

Soil unsealing in Mediterranean schoolyards: what factors drive ant communities?

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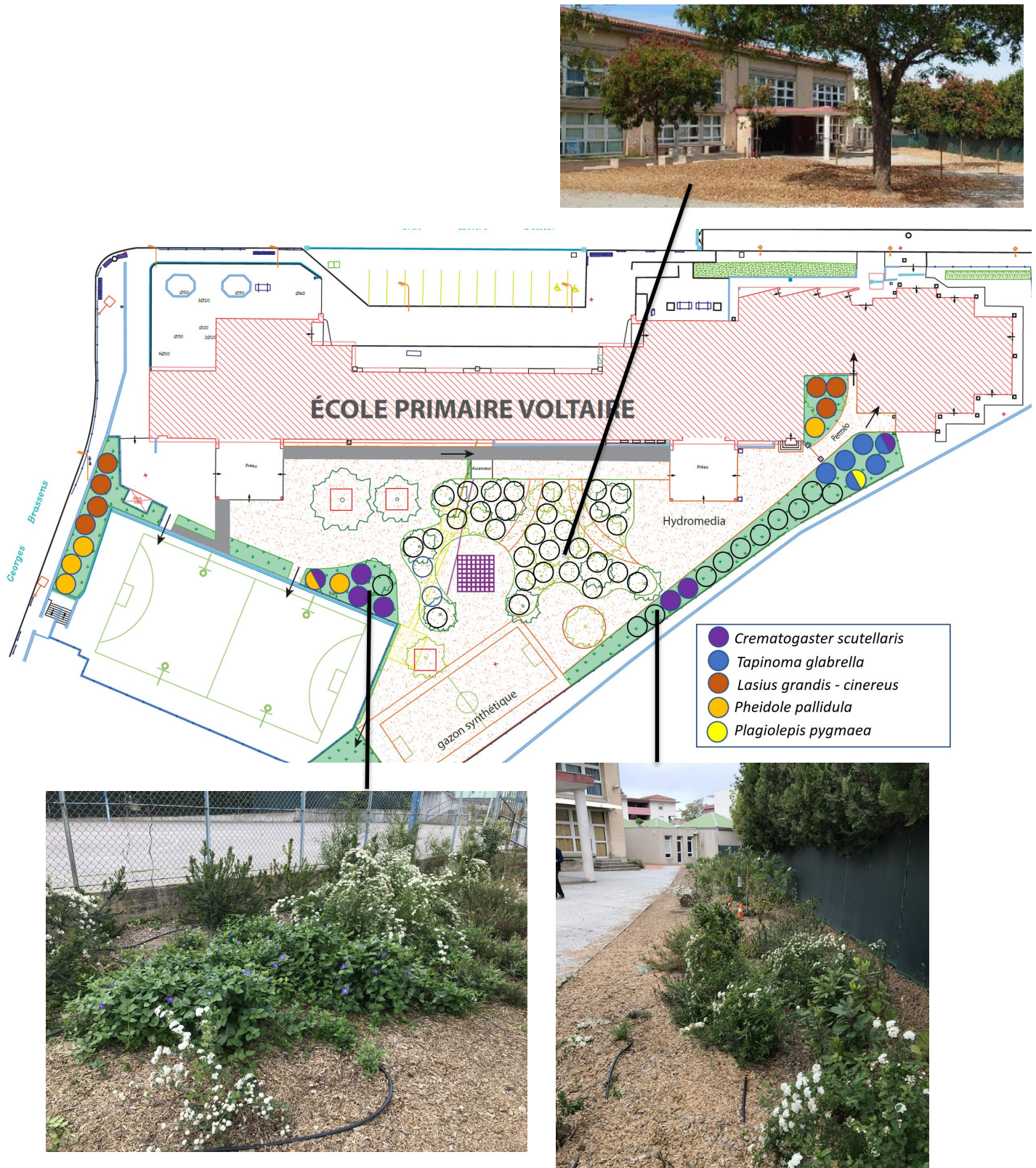
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Supplementary Material

