## Appendix: Supplementary Material

**Article Title:** *Fuel constraints not fire weather conditions limit fire behavior in reburned boreal forests*

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### Allometrics

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| Table S1. Allometric equations used to calculate aboveground biomass, reported by species. Y represents aboveground dry biomass in grams. DBH stands for diameter at breast height (measured and reported in centimeters), MSE stands for mean square error, SE stands for standard error. | | | | | | |
| Species | Source | Equation | | R2 | Published DBH range | Our DBH range |
| *Populus tremuloides* | Bond-Lamberty et al. 2002 | Log10Y = 2.614 + 0.852\*(log10DBH) | | 0.99 | 0.3-23.7 | 0.1–6.5 |
| *Populus balsamifera* | Byrd 2013 | Y = 0.261e0.0591\*DBH | | 0.86 | AV 2.77 | 1.3–2.3 |
| *Betula neoalaskana* | Bond-Lamberty et al. 2002 | Log10Y = 2.462 + 1.095\*(log10DBH) | | 0.66 | 0.3-0.7 | 0.1–23.5 |
| *Picea Mariana* | Bond-Lamberty et al. 2002 | Log10Y = 3.011 + 1.202\*(log10DBH) + -.01(AGE) + 0.972(Log10DBH\*AGE) | | 0.97 | 0.5-17 | 0.1-20 |
| *Salix* | Bond-Lamberty et al. 2002 | Log10Y = 2.481 + 1.19(log10DBH) | | 0.54 | 0.3-1 | 0.1–8.1 |
| *Alnus* | Binkley et al. 1984 | Leaves | LogeY = 1.82 + 2.38(LogeDBH) | 0.88 | 2-7 | 0.2–4.5 |
| Stem | LogeY = 4.5 + 2.3(LogeDBH) | 0.88 | 2-7 | 0.2-4.5 |

### Tree Height

Our observations of tree heights informed the upward space of the model. Given the age of reburned stands (15 years on average), tree height was much shorter in reburned plots than in mature stands, which contained birch and black spruce individuals, reaching a maximum height of 17 m (Fig. S1). Based on these observations, we set the domain of the modeled landscape to a maximum height of 20 m.

**Chart, box and whisker chart

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**Figure S1.** Heights in meters of tree species across reburn history. Dots represent outliers (defined as 1.5 the interquartile range less than the first quartile and greater than the third).