Supporting information

Figures

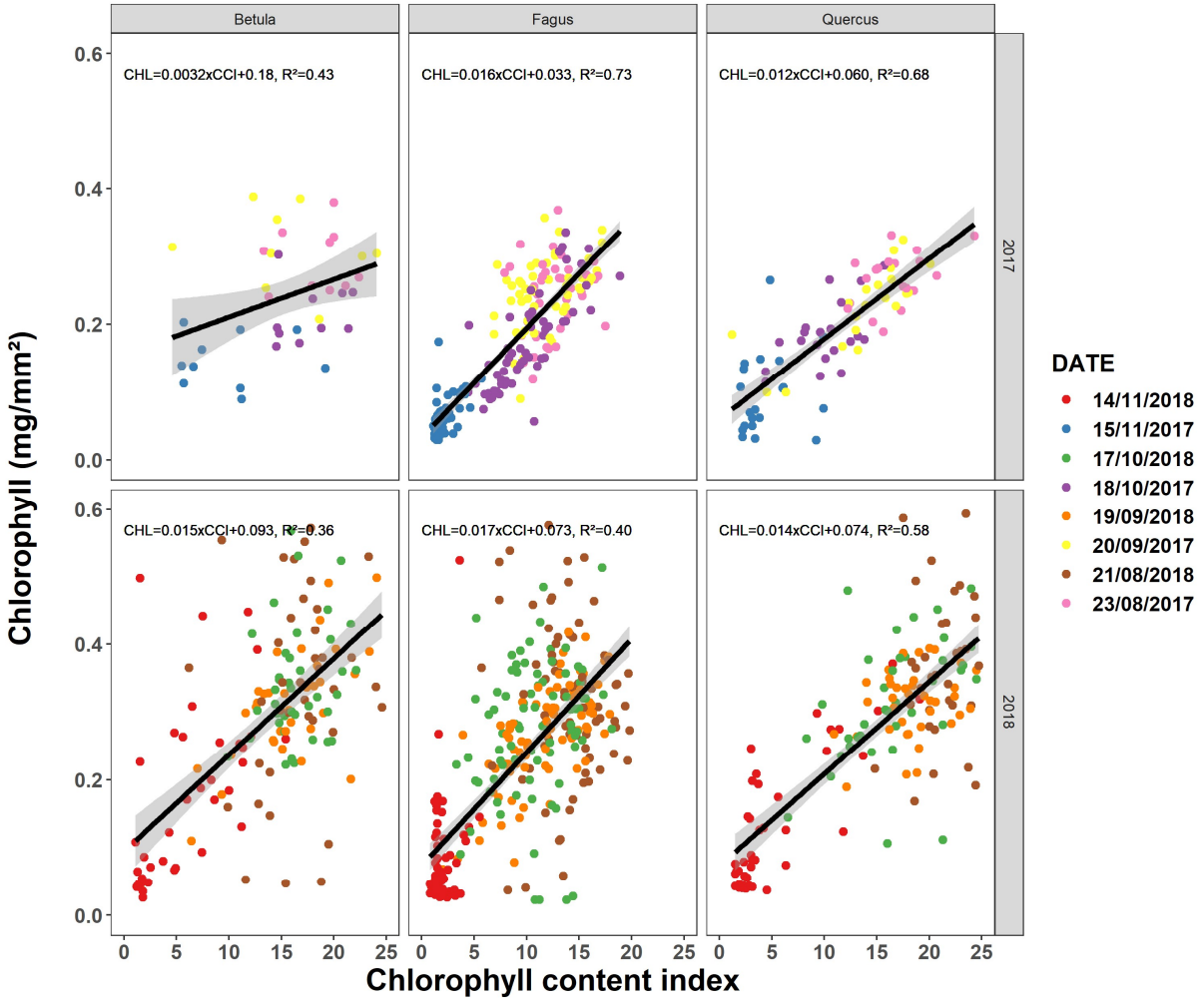


Fig. S1: Relationship between the chlorophyll content index measured using a chlorophyll content meter (CCM-200 plus, Opti-Sciences Inc., Hudson, NH, USA) and the chlorophyll concentration measured using spectrophotometric analysis (Mariën et al., 2019). Between late August and late November 2017-2018, we sampled every month 40 leaves (five leaves for eight trees) for beech and 20 leaves (five for four trees) for birch and oak. The different colors represent different sampling dates.

