

Figure S1. Seasonal cycles of NEE, LE, GPP and R_{eco} at Hainich site, smoothed with a 15-day moving average window. The observations (black) are compared with the prior model (grey), the MS optimization (blue) and the SS optimization (orange). The annual average carbon flux $(gC.m^{-2}.yr^{-1})$ and the annually averaged LE flux $(W.m^{-2})$ are given between brackets.

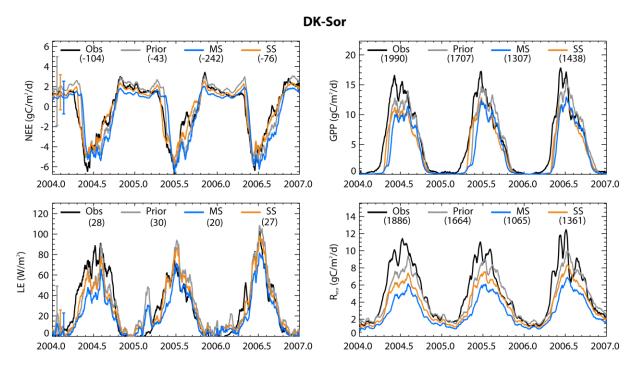


Figure S2. Same as Fig. S1 at Soroe-LilleBogeskov site.

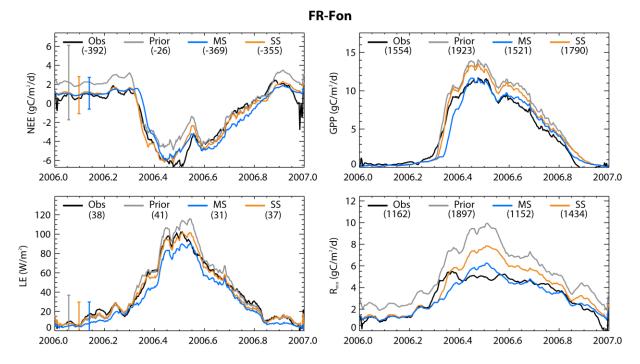


Figure S3. Same as Fig. S1 at Fontainebleau site.

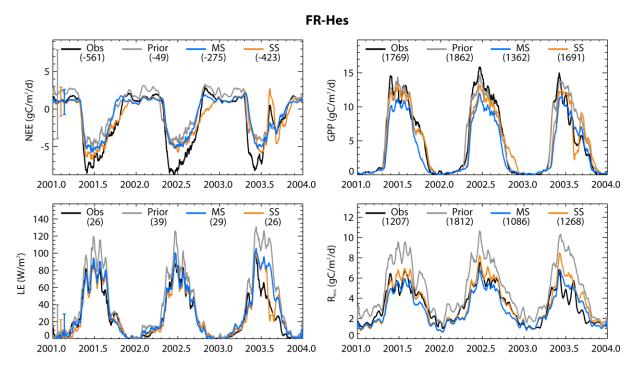


Figure S4. Same as Fig. S1 at Hesse Forest site.

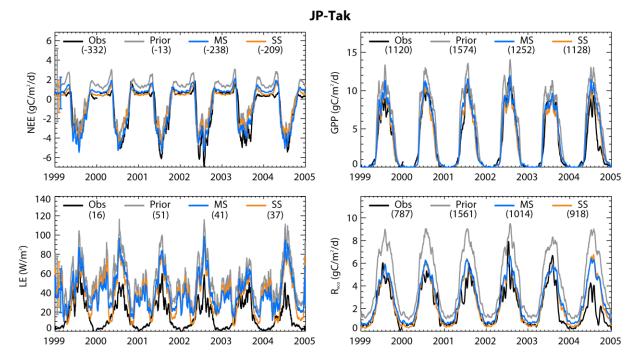


Figure S5. Same as Fig. S1 at Takayama site.

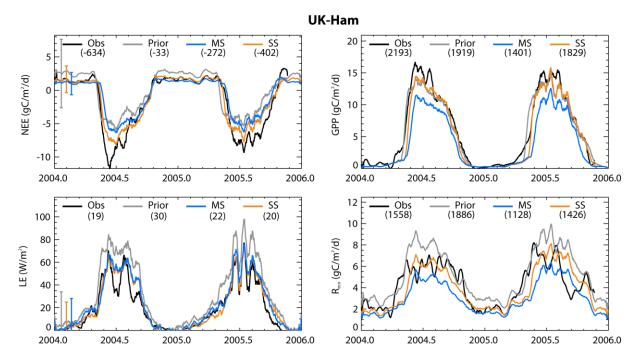


Figure S6. Same as Fig. S1 at Hampshire site.

