

Supplemental Figures

Z.M. Subin, P.C. Milly, B.N. Sulman, S. Malyshev, E. Shevliakova

May 15, 2014

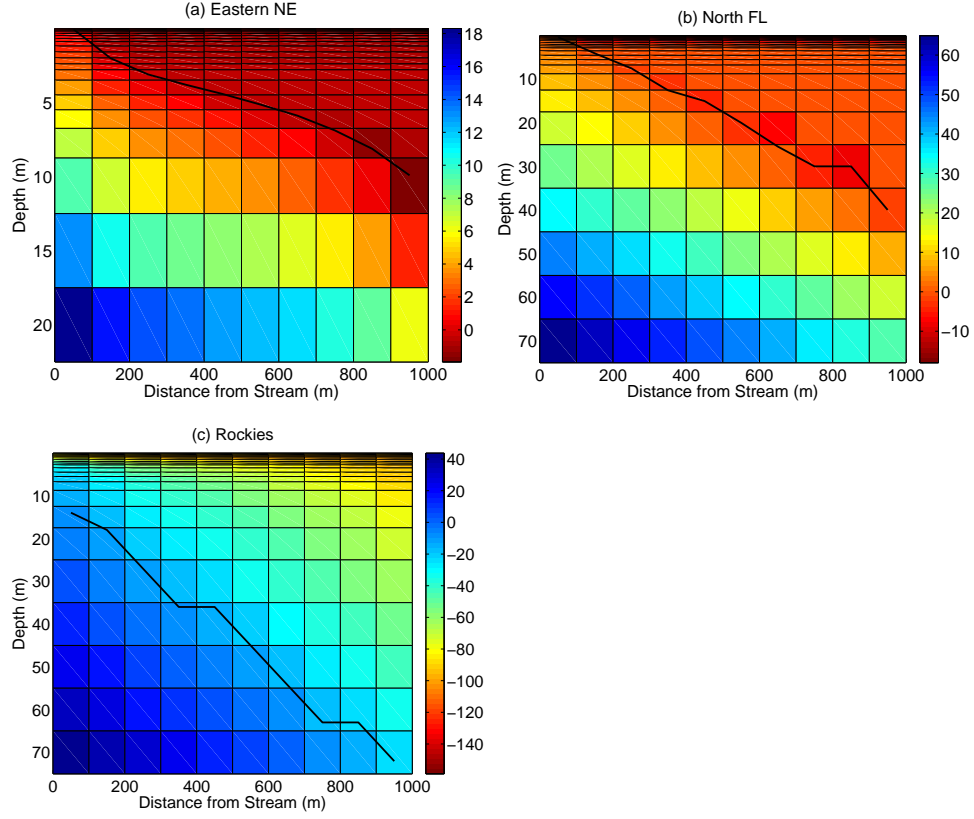


Figure 1: Soil Matric Potential for Three Water Table Regimes. ψ [m] in the *Base* simulation for selected gridcells: (a) Eastern New England (43°N, -71°E); (b) North Florida (27°N, -81°E); and (c) the Colorado Rockies (39°N, -106°E). Black line denotes water table (z_{wt}). Note that the physical hillslope cross-section is sloped downwards towards the stream, unlike the rectangular representation here.

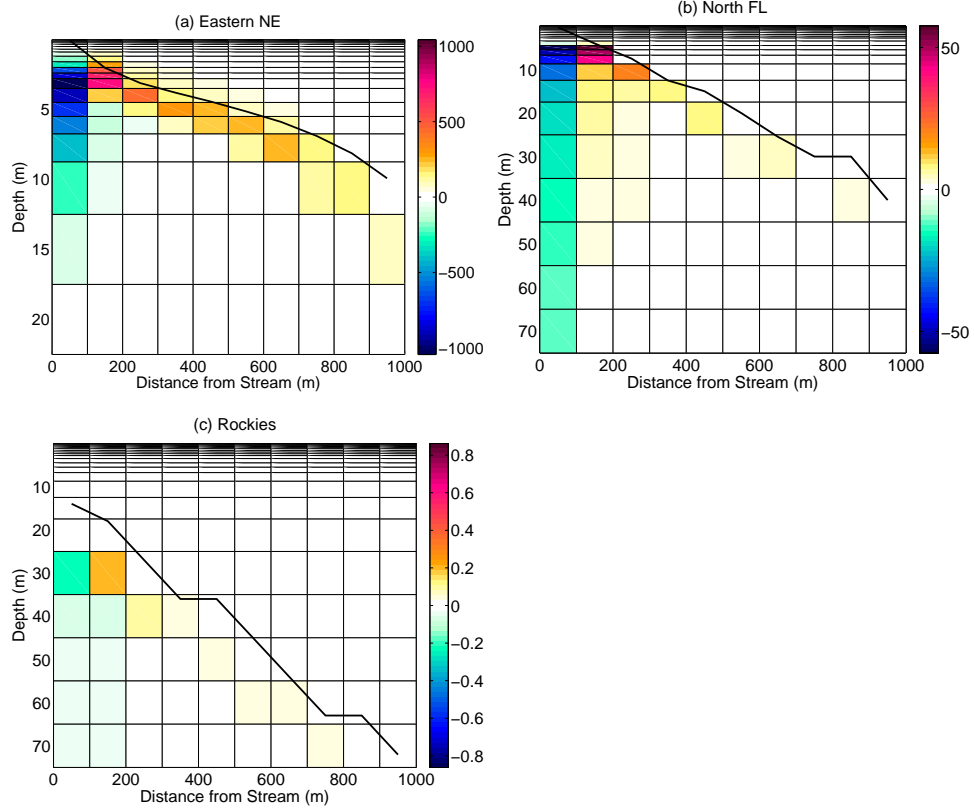


Figure 2: Groundwater Divergence for Three Water Table Regimes. Horizontal groundwater divergence [$\text{kg m}^{-3} \text{yr}^{-1}$] (excluding flow to stream) in the *Base* simulation for selected gridcells: (a) Eastern New England (43°N , -71°E); (b) North Florida (27°N , -81°E); and (c) the Colorado Rockies (39°N , -106°E). Black line denotes water table (z_{wt}). Note that the physical hillslope cross-section is sloped downwards towards the stream, unlike the rectangular representation here.

