

Table S2. Tree growth equations. Growth equations used to estimate the spatial relationship between aboveground tree growth and atmospheric deposition. *Note: BAL is the basal area of all trees greater than the tree of interest within the subplot divided by 4.*

$$G = a \times \text{size}^z \times e^{[a_2 \text{BAL} + a_3 \ln(\text{BA})]} \times e^{-\frac{1}{2} \left(\frac{\ln(T/t_1)}{t_2} \right)^2} \times e^{-\frac{1}{2} \left(\frac{\ln(P/p_1)}{p_2} \right)^2} \times e^{-\frac{1}{2} \left(\frac{\ln(S/s_1)}{s_2} \right)^2} \times e^{-\frac{1}{2} \left(\frac{\ln(N/n_1)}{n_2} \right)^2} \quad (1)$$

$$G = a \times \text{size}^z \times e^{[a_2 \text{BAL} + a_3 \ln(\text{BA})]} \times e^{-\frac{1}{2} \left(\frac{\ln(T/t_1)}{t_2} \right)^2} \times e^{-\frac{1}{2} \left(\frac{\ln(P/p_1)}{p_2} \right)^2} \times e^{-\frac{1}{2} \left(\frac{\ln(S/s_1)}{s_2} \right)^2} \quad (2)$$

$$G = a \times \text{size}^z \times e^{[a_2 \text{BAL} + a_3 \ln(\text{BA})]} \times e^{-\frac{1}{2} \left(\frac{\ln(T/t_1)}{t_2} \right)^2} \times e^{-\frac{1}{2} \left(\frac{\ln(P/p_1)}{p_2} \right)^2} \times e^{-\frac{1}{2} \left(\frac{\ln(N/n_1)}{n_2} \right)^2} \quad (3)$$

$$G = a \times \text{size}^z \times e^{[a_2 \text{BAL} + a_3 \ln(\text{BA})]} \times e^{-\frac{1}{2} \left(\frac{\ln(T/t_1)}{t_2} \right)^2} \times e^{-\frac{1}{2} \left(\frac{\ln(P/p_1)}{p_2} \right)^2} \quad (4)$$

$$G = a \quad (5)$$