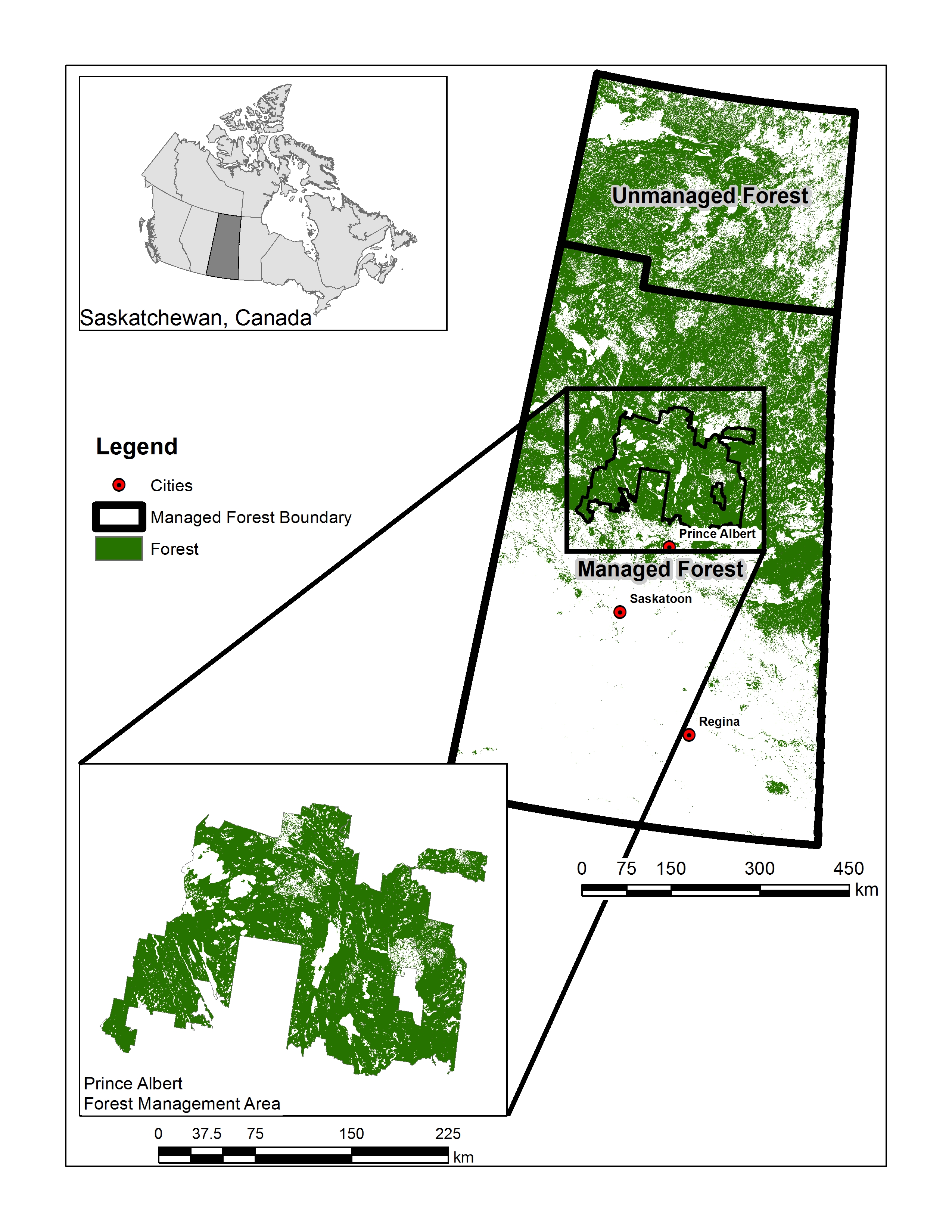
