Supplementary Information for: Decadal biomass increment in early secondary successional woody ecosystems is increased by CO$_2$ enrichment

Walker et al.

November 10, 2018
Supplementary Figure 1: Same as Figure 1 but with extended CIs demonstrating strong overlap between Rhinelander and Duke relationships. Also shown are the median values of the boot-strapping which show agreement between the mixed-model fit to the data and the boot-strap median value at Rhinelander, Duke, and KSC, but not at ORNL. This indicates the need for more replicates to be confident in the relationship and $\Delta C_{veg}$ response at ORNL.
Supplementary Figure 2: As Figure 3 in the main document but individual model predictions of the $\Delta C_{veg}$ response to CO\textsubscript{2} enrichment (upper left); the two variables leading to the response—the cNPP response to CO\textsubscript{2} enrichment (upper right) and $\frac{d\Delta C_{veg}}{dcNPP}$ (middle left); and the three components of $\frac{d\Delta C_{veg}}{dcNPP} f W_a$ (middle right), $\frac{df}{dcNPP}$ (bottom left), and cross-treatment mean cNPP (bottom right). Grey shaded areas represent the observations (dark grey lines represent observed means or regression parameters, light grey polygons represent the ±1 s.e.m. CI and the lighter grey polygons represent the 95 % CI).
Supplementary Figure 3: Model ensemble predictions of the absolute response to CO\textsubscript{2} enrichment of cumulative GPP; cumulative NPP, cumulative nitrogen uptake; and cumulative nitrogen use efficiency calculated as cNPP/cNUP. The white bar is the median, the box the inter-quartile range, whiskers the range of data within four times the IQR, and dots are outliers.
## Supplementary Tables

### Supplementary Table 1: BiomassCO2 model selection

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### Supplementary Table 2: meanNPP model selection

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### Supplementary Table 3: Biomass model selection

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$^1$ Age since disturbance.

### Supplementary Table 4: WoodAllocation model selection

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### Supplementary Table 5: ORNLWoodAllocation model selection

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Supplementary Table 6: ORNLRootAllocation model selection

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