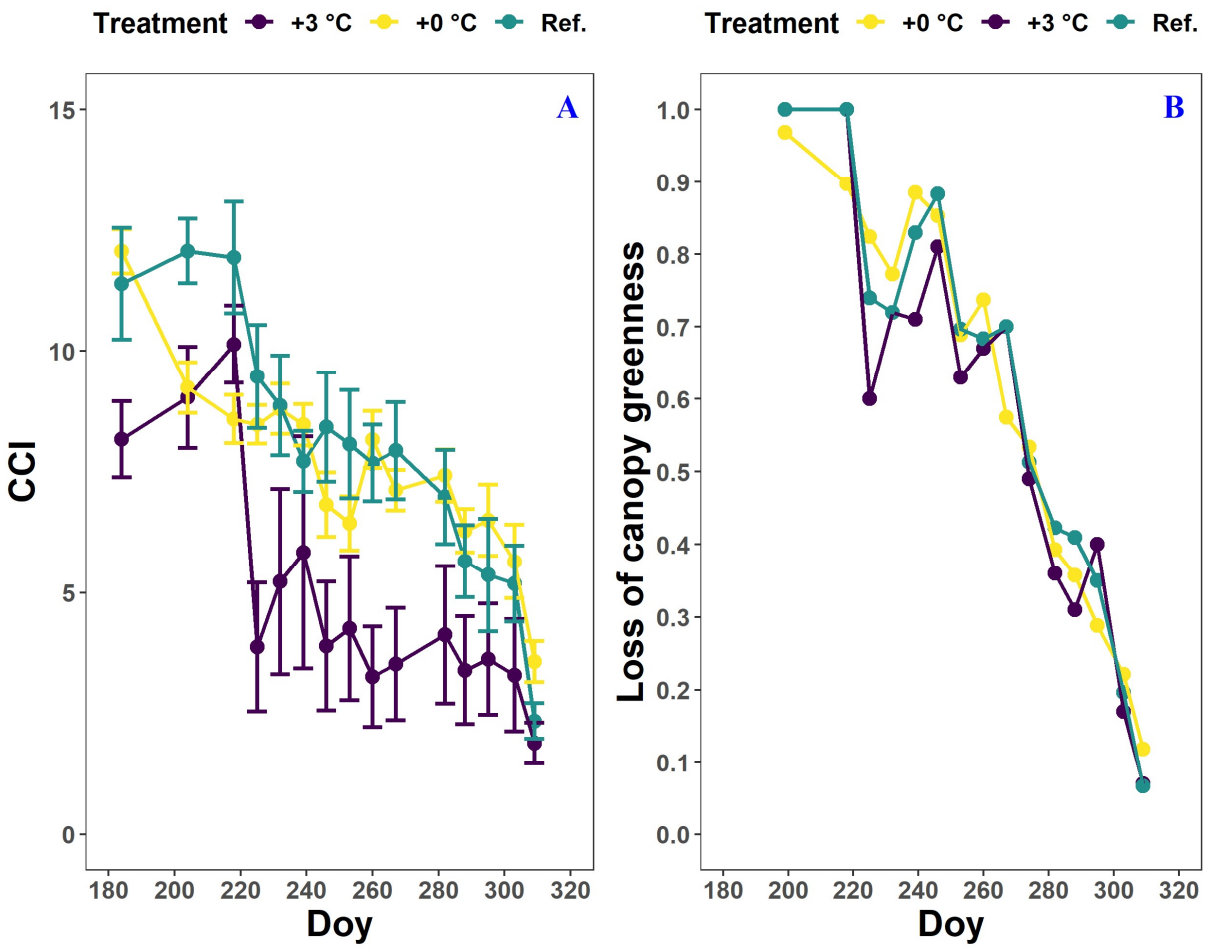


Fig. S2: The chlorophyll content index (CCI; panel A) and loss of canopy greenness (panel B) of the *Fagus sylvatica* saplings at the Drie Eiken Campus in Wilrijk for which no breakpoints could be calculated. The dots and error bars represent the mean CCI (panel A) and mean loss of canopy greenness (panel B) with standard errors. The colors represent the CCI or the loss of canopy greenness of the beech saplings in the reference plots (green; Ref.), the glasshouses that followed the outside ambient air temperature (yellow; +0 °C) and the glasshouses that were three degrees warmer than the outside ambient air temperature (purple; +3 °C), respectively.