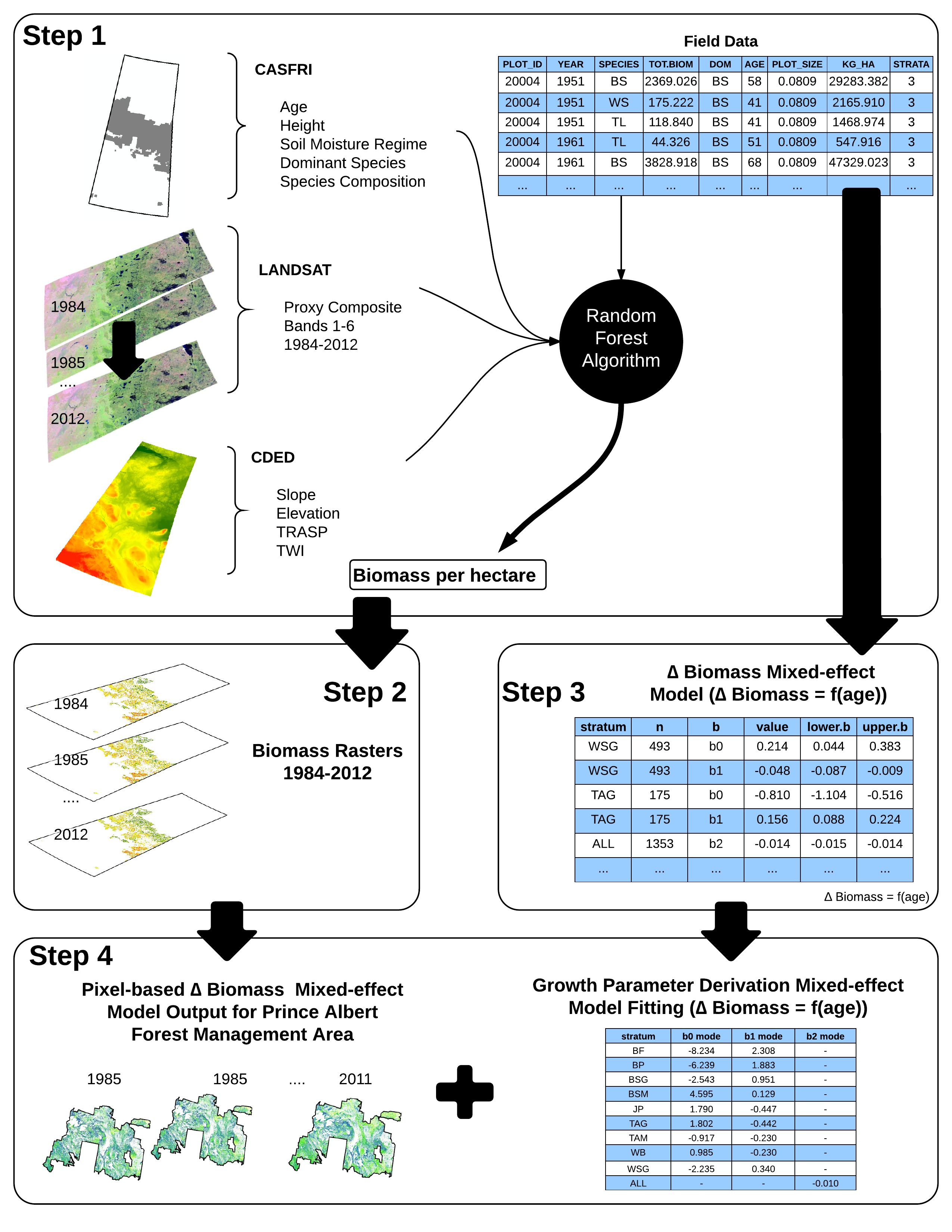
# FIGURES

