

Supplementary Figures and Tables

Article

Taxon independent and taxon dependent responses to drought in seedlings from *Quercus robur*, *Q. petraea* and their morphological intermediates

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Figure S1. Average and standard deviation of the weights of the pots in the control and the drought treated group of plants during the first drought period in the first growing year. Percentage of seedlings in the treated group of plants showing wilting and/or curling of the leaves is indicated. p: *Q. petraea*, pr: long stalked intermediate, rp: short stalked intermediate, r: *Q. robur*.

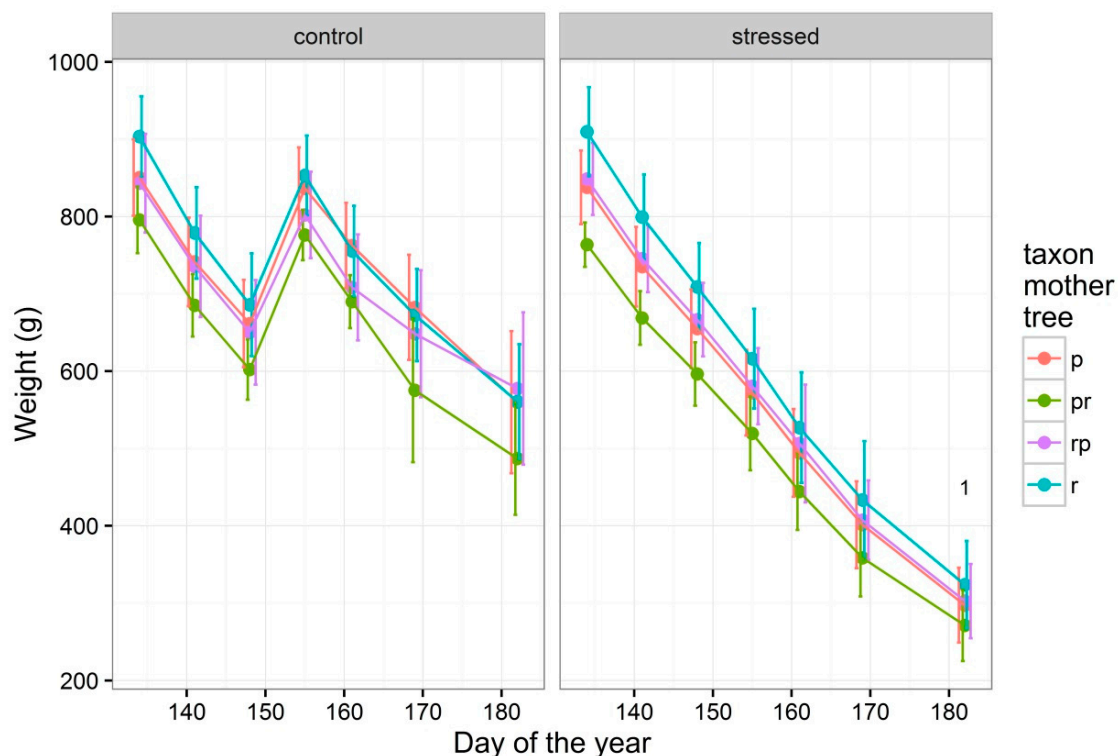


Figure S2. Average and standard deviation of the weights of the pots in the control and the drought treated group of plants during the second drought period in the first growing year. Percentage of seedlings in the treated group of plants showing wilting and/or curling of the leaves is indicated. p: *Q. petraea*, pr: long stalked intermediate, rp: short stalked intermediate, r: *Q. robur*.

