (2023) 82:44. https://doi.org/10.1007/s12665-022-10736-8
- Zhao, C., Qin, C., Wang, Z., Mao, D., Wang, Y., Jia, M. (2022). Decision surface optimization in mapping exotic mangrove species (*Sonneratia apetala)* across latitudinal coastal areas of China. *ISPRS Journal of Photogrammetry and Remote Sensing*, 193 (2022) 269-283. https://doi.org/10.1016/j.isprsjprs.2022.09.011
- Murray, C.; Larson, A.; Goodwill, J.; Wang, Y.; Cardace, D.; Akanda, A.S. (2022). Water Quality Observations from Space: A Review of Critical Issues and Challenges. *Environments* 2022, 9, 125. https://doi.org/10.3390/environments9100125
- Shen X, Wang Y and Liu B (2022), Editorial: Vegetation phenology and response to climate change. *Front. Earth Sci.* 10:985049. https://doi.org/10.3389/feart.2022.985049
- Xu, C.; Ding, Y.; Zheng, X.; Wang, Y.; Zhang, R.; Zhang, H.; Dai, Z.; Xie, Q. (2022). A Comprehensive Comparison of Machine Learning and Feature Selection Methods for Maize Biomass Estimation Using Sentinel-1 SAR, Sentinel-2 Vegetation Indices, and Biophysical Variables. Remote Sens. 2022, 14, 4083. https://doi.org/10.3390/rs14164083
- Fu, B., Sun, J., Wang, Y., et al. (2022). Evaluation of LAI estimation of mangrove communities using DLR and ELR algorithms with UAV, hyperspectral and SAR images, *Frontiers in Marine Science*, https://doi.org/10.3389/fmars.2022.944454
- Wang, M.; Mao, D.; Wang, Y.; Song, K.; Yan, H.; Jia, M.; Wang, Z. (2022). Annual Wetland Mapping in Metropolis by Temporal Sample Migration and Random Forest Classification with Time Series Landsat Data and Google Earth Engine. *Remote Sens.*, 14, 3191. https://doi.org/10.3390/rs14133191
- Yuan, S., Wang, Y., Zhang, H., Zhao, J., Guo, X., Xiong, T., Li, H., Zhao, H. (2022). Blue-Sky Albedo Reduction and Associated Influencing Factors of Stable Land Cover Types in the Middle-High Latitudes of the Northern Hemisphere during 1982–2015. *Remote Sens.* 2022, 14, 895. https://doi.org/10.3390/rs14040895
- Wang, Y. (2021). All Earth – an open access journal on all spherical perspectives of our home planet: Editorial questions, *All Earth*, 33(1): 1-4, https://doi.org/10.1080/27669645.2021.1919410
- Meng, L., Zhou, Y.*, Gu, L. Richardson, A.D., Peñuelas, J., Fu, Y., Wang, Y., Asrar, G.R., De Boeck, H.J., Mao, J., Zhang, Y., & Wang, Z. (2021). Photoperiod decelerates the advance of spring phenology of six deciduous tree species under climate warming, *Global Change Biology*, 2021; 27: 2914-2927. https://doi.org/10.1111/gcb.15575
- Jia, M., Wang, Z.*, Mao, D., Ren, C., Wang, C., & Wang, Y.* (2021). Rapid, robust, and automated mapping of tidal flats in China using time series Sentinel-2 images and Google Earth Engine, *Remote Sensing of Environment*, 255 (2021) 112285 https://doi.org/10.1016/j.rse.2021.112285
- Wang, Y.*, Lu, Z., Sheng, Y., & Zhou, Y. (2020). Remote Sensing Applications in Monitoring of Protected Areas. *Remote Sensing*, 2020, 12, 1370. https://doi.org/10.3390/rs12091370
- Wang, Y. (2020). *Frontiers EcoPics* - Poyang Lake and wintering Siberian cranes, *Frontiers in Ecology and the Environment*, 18(2):100-100. https://doi.org/10.1002/fee.2171
- Zhang, J., Zhao, J., Wang, Y., Zhang, H., Zhang, Z., & Guo, X. (2020). Comparison of Land Surface Phenology of the Northern Hemisphere Based on AVHRR GIMMS3g and MODIS Datasets. *ISPRS Journal of Photogrammetry and Remote Sensing*, 169 (2020) 1-16.