## Figure 1. Our study areas: the managed forests of Saskatchewan and the Prince Albert Forest Management Area.

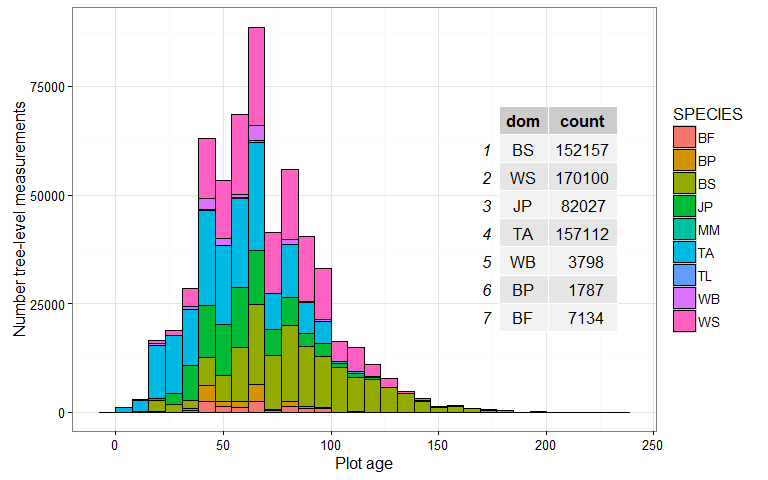


## Figure 2. Analyses inputs and flow.

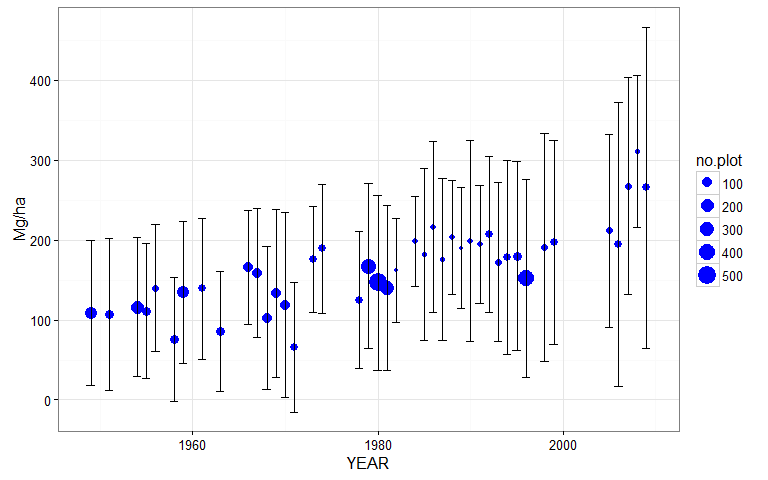


## Figure 3. Tree-level measurements over plot age, by species for plots used for biomass prediction.

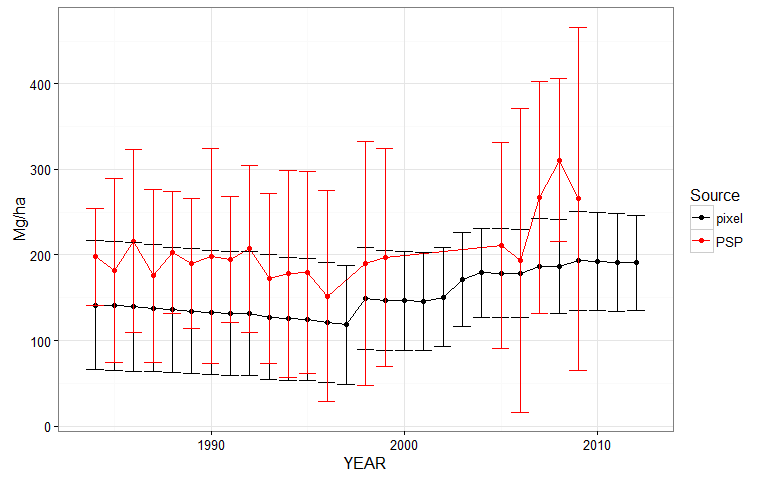
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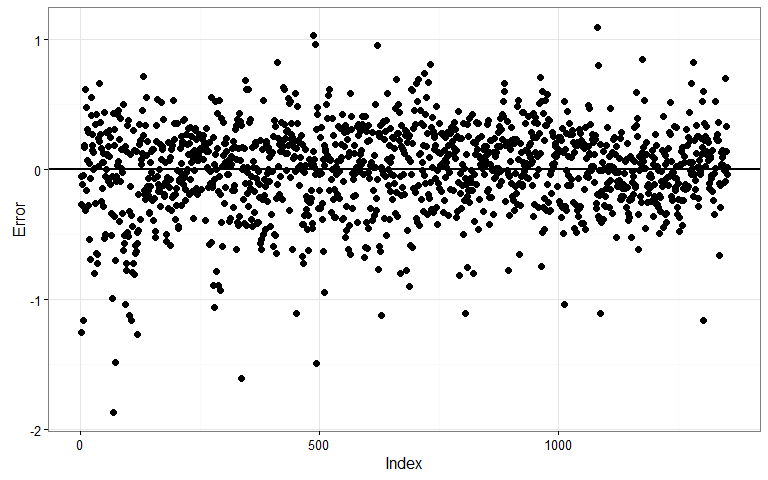
## Figure 4. Average (blue dot) and measurement range (wings) of biomass measured in permanent sample plots in each year that field data were collected. The size of the dot indicates the total number of plots measured in each year.



