

1 **Distribution and degradation of terrestrial organic matter in the sediments of peat-draining rivers, Sarawak, Malaysian Borneo**

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Table S2 Bulk and lignin phenols parameters of plants and detritus/litter collected from the Rajang and small rivers

Latin name	Parts	OC%	TN%	C/N	$\delta^{13}\text{C}$	$\Sigma\text{S}$	$\Lambda\text{S}$	P	V	S	C	S/V	C/V	(Ad/Al)v	(Ad/Al)s	P/(V+S)	DHBA	DHBA/V	LPVI
<i>Acrostichaceae</i>	Leaf	47.21	1.19	46.37	-29.01	448.47	9.50	0.86	2.69	4.99	1.82	1.85	0.68	0.19	0.19	0.10	0.21	0.08	1376
<i>Dipterocarpaceae</i>	Leaf	53.52	1.61	38.81	-30.36	100.11	1.87	0.60	0.57	0.84	0.46	1.48	0.81	0.41	0.19	0.43	0.15	0.27	1423
<i>Ctenolophonaceae</i>	Leaf	49.98	1.55	37.53	-33.90	193.73	3.88	0.73	1.20	1.85	0.82	1.54	0.68	0.31	0.33	0.24	0.16	0.13	1153
<i>Hibiscus tiliaceus L.</i>	Leaf	50.85	2.05	28.96	-28.72	201.15	3.96	0.55	1.57	1.81	0.59	1.15	0.37	0.26	0.20	0.16	0.19	0.12	361
<i>Poaceae</i>	Leaf	44.65	2.63	19.80	-29.00	286.06	6.41	1.04	1.91	2.61	1.88	1.37	0.98	0.43	0.24	0.23	0.17	0.09	1674
<i>Bruguiera gymnorhiza (L.) Poir.</i>	Leaf	47.99	1.04	53.79	-35.45	201.54	4.20	1.14	1.01	2.35	0.84	2.32	0.83	0.54	0.35	0.34	0.11	0.11	2254
<i>Pandanaceae</i>	Leaf	48.97	1.58	36.13	-29.91	585.31	11.95	1.02	3.94	7.62	1.37	2.38	0.43	0.27	0.19	0.24	0.09	0.06	558
<i>Nepenthes sp.</i>	Leaf	49.02	0.70	81.59	-33.53	463.18	9.45	0.65	4.25	4.51	0.69	1.06	0.16	0.46	0.44	0.07	0.18	0.04	120
<i>Aegiceras corniculatum (L) Blanco</i>	Leaf	44.58	2.48	20.96	-29.70	381.93	8.57	1.35	1.57	3.18	1.50	2.37	1.49	0.59	0.35	0.18	0.18	0.20	2424
<i>Elaeis guineensis Jacq.</i>	Leaf	33.05	1.17	32.95	None	339.47	10.27	4.50	2.34	5.99	1.94	2.56	0.83	0.32	0.32	0.54	0.16	0.07	2441
<i>Elaeis guineensis Jacq.</i>	Wood	43.84	0.44	115.04	None	340.96	7.78	5.13	2.37	4.87	0.54	2.05	0.23	0.31	0.22	0.71	0.12	0.05	353
<i>Avicennia marina Vierh.</i>	Wood	46.35	0.57	95.32	-34.42	429.38	9.26	0.34	3.59	5.40	0.27	1.50	0.08	0.26	0.14	0.04	0.04	0.01	113
Unrecognizable	Wood	42.59	0.77	64.65	-29.18	940.60	22.09	0.80	8.97	11.96	1.16	1.33	0.13	0.28	0.34	0.04	0.05	0.01	130
Unrecognizable	Wood	53.38	0.43	143.80	-30.55	1044.29	19.56	0.68	8.39	10.96	0.21	1.31	0.03	0.39	0.36	0.03	0.18	0.02	78
Unrecognizable	Wood	44.51	0.32	164.25	-32.84	856.05	19.23	0.85	9.64	8.94	0.66	0.93	0.07	0.39	0.12	0.05	0.12	0.01	57
<i>Elaeis guineensis Jacq.</i>	Root	43.71	1.80	28.36	None	309.44	7.08	5.52	1.93	4.80	0.35	2.49	0.18	0.38	0.29	0.82	0.26	0.13	340
<i>Aegiceras corniculatum (L) Blanco</i>	New root	37.89	0.67	66.35	-28.52	270.34	7.14	0.38	2.43	4.16	0.55	1.71	0.23	0.30	0.39	0.06	0.06	0.02	291
<i>Aegiceras corniculatum (L) Blanco</i>	Old root	34.19	0.72	55.57	-28.00	359.16	10.50	0.36	3.53	6.51	0.47	1.84	0.13	0.36	0.42	0.04	0.01	0.00	193
<b>Detritus/ Litter</b>																			
Lower Rajang	2016.08	52.01	1.48	40.90	-32.65	520.38	10.01	1.63	5.02	4.31	0.67	0.86	0.13	0.41	0.42	0.17	0.19	0.04	76.92
Lower Rajang	2016.08	29.07	1.10	30.73	-31.38	386.89	13.31	2.16	6.73	5.72	0.86	0.85	0.13	0.43	0.17	0.17	0.30	0.04	72.70
Lower Rajang	2016.08	32.24	0.76	49.77	-29.48	270.15	8.38	1.23	3.96	3.92	0.50	0.99	0.13	0.41	0.20	0.16	0.28	0.07	87.39
Lower Rajang	2016.08	19.39	0.51	44.05	-28.89	482.79	24.90	7.51	10.33	13.59	1.19	1.32	0.09	0.16	0.13	0.31	0.26	0.02	105.31
Lower Rajang	2016.08	41.83	0.70	70.04	-25.73	617.96	14.77	6.34	6.80	7.01	0.97	1.03	0.14	0.35	0.23	0.46	0.25	0.04	102.56
Lower Rajang	2016.08	45.03	1.10	47.76	-29.38	137.20	3.05	0.73	1.64	1.32	0.09	0.49	0.22	0.30	0.22	0.25	0.64	0.39	43.49
Lower Rajang	2017.03	62.93	None	None	-30.78	474.89	7.55	1.49	3.73	3.21	0.61	0.86	0.16	0.38	0.44	0.21	0.14	0.04	92.26
Lower Rajang	2017.03	43.57	None	None	-30.84	461.56	10.59	1.81	5.01	3.67	1.99	0.73	0.40	0.34	0.37	0.21	0.03	0.02	228.71
Sebuyau	2017.03	20.21	0.83	28.55	-28.20	370.95	18.36	3.36	9.55	7.67	1.14	0.80	0.12	0.26	0.39	0.20	0.15	0.02	63.96
Sebuyau	2017.03	23.32	0.47	57.69	-27.50	388.71	16.67	4.27	8.02	7.92	0.73	0.99	0.09	0.55	0.50	0.27	0.20	0.03	71.05
Sebuyau	2017.09	44.71	0.88	59.18	-29.42	881.78	19.72	2.71	7.40	11.47	0.85	1.55	0.12	0.35	0.36	0.14	0.09	0.01	144.25
Sebuyau	2017.09	16.12	0.92	20.52	-30.14	370.62	23.00	2.88	12.24	8.66	2.10	0.71	0.17	0.31	0.32	0.14	0.32	0.03	75.39
Sebuyau	2017.09	48.79	0.56	100.99	-25.10	1180.01	24.18	0.39	10.96	12.79	0.43	1.17	0.04	0.22	0.26	0.02	0.05	0.00	69.22
Simunjan	2017.03	46.13	0.69	77.75	-30.25	868.79	18.84	0.40	10.62	7.72	0.50	0.73	0.05	0.34	0.30	0.02	0.16	0.01	36.24
Simunjan	2017.03	29.80	None	None	-29.29	656.18	22.02	0.51	8.98	12.49	0.55	1.39	0.06	0.25	0.25	0.02	0.15	0.02	95.89
Simunjan	2017.03	28.82	1.24	27.22	-30.62	333.79	11.58	1.36	6.00	3.15	2.43	0.52	0.40	0.30	0.31	0.15	0.15	0.02	150.49
Simunjan	2017.03	29.08	1.34	25.36	-29.39	279.75	9.62	1.18	5.57	3.53	0.52	0.63	0.09	0.40	0.12	0.13	0.11	0.02	39.11

