

Supplementary Material

Fig. S1 - Water availability among drought stress treatments, followed by Kruskal-Wallis test and Wilcoxon post-hoc rank sum test.

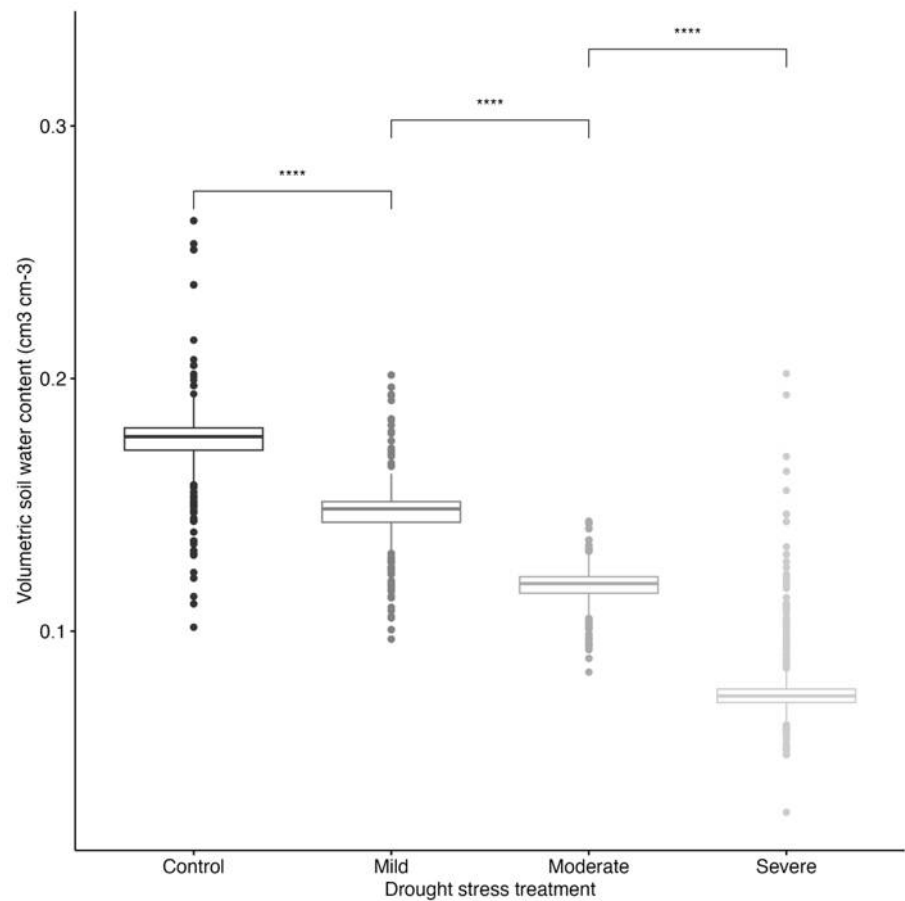


Fig. S2 - Temporal patterns in volumetric soil water content among control and water treatment groups for seven woody tropical species, as estimated during experiment ($n=125$; Kruskal-Wallis rank sum test: all $p < 0.01$). Time in weeks indicating the number of weeks after initiating the experiment to reach the desired field capacity for four weeks. *Black circle* control group (watered to 100% field capacity), *dash triangle* mild group (watered to 80% field capacity), *dash square* moderate group (watered to 60% filed capacity), and *dash cross* severe groups (watered to 30% field capacity).

