Supporting Information

Herbivore-induced volatile signalling is conserved across locally adapted populations of *Arabidopsis thaliana*

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Supporting tables

Table S1. Results of the PERMANOVA analysis testing for differences in volatile organic compound (VOC) profiles between populations (Bon and Cai), treatments (control and herbivore-induced), and their interaction. The table includes degrees of freedom (Df), sum of squares (SS), R^2, F value, and p value for each factor and their interaction.

	Df	SS	R^2	F	p
Population	1	0.16	0.005	0.7	0.408
Treatment	1	0.37	0.013	1.66	0.039 *
Population x Treatment	1	0.36	0.013	1.65	0.033 *
Residual	127	28.10	0.969		
Total	130	28.99	1.000		

Supporting figures

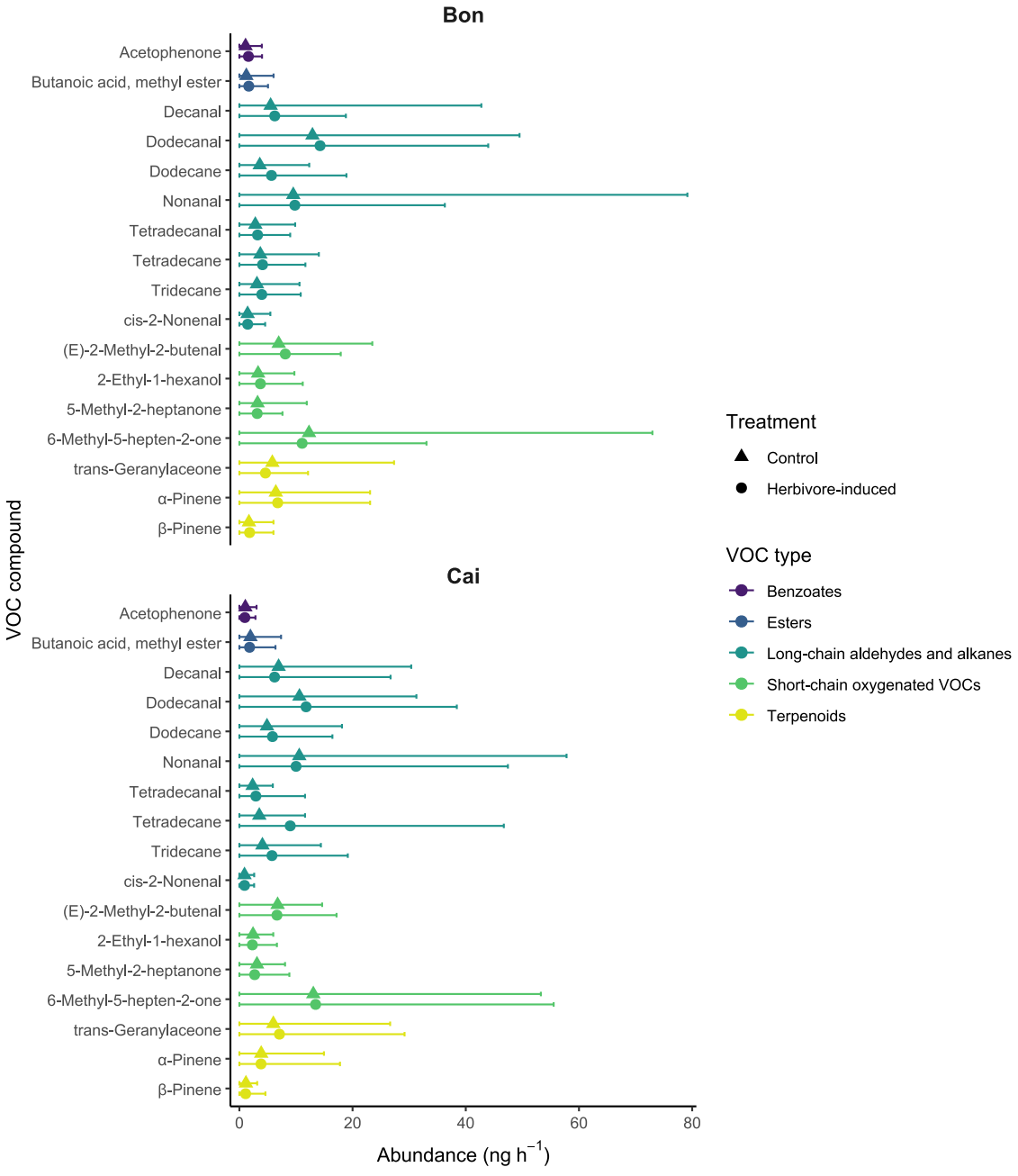

Figure S1. Volatile organic compounds (VOCs) from *Arabidopsis thaliana* plants in the experiment, separated by population and treatment. Dots represent mean emissions and error bars represent the 5th and 95th percentiles. Different colors indicate different VOC types.