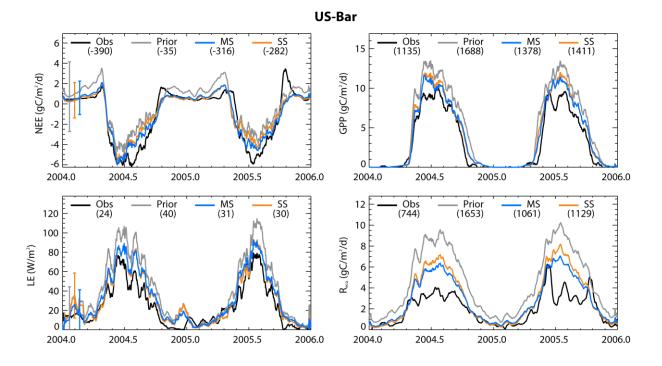


Figure S7. Same as Fig. S1 at Bartlett Experimental Forest site.

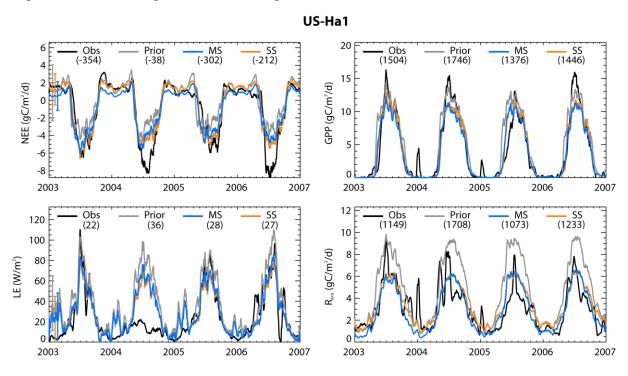


Figure S8. Same as Fig. S1 at Harvard Forest site.

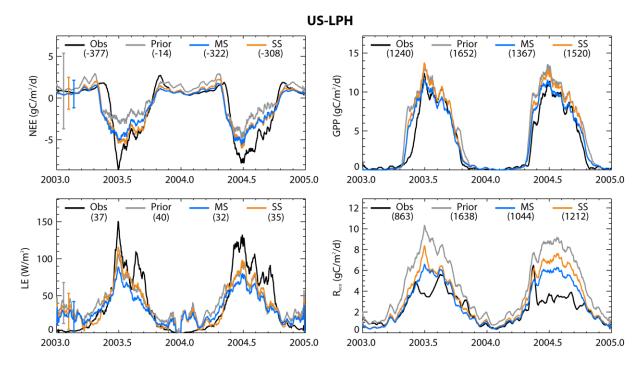


Figure S9. Same as Fig. S1 at Little Prospect Hill site.

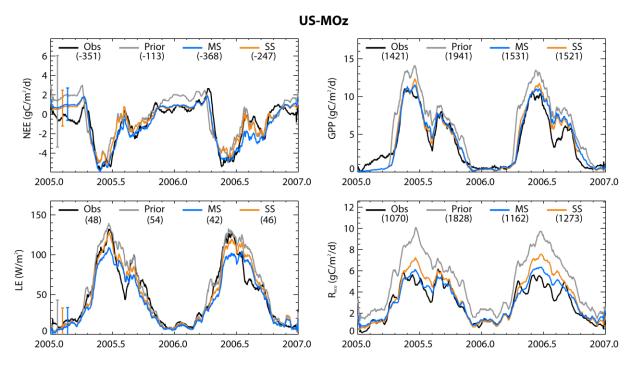


Figure S10. Same as Fig. S1 at Missouri Ozark site.