- Mao, D., Wang, Z., Du, B., Li, L., Tian, Y., Jia, M., Zeng, Y., Song, K., Jiang, M., & Wang, Y.* (2020). National wetland mapping in China: A new product resulting from object based and hierarchical classification of Landsat 8 OLI images. *ISPRS Journal of Photogrammetry and Remote Sensing*, 164, 11-25. https://doi.org/10.1016/j.isprsjprs.2020.03.020
- Campbell, A., & Wang, Y.* (2020). Salt marsh monitoring along the Mid-Atlantic coast by Google Earth Engine enabled time series. *PLoS One*, 15(2): e0229605. https://doi.org/10.1371/journal.pone.0229605
- Campbell, A., & Wang, Y.* (2020). Assessment of salt marsh change on Assateague Island National Seashore between 1962 and 2016, *Photogrammetric Engineering & Remote Sensing*, 86(3):187-194.

- Ding, Y., Zhang, H., Wang, Z., Xie, Q., Wang, Y.*, Liu, L., & Hall, C.C. (2020). A comparison of estimating crop residue cover from Sentinel-2 using empirical regressions and machine learning methods, *Remote Sensing*, 2020, 12, 1470.
- Xu, J., Gao, C., Wang, Y.* (2020). Extraction of Spatial and Temporal Patterns of Concentrations of Chlorophyll-a and Total Suspended Matter in Poyang Lake Using GF-1 Satellite Data, *Remote Sensing*, 2020, 12, 622.
- Guo, X., Zhang, H., Wang, Y., Zhao, J., Zhang, Z., 2020. The driving factors and their interactions of fire occurrence in Greater Khingan Mountains, China. *Journal of Mountain Science*, 17, 2674–2690 (2020). https://doi.org/10.1007/s11629-020-6036-0
- Duan, P., Wang, Y.*, & Yin, P. (2020). Remote Sensing Applications in Monitoring of Protected Areas: A Bibliometric Analysis, *Remote Sensing*, 12, 772.
- Chen, L., Ren, C., Zhang, B., Wang, Z., Wang, Y.* (2019). Mapping Spatial Variations of Structure and Function Parameters for Forest Condition Assessment of the Changbai Mountain National Nature Reserve, *Remote Sensing*, 2019, 11, 3004.
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- Chen, L., Wang, Y., Ren, C., Zhang, B., & Wang, Z. (2019). Assessment of multi-wavelength SAR and multispectral instrument data for forest aboveground biomass mapping using random forest kriging. *Forest Ecology and Management* 447 (2019) 12–25.
- Chen, L., Wang, Y., Ren, C., Zhang, Z., & Wang, Z. (2019). Optimal Combination of Predictors and Algorithms for Forest Above-Ground Biomass Mapping from Sentinel and SRTM Data. *Remote Sensing*, 2019, 11, 414.
- Campbell, A., & Wang, Y.* (2019). High spatial resolution remote sensing for salt marsh mapping and change analysis at Fire Island National Seashore. *Remote Sensing*, 2019, 11, 1107.
- Chen, L., Wang, Y., Ren, C., Zhang, B., & Wang, Z. (2019). Optimal Combination of Predictors and Algorithms for Forest Above-Ground Biomass Mapping from Sentinel and SRTM Data. *Remote Sensing, 2019*, 11, 414.
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- Wang, Y.*, & Yésou, H. (2018). Remote Sensing of Floodpath Lakes and Wetlands: A Challenging Frontier in the Monitoring of Changing Environments. *Remote Sensing*, 2018, 10, 1955.
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- Xu, J., Fang, C., Gao, D., Zhang, H., Gao, C., Xu, Z., & Wang, Y.* (2018). Optical models for remote sensing of chromophoric dissolved organic matter (CDOM) absorption in Poyang Lake, *ISPRS Journal of Photogrammetry and Remote Sensing*, 142, August 2018, 124-136.