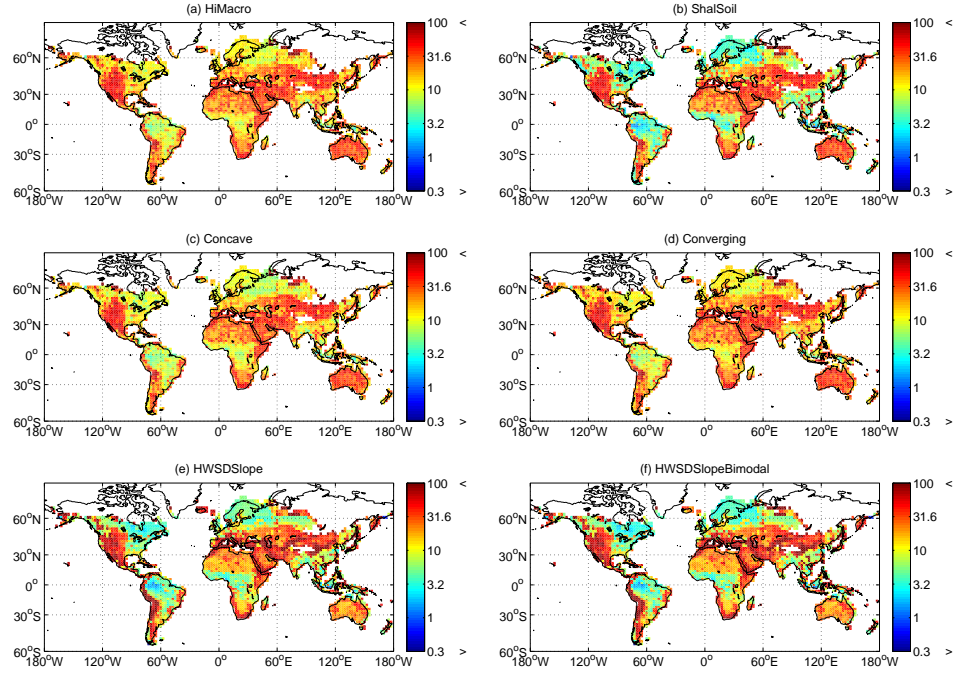


Figure 3: Gridcell-Mean Water Table Depth (z_{ψ}) [m] for Sensitivity Experiments.

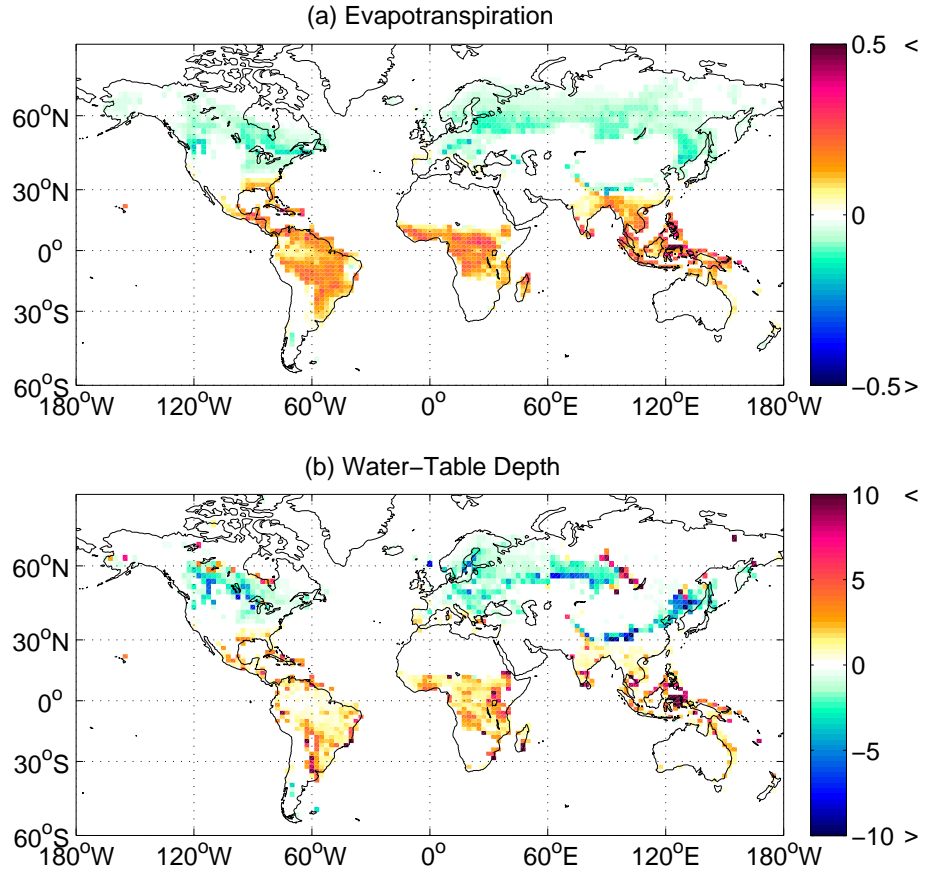


Figure 4: Differences between *Base* and a simulation using the LM3.1 (Milly et al., 2014) configuration for xylem potentials: (a) ET (m y^{-1}); and (b) Water-Table Depth (z_{wt} [m]).