

Biographical Sketch

XIANGMING XIAO (萧向明)

George Lynn Cross Research Professorship

Professor, Department of Microbiology and Plant Biology, College of Arts and Sciences

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A. PROFESSIONAL PREPARATION

Xiamen University, Xiamen, Fujian Province, China	Biology	B.Sc., 1978-1982
University of Science and Technology, Beijing, China	Plant Ecology	M.Sc., 1984-1987
Colorado State University, Fort Collins, CO, USA	Ecosystem Science	Ph.D., 1990-1994
Marine Biological Laboratory and MIT, MA, USA	Climate Change	Post-Doc, 1994-1996

B. APPOINTMENTS

2008-present	Professor, University of Oklahoma, Norman, OK
2004-2008	Research Associate Professor, University of New Hampshire, Durham, NH
1997-2004	Research Assistant Professor, University of New Hampshire, Durham, NH
1996-1997	Research Associate, Marine Biological Laboratory, Woods Hole, MA, and MIT
1982-1984	Research Associate, Institute of Geography, CAS, Beijing, China

C. PRODUCTS

(i) Most Closely Related to the Proposed Project

1. Zou, Z., **Xiao, X.**, Dong, J., Qin, Y., Doughty, R.B., Menarguez, M.A., Zhang, G., and Wang, J. 2018. Divergent Trends of Open Surface Water Body Areas in the Contiguous United States from 1984-2016. *Proceedings of National Academy of Sciences of the United States of America*. www.pnas.org/cgi/doi/10.1073/pnas.1719275115
2. Tong, X., Brandt, M., Yue, Y., Horion, S., Wang, K., Keersmaecker, W.D., Tian, F., Schurgers, G., **Xiao, X.**, Luo, Y., Chen, C., Myneni, R., Shi, Z., Chen, H., and Fensholt, R. 2018. Increased Vegetation Growth and Carbon Stock in China Karst via Ecological Engineering. *Nature Sustainability*. 1:44-50.
3. Wang, J., **Xiao, X.**, Zhang, Y., Qin, Y., Doughty, R.B., Wu, X., Bajgain, R., Du, L. 2018. Enhanced Gross Primary Production and Evapotranspiration in *Juniper* Encroached Grasslands. *Global Change Biology*. <https://doi.org/10.1111/gcb.14441>
4. Ma, J., **Xiao, X.**, Zhang, Y., Doughty, R., Chen, B., and Zhao, B. 2018. Spatial-temporal Consistency Between Gross Primary Productivity and Solar-induced Chlorophyll Fluorescence of Vegetation in China during 2007-2014. *Science of the Total Environment*. 639:1241-1253.
5. Zhang, Y., **Xiao, X.**, Wu, X., Zhou, S., Zhang, G., Qin, Y., and Dong, J. 2017. Data descriptor: A Global Moderate Resolution Dataset of Gross Primary Production of Vegetation for 2000-2016. *Scientific Data*. 4:170165. <https://doi.org/10.1038/sdata.2017.165>

(i) Other Significant Products

1. Brandt, M., Yue, Y., Wigneron, J.P., Tong, X., Tian, F., Jepsen, M.R., **Xiao, X.**, Verger, A., Mialon, A., Al-Yaari, A., Wang, K., and Fensholt, R. 2018. Satellite-observed Major Greening and Biomass Increase in Southern China Karst during Recent Decade, *Earth's Future*, 6. <https://doi.org/10.1029/2018EF000890>

2. Xin, F., **Xiao, X.**, Zhao, B., Miyata, A., Baldocchi, D., Knox, S., Kang, M., Sim, K.M., Min, S., Chen, B., Li, X., Wang, J., Dong, J., Biradar, C. 2017. Modeling Gross Primary Production of Paddy Rice Cropland through Analysis of Data from CO₂ Eddy Flux Tower Sites and MODIS Images. *Remote Sensing of Environment*. 190: 42-55.
3. Qin, Y., **Xiao, X.**, Dong, J., Zhou, Y., Wang, J., Doughty, R.H., Chen, Y., Zou, Z., and Moore, B. 2017. Annual Dynamics of Forest Areas in South America during 2007-2010 at 50-m Spatial Resolution. *Remote Sensing of Environment*. 201:73-87.
4. Dong, J., **Xiao, X.**, Zhang, G., Menarguez, M.A., Choi, C.Y., Qin, Y., Luo, P., Zhang, Y., and Moore, B. 2016. Northward Expansion of Paddy Rice in Northeastern Asia during 2000-2014. *Geophysical Research Letters*. <https://doi.org/10.1002/2016GL068191>
5. Qin, Y., **Xiao, X.**, Dong, J., Zhang, G., Roy, P.S., Joshi, P.K., Gilani, H., Murthy, M.S.R., Jin, C., Wang, J., Zhang, Y., Chen, B., Menarguez, M.A., Biradar, C.M., Bajgain, R., Li, X., Dai, S., Hou, Y., Xin, F., Moore, B. 2016. Mapping Forests in Monsoon Asia with ALOS PALSAR 50-m Mosaic Images and MODIS Imagery in 2010. *Scientific Reports*. 6:20880

D. SYNERGISTIC ACTIVITIES

- *Crowd sourcing and citizen science*: I lead the development of smartphone app “Field Photo” and the Global Geo-Referenced Field Photo Library (<http://www.comf.ou.edu/photos/>), which are used by people to collect, share, visualize and archive photos and metadata collected in the fields. It has now 2000+ registered users and 160,000 geo-referenced field photos. The EOMF data portal (<http://www.comf.ou.edu>) also provides web service for satellite images (MODIS, Landsat, PALSAR) and visualization (300+ TB satellite images).
- *Informal education and outreach*: Since 2014 I have led the OklahomaView, a state member of the AmericaView, which is a national consortium for remote sensing education, research and outreach with state memberships from 40 states in USA. I led the effort that hosts annual Geospatial Information Science Day (GISday) at the University of Oklahoma during 2012-2017, which includes best student poster awards for undergraduate and graduate students, visits by several hundreds of undergraduate students and local high school students and teachers, and 25+ exhibit booths about geospatial technologies and applications from university departments, state and federal governmental agencies, and private companies.
- *Scientific conferences and workshops*: I served as co-conveners for two US-China workshops on the frontier of ecology and evolution of infectious diseases in 2018. I also served as PI and Co-Convener for International Workshops on Community-based Data Synthesis, Analysis and Modeling of Highly Pathogenic Avian Influenza (2009 in Thailand, 2010 and 2011 in China, 2012 in Italy; 2013 in Vietnam, 2014 in China); Served as Convener for annual Oklahoma Workshop on Remote Sensing Technology and Applications at the University of Oklahoma during 2013-2017. I served as co-conveners for one workshop “Applications and user development for solar-induced chlorophyll fluorescence data products from space-borne platforms” in 2018 AGU Fall Meeting, December 10-14, 2018, Washington, D.C.
- *Journal and book editors as well reviewers*: Ecological Applications (Subject Matter Editor, 2010 - present); EcoHealth (Review Editor, 2010 - present); Ecological Applications, Ecosystems, Geophysical Research Letters, Global Change Biology, Global Biogeochemical Cycle, Remote Sensing of Environment, Nature Sustainability.
- *Proposal review panel or mail review*: EPA, NASA, NSF, DOE, and NIH