

Supplementary Materials:

Ground Level Isoprenoid Exchanges Associated with *Pinus Pinea* Trees in A Mediterranean Turf

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Table

Table S1. Randomized sampling plan for the four studied trees during the morning. T1-T4 are first to fourth study trees, respectively.

Distance(m)	9h-10h	10h-11h	11h-12h	12h-13h
0	T4	T3	T2	T1
1	T1	T4	T3	T2
2	T2	T1	T4	T3
3	T3	T2	T1	T4
4	T4	T3	T2	T1
5	T3	T4	T1	T2
6	T2	T3	T4	T1
7	T1	T2	T3	T4
8	T4	T1	T2	T3
9	T1	T4	T3	T2
10	T2	T3	T4	T1

Table S2. The component of terpene emissions of *P. pinea* for green needle (a) from the study of Staudt et al. (2000) and dense litter zone (≤ 1 m) (b) from this study in summer mornings.

(a)

	Emission rates (pmol m ⁻² s ⁻¹)				Average proportion
Time of day	9:00	10:35	11:00	12:35	
Needle temperature	20.9	26.4	26.4	34.7	
α -Pinene	1.2	2.9	3.4	8.4	0.021
Myrcene	1.3	3.8	4.4	9.6	0.025
Limonene	15.6	31.4	43.4	47.1	0.180
1,8-Cineole	2	7.7	8	17.3	0.046
Trans- β -ocimene	18.3	104.2	108.3	205.3	0.572
Linalool	0.4	14.2	14.8	54.8	0.110
Other terpenes	1.7	8.1	8.4	17.1	0.046

(b)

	Emission rates ($\mu\text{g m}^{-2} \text{h}^{-1}$)		Average proportion
Time of day	9:00-13:00		
Soil temperature	29.3	28.4	
α -Pinene	15.3	30.5	0.090
β -Pinene	5.9	7.7	0.027
Myrcene	3.3	9.6	0.025
Limonene	66.2	175.7	0.477
β -, γ -Terpinene with sabinene	39.9	131	0.337
Other terpenes	3.6	11	0.044

Figures

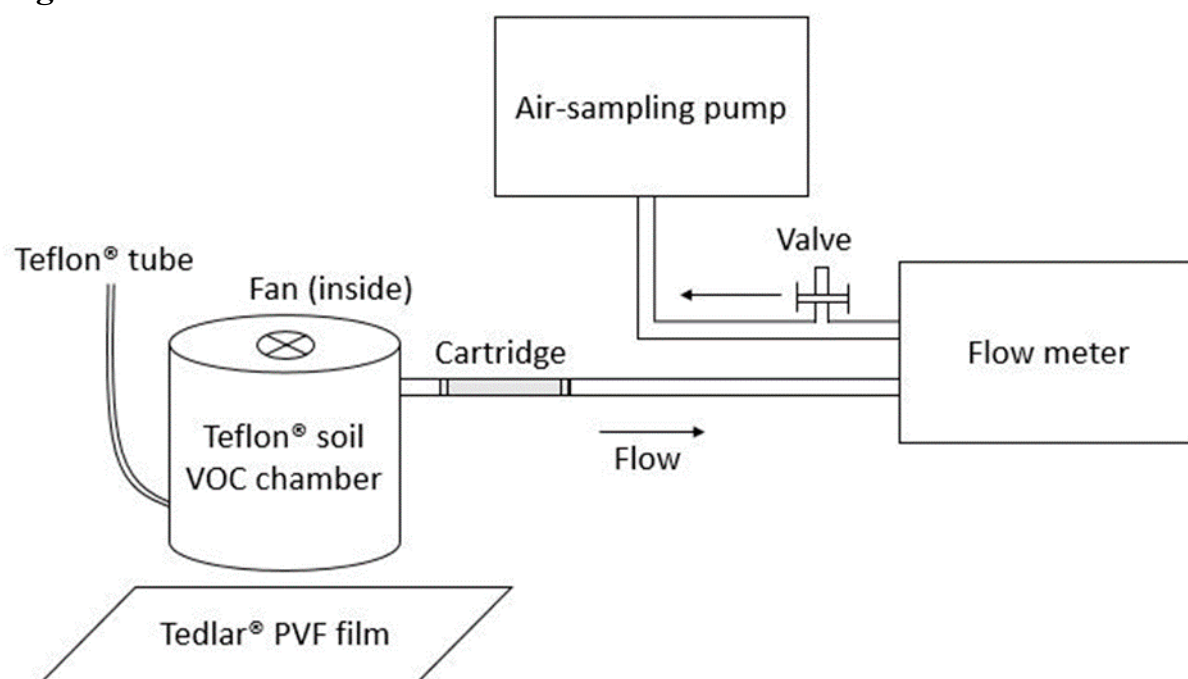


Figure S1. Schematic of the isoprenoid sampling.