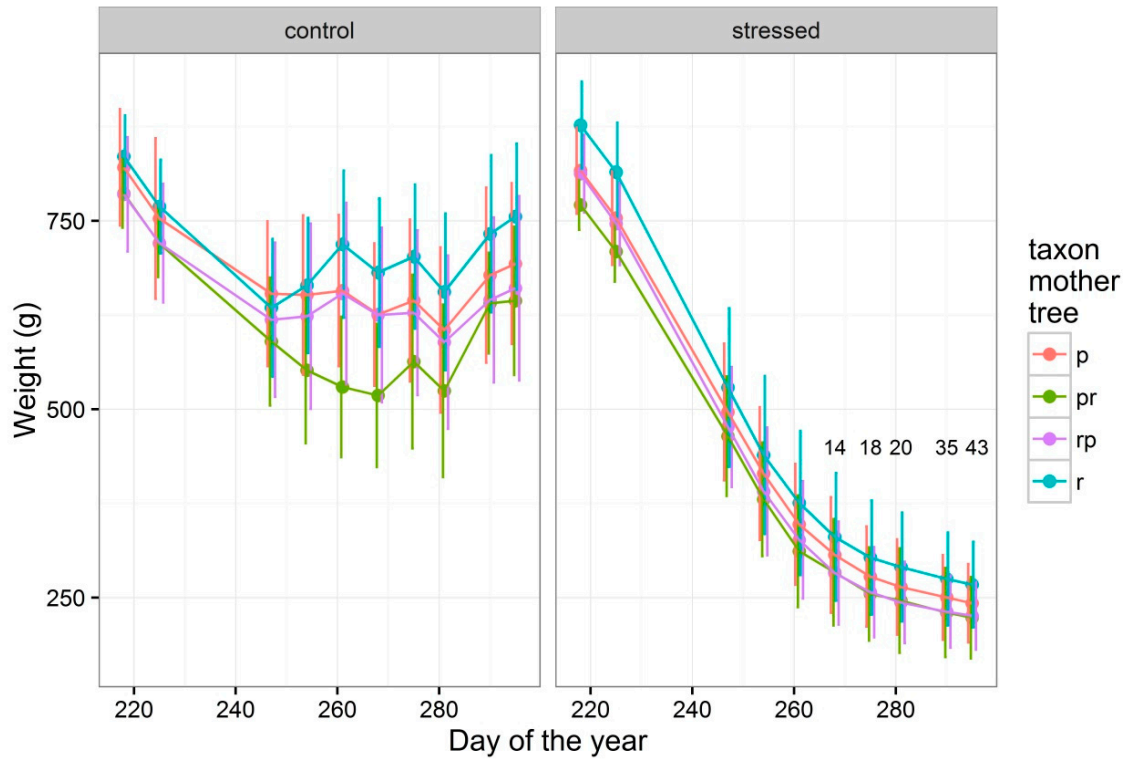


Figure S3. Biplots of Principal Components Analysis on leaf morphological traits of oak seedlings. Seedlings are coloured according to the field identification of the mother trees that was based on both leaf and infructescence traits. p: *Q. petraea*, pr: long stalked intermediate, rp: short stalked intermediate, r: *Q. robur*. Abbreviations of traits are in Table S1.