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Table S3 Bulk and lignin phenols parameters of soils collected from the Rajang River

Area	Time	OC%	TN%	C/N	$\delta^{13}\text{C}$	$\Sigma 8$	$\Delta 8$	P	V	S	C	S/V	C/V	(Ad/Al) <sub>v</sub>	(Ad/Al) <sub>s</sub>	P/(V+S)	DHBV	DHBV/V	LPVI
Lower Rajang	2017.09	2.30	0.16	17.22	-28.65	22.03	9.58	2.07	4.57	4.78	0.23	1.05	0.05	0.42	0.37	0.22	0.43	0.10	62.35
Lower Rajang	2017.09	4.09	0.20	24.05	-28.23	33.51	8.19	1.97	3.85	4.10	0.24	1.07	0.06	0.36	0.30	0.25	0.38	0.10	67.50
Lower Rajang	2017.09	3.33	0.19	20.59	-28.45	28.54	8.57	2.20	3.86	4.38	0.33	1.13	0.08	0.35	0.27	0.27	0.37	0.10	82.07
Lower Rajang	2017.09	4.19	0.20	24.42	-28.34	38.90	9.29	2.85	4.22	4.71	0.36	1.12	0.09	0.32	0.27	0.32	0.36	0.09	80.98
Lower Rajang	2017.09	3.84	0.21	21.36	-28.13	32.27	8.40	2.62	4.22	3.98	0.20	0.94	0.05	0.35	0.19	0.32	0.31	0.07	52.58
Lower Rajang	2017.09	3.91	0.19	23.95	-28.46	26.88	6.87	1.71	3.30	3.30	0.27	1.00	0.08	0.41	0.34	0.26	0.33	0.10	67.92
Lower Rajang	2017.09	4.06	0.20	23.66	-28.31	28.41	6.99	2.02	3.26	3.47	0.26	1.07	0.08	0.44	0.33	0.30	0.45	0.14	73.34
Lower Rajang	2017.09	3.32	0.19	20.58	-28.48	26.81	8.08	2.30	3.80	4.04	0.23	1.06	0.06	0.40	0.32	0.29	0.36	0.09	66.93