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- Campbell, A., Wang, Y.*, Christiano, M., Stevens, S. (2017). Salt Marsh Monitoring in Jamaica Bay, New York from 2003 to 2013: A Decade of Change from Restoration to Hurricane Sandy. *Remote Sensing*, 2017, 9, 131.
- Fu, B., Wang, Y., Campbell, A., Li, Y., Zhang, B., Yin, S., Xing, Z., & Jin, X. (2017). Comparison of object-based and pixel-based Random Forest algorithm for wetland vegetation mapping using high spatial resolution GF-1 and SAR data. *Ecological Indicators,* 73(2017) 105-117. (JIF=4.229)
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- Duan, P., Qin, L., Wang, Y., & He, H. (2015). Spatial pattern characteristics of water footprint for maize production in Northeast China, *Journal of the Science of Food & Agriculture,*

- Clark, J., Wang, Y.*, & August, P. (2014). Assessing current and projected suitable habitats for tree-of-heaven along the Appalachian Trail, *Philosophical Transactions of the Royal Society B*, 369: 20130192. https://royalsocietypublishing.org/doi/10.1098/rstb.2013.0192
- Zhou, Y., Wang, Y., Gold, A., August, P., & Boving, T. (2014). Assessing impact of urban impervious surface on watershed hydrology using distributed object-oriented simulation and spatial regression, *GeoJournal*, 79: Issue 2, pp. 155-166.
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- Zhao, J., Wang, Y., Hashimoto, H., Melton, F.S., Hiatt, S.H., Zhang, H., & Nemani, R.R. (2012). The variation of land surface phenology from 1982 to 2006 along the Appalachian Trail, *IEEE Transactions on Geoscience and Remote Sensing*, 51(4): 2087 - 2095.
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- Zhou, Y., Wang, Y., Gold, A.J., & August, P.V. (2010). Modeling Watershed Rainfall - Runoff Using Impervious Surface-Area Data with High Spatial Resolution, *Hydrogeology Journal*. 18(6):1413-1423.
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- Wang, Y., Zhou, Y., Yang, J., He, H.S., Zhu, Z., & Ohlen, D. (2009). Simulation of Short-Term Post-Fire Vegetation Recovery by Integration of LANDFIRE Data Products, DNBR Data and LANDIS Modeling, *Annals of GIS, 15:*(1): 35-47.
- Wang, Y., Mitchell, B.R., Nugranad-Marzilli, J., Bonynge, G., Zhou, Y., & Shriver, G. (2009). Remote sensing of land-cover change and landscape context of the National Parks: A case study of the Northeast Temperate Network, *Remote Sensing of Environment*. 113: 1453-1461. https://doi.org/10.1016/j.rse.2008.09.017
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- Zhou, Y., & Y. Wang, Y., Gold, A.J., August, P.V., & Boving, T.B. (2009). Assessing Impact of Urban Impervious Surface on Watershed Hydrology Using Distributed Object-based Simulation and Spatial Regression, *GeoJournal*, 79, pages155–166(2014).
- Stabach, J.A., Dabek, L., Jensen, R., & Wang, Y. (2009). Discrimination of dominant forest types for Matschie's tree kangaroo conservation in Papua New Guinea using high resolution remote sensing data, *International Journal of Remote Sensing*, 30(1-2): 405-422. https://doi.org/10.1080/01431160802311125
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- Wang, Y., Traber, M., Milestead, B., & Stevens, S. (2007). Terrestrial and Submerged Aquatic Vegetation Mapping in Fire Island National Seashore Using High Spatial Resolution Remote Sensing Data, *Marine Geodesy*, 30:1, 77-95.
- Rodriguez, W., August, P.V., Wang, Y., Paul, J.F., Gold, A., & Rubinstein, N. (2007). Empirical relationships between land use/cover and estuarine condition in the Northeastern United States, *Landscape Ecology*, 22:403-417.
- Zhou, Y., Zhu, Q., Chen, J.M., Wang, Y., Liu, J., Sun, R., & Tang, S. (2007). Observation and simulation of net primary productivity in Qilian Mountain, western China, *Journal of Environmental Management*, 85(3): 574-584.
