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2 **Supplementary material**

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4 **Spatio-temporal variation of dung beetle (Coleoptera: Scarabaeidae)**
5 **assemblages in a community ecological reserve of southeastern Mexico**

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11 ²Reserva Ecológica Comunitaria Bajlum Pakal, Nueva Betania, Chiapas, Mexico.

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13 **Appendix 1.** Dung beetle diversity descriptors by environment of the Bahlum Pakal
 14 Community Ecological Reserve, Nueva Betania, Chiapas, Mexico. Estimated diversity (*)
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Environment	Primary forest	Secondary forest	Riparian forest	Pastures
Sample coverage	99.6 %	99.51 %	98.68 %	99.3 %
Diversity descriptor				
Abundance	1011	818	568	302
Species richness (q0)	34 (37.99)*	30 (31.59)*	27 (29.66)*	14 (16.65)*
Exponential of Shannon entropy (q1)	16.2 (16.55)*	10.3 (10.52)*	15.01 (15.43)*	5.82 (5.99)*

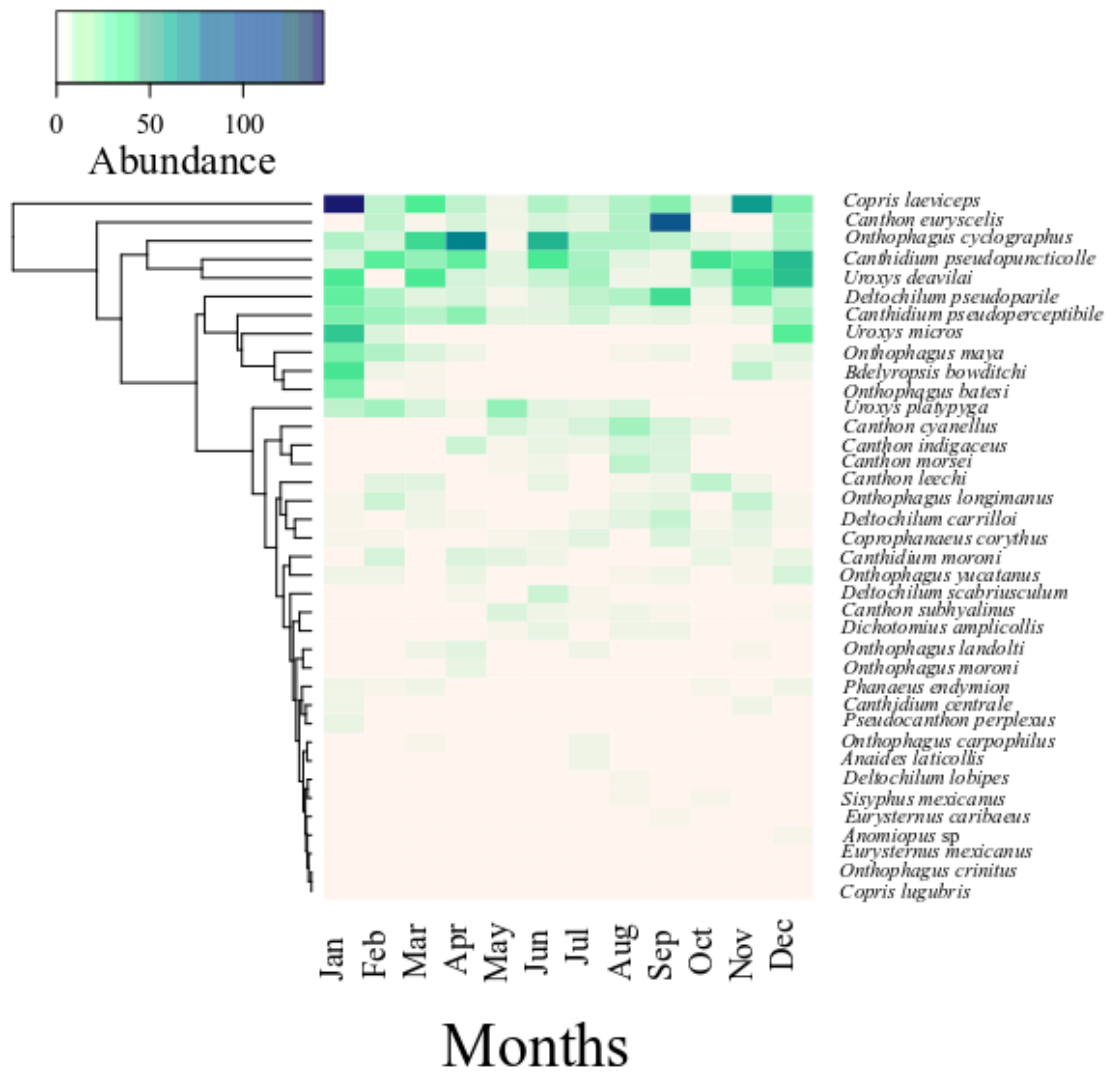
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Appendix 2. Dung beetle recorded of from the Bahlum Pakal Community Ecological