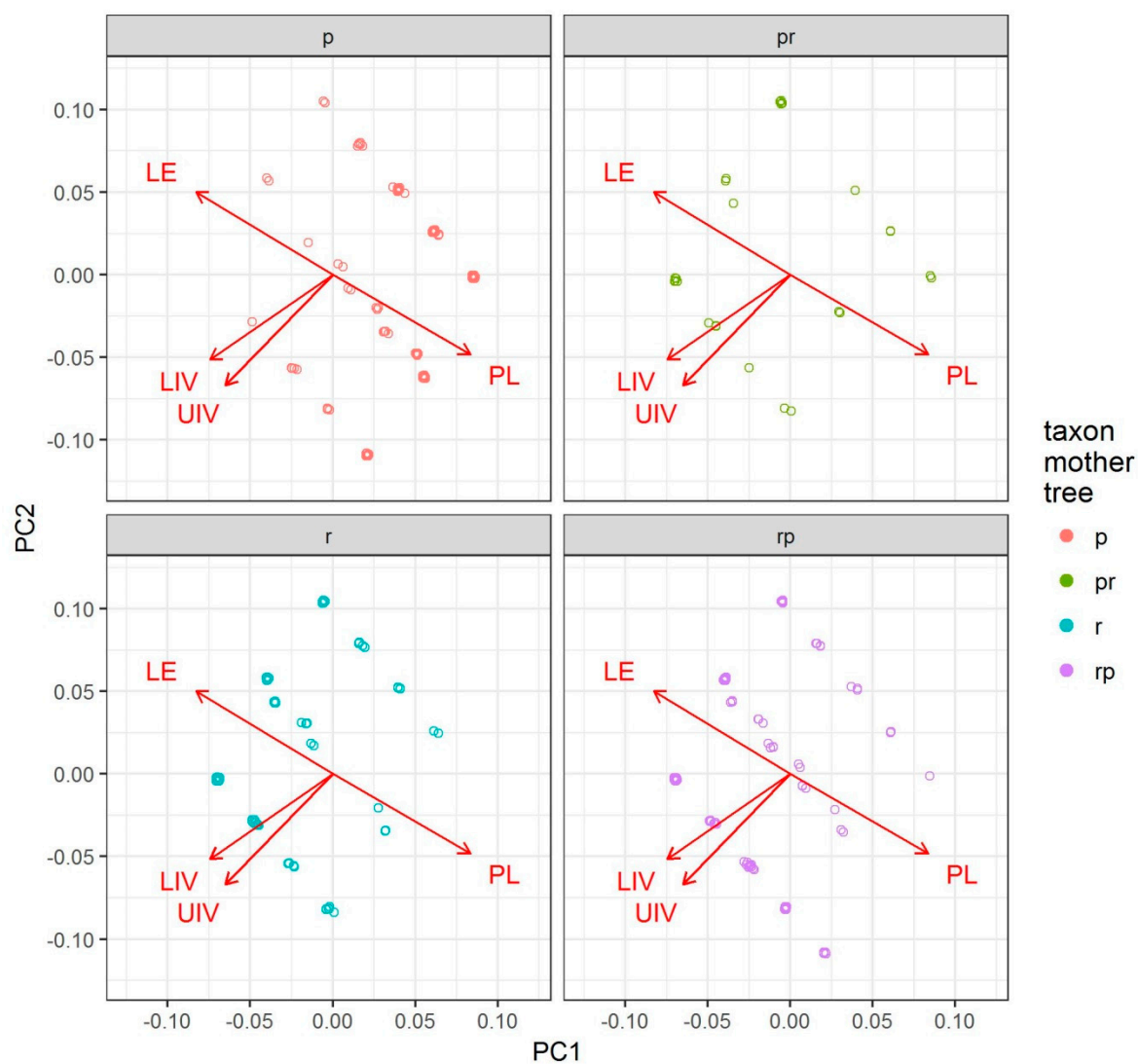


Figure S4. Principal components on leaf morphological traits of oak seedlings in relation to the field identification of the mother trees that was based on both leaf and infructescence traits. p: *Q. petraea*, pr: long stalked intermediate, rp: short stalked intermediate, r: *Q. robur*.

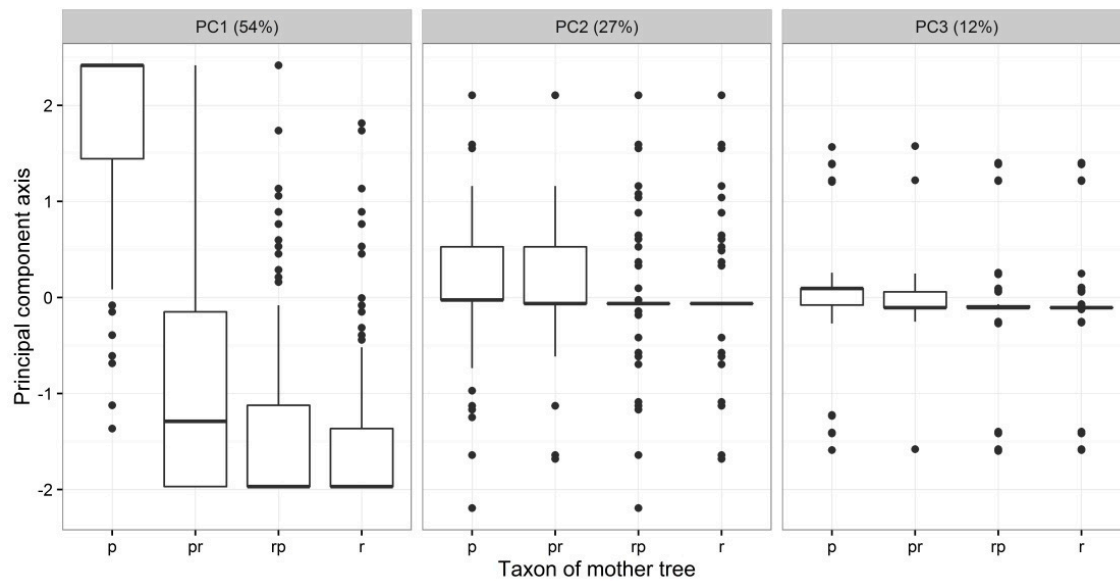


Figure S5. Height growth in the two growing seasons 2014 and 2015 for both the control and the stressed group of plants. p: *Q. petraea*, pr: long stalked intermediate, rp: short stalked intermediate, r: *Q. robur*.

