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## Supplementary material

### Mitochondrial and chemical profiles reveal a new genus and species of Neotropical termite with snapping soldiers, *Palmitermes impostor* (Termitidae : Termitinae)

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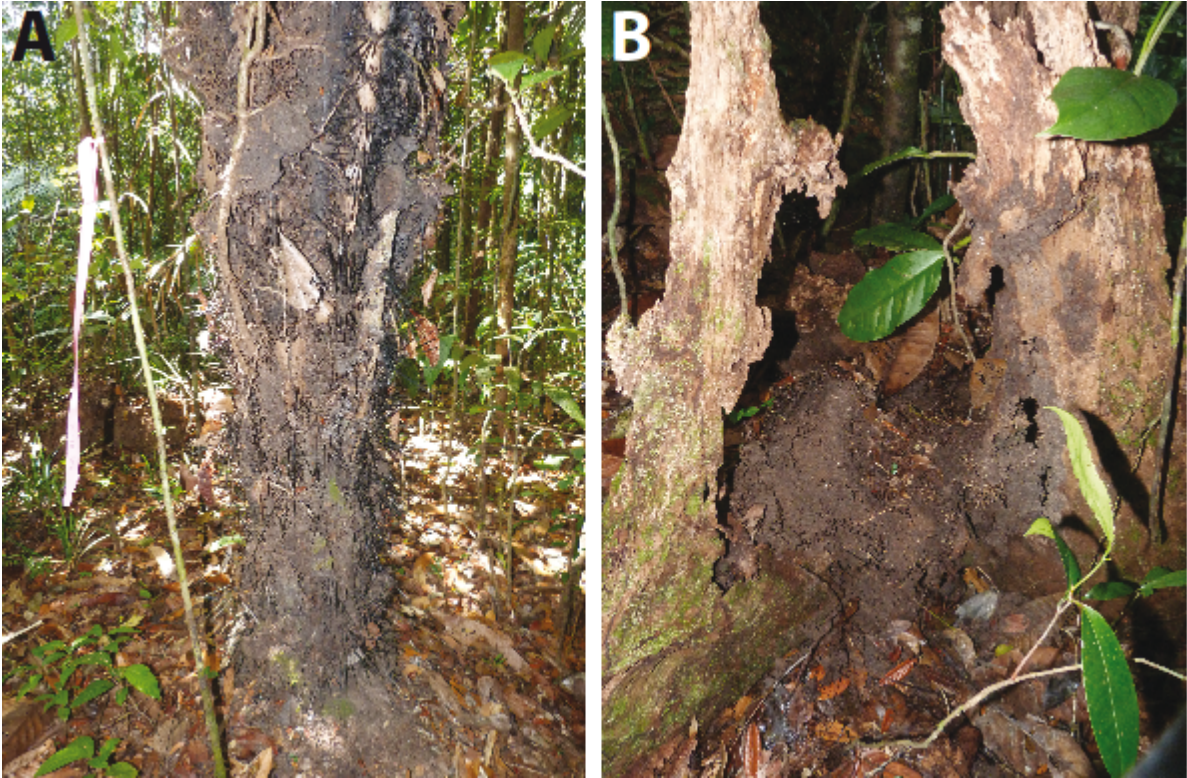
**Table S1. Accession numbers and collection details of studied species**