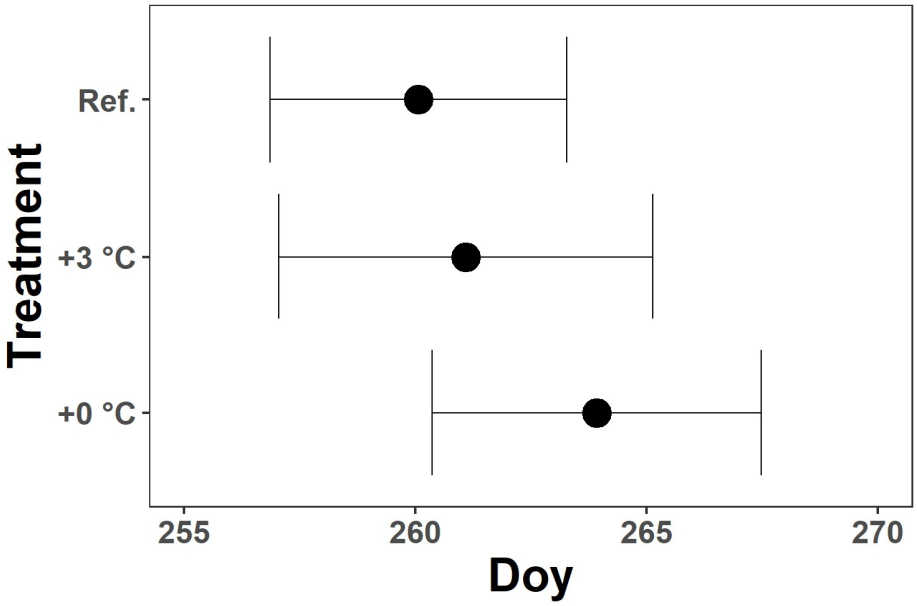
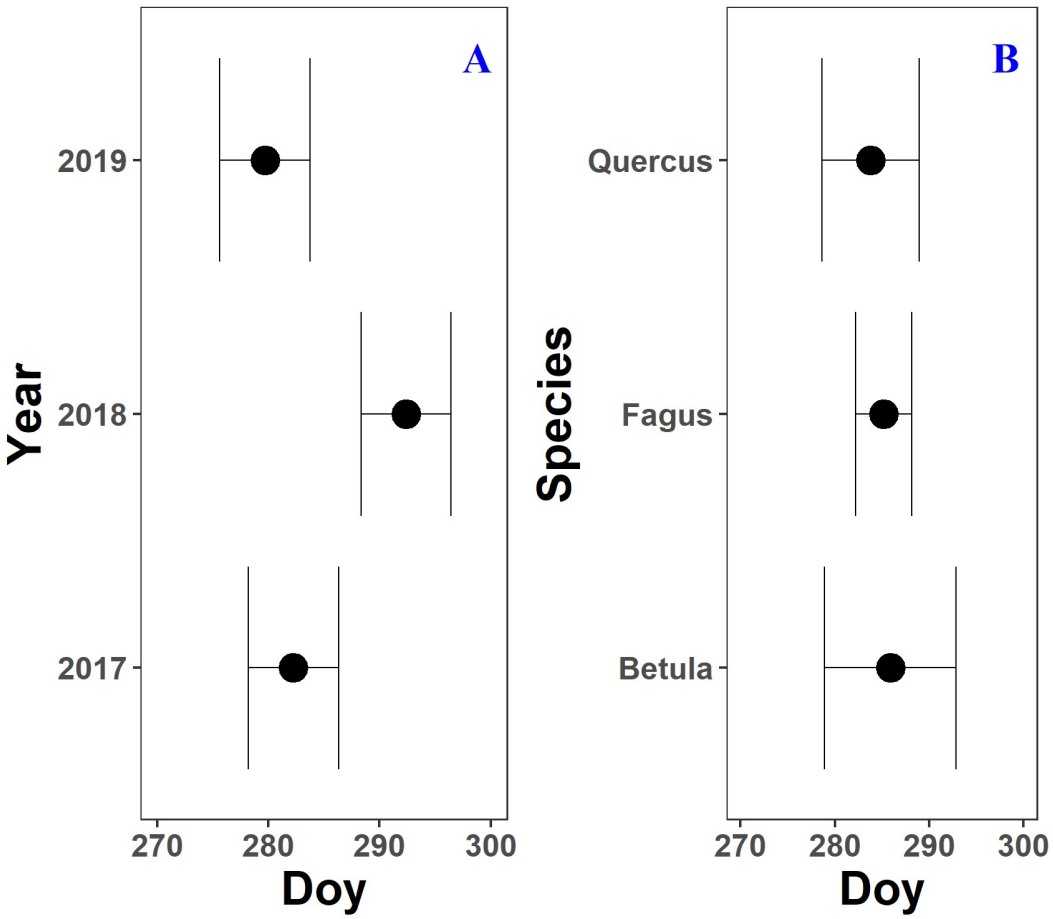


Fig. S3: The mean onset of autumn leaf senescence per drought-treatment for all *Fagus sylvatica* saplings at the Drie Eiken Campus in Wilrijk. Black dots represent the mean onset of autumn leaf senescence, while the error bars represent standard errors that indicate the inter-individual variability. All breakpoints are calculated using the chlorophyll content index data and piecewise-linear regressions ($n_{Ref.} = 29$; $n_{+0\,°C} = 26$; $n_{+3\,°C} = 22$).



