Table S1. Period effects on soil temperature (ST), air temperature (AT), and soil moisture (SM) in *Quercus variabilis* and *Quercus acutissima* seedlings

Species	Treatment	Period 1			Period 2			Period 3		
		ST	**AT**	**SM**	**ST**	**AT**	**SM**	**ST**	**AT**	**SM**
Quercus variabilis	Warming (W)	16.19***	39.70***	0.01	14.97***	4.02*	0.18	13.55***	14.19***	1.20
	Drought (D)	5.79*	0.63	0.13	3.16	0.01	0.20	3.82	0.14	0.49
	W×D	0.81	0.05	0.12	0.43	0.11	0.21	0.15	0.27	0.08
Quercus acutissima	W	31.43***	17.43***	3.11	8.96***	13.32***	1.89	9.75***	92.07***	4.92*
	D	1.23	1.90	14.00***	0.33	1.01	2.05	0.92	0.01	2.55
	W×D	0.64	0.60	0.05	0.28	0.06	0.01	0.28	0.38	0.67

× = interaction effect; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table S2. Period effects on soil CO_2 emissions and CH_4 uptake in *Quercus variabilis* and *Quercus acutissima* seedlings

Species	Treatment	Period 1		Period 2		Period 3	
		CO_2	**CH_4**	**CO_2**	**CH_4**	**CO_2**	**CH_4**
Quercus variabilis	Warming(W)	4.49*	4.25*	4.68*	4.49*	1.28	12.71***
	Drought (D)	20.59***	1.74	19.06***	0.02	5.54*	4.89*
	W×D	0.01	4.32*	1.13	0.72	1.65	3.94*
Quercus acutissima	W	4.92*	2.99	10.92***	0.56	0.23	0.42
	D	8.37**	0.91	24.98***	0.56	5.37*	3.99
	W×D	1.23	2.85	1.45	0.78	0.11	2.59

× = interaction effect; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.