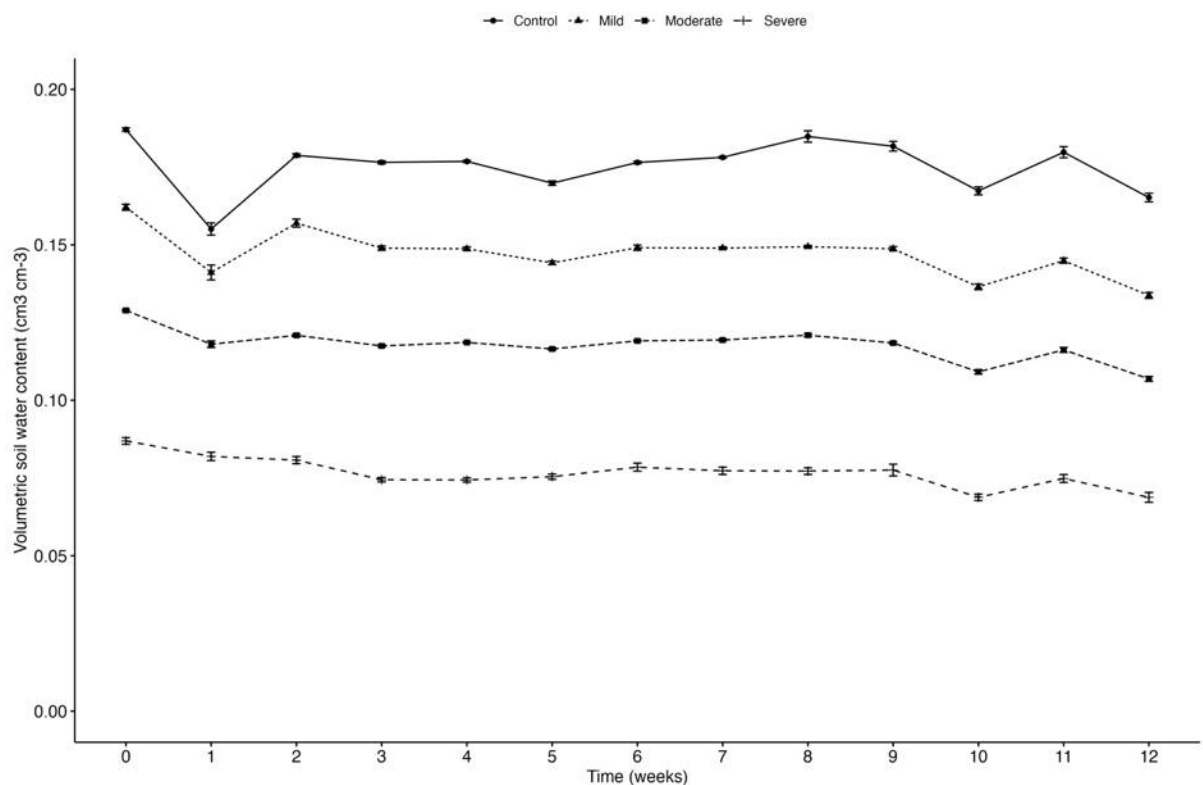


Fig. S3 - Seedling performance, i.e. (A) seedling survival, (B) relative growth rate, (C) wilting states, under drought treatments among species.

