

First Name: **Jiafu** Last Name: **Mao**

Title: **Research Staff Scientist**

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**Education:**

PhD:

MS:

BS:

**General Areas of Expertise:**

Terrestrial Ecosystem Modelling, integrated Earth System Modelling, and Land-Atmosphere Interactions

**Short Bio:**

I study the response and feedback of land surface to climate change. My work primarily involves understanding hydrology, carbon cycling, and vegetation dynamics in the terrestrial ecosystems with field measurements, satellite data, process-oriented land surface and Earth system models; investigating the land surface response to multiple-factor global change and to attribute the variations of terrestrial ecosystem dynamics to natural and anthropogenic drivers; and global scale coupling research primarily concentrating on land-climate interactions with the integrated Earth system modeling framework. My research has been published in leading journals including Nature Climate Change, Nature Communications, Scientific Reports, Biogeosciences, Global Change Biology and Journal of Climate among others.

**Five Representative Publications:**

1. Peter E. Thornton, Katherine Calvin, Andrew D. Jones, Alan V. Di Vittorio, Ben Bond-Lamberty, Louise Chini, Xiaoying Shi, Jiafu Mao, William D. Collins, Jae Edmonds, Allison Thomson, John Truesdale, Anthony Crais, Marcia L. Branstetter and George Hutt. 2017. Biospheric feedback effects in a synchronously coupled model of Earth and human systems. *Nature Climate Change*, doi:10.1038/nclimate3310.
2. Mao Jiafu, Aurélien Ribes, Binyan Yan, Xiaoying Shi, Peter E. Thornton, Roland Séférian, Philippe Ciais, Ranga B. Myneni, Hervé Douville, Shilong Piao, Zaichun Zhu, Robert E. Dickinson, Yongjiu Dai, Daniel M. Ricciuto, Mingzhou Jin, Forrest M. Hoffman, Bin Wang, Mengtian Huang, and Xu Lian, 2016a. Human-induced greening of the northern high-latitude land surface. *Nature Climate Change*, 6, 959-963, doi:10.1038/nclimate3056.
3. Mao Jiafu, Daniel M. Ricciuto, Peter E. Thornton, Jeffrey M. Warren, Anthony W. King, Xiaoying Shi, Colleen M. Inversen and Richard J. Norby, 2016b. Evaluating the Community Land Model in a pine stand with 13CO2 and shading manipulations. *Biogeosciences*, 13, 641-657, doi:10.5194/bg-13-641-2016.
4. Zaichun Zhu, Shilong Piao, Ranga B. Myneni, Mengtian Huang, Zhenzhong Zeng, Josep G. Canadell, Philippe Ciais, Stephen Sitch, Pierre Friedlingstein, Almut Arneth, Benjamin D. Stocker, Benjamin Poulter, Charles Koven, Chunxiang Cao, Etsushi Kato, Hui Yang, Jiafu Mao, Josep Penuelas, Lei Cheng, Ning Zeng, Sonke Zaehle, Thomas Pugh, Yaozhong Pan, Yingping Wang and Yue Li, 2016. Greening of the Earth and its drivers. *Nature Climate Change*, doi:10.1038/nclimate3004.
5. Mao Jiafu, Wenting Fu, Xiaoying Shi, Daniel M Ricciuto, Joshua B Fisher, Robert E Dickinson, Yaxing Wei, Willis Shern, Shilong Piao, Kaicun Wang, Christopher R Schwalm, Hanqin Tian, Mingquan Mu, Altaf Arain, Philippe Ciais, Robert Cook, Yongjiu Dai, Daniel Hayes, Forrest M Hoffman, Maoyi Huang, Suo Huang, Deborah N Huntzinger, Akihiko Ito, Atul Jain, Anthony W King, Huimin Lei, Chaoqun Lu, Anna M Michalek, Nicholas Parazoo, Changhui Peng, Shushi Peng, Benjamin Poulter, Kevin Schaefer, Elchin Jafarov, Peter E Thornton, Weile Wang, Ning Zeng, Zhenzhong Zeng, Fang Zhao, Qian Zhu, Zaichun Zhu., 2015. Disentangling climatic and anthropogenic controls on global terrestrial evapotranspiration trends. *Environmental Research Letters* 10, 094008.

**FEWSTERN Symposium 2017 Presentation Title and Abstract:**

N/A

**SUBMIT**

**RESET**