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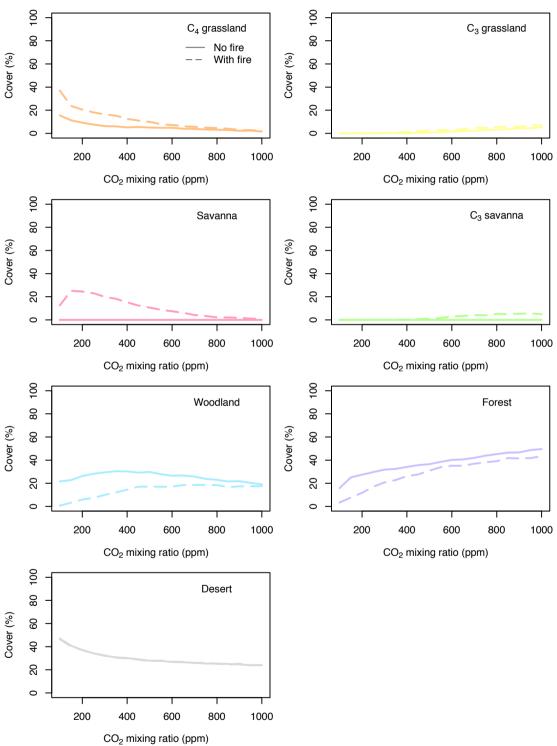
## Supplement of

## African biomes are most sensitive to changes in $\mathbf{CO}_2$ under recent and near-future $\mathbf{CO}_2$ conditions

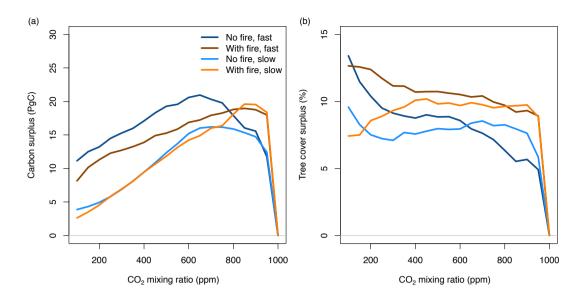
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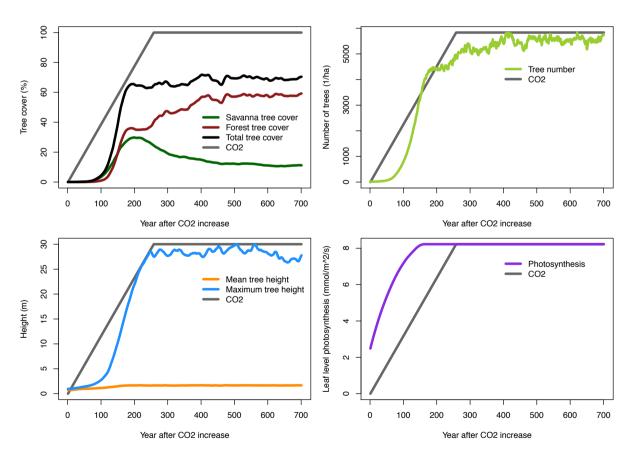
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**Figure S1.** Area of Africa covered by different biome types. Simulations were conducted until vegetation reached an equilibrium state under a given and fixed CO<sub>2</sub> mixing ratio. Differences between simulations without fire (solid lines) and with fire (dashed lines) indicate that fire influences cover fractions of different biome types.



**Figure S2.** Surplus of tree cover and carbon when the atmospheric CO<sub>2</sub> mixing ratio decreases in transient simulations. Lines represent the differences between transient and equilibrium simulations averaged for all study sites in Africa (simulated at 2° resolution).



**Figure S3.** Time series of different state variables at a savanna study site in South Africa (26°S, 28°E). State variables represent averages of 200 replicate simulation runs for the site.