SUPPLEMENTARY MATERIALS

The effects of clay minerals on bacterial community composition during arthropod decay

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Raw data and processed of the microbiome analyses can be found on the following link (https://doi.org/10.17605/osf.io/K6DHG).

Detailed statistical analyses

Table S1. ANOVA comparing bacterial relative abundances according to clay minerals and cell walls (gram-positive/gram-negative), of the three clays.

	DF	*Sum square*	*Mean square*	*F-value*	*p-value*
Clay	2	$4 \cdot 10^{-5}$	$2 \cdot 10^{-5}$	$5 \cdot 10^{-4}$	0.999
Gram	1	0.404	0.404	9.083	0.011
Clay*Gram	2	0.695	0.348	7.804	0.007
Residuals	12	0.534	0.045		

Table S2. Contrast analyses to assess whether the proportions of gram-positive/gram-negative bacteria are influenced by the three different clays.

	Estimate	*Standard Error*	*t-ratio*	*p-value*
Clay = Bentonite				
Negative – Positive	0.028	0.172	0.161	0.875
Clay = Kaolinite				
Negative – Positive	0.856	0.172	4.966	0.0003
Clay = Montmorillonite				
Negative – Positive	0.016	0.172	0.093	0.927
Gram = Negative				
Bentonite – Kaolinite	-0.413	0.172	-2.396	0.080
Bentonite – Montmorillonite	0.003	0.172	0.019	0.999
Kaolinite – Montmorillonite	0.416	0.172	2.415	0.078
Gram = Positive				
Bentonite – Kaolinite	0.415	0.172	2.408	0.079
Bentonite – Montmorillonite	-0.008	0.172	-0.049	0.999
Kaolinite – Montmorillonite	-0.423	0.172	-2.458	0.072

Table S3. ANOVA comparing bacterial relative abundances according to clay minerals and cell walls (gram-positive/gram-negative), when comparing kaolinite with bentonite and montmorillonite combined.

	DF	*Sum square*	*Mean square*	*F-value*	*p-value*
Clay	1	$2 \cdot 10^{-5}$	$2 \cdot 10^{-5}$	$6 \cdot 10^{-4}$	0.981
Gram	1	0.404	0.404	10.594	0.006
Clay*Gram	1	0.695	0.695	18.203	0.001
Residuals	14	0.534	0.038		

Table S4. Contrast analyses to assess whether the proportions of gram-positive/gram-negative bacteria are influenced by the different clays, when comparing kaolinite with bentonite and montmorillonite combined.

	Estimate	*Standard Error*	*t-ratio*	*p-value*
Clay = Kaolinite				
Negative – Positive	0.856	0.160	5.363	0.0001
Clay = Other clays				
Negative – Positive	0.022	0.113	0.194	0.849
Gram = Negative				
Kaolinite – Other Clays	0.414	0.138	2.999	0.0096
Gram = Positive				
Kaolinite – Other Clays	-0.419	0.138	-3.034	0.0089