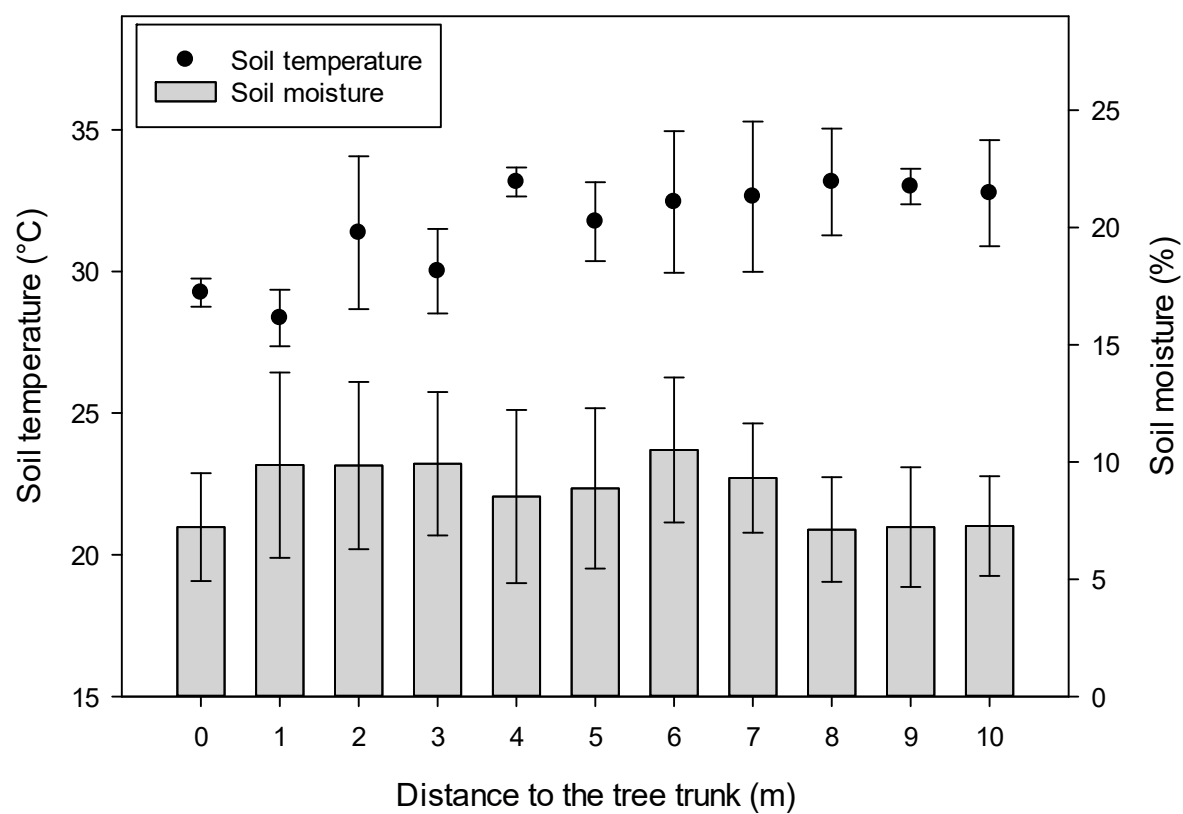


Figure S2. Mean soil temperature and moisture content along the transects. Data are means $\pm$ SE; n = 4.

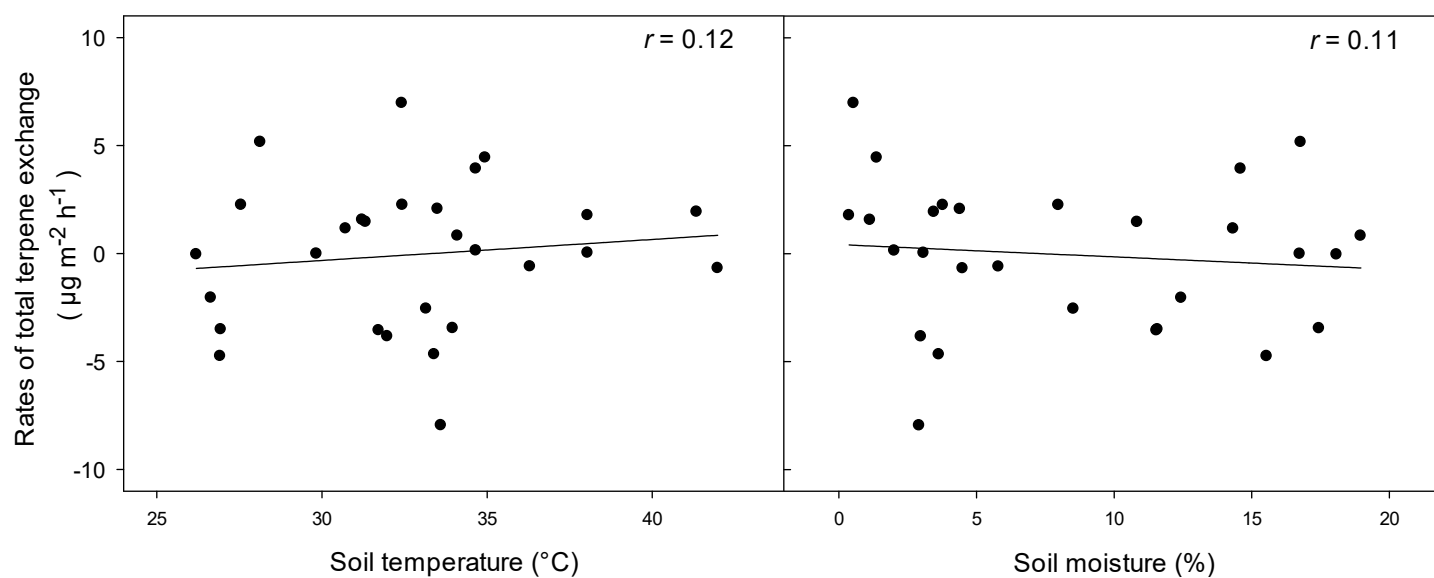


Figure S3. Relationships for the rates of total terpene exchange with soil temperature and soil moisture along the transects in turf zone (≥ 4 m).