Species	Subfamily	Collecting locality	Date	Sample code	Reference	Accession number
<i>Amalotermes phaeocephalus</i>	Apicotermatinae	Ebogo, Cameroon	24.11.11	CA18	Bourguignon <i>et al.</i> 2015	KP026275
<i>Silvestritermes heyeri</i>	Syntermitinae	Petit Saut, French Guiana	23.1.12	G696	Bourguignon <i>et al.</i> 2015	KP026288
<i>Ancistrotermes pakistanicus</i>	Macrotermatinae	50km from Bangkok, Thailand	3.11	Unknown	Bourguignon <i>et al.</i> 2015	KP026267
<i>Nasutitermes takasagoensis</i>	Nasutitermitinae	Iriomote Island, Japan	25.11.10	Unknown	Bourguignon <i>et al.</i> 2015	KP026260
<i>Cubitermes fungifaber</i>	Cubitermitinae	Mbalmayo, Cameroon	19.11.11	CA1	Bourguignon <i>et al.</i> 2015	KP026265
<i>?Macrogathotermes errorator</i>	Termitinae	Mt. Molloy, Australia	10.5.08	Unknown	Cameron <i>et al.</i> 2012	JX144939
<i>Cavitermes parvae</i>	Termitinae	Brasília, Brazil	7.8.12	BRA30	Bourguignon <i>et al.</i> 2017	KY224712
<i>Cavitermes tuberosus</i>	Termitinae	Petit Saut, French Guiana	21.1.12	G716	Bourguignon <i>et al.</i> 2015	KP026294
<i>Cavitermes tuberosus</i>	Termitinae	Lagos de Menegua, Colombia	18.8.12	COL2012L05	Bourguignon <i>et al.</i> 2017	KY224568
<i>Dihoploterms sp. A</i>	Termitinae	Petit Saut, French Guiana	20.10.14	G769	Bourguignon <i>et al.</i> 2017	KY224436
<i>Epheloterms melachoma</i>	Termitinae	Darwin, Australia	6.12	AUS18	Bourguignon <i>et al.</i> 2017	KY224392
<i>Epheloterms taylori</i>	Termitinae	Darwin, Australia	6.12	AUS19	Bourguignon <i>et al.</i> 2017	KY224729
<i>Inquilinitermes inquilinus</i>	Termitinae	Petit Saut, French Guiana	27.1.12	G699	Bourguignon <i>et al.</i> 2017	KY224634
<i>Inquilinitermes sp.</i>	Termitinae	Sete Lagoas, Minas Gerais, Brazil	10.7.12	BRA2	Bourguignon <i>et al.</i> 2017	KY224464
<i>Lophoterms septentrionalis</i>	Termitinae	Darwin, Australia	7.2.14	AUS46	Bourguignon <i>et al.</i> 2017	KY224590
<i>Macrogathotermes sunteri</i>	Termitinae	Darwin, Australia	6.12	AUS20	Bourguignon <i>et al.</i> 2017	KY224611
<i>Palmitermes impostor</i>	Termitinae	Petit Saut, French Guiana	20.2.13	G13-084	Bourguignon <i>et al.</i> 2017	KY224567
<i>Palmitermes impostor</i>	Termitinae	Petit Saut, French Guiana	20.2.13	G13-084	Bourguignon <i>et al.</i> 2017	KY224567
<i>Spinitermes longiceps</i>	Termitinae	Petit Saut, French Guiana	20.1.12	G688	Bourguignon <i>et al.</i> 2017	KY224637
<i>Spinitermes sp. A</i>	Termitinae	Sete Lagoas, Minas Gerais, Brazil	14.7.12	BRA13	Bourguignon <i>et al.</i> 2017	KY224550
<i>Spinitermes trispinosus</i>	Termitinae	Petit Saut, French Guiana	3.3.13	G13-140	Bourguignon <i>et al.</i> 2017	KY224553
<i>Termes-group sp. F</i>	Termitinae	Cairns, Australia	19.7.14	AUS73	Bourguignon <i>et al.</i> 2017	KY224560
<i>Termes fatalis 1</i>	Termitinae	Petit Saut, French Guiana	17.2.13	G13-55	Bourguignon <i>et al.</i> 2017	KY224507
<i>Termes fatalis 2</i>	Termitinae	Petit Saut, French Guiana	17.1.14	G753	Bourguignon <i>et al.</i> 2017	KY224457
<i>Termes fatalis 2</i>	Termitinae	Petit Saut, French Guiana	16.2.13	G13-36	Bourguignon <i>et al.</i> 2017	KY224572
<i>Termes fatalis 2</i>	Termitinae	Petit Saut, French Guiana	25.2.13	G13-105	Bourguignon <i>et al.</i> 2017	KY224726
<i>Termes comis</i>	Termitinae	Mac Ritchie, Singapore	11.12.12	SING73	Bourguignon <i>et al.</i> 2017	KY224644
<i>Termes hospes</i>	Termitinae	Nkayamba, Burundi	5.5.12	BDIT034	Bourguignon <i>et al.</i> 2017	KY224510
<i>Termes hospes</i>	Termitinae	Yangambi, D.R.Congo	19.7.13	RDCT211	Bourguignon <i>et al.</i> 2017	KY224412
<i>Termes rostratus</i>	Termitinae	Khao Chong, Thailand	4.11.13	THAI036	Bourguignon <i>et al.</i> 2017	KY224442
<i>Termes rostratus</i>	Termitinae	Thung Chang, Thailand	13.11.13	THAI096	Bourguignon <i>et al.</i> 2017	KY224595
<i>Termes rostratus</i>	Termitinae	Penang, Malaysia	7.13	TP1.19C	Bourguignon <i>et al.</i> 2017	KY224453
<i>Tuberculitermes bycanistes</i>	Termitinae	Yangambi, D.R.Congo	13.7.13	RDCT125	Bourguignon <i>et al.</i> 2017	KY224466