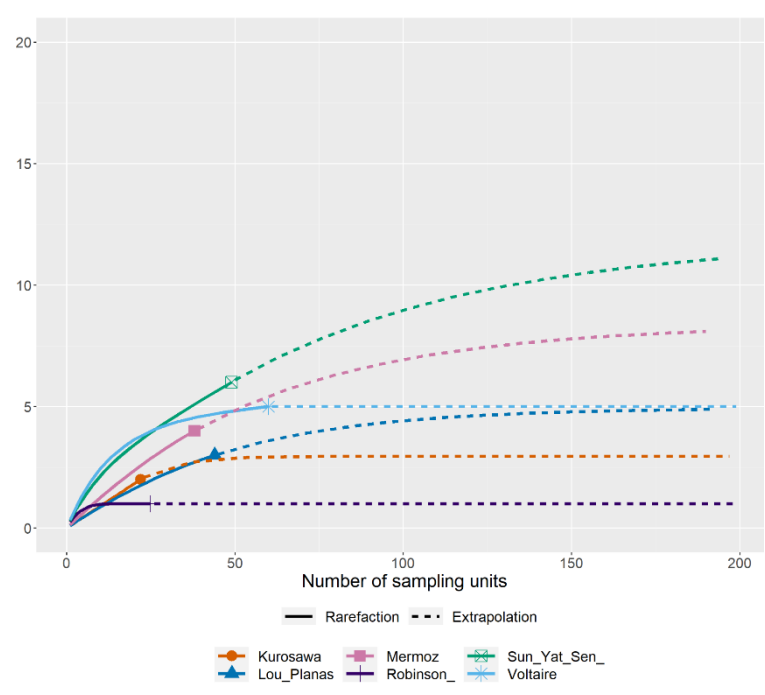
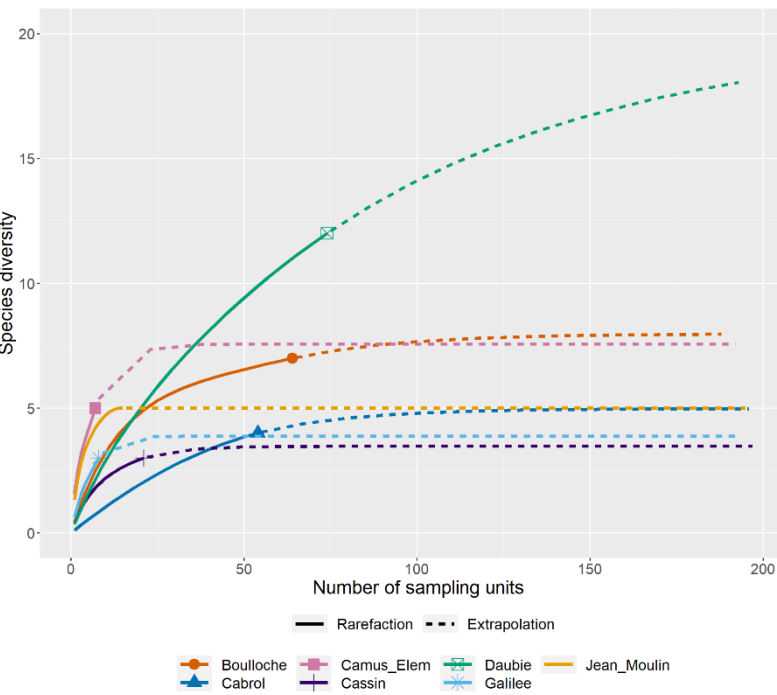
Supplementary Material 1: Summary of study site characteristics