- Wang, Y., Tobey, T., Bonynge, B., Nugranad, J., Makota, V., Ngusaru, A., & Traber, M. (2005). Involving Geospatial Information in the Analysis of Land Cover Change along Tanzania Coast, *Coastal Management*, 33(1):89-101. https://doi.org/10.1080/08920750590883132
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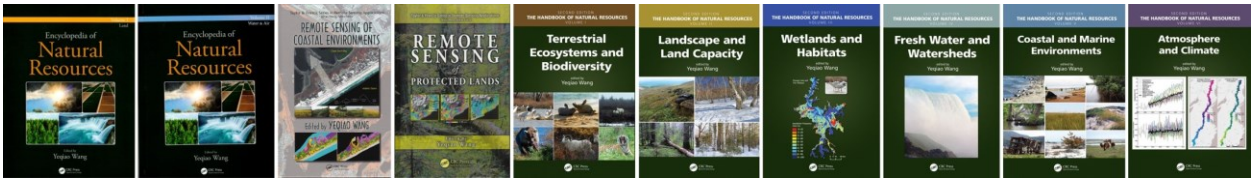
- Wang, Y., Ngusaru, A., Tobey, J., Makota, V., Bonynge, G., Nugranad, J., Traber, M., Hale, L., & Bowen, R. (2003). Remote Sensing of Mangrove Change Along the Tanzania Coast, *Marine Geodesy*, 26(1-2): 35-48. https://doi.org/10.1080/01490410306708
- Wang, Y., & Zhang, X. (2001). Dynamic Modeling Approach to Simulating Socioeconomic Effects on Landscape Change, *Ecological Modelling*, 140(1-2): 141-162. https://doi.org/10.1016/S0304-3800(01)00262-9
- Wang, Y., & Moskovits, D.K. (2001). Tracking Fragmentation of Natural Communities and Changes in Land Cover: Applications of Landsat Data for Conservation in an Urban Landscape (Chicago Wilderness), *Conservation Biology*, 15(4): 835-843. https://www.jstor.org/stable/3061304
- Zhang, X., & Wang, Y. (2001). Spatial Dynamic Modeling for Urban Development, *Photogrammetric Engineering & Remote Sensing*, 67(9): 1049-1057.

Selected Published Books

- Wang, Y. (2020). Editor, *The Handbook of Natural Resources, Second Edition*. T&F CRC Press: New York. This Handbook series has **six printed and eBook volumes**:
    1. *Terrestrial Ecosystems and Biodiversity* (Vol. I)
    2. *Landscape and Land Capacity* (Vol. II)
    3. *Wetlands and Habitats* (Vol. III)
    4. *Fresh Water and Watersheds* (Vol. IV)
    5. *Coastal and Marine Environments* (Vol. V)
    6. *Atmosphere and Climate* (Vol. VI)
- Wang, Y. (2014). Editor-in-Chief, *Encyclopedia of Natural Resources*. T&F CRC Press: New York. This Encyclopedia series has **two printed volumes**:
    1. *Land* (Vol. I)
    2. *Air and Water* (Vol. II)
- Wang, Y. (2011). *Remote Sensing of Protected Lands*. CRC Press, Boca Raton, Florida, 582p
- Wang, Y. (2009). *Remote Sensing of Coastal Environments*. CRC Press, Boca Raton, Florida, 423p



Selected Editorship

- Editor-in-Chief, *All Earth* *https://www.tandfonline.com/journals/tgda21*
- Guest Editor, Shen, X., Wang, Y., Liu, B. (2021), Special Issue in Vegetation Phenology and Response to Climate Change, *Frontiers in Earth Science*
- Guest Editor, Wang, Y., Lu, Z., Sheng, Y., & Zhou, Y. (2019), Special Issue in Remote Sensing Applications in Monitoring of Protected Areas, *Remote Sensing*
- Guest Editor, Wang, Y., & Yésou, H. (2017), Special Issue in Remote Sensing of Floodpath Lakes and Wetlands, *Remote Sensing*
- Associate Editor-in-Chief, *Chinese Geographical Science*
- Advisory Board member, *ISPRS Journal of Photogrammetry and Remote Sensing*
- Editorial Board, *Journal of Mountain Science*
- Editorial Board and Natural Resource/Ecosystem Column Editor, *Annuals of GIS*