836

837 Fig. S4: The mean onset of autumn leaf senescence for three years (panel A; 2017 - 2019) and the three
838 species (panel B; *Fagus sylvatica*, *Betula pendula* and *Quercus robur*) measured on all mature trees at the
839 Klein Schietveld and Park of Brasschaat. Black dots represent the mean onset of autumn leaf senescence,
840 while the error bars represent standard errors that indicate the inter-individual variability. All breakpoints
841 are calculated using the chlorophyll content index data and piecewise-linear regressions (n_{Fagus} = 8; n_{Betula}
842 = 4; $n_{Quercus}$ = 4).

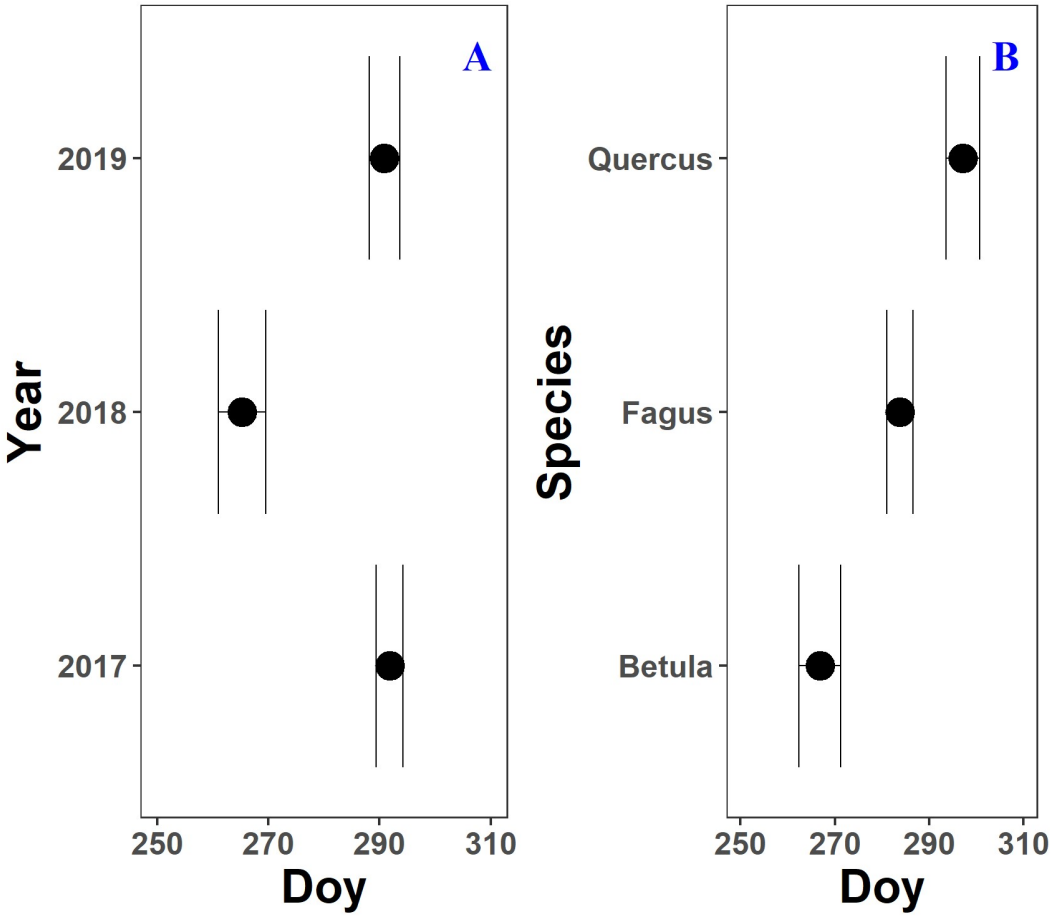


Fig. S5: The mean onset of the loss of canopy greenness for three years (panel A; 2017 – 2019) and the three species (panel B; *Fagus sylvatica*, *Betula pendula* and *Quercus robur*) measured on all mature trees at the Klein Schietveld and Park of Brasschaat. Black dots represent the mean onset of the loss of canopy greenness, while the error bars represent standard errors that indicate the inter-individual variability. All breakpoints are calculated using the loss of canopy greenness data and piecewise-linear regressions (n_{Fagus} = 16; n_{Betula} = 8; $n_{Quercus}$ = 8).