Study sites Name of school (Cities) Geolocation coordinates	Year of unsealing	Number of plots (and baits) per types of unsealing areas		
		Wood chips	Plantations with Wood chips	Lawns
Boulloche (Montpellier) 43.62807, 3.81961	2021	5 (48)	3 (16)	0
Mermoz (Montpellier) 43.61403, 3.89214	2021	2 (26)	3 (12)	0
Voltaire (Montpellier) 43.59524, 3.86316	2021	3 (32)	3 (28)	0
Galilée (Montpellier) 43.63819, 3.81949	2022	0	2 (8)	0
Kurosawa (Montpellier) 43.64045, 3.8197	2022	1 (9)	4 (13)	0
Sun Yat Sen (Montpellier) 43.60432, 3.84426	2022	1 (26)	5 (23)	0
Jean Zay (Montpellier) 43.61883, 3.89814	2022	0	3 (4)	0
Lou Planas (Balaruc les bains) 43.446223, 3.702464	2022	3 (16)	7 (21)	1 (7)
Robinson (Balaruc les bains) 43.446134, 3.701563	2022	4 (11)	5 (12)	1 (2)
Daubie (Montbazin) 43.516781, 3.695989	2022	3 (47)	4 (25)	2 (2)
Cabrol (Saint Jean de Vedas) 43.567407, 3.825539	2022	2 (12)	0	3 (42)
Cassin (Saint Jean de Vedas) 43.567098, 3.826011	2022	1 (6)	0	2 (15)
Camus (Agde) 43.307593, 3.478186	2022	0	0	3 (7)
Moulin (Agde) 43.309240, 3.469713	2021	0	0	3 (15)

Supplementary Material 2: An example of the distribution of ant species observed using bait placed in the school called Voltaire, with pictures of the different type of plots.



Supplementary Material 3: Species Accumulation Curves (method = coleman) and output for the whole dataset and data for each school from the statistical software R with specaccum and specpool function from vegan package.



Supplementary Material 4: GLMM output summary table

Response variable: Species diversity / Distribution: Poisson					
<i>Models</i>	<i>Variables</i>	<i>Coefficient (Estimate)</i>	<i>Standard Error</i>	<i>p-Value</i>	<i>AIC</i>
<i>M1</i>	<i>Wood chips</i>	<i>-0.89</i>	<i>0.34</i>	<i>0.0048 **</i>	<i>602.1</i>
	<i>Lawns</i>	<i>0.26</i>	<i>0.40</i>	<i>0.5235</i>	
	<i>1 year</i>	<i>-0.77</i>	<i>0.38</i>	<i>0.0403 *</i>	
<i>M2</i>	<i>Wood chips</i>	<i>-0.70</i>	<i>0.33</i>	<i>0.0347 *</i>	<i>602.4</i>
	<i>Lawns</i>	<i>0.33</i>	<i>0.39</i>	<i>0.3999</i>	
	<i>1 year</i>	<i>-0.76</i>	<i>0.36</i>	<i>0.0357 *</i>	
	<i>Surface of plot</i>	<i>-0.002</i>	<i>0.002</i>	<i>0.1824</i>	

Response variable: Abundance Class / Distribution: Quasipoisson				
<i>Models</i>	<i>Variables</i>	<i>Coefficient (Estimate)</i>	<i>Standard Error</i>	<i>p-Value</i>
<i>M1</i>	<i>Wood chips</i>	<i>-0.26</i>	<i>0.13</i>	<i>0.037 *</i>
	<i>Lawns</i>	<i>0.15</i>	<i>0.13</i>	<i>0.222</i>
	<i>1 year</i>	<i>-0.46</i>	<i>0.11</i>	<i>< 0.001 ***</i>
<i>M2</i>	<i>Wood chips</i>	<i>-0.18</i>	<i>0.12</i>	<i>0.14</i>
	<i>Lawns</i>	<i>0.16</i>	<i>0.12</i>	<i>0.19</i>
	<i>1 year</i>	<i>-0.43</i>	<i>0.09</i>	<i>< 0.001 ***</i>
	<i>Surface of plot</i>	<i>-0.001</i>	<i>0.0006</i>	<i>0.14</i>