LEAF LITTER WITH CONTRASTING CHEMICAL TRAITS AND DECOMPOSITION PROMOTE SIMILAR BENTHIC MACROINVERTEBRATES COMMUNITIES

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SUPPLEMENTARY MATERIAL

Table S.1. Characterization of 16 *restinga* leaf litter species, regarding initial chemical aspects: Carbon (C), nutrients (N, P, Ca, K, Mg, and Na), and structural compounds (cellulose, lignin and polyphenols). Chemical concentrations are given as % dry mass.

Litter Species*	C %	N %	P %	Na %	K %	Ca %	Mg %	Cellulose %	Lignin %	Poliphenols %
AP	56.36	0.556	0.038	0.237	0.128	0.113	0.171	28.44	41.75	13.13
BS	53.34	0.463	0.025	0.072	0.091	0.076	0.113	25.24	47.28	9.20
CE	56.74	0.469	0.065	0.266	0.337	0.093	0.180	24.41	41.72	14.27
CH	51.76	0.344	0.023	0.665	0.066	0.011	0.114	35.80	38.91	5.40
EM	56.19	0.892	0.042	0.524	0.289	0.071	0.214	24.83	43.98	10.19
EO	49.90	0.941	0.076	0.138	0.366	0.131	0.156	20.12	48.79	6.07
EU	54.99	0.424	0.027	0.320	0.120	0.055	0.165	24.05	46.51	4.92
GM	53.50	0.456	0.043	0.271	0.365	0.012	0.132	20.12	48.79	6.43
HP	58.31	1.068	0.063	0.226	0.302	0.037	0.147	19.69	51.36	13.00
IN	53.69	1.146	0.068	0.211	0.335	< 0.001	0.066	22.77	45.74	4.84
MA	52.65	0.759	0.055	0.418	0.225	0.339	0.372	19.83	52.04	8.38
MS	54.06	0.739	0.040	0.327	0.321	0.099	0.160	24.05	46.51	6.72
OC	54.12	0.867	0.045	0.185	0.415	0.093	0.120	24.83	43.98	13.74
ON	56.56	0.669	0.048	0.179	0.160	0.001	0.057	20.12	48.79	12.14
PI	52.98	0.559	0.048	0.128	0.209	0.047	0.092	30.51	40.32	13.16
AS	60.50	0.540	0.050	0.114	0.417	< 0.001	0.090	28.00	45.06	5.02

*AP: *Amaioua pilosa*, BS: *Byrsonima sericea*, CE: *Cupania emarginata*, CH: *Clusia hilariana*, EO: *Erythroxylum ovalifolium*, EN: *Eugenia nitida*, EU: *Eugenia umbelliflora*, GM: *Gomidesia martiana*, HP: *Heisteria perianthomega*, IN: *Inga maritima*, MS: *Manilkara subsericea*, MA: *Maytenus obtusifolia*, ON: *Ocotea notata*, OC: *Ouratea cuspidata*, PI: *Protium icicariba*), and SA: *Senna australis*.

Table S.2. Model parameters of ANOVA, for the biotic (constrained axes) and abiotic matrices considered on the RDA analysis, for the 11 most dominant taxa of benthic community.

Model	DF	Variance	F	p
RDA Dominant taxa - Initial				
Constrained	9	21.934	0.8565	0.598
Residual	44	125.204		
RDA Dominant taxa - Final				
Constrained	9	15.901	0.5924	0.902
Residual	44	131.237		

Table S.3. Correlation matrix between litter chemical variables before the experiment. Upper and lower quadrants indicate Pearson's correlation coefficients ($r_{Pearson}$) and p values, respectively. Values in bold indicate significant correlations.

	C	N	P	Na	K	Ca	Mg	Cellulose	Lignin	Poliphenols
C	-	-0.010	0.029	-0.185	0.203	-0.328	-0.154	-0.031	0.010	0.281
N	0.972	-	**0.667**	-0.145	**0.499**	0.120	0.057	-0.525	0.427	0.075
P	0.916	**0.005**	-	-0.350	**0.658**	0.167	0.075	-0.541	0.334	0.141
Na	0.492	0.591	0.184	-	-0.296	0.158	0.434	0.322	-0.243	-0.229
K	0.451	**0.049**	**0.006**	0.266	-	-0.030	-0.031	-0.404	0.213	-0.021
Ca	0.214	0.657	0.537	0.558	0.911	-	**0.898**	-0.282	0.337	0.120
Mg	0.569	0.835	0.784	0.093	0.910	**0.000**	-	-0.269	0.324	0.039
Cellulose	0.910	0.037	**0.031**	0.224	0.121	0.289	0.313	-	**-0.882**	-0.032
Lignin	0.972	0.099	0.206	0.365	0.428	0.202	0.221	**0.000**	-	-0.177
Poliphenols	0.293	0.784	0.601	0.394	0.940	0.659	0.886	0.906	0.511	-

