

Additional file 7. Chemical analyses of leaf and root extracts

Chemical compositions of *C. clusii* leaves and roots were analysed by gas chromatography coupled with mass spectrometry on a Shimadzu GCMS-QP2010 with auto-sampler. The extracts were prepared by individually soaking 0.003 g of chopped leaves and 0.003 g of chopped roots in 1 ml of methanol for 24 hours at room temperature in darkness. Methanol was used as polar solvent to extract water-soluble compounds (Sokmen et al. 1999), which might be present in the aqueous extracts used in the experiment.

The GC-MS was equipped with a Supelco Omegawax 320 capillary column (length 30 m, inner diameter 0.32 mm, film thickness of 0.25 μm ; Sigma Aldrich, Stockholm, Sweden). Samples (1 μl) were injected in split mode with a split ratio of 10:1. Helium was used as a carrier gas with a total flow of 22.7 $\text{ml}\cdot\text{min}^{-1}$ and a column flow at 1.79 $\text{ml}\cdot\text{min}^{-1}$. The injection temperature was 220°C and the oven programmed as follows: initial temperature of 50 °C for 2 min and then increased to 240 °C with a rate of 20 °C $\cdot\text{min}^{-1}$. The mass spectrometer was operated in electron ionization mode at 70 eV. The ion source temperature was 250 °C. Individual compounds were identified by comparing the obtained mass spectra results to known standards.

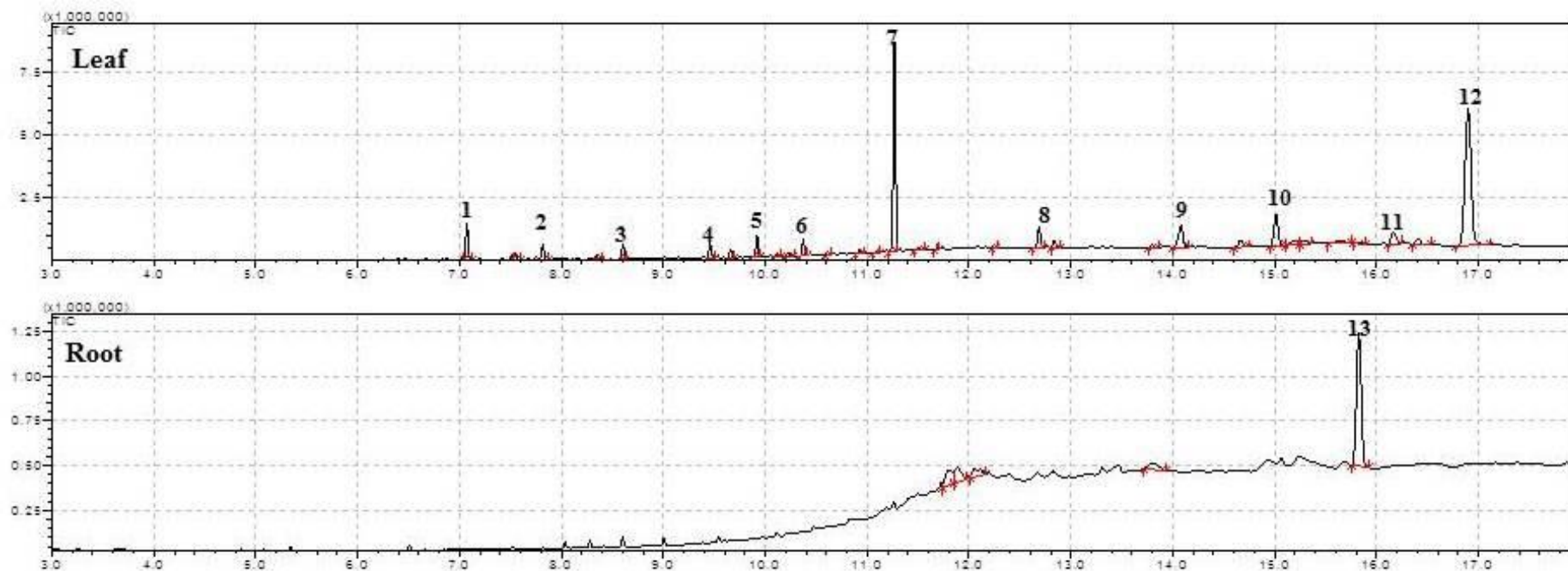


Figure S3. Chromatograms of the compounds from *C. clusii* leaves and roots extracted with methanol analyzed by GC-MS. Only the biggest peaks are represented: (1) Bornyl acetate; (2) Linderol; (3) Ionene; (4) Caryophyllene oxide; (5) Viridiflorol; (6) Cubenol; (7) Manoyl oxide; (8) 1-Bromotriacontane; (9) n-Tetratetracontane; (10) Oxomanoyl oxide; (11) Rhododendrol; (12) Pregnane-3,17,20-triol, (3 α -5 β , 20S); (13) 2,3-Oxidosqualene.