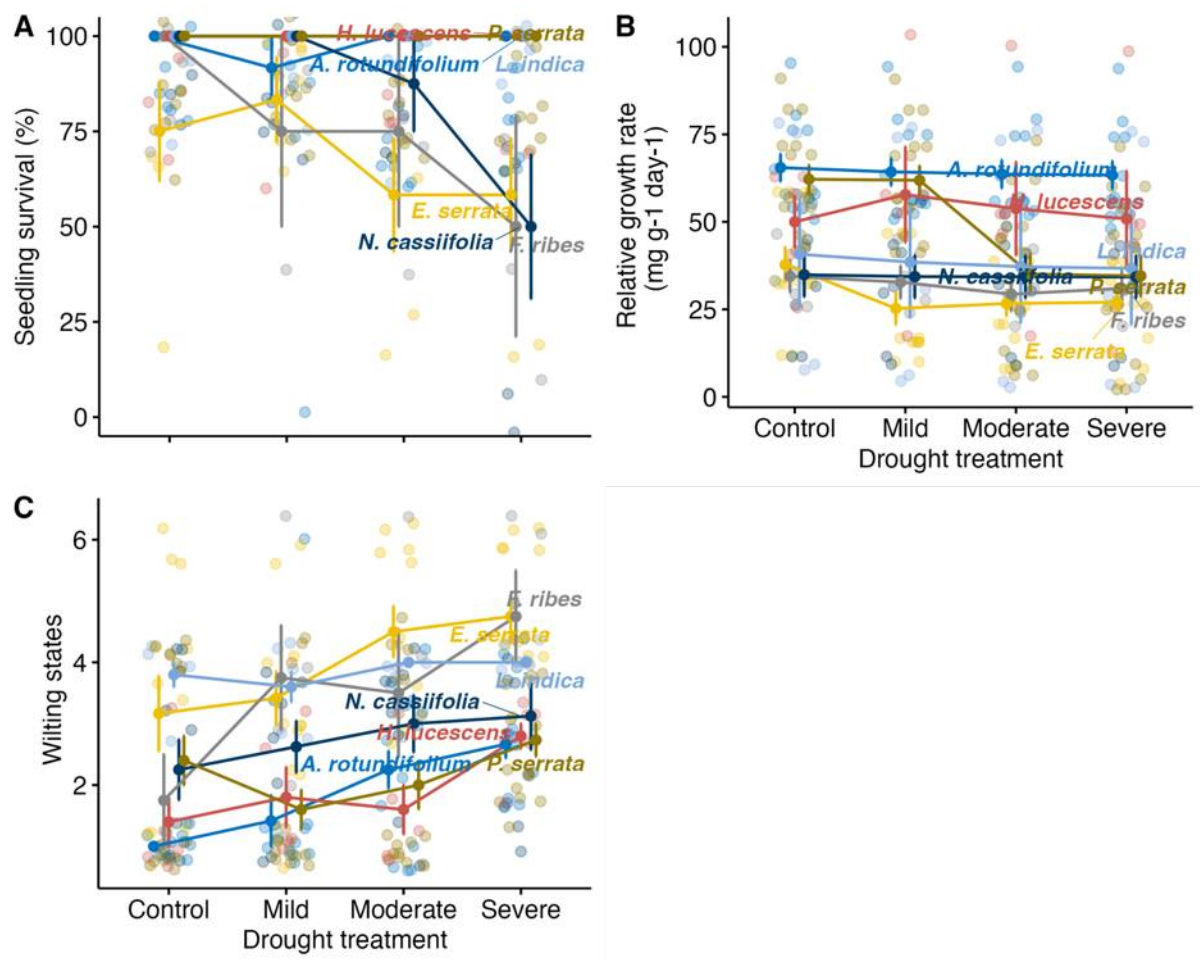
