

Table 1 Results of generalized linear mixed effects modelling of the effects of origin (native vs. invasive), water treatment (well-watered vs. drought stress) and their interactions on root traits, water use parameters and biomass.

	Lpr (cm / (MPa.S))		Root water potential (MPa)		Ratio of root to shoot (%)		WUEi ($\mu\text{mol}/\text{mmol}$)		Specific root length (cm/g)		Root average diameter (mm)		Water consumption (ml)	
	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Origin	1.90	0.17	9.40	0.0031	6.25	0.015	10.60	0.0018	1.58	0.21	59.35	<0.0001	57.63	<0.0001
Water treatment	24.84	<0.0001	47.09	<0.0001	0.74	0.39	0.30	0.59	6.81	0.011	0.00	0.99	102.12	<0.0001
Origin * Water treatment	0.02	0.90	3.93	0.051	0.17	0.69	0.23	0.63	2.90	0.093	0.27	0.60	4.49	0.038
	Root length (cm, D ₀ - 0.5 mm)		Root length (cm, D _{0.5} - 1.0 mm)		Root length (cm, D _{1.0} - 1.5 mm)		Root length (cm, D _{1.5} - 2.0 mm)		Root length (cm, D > 2.0 mm)		Root tissue density (g / cm ³)		WUEb (g / L)	
	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Origin	5.55	0.021	19.73	<0.0001	41.31	<0.0001	21.53	<0.0001	5.20	0.026	32.91	<0.0001	14.97	0.0002
Water treatment	0.17	0.68	0.31	0.58	0.01	0.93	0.11	0.74	0.00010	0.95	2.37	0.13	3.38	0.070
Origin * Water treatment	1.81	0.18	1.57	0.21	0.34	0.56	0.19	0.66	0.43	0.51	0.99	0.32	3.37	0.070
	Shoot biomass (g)		Root biomass (g)		Leaf water potential (MPa)		Specific leaf area (cm ² / g)		Net photosynthetic rate (μmol / (m ² .s))		Transpiration rate (mmol / (m ² .s))		Stomatal conductance (mmol/(m ² .s))	
	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Origin	5.37	0.024	0.89	0.35	19.31	<0.0001	6.44	0.013	43.81	<0.0001	0.040	0.85	1.30	0.26
Water treatment	15.86	0.0002	22.99	<0.0001	73.80	<0.0001	1.44	0.23	5.03	0.028	3.34	0.072	1.79	0.19
Origin * Water treatment	0.36	0.55	0.60	0.44	10.07	0.0023	0.30	0.59	0.94	0.34	0.010	0.94	0.01	0.94

Notes: Root hydraulic conductivity, L_{pr} ; Instantaneous water use efficiency, WUE_i ; Root diameters used to measure root length, $D_0 - 0.5 \text{ mm}$ to $D > 2.0 \text{ mm}$; Biomass water use efficiency, WUE_b . Significant effects are highlighted in bold.

Table 2 Results of Kruskal-Wallis analysis of the effect of drought stress on the root morphological and physiological traits.

Index	χ^2	<i>P</i>	Index	χ^2	<i>P</i>	Index	χ^2	<i>P</i>
<i>Lpr</i> (cm / (MPa.S))	0.12	0.73	Root average diameter (mm)	0.88	0.35	Specific root length (cm / g)	8.72	0.0031
Root water potential (MPa)	7.88	0.0050	Shoot biomass (g)	0.88	0.35	Root biomass (g)	2.05	0.15
WUEi (μmol / mmol)	0.99	0.32	Specific leaf area (cm^2 / g)	0.72	0.40	Root length (cm, D ₀ - 0.5 mm)	8.72	0.0031
Root tissue density (g / cm^3)	2.59	0.11	Transpiration rate (mmol / (m^2 .s))	0.45	0.50	Root length (cm, D _{0.5} - 1.0 mm)	10.53	0.0012
Ratio of root to shoot (%)	1.14	0.29	Net photosynthetic rate (μmol / (m^2 .s))	0.17	0.68	Root length (cm, D _{1.0} - 1.5 mm)	1.37	0.24
WUEb (g / L)	14.00	0.0002	Stomatal conductance (mmol / (m^2 .s))	0.14	0.70	Root length (cm, D _{1.5} - 2.0 mm)	1.58	0.21
Water consumption (ml)	13.79	0.0002	Leaf water potential (MPa)	8.04	0.0046	Root length (cm, D > 2.0 mm)	4.68	0.31

Notes: Root hydraulic conductivity, *Lpr*; Instantaneous water use efficiency, WUEi; Biomass water use efficiency, WUEb; Root diameters used to determine root length, D₀ - 0.5 mm to D > 2.0 mm. Significant effects are highlighted in bold.