

**Figure S1**. Average potential surface conductance values (g<sub>0</sub>) derived from tower measurements versus corresponding NDVI values from the AVHRR GIMMS data set for evergreen broadleaf forest (EBF), mixed forest (MF), Woody savanna (WSV), and cropland (CRP) vegetation types [1]. Gray areas correspond to the 99% posterior limits of the fitting model uncertainty derived from an adaptive MCMC method [2]. Blue areas correspond to the NDVI range in Poyang Lake Basin.



**Figure S2**. Range of potential surface conductance values (g<sub>0</sub>) for evergreen broadleaf forest (EBF), mixed forest (MF), Woody savanna (WSV), and cropland (CRP) vegetation types in Poyang Lake Basin.

## Reference

- 1. Zhang, K.; Kimball, J.S.; Nemani, R.R.; Running, S.W. A continuous satellite-derived global record of land surface evapotranspiration from 1983 to 2006. *Water Resources Research* **2010**, *46*, 109-118.
- 2. Haario, H.; Laine, M.; Mira, A.; Saksman, E. Dram: Efficient adaptive mcmc. *Statistics & Computing* **2006**, *16*, 339-354.