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

- Ph.D., Department of Natural Resource Management & Engineering, University of Connecticut, 1995
- M.Sc., Department of Natural Resource Management & Engineering, University of Connecticut, 1992,

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

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), 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

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: "Geographic Information for Sustainable Development: Tanzania/Kenya Coastal Land Cover Change Study", USAID
- PI: "Multiple Innovative Models in Regional Land Cover Change Study", NASA
- PI, "Tracking Natural Community Fragmentation and Changes in Land Use and Land Cover: A Case Study of Chicago Wilderness", NASA

Selected Refereed Publications

- Wang, Y. (2024). Harmonizing sensing capabilities and synergizing societal efforts towards conservation of protected areas and biodiversity, All Earth, 36:1, 1-2, https://doi.org/10.1080/27669645.2024.2352969

- Fu, B., Li, S., Lao, Z., Wei, Y., Song, K., Deng, T., Wang, Y. (2024). Synergistic retrieval of mangrove vital functional traits using field hyperspectral and satellite data, Applied Earth Observation and Geoinformation, 131 (2024) 103963 https://doi.org/10.1016/j.jag.2024.103963
- Fu, B., Deng, L., Sun, W., He, H., Li., H., Wang, Y., Wang, Y. (2024). Quantifying vegetation species functional traits along hydrologic gradients in karst wetland based on 3D mapping with UAV hyperspectral point cloud, *Remote Sensing of Environment*, 307 (2024) 114160 https://doi.org/10.1016/j.rse.2024.114160
- Zhao, C., Jia, M., Zhang, R., Wang, Z., Ren, C., Mao, D., Wang, Y. (2024). Mangrove species mapping in coastal China using synthesized Sentinel-2 high-separability images, *Remote Sensing of Environment*, 307 (2024) 114151. https://doi.org/10.1016/j.rse.2024.114151
- Jia, M., Zeng, H., Chen, Q., Wang, Z., Ren, C., Mao, D., Zhao, C., Zhang, R., Wang, Y. (2024). Nighttime light in China's coastal zone: The type classification approach using SDGSAT-1 Glimmer Imager, *Remote Sensing of Environment*, 305 (2024) 114104 https://doi.org/10.1016/j.rse.2024.114104
- Wang, Y. (2023). Our changing planet in a changing world, *All Earth*, 35:1, 1-2. https://doi.org/10.1080/27669645.2022.2163747
- Jia, M., Wang, Z., Mao, D., Ren, C., Song, K., Zhao, C., Wang, C., Xiao, X., Wang, Y. (2023). Mapping global distribution of mangrove forests at 10-m resolution, *Science Bulletin*. https://doi.org/10.1016/j.scib.2023.05.004
- Zhao, C., Jia, M., Wang, Z., Mao, D., Ren, C., Wang, Y. (2023). Towards a better understanding of coastal salt marsh mapping: a case from China using dual-temporal images, *Remote Sensing of Environment*, 295 (2023) 113664. https://doi.org/10.1016/j.rse.2023.113664
- 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), Vegetation phenology and response to climate change. *Front. Earth Sci.* 10:985049. https://doi.org/10.3389/feart.2022.985049
- 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
- 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
- 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.
- Campbell, A., & Wang, Y. (2018). Examining the Influence of Tidal Stage on Salt Marsh Mapping using High Spatial Resolution Satellite Remote Sensing and Topobathymetric LiDAR, *IEEE Transactions on Geoscience and Remote Sensing*, 56(9): 5169-5176.
- Fu, B., Li, Y., Wang, Y., Campbell, A., Zhang, B., Yin, S., Zhu, H., Xing, Z., Jin, X. (2017). Evaluation of riparian condition of Songhua River by integration of remote sensing and field measurements, *Scientific Reports*, 7, 2565 (2017). DOI:10.1038/s41598-017-02772-3
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- 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)
- Fu, B., Li, Y., Wang, Y., Zhang, B., Yin, S., Zhu, H., & Xing, Z. (2016). Evaluation of ecosystem service value of riparian zone using land use data from 1986 to 2012, *Ecological Indicators*, 69(2016): 873-881. https://doi.org/10.1016/j.ecolind.2016.05.048
- 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.
- Wang, Y., Zhao, J., Zhou, Y., Zhang, H. (2012). Variation and trends of landscape dynamics, land surface phenology and net primary production of the Appalachian Mountains, *Journal of Applied Remote Sensing*, Vol. 6, 061708: 1 -15.
- 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.
- Berger, K., Wang, Y., & Mather, T. (2011). MODIS derived land surface moisture conditions for monitoring blacklegged tick habitat in southern New England, *International Journal of Remote Sensing*, 34(1): 73-85.
- 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.
- 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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- 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.

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- 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
- Novak, A., & Wang, Y. (2004). Effects of suburban sprawl on Rhode Island's forest: A Landsat view from 1972 to 1999, *Northeast Naturalist*, 11(1) 67-74.
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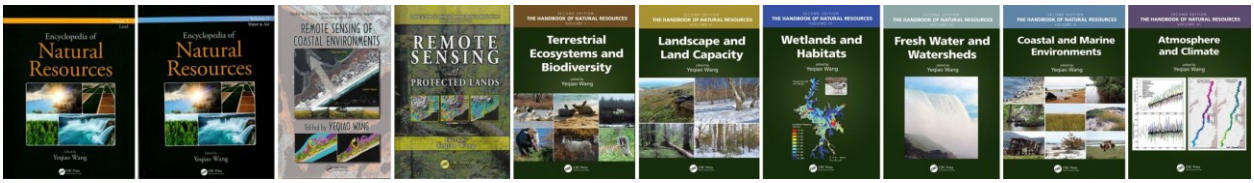
- Zhang, X., & Wang, Y. (2001). Spatial Dynamic Modeling for Urban Development, *Photogrammetric Engineering & Remote Sensing*, 67(9): 1049-1057.

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*
- Advisory Board member, *ISPRS Journal of Photogrammetry and Remote Sensing*