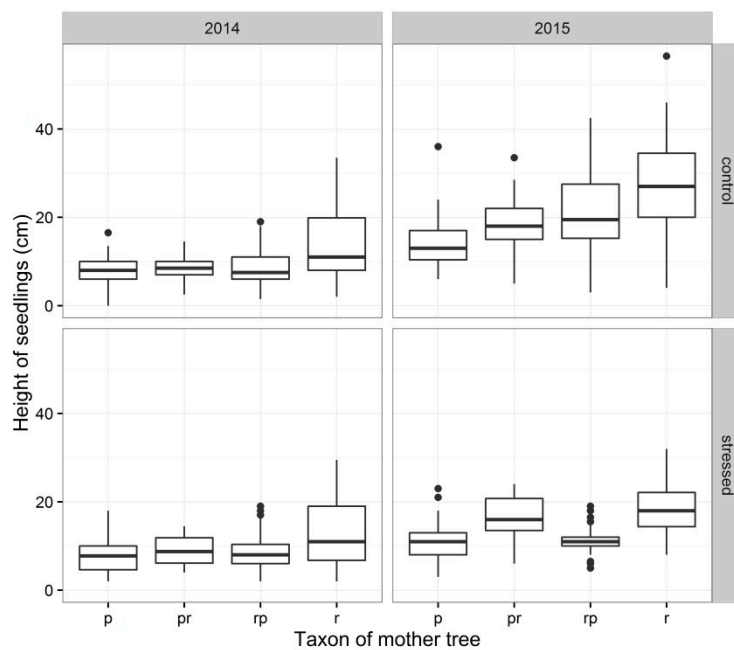


Figure S6. Diameter growth in the two growing seasons 2014 and 2015 for both the control and the stressed group of plants. p: *Q. petraea*, pr: long stalked intermediate, rp: short stalked intermediate, r: *Q. robur*.

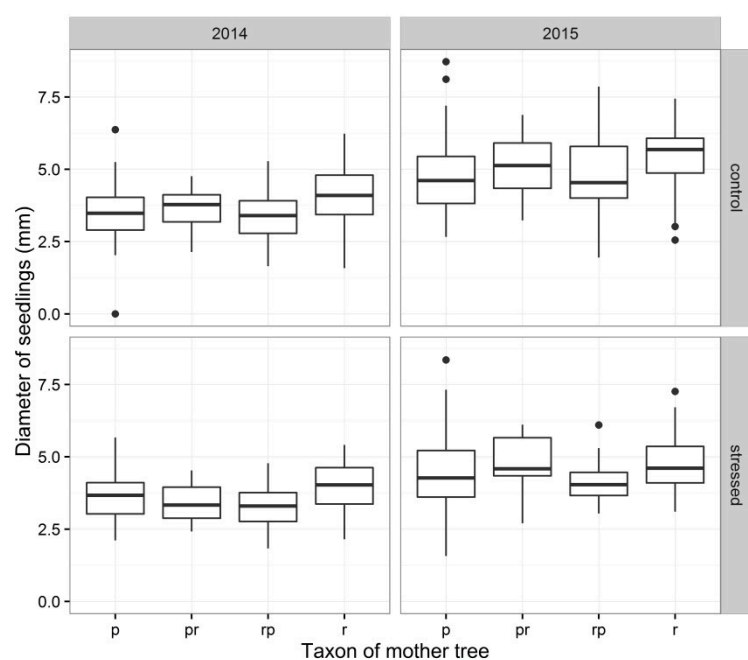


Table S1. Morphological descriptors of fully developed oak leaves on first year seedlings discriminating *Q. robur* from *Q. petraea*.

Trait (Abbreviation)	Score level	Description
petiole length (PL)	0	short to absent
	1	intermediate
	2	long
leaf ear at the base of the lamina (LE)	0	absent
	1	intermediate
	2	present
intercalary veins in the upper part of the lamina (UIV)	0	absent
	1	present
intercalary veins in the lower part of the lamina (LIV)	0	absent
	1	present

Table S2. Description of the score levels of the two phenological response variables leaf senescence and bud burst in oak seedlings.

Phenophase	Score level	Description
leaf senescence	1	normal dark green leaves
	2	light green leaves
	3	light green leaves with yellow parts
	4	yellow leaves still having green parts
	5	yellow leaves with brown parts
	6	brown leaves still having yellow parts
	7	brown leaves
	8	leaves shed
bud burst	1	apical bud in winter rest
	2	apical bud swollen
	3	apical bud opening, leaves not yet protruding
	4	leaves protruding but not yet unfolding
	5	leaves unfolding but not yet fully unfolded
	6	leaves fully unfolded

Table S3. Loadings of leaf morphological traits in PCA of the analysed oak seedlings. Abbreviation of traits are in Table S1.

Trait	PC1	PC2	PC3
PL	0.54	-0.44	0.15
LE	-0.54	0.46	0.01
UIV	-0.42	-0.61	-0.66
LIV	-0.48	-0.47	0.73

Table S4. Number of seedlings (in %) in the different score levels of the two morphological leaf traits petiole length (PL) and leaf ear (LE). Total number of seedlings are in Table 1. Descriptions of score levels are in Table S1. p: *Q. petraea*. pr: long stalked intermediate. rp: short stalked intermediate. r: *Q. robur*.

Trait	Score level	p	pr	rp	r
PL	0	9	54	58	72
	1	36	27	35	26
	2	55	19	6	2
LE	0	74	19	11	25
	1	21	23	19	20
	2	5	58	70	55