## Supplement S1

**Table S1** Diagnosis of collinearity for the generalized linear mixed-effects models identifying predictors of latewood width.

| | Latewood width | | | | |
|---|---|---|---|---|---|
| | $EVP_{13}$ | $D_{h13}$ | $FD_{13}$ | $GS_{13}$ | $TNSC_{12}$ |
| *Q. robur* | 1.03 | 1.07 | 1.06 | 1.17 | 1.16 |
| *Q. pyrenaica* | 1.09 | 1.07 | 1.24 | 1.26 | 1.26 |

Generalized variance-inflation factors are given for each predictor of the models. *BB* is date of budburst in 2013, $EVP_{13}$ is earlywood vessel production in 2013, $D_{h13}$ is hydraulic diameter in 2013, *FD* is foliage density, $GS_{13}$ is length of the growing season in 2013, and $TNSC_{12}$ is total non-structural carbohydrates in December 2012. We consider 10 as a threshold for collinearity detection.
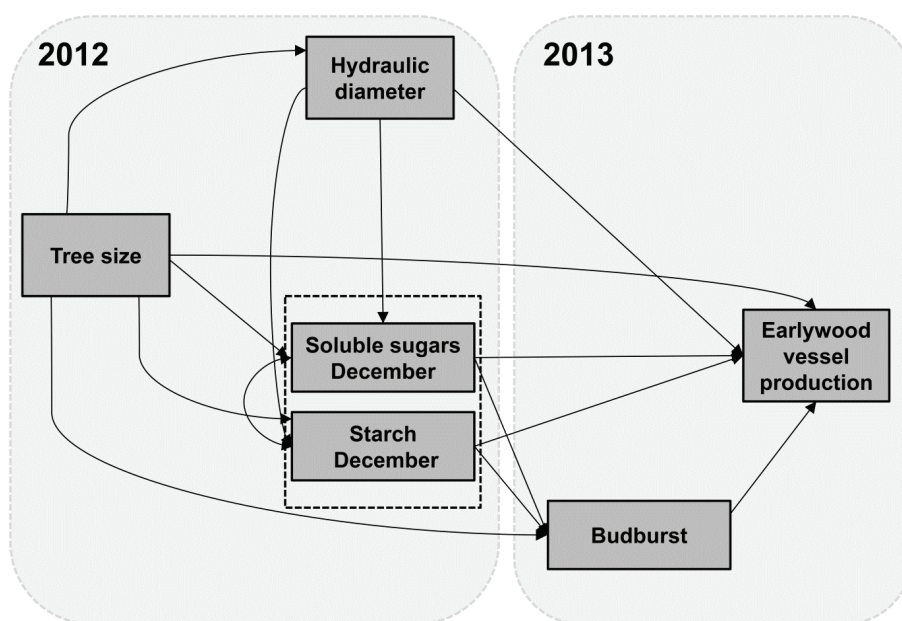
**Figure S1** Structure of the hypothetical conceptual model showing interactions among tree size (stem diameter), hydraulic diameter in 2012, soluble sugars and starch concentrations in December 2012, and date of budburst and earlywood vessel production in 2013.