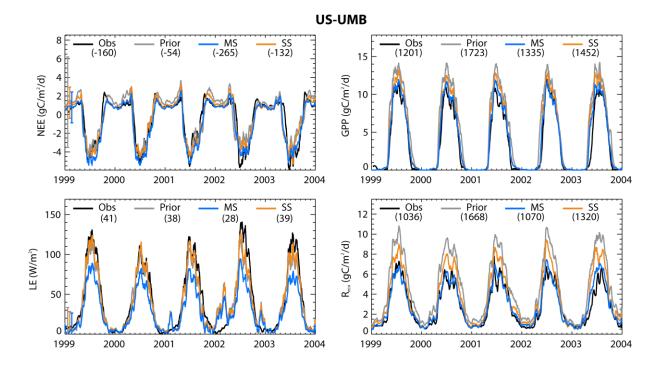


Figure S11. Same as Fig. S1 at Univ. of Mich. Biological Station site.

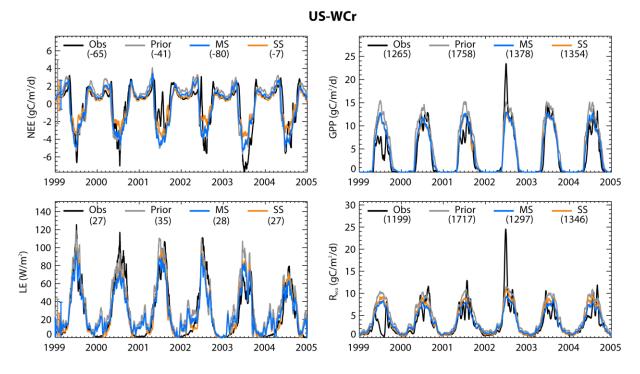


Figure S12. Same as Fig. S1 at Willow Creek site.

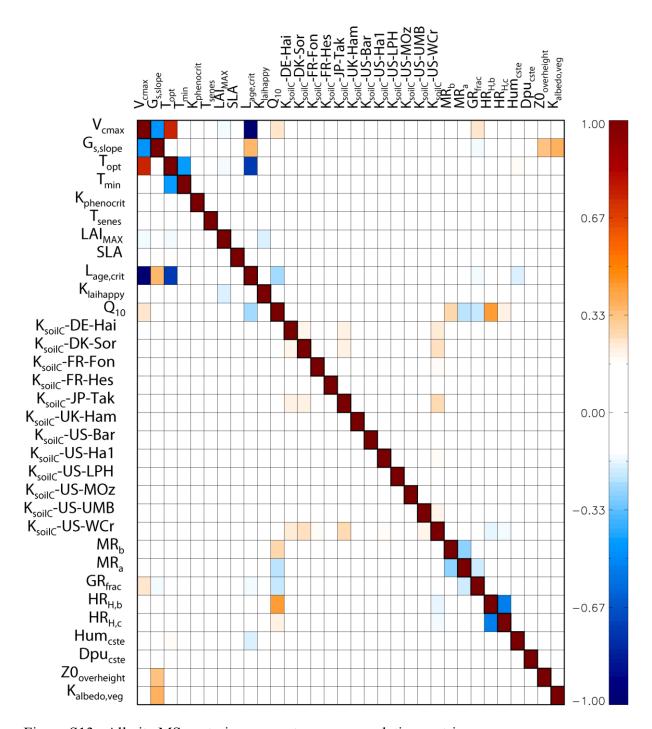


Figure S13. All-site MS posterior parameter error correlation matrix.

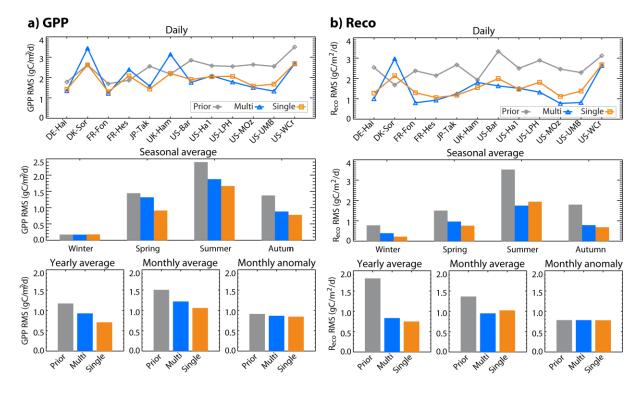


Figure S14. Model-data RMSs at different time scales for a) GPP and b) R_{eco} . Prior model is in grey, MS optimization in blue, and SS optimization in orange.