Table S4. List of compounds extracted from *C. clusii* leaves and roots. The molecular formula, molecular weight, the nature of the compound, the retention time, and the peak area are shown for each compound.

Plant part	Name of the compound	Formula	Mol. weight	Nature of the compound	Ret. time	Peak area
Leaf	Bornyl acetate	C ₁₂ H ₂₀ O ₂	196	Terpene	7.1	490,915
	Linderol	C ₁₀ H ₁₈ O	154	Terpene	7.8	382,273
	Ionene	C ₁₃ H ₁₈	174	Terpene	8.6	276,425
	Caryophyllene oxide	C ₁₅ H ₂₄ O	220	Terpene	9.5	63,540
	Viridiflorol	C ₁₅ H ₂₆ O	222	Terpene	9.9	82,184
	Cubenol	C ₁₅ H ₂₆ O	222	Terpene	10.4	85,235
	Manoyl oxide	C ₂₀ H ₃₄ O	290	Terpene	11.3	1,227,866
	1-Bromotriacontane	C ₃₀ H ₆₁ Br	500	Haloalkane	12.7	178,859
	n-Tetratetracontane	C ₄₄ H ₉₀	618	Aliphatic alkane	14.1	295,447
	Oxomanoyl oxide	C ₂₀ H ₃₂ O ₂	304	Terpene	15.0	316,269
	Rhododendrol	C ₁₀ H ₁₄ O ₂	166	Phenolic compound	16.2	376,334
	Pregnane-3,17,20-triol, (3 α , 5 β , 20S)	C ₂₁ H ₃₆ O ₃	336	Steroid	16.9	1,716,398
Root	2,3-Oxidosqualene	C ₃₀ H ₅₀ O	426	Terpene	15.8	837,645

Table S5. Potential phytotoxic effects of the compounds extracted from *C. clusii* leaves and roots. Phytotoxic effects are not attributable to the compound in isolation, but to the extracts containing the compound.

Name of the compound	Potential phytotoxic effects	Found in	References
Bornyl acetate	Inhibit germination and control seedling growth	<i>Cistus ladanifer</i> L.	Verdeguer et al. (2012)
Linderol	Not tested	<i>Thymus vulgaris</i> L.	TSAI et al. (2011)
Ionene	Affect germination and initial radical elongation	<i>Salvia multicaulis</i> Vahl. var. <i>simplicifolia</i> Boiss.	Mancini et al. (2009)
Caryophyllene oxide	Inhibit radicle elongation	<i>Anisomeles indica</i> (L.) Kuntze	Batish et al. (2012)
Viridiflorol	Inhibit germination and control seedling growth	<i>Cistus ladanifer</i> L.	Verdeguer et al. (2012)
Cubenol	Inhibit germination and growth of the roots	<i>Schinus molle</i> L.	Simionatto et al. (2011)
Manoyl oxide	Not tested	<i>Cistus salvifolius</i> L., <i>C. creticus</i> L.	Mastino et al. (2017)
1-Bromotriacontane	Not tested	<i>Jatropha curcas</i> L.	Mahalakshmi et al. (2016)
n-Tetratetracontane	Not tested	<i>Leea indica</i> (Burm. f.) Merr.	Srinivasan et al. (2008)
Oxomanoyl oxide	Not tested	<i>Pinus banksiana</i> Lamb.	Conner and Rowe (1977)
Rhododendrol	Inhibit germination and seedling growth	<i>Rhododendron catawbiense</i> Michx., <i>R. maximum</i> L.	Gant (1978)
Pregnane-3,17,20-triol, (3 α , 5 β , 20S)	-	-	-
2,3-Oxidosqualene	Not tested	<i>Arabidopsis thaliana</i> (L.) Heynh.	Husselstein–Muller et al. (2001)

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