**Table S2. Cuticular hydrocarbons observed in workers of *P. impostor* and comparative species**

No.	Compound	RI	Diagnostic EI-MS ions	Relative abundance (%)					
				<i>I. Inquilinus</i>	<i>T. fatalis 1</i>	<i>T. fatalis 2</i>	<i>S. trispinosus</i>	<i>C. tuberosus</i>	<i>P. impostor</i>
1	3-MeC25	2574	309, 337, 366	-	0.26	-	-	-	-
2	unidentified	2588		-	0.22	-	-	-	-
3	<i>n</i> -C26	2600	366	-	1.05	-	-	-	-
4	9-MeC26	2636	140, 266, 380	-	2.28	-	-	-	-
5	2-MeC26	2657	337, 365, 380	-	0.27	-	-	-	-
6	3-MeC26	2674	323, 351, 380	-	0.31	-	-	-	-
7	<i>n</i> -C27	2700	380	-	18.3	0.44	-	-	-
8	unidentified	2714		-	0.24	-	-	-	-
9	unidentified	2714		-	-	-	1.52	-	-
10	9-, 11-, 13-MeC27	2737	140, 168, 196, 394	-	49.62	2.47	-	-	-
11	unidentified	2762		-	0.19	-	-	-	-
12	3-MeC27	2776	337, 365, 394	-	21.51	7.07	-	-	-
13	<i>n</i> -C28	2800	394	-	0.63	1.77	-	-	-
14	squalene	2825		-	-	-	2.25	-	-
15	11-MeC28	2834	168, 266, 408	-	2.97	3.04	-	-	-
16	unidentified	2858		-	-	0.28	-	-	-
17	2-Me C28	2862	365, 393, 408	-	-	-	-	0.98	-
18	3-MeC28	2875	351, 379, 408	-	0.3	0.7	-	-	-
19	C29:1	2879	406	-	-	-	29.25	0.72	-
20	C29:1	2887	406	-	-	-	5.03	-	-
21	<i>n</i> -C29	2900	408	1.32	0.3	17.68	8.53	1.35	0.46
22	15-MeC29	2930	196, 224, 252, 422	0.35	0.52	39.92	1.29	-	3.91
23	unidentified	2959		-	0.2	0.71	-	-	-
24	2-MeC29	2962	379, 407, 422	0.74	-	-	0.56	13.24	3.16
25	3-MeC29	2975	365, 393, 422	14.15	0.28	22.28	11.07	3.07	0.36
26	<i>n</i> -C30	3000	422	1.14	-	0.23	-	1.17	0.38
27	15-MeC30	3029	196, 210, 224, 238, 436	0.77	-	0.83	-	-	4.22
28	unidentified	3051		-	-	-	-	-	0.17
29	C31:2	3056	432	-	-	-	2.11	-	-
30	2-MeC30	3057	393, 422, 436	0.48	-	-	-	2.13	0.93
31	C31:1	3070	434	-	-	-	-	32.16	-
32	3-MeC30	3074	379, 407, 436	0.29	0.25	-	-	-	-
33	C31:1	3080	434	-	-	-	1.56	19.91	20.81
34	C31:1	3088	434	-	-	-	1.93	-	-
35	<i>n</i> -C31	3100	436	10.28	-	0.42	-	1.58	4.83