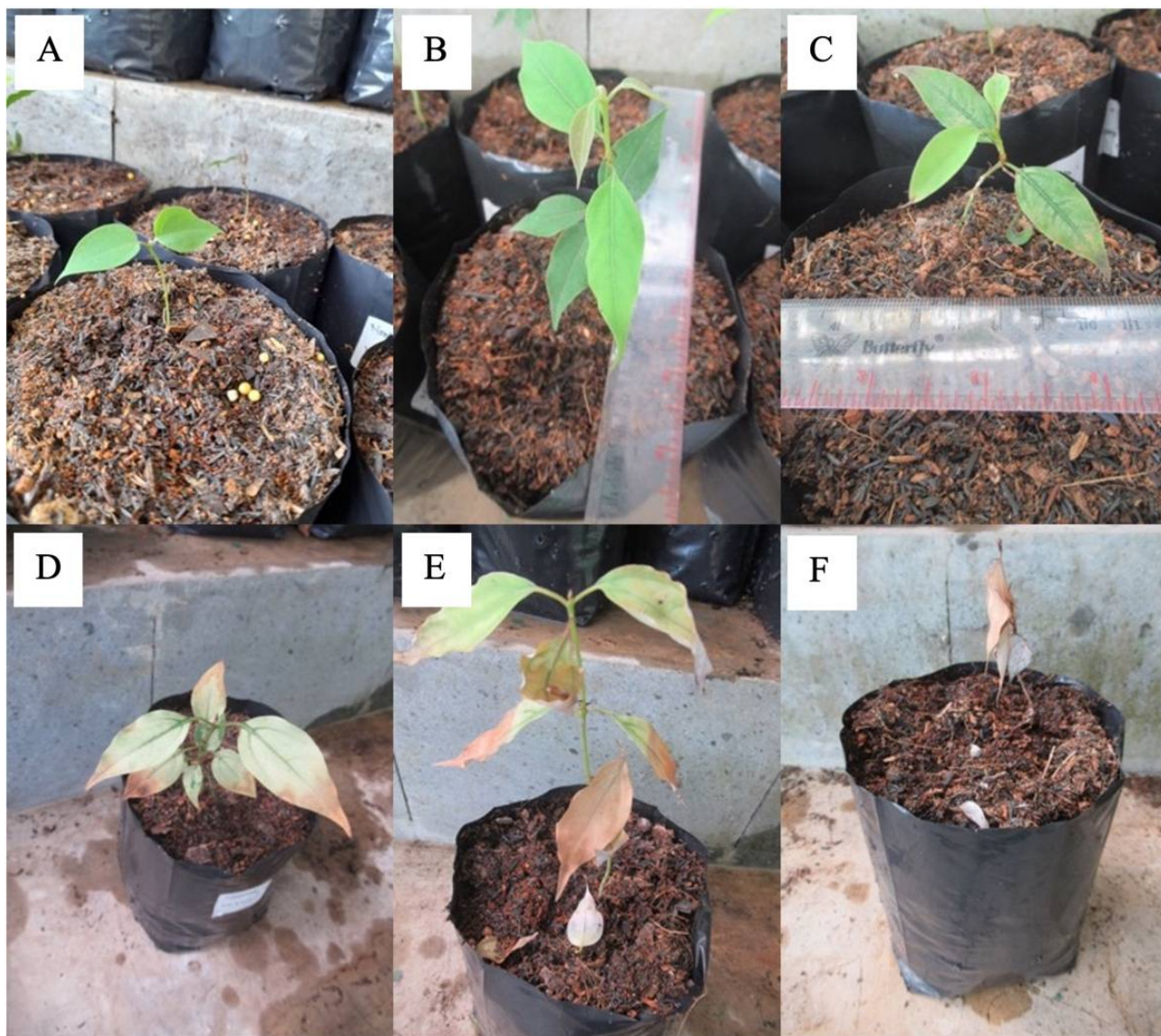