Table S.4. Correlation matrix between litter chemical variables at end of the experiment. Upper and lower quadrants indicate Pearson's correlation coefficients ($r_{Pearson}$) and p values, respectively. Values in bold indicate significant correlations.

|	C	N	P	Na	K	Ca	Mg	Cellulose	Lignin	Poliphenols
C	-	0.225	-0.080	-0.103	-0.070	0.110	0.072	0.189	**0.375**	**0.379**
N	0.101	-	**0.603**	-0.044	-0.096	-0.038	-0.020	0.050	0.233	-0.018
P	0.563	**0.000**	-	0.044	0.039	-0.160	-0.054	-0.243	-0.117	**-0.299**
Na	0.458	0.754	0.750	-	**0.651**	**0.609**	**0.623**	0.042	**-0.275**	-0.049
K	0.616	0.491	0.777	**0.000**	-	**0.695**	**0.821**	-0.035	-0.225	-0.226
Ca	0.427	0.787	0.247	**0.000**	**0.000**	-	**0.928**	**0.396**	0.183	0.108
Mg	0.607	0.885	0.699	**0.000**	**0.000**	**0.000**	-	**0.360**	0.087	0.042
Cellulose	0.176	0.725	0.079	0.763	0.802	**0.003**	**0.008**	-	0.141	0.103
Lignin	**0.006**	0.093	0.404	**0.047**	0.105	0.190	0.536	0.314	-	0.166
Poliphenols	**0.005**	0.898	**0.028**	0.723	0.101	0.437	0.764	0.464	0.234	-
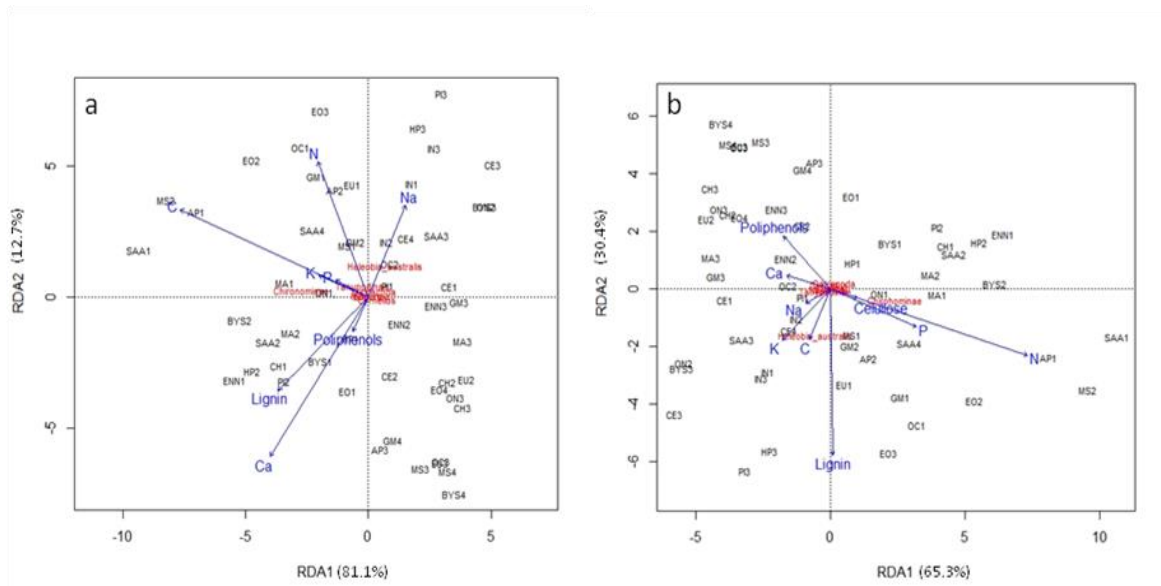
Figure S.1. Redundancy analysis (RDA) evaluating the relationship between litter quality and the 11 most dominant taxa of benthic macroinvertebrates community, considering initial (a) and final (b; after 123 days decomposing) chemical characteristics of *restinga* litter species. Chemical variables considered on the analyses are as described on Figure 3 legend. Litter species acronyms are as described on methods and Figure 2 legend.