

# Supplementary material

Table S1: List of tree species and their abundance.

	Site 1	Site 2	Total
<b>Pinaceae</b>			
<i>Larix decidua</i> Mill.	7	4	11
<i>Pinus sylvestris</i> L.	5	28	33
<b>Fabaceae</b>			
<i>Laburnum</i> sp.	1	0	1
<b>Rosaceae</b>			
<i>Prunus avium</i> (L.) L.	41	11	52
<i>Prunus cerasifera</i> Ehrh.	1	0	1
<i>Pyrus</i> sp.	2	0	2
<b>Fagaceae</b>			
<i>Castanea sativa</i> Mill.	63	172	235
<i>Quercus pubescens</i> Willd. subsp. <i>pubescens</i>	14	11	25
<b>Betulaceae</b>			
<i>Betula pendula</i> Roth	2	0	2
<i>Corylus avellana</i> L.	4	0	4
<b>Salicaceae</b>			
<i>Populus alba</i> L.	2	0	2
<i>Salix</i> sp.	7	0	7
<b>Sapindaceae</b>			
<i>Acer opalus</i> Mill. subsp. <i>opalus</i>	1	0	1
<i>Acer pseudoplatanus</i> L.	1	0	1
<b>Cornaceae</b>			
<i>Cornus sanguinea</i> L.	8	0	8
<b>Oleaceae</b>			
<i>Fraxinus excelsior</i> L. subsp. <i>excelsior</i>	104	13	117

Table S2: Forest variable influence on each PCA axis.

	PC1	PC2	PC3	PC4
Abundance (N)	-0.265	-0.176	0.292	0.132
Species richness (N)	-0.150	0.180	0.368	<b>0.599</b>
SDT_Abundance (N)	0.270	0.348	0.262	-0.177

SDT_Species_rich (N)	-0.241	0.282	-0.285	0.462
SDT_Height (m)	-0.259	-0.412	0.217	0.007
SDT_Diameter (cm)	-0.244	<b>-0.446</b>	-0.043	-0.173
SDT_volume (m <sup>3</sup> /ha)	<b>-0.364</b>	-0.272	-0.080	-0.069
CWD_Diameter (cm)	-0.288	0.312	-0.316	0.040
CWD_Height (m)	-0.236	0.134	<b>-0.511</b>	0.035
CWD_volume (m <sup>3</sup> /ha)	-0.276	0.283	0.055	<b>-0.340</b>
Basal_area (m <sup>2</sup> /ha)	-0.368	-0.259	0.058	-0.044
CWD decay stage	-0.280	0.066	-0.425	0.263
Chestnut trees (%)	<b>0.297</b>	-0.166	-0.160	-0.393

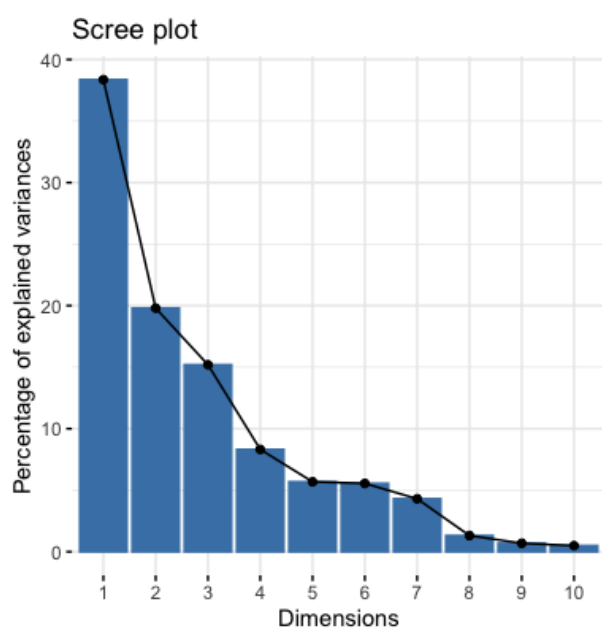


Figure S1: PCA results: PCA screen plot

Table S3. Forest variables that affect differences between beetle communities in the two sites 1 and 2.

	NMDS1	NMDS2	r2	Pr(>r)
Abundance	-0.182	0.983	0.050	0.757
Species richness	-0.848	0.530	0.108	0.528
SDT_Abundance	-0.644	0.765	0.706	0.001 ***
SDT_Species_richness	-0.672	0.741	0.544	0.018 *
SDT_Height	0.498	0.867	0.053	0.757
SDT_Diameter	0.788	0.616	0.098	0.621
CWD_Diameter	-0.963	0.271	0.335	0.112
CWD_Height	-0.884	-0.468	0.207	0.288
CWD_volume	-0.734	0.679	0.319	0.107
SDT_volume	-0.780	0.626	0.112	0.551
Basal_area	-0.770	0.638	0.133	0.482
CWD decay stage	-0.908	0.419	0.123	0.480
Chestnut tree proportion	0.941	-0.339	0.328	0.123

Table S4: Results of GLM analysis on species abundance.

Beetle abundance	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	2.691	0.322	8.340	<0.001 ***
Site	0.252	0.555	0.454	0.647
CWD_volume	0.935	0.268	3.485	<0.001 ***

SDT_volume	0.338	0.329	1.027	0.304
SDT_Diameter	-0.343	0.277	-1.239	0.215
CWD_Height	-0.082	0.199	-0.410	0.685
Species_richness	0.381	0.249	1.528	0.126
Chestnut trees	0.548	0.332	1.652	0.098

Table S5: Results of GLM analysis on species richness.

<b>Beetle species richness</b>	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	0.009	0.229	0.041	0.96753
Site	0.370	0.397	0.933	0.351
CWD_volume	0.754	0.186	4.051	<0.001 ***
SDT_volume	0.445	0.231	1.929	0.054
SDT_Diameter	-0.582	0.198	-2.936	0.003 **
CWD_Height	-0.132	0.145	-0.910	0.363
Species_richness	0.357	0.179	1.996	0.046 *
Chestnut trees	0.341	0.230	1.478	0.140