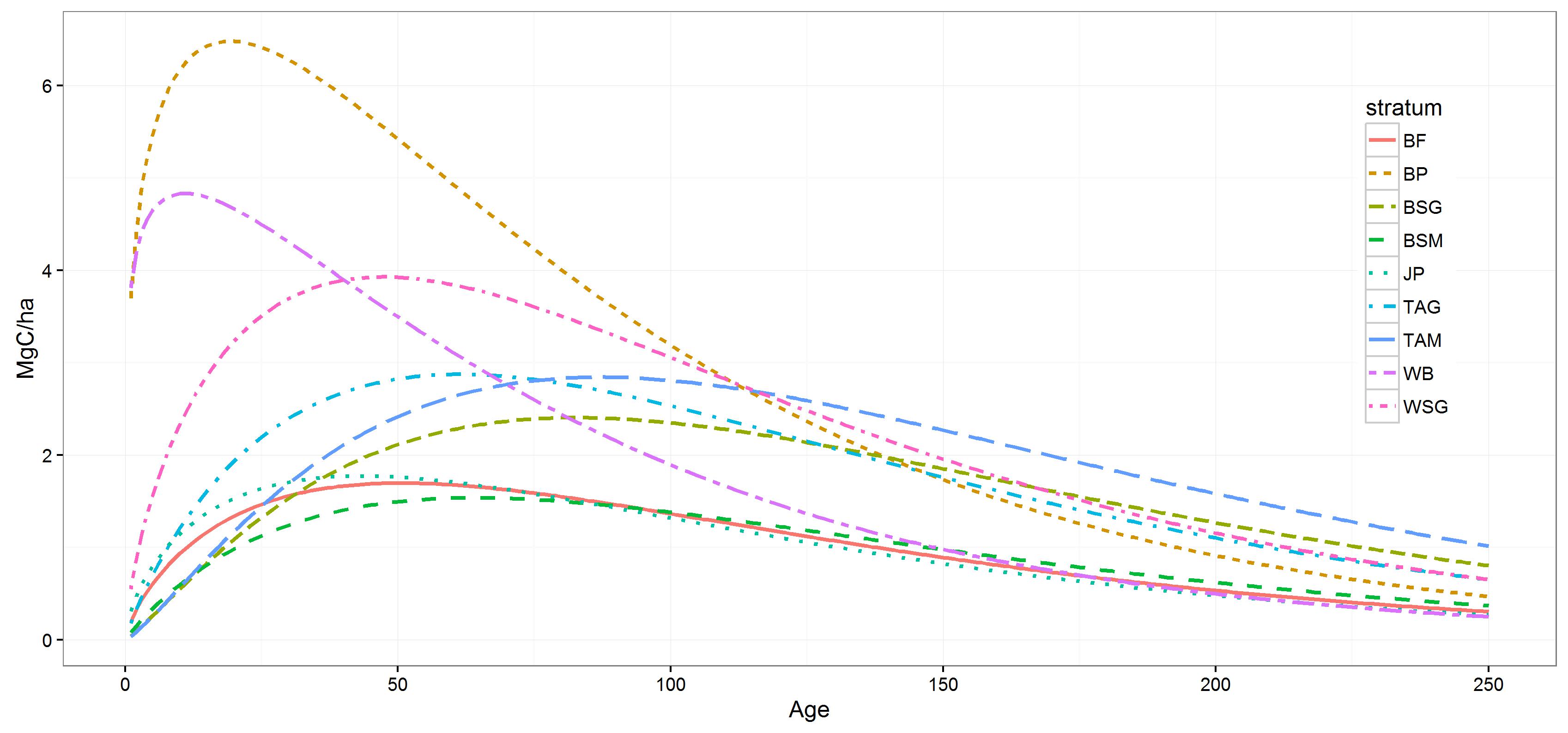
## Figure 5. Average yearly aboveground biomass across pixels (in black) for the pixel-based estimates that remain undisturbed from 1984 to 2012 for each year, and estimates from the field plots (red).