36	C31:3	3103	430	-	-	-	3.97	-	-
37	C31:3	3107	430	-	-	-	6.97	-	-
38	unidentified	3117		0.22	-	0.09	-	-	-
39	13-, 15-, 17-MeC31	3129	168, 196, 224, 252, 280, 450	15.83	-	0.63	-	-	48.11
40	C31:2	3130	432	-	-	-	2.67	-	-
41	C31:2	3133	432	-	-	-	4.48	-	-
42	7-MeC31	3140	112, 336, 450	-	-	-	-	2.79	0.82
43	C31:3	3149	430	-	-	-	10.29	-	-
44	13,17-diMeC31	3149	196, 224, 267, 295, 464	-	-	-	-	-	4.27
45	11,15-diMeC31	3153	168,239,252,323, 464	2.2	-	-	-	-	-
46	C31:2	3158	432	-	-	-	0.35	-	-
47	unidentified	3158		-	-	0.3	-	-	0.79
48	C31:2	3173	432	-	-	-	1.77	3.06	-
49	3-MeC31	3174	393, 421, 450	7.17	-	1.14	4.4	-	0.56
50	C32:1	3184	448	-	-	-	-	-	0.46
51	unidentified	3185		0.39	0.28	-	-	-	-
52	<i>n</i> -C32	3200	450	0.96	-	-	-	-	0.48
53	unidentified	3209		-	-	-	-	-	0.1
54	unidentified	3227		1.69	-	-	-	-	0.56
55	unidentified	3254		0.51	-	-	-	-	-
56	C33:2	3256	460	-	-	-	-	8.16	-
57	C33:1	3272	462	-	-	-	-	8.43	-
58	C33:1	3279	462	-	-	-	-	1.24	4.61
59	<i>n</i> -C33	3300	464	1.74	-	-	-	-	-
60	13-, 15-, 17-MeC33	3329	168, 196, 224, 252, 280, 308, 478	9.97	-	-	-	-	-
61	11,15-diMeC33	3351	168, 239, 280, 351, 492	6.91	-	-	-	-	-
62	3-MeC33	3374		0.62	-	-	-	-	-
63	unidentified	3383		0.25	-	-	-	-	-
64	<i>n</i> -C34	3400	478	0.54	-	-	-	-	-
65	unidentified	3426		1.49	-	-	-	-	-
66	unidentified	3447		0.27	-	-	-	-	-
67	unidentified	3455		0.4	-	-	-	-	-
68	15-, 17-MeC35	3526	196, 224, 252, 280, 308, 506	11.65	-	-	-	-	-
69	unidentified	3547		4.5	-	-	-	-	-
70	unidentified	3624		0.75	-	-	-	-	-
71	unidentified	3722		1.87	-	-	-	-	-
72	unidentified	3743		0.55	-	-	-	-	-

Footnote: RI = retention index on ZB-5 column. Unsaturated cuticular hydrocarbons marked in red.



**Fig. S1.** Photographs of nests of *Palmitermes impostor*, sp. nov. (A) Nest constructed on a palm tree of the genus *Astrocaryum*, (B) epigeous part of an underground nest.