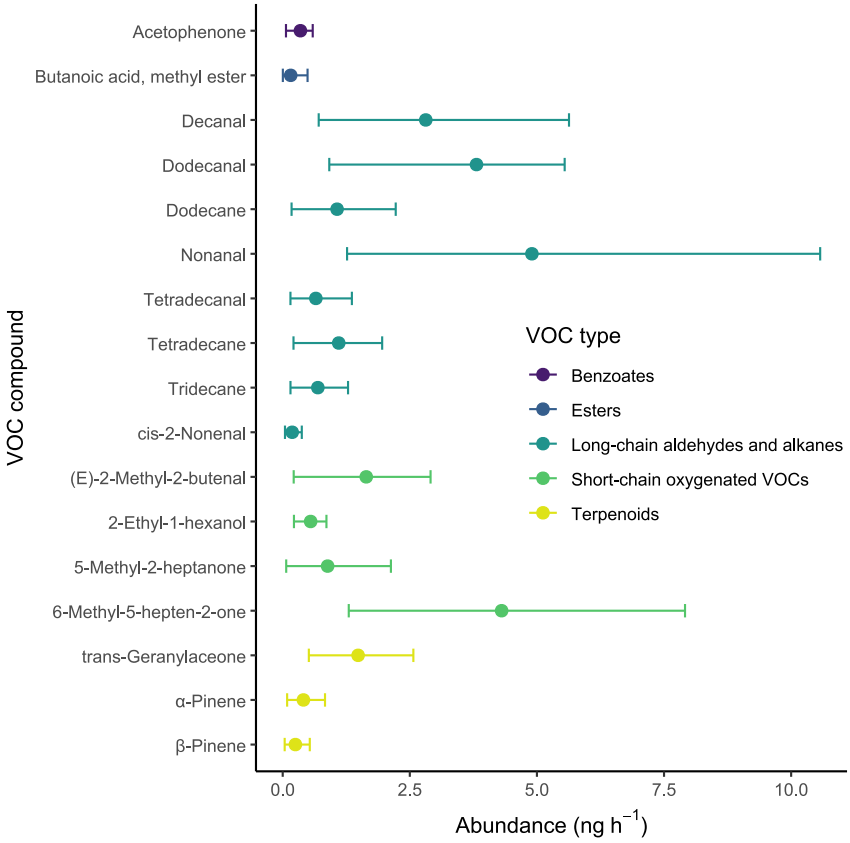

Figure S2. Volatile organic compounds (VOCs) from blank samples (no plants, only seedling wells with soil), collected to account for background emissions not produced by plants. Dots represent mean emissions and error bars represent the 5th and 95th percentiles. Different colors indicate different VOC types.