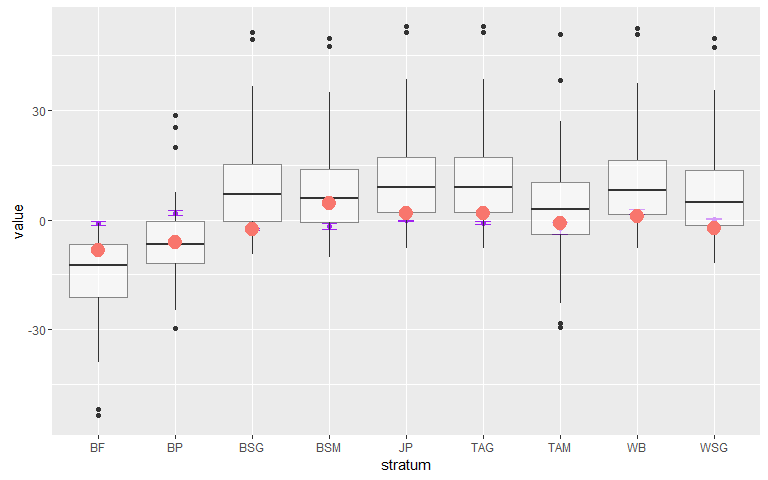
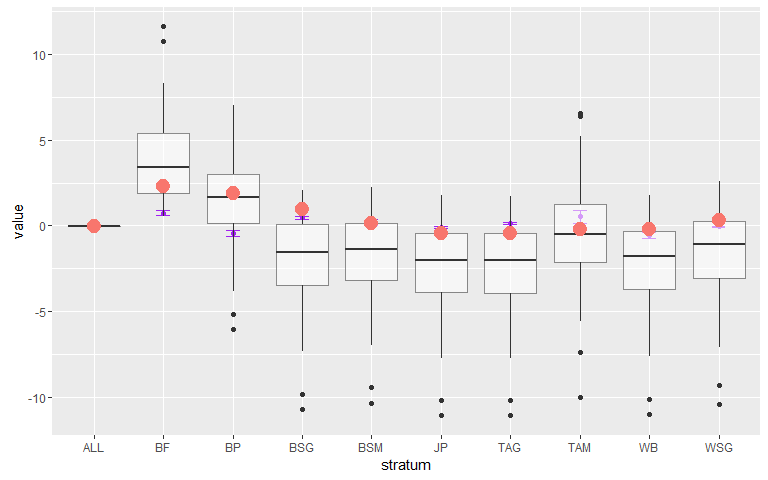
## Figure 6. Checking the assumptions for the linear mixed effect model fit to field plots. Top panel: residuals for the linear mixed effects model of biomass increment fit to the field data. Bottom panel: quantile plot comparing the random effect residuals for mixed effect model fit to field plot data to a normal distribution.

## Figure 7. Predicted biomass per ha increments (MgC/ha) from the mixed effect model fit on the field-based for each of nine strata modelled.



## Figure 8. Parameter values resulting from fitting the log of Hoerl's fucntion to field-based observations (purple) of biomass change for the PAFMA in Saskatchewan Canada compared to the range of parameter values obtained by fitting the log of Hoerl's function to 100 samples of pixel-based estimates of yearly biomass change. The top panel shows the intercept values for each of the nine strata, and the bottom panel shows the parameter values for the slopes, nine for b1 (one per strata) and one for b2 (x-label "ALL").

## Figure 9. An example of the range of biomass increment curves for Balsam Poplar (BP) that can be extracted from the range of possible coefficient values fittes to the pixel-estimates of biomass increments.