Fig. S4 - Wilting stages of *Neolitsea cassiifolia* leaves (A) normal (not wilted), (B) slightly wilted, (C) wilted, (D) severely wilted, (E) nearly dead, and (F) dead.



Tab. S1 - Wilting stages of the leaves (Engelbrecht & Kursar, 2003). For determining seedling wilting stages, the stages of the respective most wilted leaf were used.

Wilting point	Wilting stage	Visual characteristics
1	Normal (not wilted)	No signs of wilting or water stress
2	Slightly wilted	Slight leaf angle changes but no folding, rolling, or changes in leaf structure
3	Wilted	Strong leaf change or visible change of leaf surface structure but no cell death
4	Severely wilted	Very strong change of leaf angle or change of leaf surface structure with beginning leaf necrosis
5	Nearly dead	All leaves dead, but steam alive; distinguished by color and elasticity
6	Dead	All aboveground parts dead

Tab. S2 - Mean and standard deviation of measured functional traits among species (n=20 for seedling traits, n=30 for seed traits; see Tab. 2 for trait abbreviations).

Species	SRL (cm ² g ⁻¹)	LMA (g m ⁻²)	RSR	Root length (cm)	LAR (cm g ⁻¹)	LDMC (g g ⁻¹)	SDMC (g g ⁻¹)	RDMC (g g ⁻¹)	Seed mass (mg)
<i>A. rotundifolium</i>	26.58 ± 13.70	160.57 ± 43.14	1.82 ± 0.43	29.58 ± 7.34	147.97 ± 29.47	0.17 ± 0.02	0.24 ± 0.05	0.22 ± 0.03	498.64 ± 20.32
<i>E. serrata</i>	52.55 ± 27.77	156.46 ± 32.69	1.44 ± 0.72	16.85 ± 8.28	193.80 ± 118.34	0.21 ± 0.03	0.23 ± 0.03	0.19 ± 0.05	15.13 ± 3.01
<i>F. ribes</i>	53.77 ± 29.94	62.73 ± 22.81	2.65 ± 0.62	29.41 ± 6.04	190.66 ± 87.13	0.13 ± 0.06	0.11 ± 0.04	0.23 ± 0.08	0.16 ± 0.01
<i>H. lucescens</i>	54.65 ± 21.30	106.66 ± 40.49	1.76 ± 0.92	23.45 ± 11.80	138.84 ± 33.22	0.12 ± 0.06	0.18 ± 0.05	0.18 ± 0.06	0.28 ± 0.01
<i>L. indica</i>	56.72 ± 19.78	132.68 ± 36.60	1.07 ± 0.37	29.71 ± 9.07	140.55 ± 52.64	0.19 ± 0.02	0.23 ± 0.09	0.15 ± 0.03	93.66 ± 2.21
<i>N. cassiifolia</i>	50.60 ± 20.89	220.96 ± 55.15	1.98 ± 0.53	14.49 ± 8.56	121.01 ± 82.55	0.26 ± 0.06	0.30 ± 0.05	0.23 ± 0.07	61.06 ± 10.45
<i>P. serrata</i>	65.89 ± 27.11	183.55 ± 88.87	1.34 ± 0.76	15.73 ± 8.28	113.26 ± 90.20	0.25 ± 0.04	0.26 ± 0.10	0.26 ± 0.10	320.35 ± 33.79

Tab. S3 - Pairwise correlations among traits under control and drought treatments. Trait abbreviations are given in Tab. 2. (*): $p < 0.05$; (†): $p < 0.01$.

No	Trait		Control	Mild	Moderate	Severe
			cor	cor	cor	cor
1	SRL	LMA	0.14	0.25	-0.07	-0.46
2	SRL	RSR	0.04	-0.43	-0.32	-0.50
3	LMA	RSR	0.07	-0.11	-0.50	-0.21
4	SRL	Root length	-0.57	-0.57	0.14	0.18
5	LMA	Root length	-0.79 *	-0.43	-0.64	-0.14
6	RSR	Root length	0.18	-0.04	0.00	-0.14
7	SRL	LAR	-0.71	-0.21	-0.18	0.50
8	LMA	LAR	-0.50	-0.54	-0.04	-0.86 *
9	RSR	LAR	0.11	0.04	0.14	-0.07
10	Root length	LAR	0.75 *	-0.29	-0.39	0.00
11	SRL	LDMC	0.29	0.29	0.21	0.25
12	LMA	LDMC	0.93 †	0.54	0.93 †	0.36
13	RSR	LDMC	0.04	0.32	-0.61	-0.50
14	Root length	LDMC	-0.71	-0.79 *	-0.64	-0.71
15	LAR	LDMC	-0.50	0.07	0.14	0.00
16	SRL	SDMC	0.25	0.25	-0.11	-0.46
17	LMA	SDMC	0.96 †	1.00 †	0.96 †	1.00 †
18	RSR	SDMC	0.04	-0.11	-0.39	-0.21
19	Root length	SDMC	-0.89 *	-0.43	-0.50	-0.14
20	LAR	SDMC	-0.54	-0.54	-0.11	-0.86 *
21	LDMC	SDMC	0.86 *	0.54	0.86 *	0.36
22	SRL	RDMC	0.25	0.04	-0.14	-0.57
23	LMA	RDMC	0.86 *	0.29	0.32	0.36
24	RSR	RDMC	0.29	0.32	0.32	0.68
25	Root length	RDMC	-0.82 *	0.25	-0.29	-0.04
26	LAR	RDMC	-0.54	-0.71	0.14	-0.36
27	LDMC	RDMC	0.68	0.29	0.25	-0.21
28	SDMC	RDMC	0.93 †	0.29	0.43	0.36
29	SRL	Seed mass	-0.36	-0.11	-0.04	-0.07
30	LMA	Seed mass	0.61	0.82 *	0.54	0.43

No	Trait		Control	Mild	Moderate	Severe
			cor	cor	cor	cor
31	RSR	Seed mass	-0.04	-0.29	-0.46	-0.61
32	Root length	Seed mass	-0.29	0.04	0.25	-0.11
33	LAR	Seed mass	-0.36	-0.50	-0.36	-0.04
34	LDMC	Seed mass	0.46	0.07	0.43	0.54
35	SDMC	Seed mass	0.50	0.82 *	0.68	0.43
36	RDMC	Seed mass	0.50	0.14	0.39	-0.21

Tab. S4 - Trait correlations with principal component analysis (PCA) axes for control and drought treatments. Bold indicates variables with loadings > 0.6. Trait abbreviations are given in Tab. 2.

