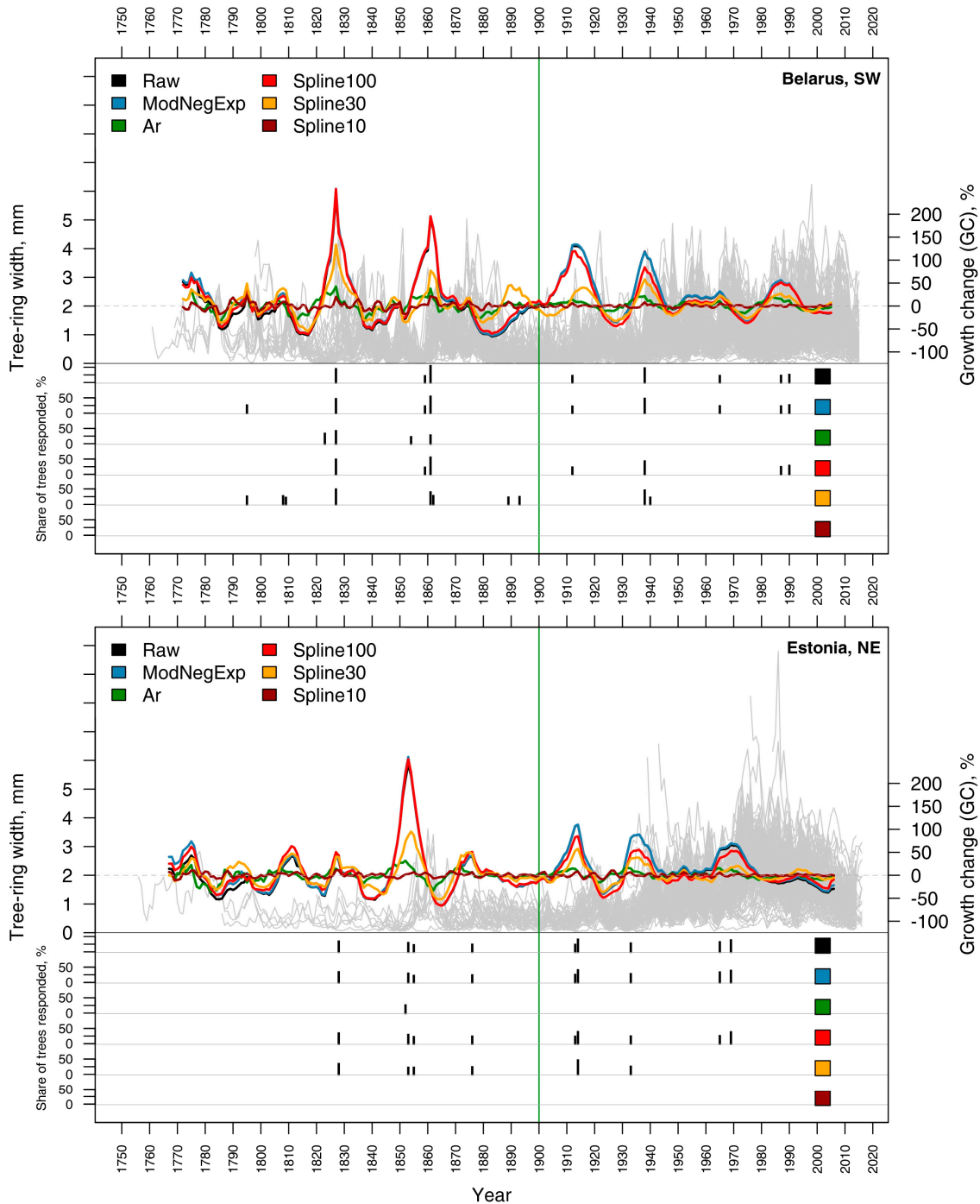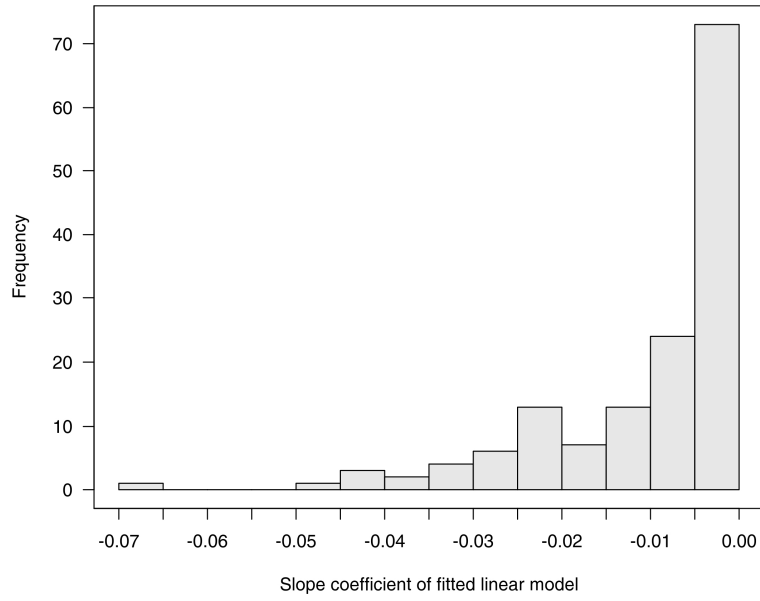# Supplementary Materials

Figure S1. Ring-width data of single trees (gray) and mean growth change (%GC) series calculated using raw ring-width data (black line) and ring-width indices produced after applying different detrending methods; negative exponential (blue), autoregressive (green) and smoothing spline (wavelengths of 100, 30 and 10 years – red, orange and brown lines accordingly) models. The share of trees (filtered values, only greater than 20% are present) with detected growth release events are shown for each method on the bottom part of the graph. The graphs are for study areas 5 and 6 (southwest Belarus and northeast Estonia).

Figure S2. Slope coefficients of linear models used for detrending after switching from a negative exponential model (unable to fit the model to the data) to linear in the case of 24% of trees in the dataset. Detrending procedure using negative exponential method was successful in case of 26% of trees; standardization by mean was performed for the rest 50% of sampled trees.