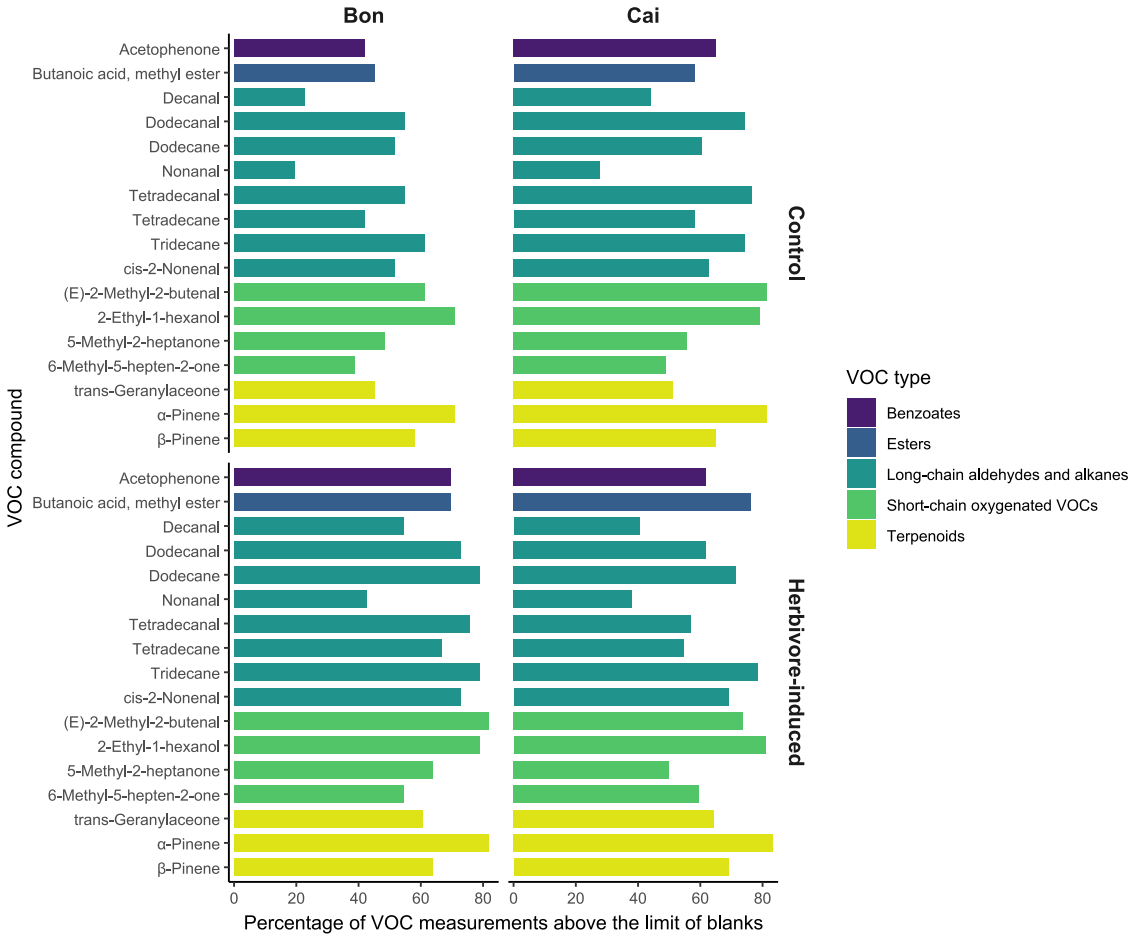

Figure S3. Percentage of VOC measurements above the limit of blanks for each compound across maternal lines, for each population and treatment, with the different VOC types indicated by color.

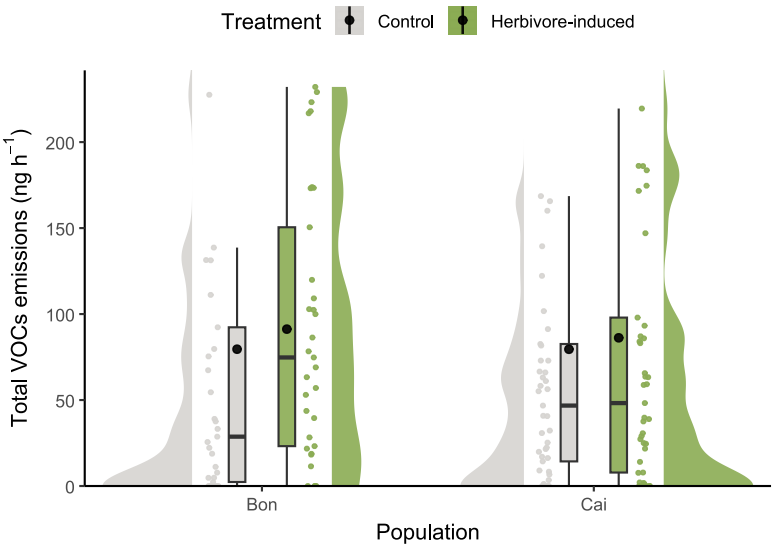

Figure S4. Volatile organic compounds (VOCs) from *Arabidopsis thaliana* plants in the experiment, separated by population and treatment. Dots represent mean emissions and error bars represent the 5th and 95th percentiles. Different colors indicate different VOC types.

Software citations

We used R v. 4.4.3 (R Core Team, 2025) and the following R packages: car v. 3.1.2 (Fox & Weisberg, 2019), carData v. 3.0.5 (Fox *et al.*, 2022), colorspace v. 2.1.1 (Stauffer *et al.*, 2009; Zeileis *et al.*, 2009; 2020), DHARMa v. 0.4.6 (Hartig, 2022), emmeans v. 1.10.1 (Lenth, 2024), ggdist v. 3.3.2 (Kay, 2024a; 2024b), ggpubr v. 0.6.0 (Kassambara, 2023), ggrepel v. 0.9.5 (Slowikowski, 2024), glmmTMB v. 1.1.9 (Brooks *et al.*, 2017), kableExtra v. 1.4.0 (Zhu, 2024), lattice v. 0.22.6 (Sarkar, 2008), lme4 v. 1.1.35.3 (Bates *et al.*, 2015), lmerTest v. 3.1.3 (Kuznetsova *et al.*, 2017), MASS v. 7.3.64 (Venables & Ripley, 2002), Matrix v. 1.7.2 (Bates *et al.*, 2025), MetBrewer v. 0.2.0 (Mills, 2022), MoMAColors v. 0.0.0.9000 (Mills, 2025), multcomp v. 1.4.25 (Hothorn *et al.*, 2008), multcompView v. 0.1.10 (Graves *et al.*, 2024), mvtnorm v. 1.2.4 (Genz & Bretz, 2009), permute v. 0.9.7 (Simpson, 2022), reshape v. 0.8.9 (Wickham, 2007), survival v. 3.8.3 (Terry M. Therneau & Patricia M. Grambsch, 2000; Therneau, 2024), TH.data v. 1.1.2 (Hothorn, 2023), tidyverse v. 2.0.0 (Wickham *et al.*, 2019), vegan v. 2.6.4 (Oksanen *et al.*, 2022), webshot2 v. 0.1.1 (Chang, 2023).

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