Trait	Control		Mild		Moderate		Severe	
	PC1	PC2	PC1	PC2	PC1	PC2	PC1	PC2
SRL	-0.31	0.88	0.32	0.74	-0.10	0.84	-0.67	-0.18
LMA	-0.96	-0.19	0.96	0.05	0.98	-0.02	0.99	-0.05
RSR	0.34	-0.17	-0.22	-0.37	-0.42	-0.60	-0.12	0.93
Root length	0.85	-0.36	-0.46	-0.82	-0.71	-0.22	-0.18	0.35
LAR	0.84	-0.12	-0.74	0.38	-0.22	0.16	-0.89	-0.16
LDMC	-0.87	0.15	0.72	0.22	0.94	0.26	0.26	-0.83
SDMC	-0.96	-0.19	0.94	-0.01	0.96	-0.02	0.91	-0.18
RDMC	-0.87	-0.20	0.54	-0.30	0.27	-0.69	0.56	0.53
Seed mass	-0.39	-0.87	0.65	-0.68	0.38	-0.77	-0.11	-0.55
Eigen value	5.15	1.84	3.98	2.10	3.74	2.30	3.51	2.36
Variance (%)	57.19	20.44	44.23	23.36	41.50	25.52	38.97	26.19
Cumulative variance (%)	57.19	77.63	44.23	67.59	41.50	67.02	38.97	65.16

Tab. S5 - The best-fit generalized linear mixed model fitted for the different trait response variables. Significance is based on the likelihood ratio test; RSR – root-to-shoot ratio; LMA – leaf mass per area; LDMC – leaf dry matter content; RDMC – root dry matter content. (†): $p < 0.01$; (*): $p < 0.05$

Predictors	Fixed effects						Random effects		R ²	
	Beta	SE	z value	p-value			Group	sd	marg	cond
<i>Seedling survival</i>										
Intercept	7.9	2.13	3.71	<0.001	†		Species	2.42	0.19	0.71
RSR	-4.67	1.55	-3.01	0.003	†					
LMA	-4.28	1.94	-2.2	0.028	*					
<i>Relative growth rate</i>										
Intercept	0.04	0.01	7.25	<0.001	†		Species	0.01	0.2	0.28
Seed mass	0.02	0.01	3.01	0.003	†					
LDMC	-0.02	0.01	-2.01	0.046	*					
RDMC	0.01	0.01	2.36	0.019	*					
<i>Wilting states</i>										
Intercept	1.16	0.11	10.61	<0.001	†		Species	0.19	0.1	0.2
Seed mass	-0.55	0.25	-2.23	0.026	*					

Tab. S6 - Effects of treatment, species, and their interaction to traits in linear mixed effect model. (*): $p < 0.05$; (†): $p < 0.01$.

Traits	Treatment				Species				Treatment × Species			
	df	<i>F</i>	<i>p</i>		df	<i>F</i>	<i>p</i>		df	<i>F</i>	<i>p</i>	
LAR	3	1.78	0.15		6	6.91	<.0001	†	18	4.11	<.0001	†
LMA	3	2.69	0.05	*	6	3.64	0.00	†	18	1.97	0.01	†
LDMC	3	0.23	0.88		6	61.85	<.0001	†	18	2.17	0.01	†
SDMC	3	4.28	0.01	†	6	35.11	<.0001	†	18	11.37	<.0001	†
Root length	3	1.89	0.13		6	22.88	<.0001	†	18	1.23	0.24	
SRL	3	1.66	0.18		6	15.83	<.0001	†	18	1.32	0.18	
Root:shoot	3	2.49	0.06		6	14.93	<.0001	†	18	1.83	0.02	*
RDMC	3	5.45	0.00	†	6	13.10	<.0001	†	18	7.82	<.0001	†
Seed mass	3	0.37	0.77		6	6269.56	<.0001	†	18	0.14	1.00	