

Supplementary material

Effects of shrub encroachment on carbon assimilation and growth of Mediterranean cork oak trees depend on shrub cover density

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Table S1. Summary of General Linear Mixed Model results for ecophysiological variables.

Factor	Ψ_{pd}	$g_{s@Amax}$	A_{max}	$iWUE$
Shrub cover	5.1**	4.4**	2.7*	5.6**
Date	275.3***	127.8***	254.5***	45.4***
Shrub cover x Date	0.8	0.9	0.5	2.0*

Z-values for fixed effects. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S2. Results of post-hoc Tukey test for multiple comparison of overall treatment means.

Treatment	Ψ_{pd}	$g_{s@Amax}$	A_{max}	$iWUE$
Control	-1.03 $\pm$ 0.07 a	0.132 $\pm$ 0.021 a	9.65 $\pm$ 0.98 a	92.41 $\pm$ 4.14 b
LD	-1.01 $\pm$ 0.07 a	0.116 $\pm$ 0.021 ab	9.14 $\pm$ 1.09 ab	108.19 $\pm$ 6.12 a
MD	-1.05 $\pm$ 0.07 ab	0.103 $\pm$ 0.019 b	8.54 $\pm$ 0.95 ab	114.77 $\pm$ 6.47 a
HD	-1.15 $\pm$ 0.08 b	0.096 $\pm$ 0.015 b	8.22 $\pm$ 0.96 b	107.77 $\pm$ 5.99 a

Different letters indicate statistically significant differences between treatments ($p < 0.05$)

Table S3. Results of post-hoc Tukey test for multiple comparison of overall date means.

Date	Ψ_{pd}	$g_{s@Amax}$	A_{max}	$iWUE$
Spring 2019 11/06/2019	-1.08 $\pm$ 0.03 b	0.060 $\pm$ 0.006 b	6.81 $\pm$ 0.48 b	123.89 $\pm$ 5.62 a
Summer 2019 23/07/2019	-1.54 $\pm$ 0.04 d	0.039 $\pm$ 0.004 c	4.41 $\pm$ 0.39 c	121.91 $\pm$ 5.52 a
Spring 2020 17/06/2020	-0.41 $\pm$ 0.01 a	0.290 $\pm$ 0.015 a	18.08 $\pm$ 0.39 a	66.10 $\pm$ 2.21 b
Summer 2020 03/08/2020	-1.22 $\pm$ 0.04 c	0.059 $\pm$ 0.004 b	6.24 $\pm$ 0.40 b	111.26 $\pm$ 3.24 a

Different letters indicate statistically significant differences between dates ($p < 0.05$)