

S6 File. Final linear mixed-effects model of the stipule fall rate.

The final optimal model was selected after a stepwise backwards model selection using the likelihood ratio test:

$$\text{Stipule fall rate}_{ip} \sim \alpha + s(\text{Time})_{ip} + a_p + \varepsilon_{ip}, \quad \varepsilon_{ip} \sim N(0, \sigma^2)$$

Stipule fall rate_{ip} is the observation *i* for each plot *p*, where *p* runs from 1 to 12 and *i* is the observation within a plot which goes from 1 to 24 (the number of samplings over time). The final model above means that Stipule fall rate is modelled as a function of Time. Time is a continuous variable. The notation *s* stands for smoothing function of time. The terms *a_p* and *a_{u/p}* are random effects representing the between-plot and between-core variation and are significant (L. Ratio = 15.0, df = 1, *p*-value < 0.001). The unexplained variance ε_{ip} is assumed to be normally distributed with mean 0 and variance σ^2 . The intercept of the model is represented with α .