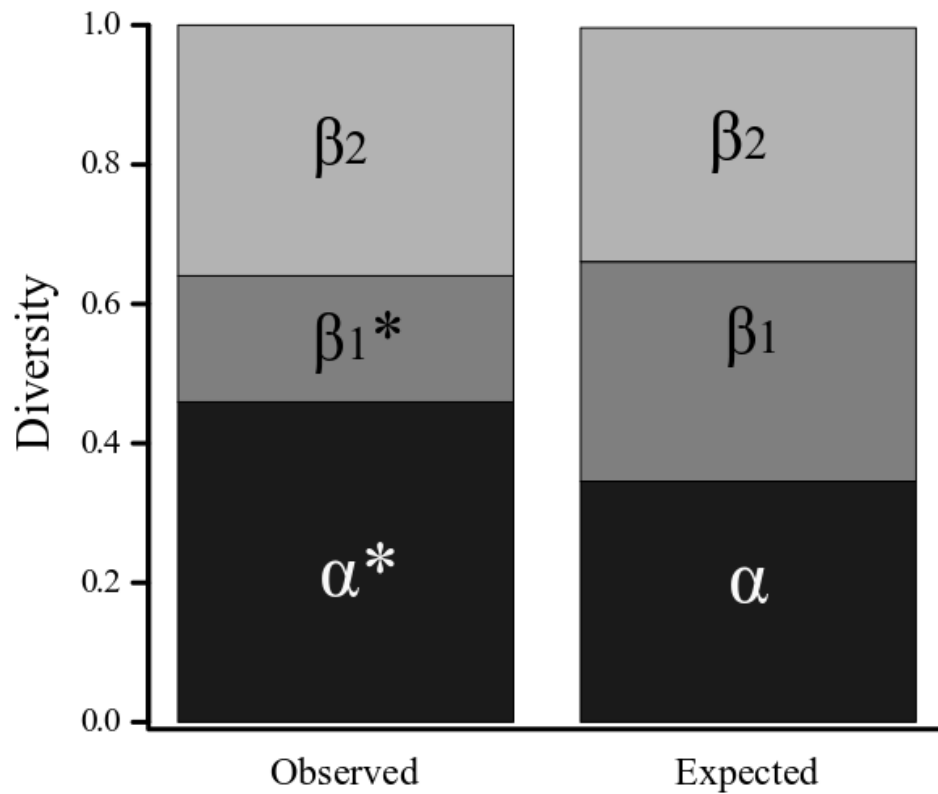
Reserve, Nueva Betania, Chiapas, Mexico. PF = Primary forest; SF= Secondary forest; P= Pastures; RF= Riparian forest.

Superfamily Scarabaeoidea						
Family	Species	PF	SF	P	RF	Total
Hybosoridae						
1.	<i>Anaides laticollis</i> Harold, 1863	4	0	0	0	4
Scarabaeidae						
2.	<i>Anomiopus</i> sp	2	0	0	0	2
3.	<i>Bdelyroptis bowditchi</i> Paulian, 1939	49	0	0	14	63
4.	<i>Canthidium centrale</i> Boucomont, 1928	6	1	0	2	9
5.	<i>Canthidium moroni</i> Kohlmann & Solis, 2006	30	4	0	8	42
6.	<i>Canthidium pseudoperceptibile</i> Kohlmann & Solis, 2006	88	20	2	38	142
7.	<i>Canthidium pseudopuncticolle</i> Solis & Kohlmann, 2004	9	206	80	1	296
8.	<i>Canthon euryscelis</i> Bates, 1887	115	9	0	57	181
9.	<i>Canthon leechi</i> Martínez, Halfpter & Halfpter, 1964	2	15	26	0	43
10.	<i>Canthon subhyalinus</i> Harold, 1867	9	0	0	12	21
11.	<i>Canthon cyanellus</i> LeConte, 1859	31	23	0	5	59
12.	<i>Canthon indigaceus</i> LeConte, 1866	1	3	37	0	41
13.	<i>Canthon morsei</i> Howden, 1966	12	4	0	11	27
14.	<i>Copris laeviceps</i> Harold, 1869	217	41	5	110	373
15.	<i>Copris lugubris</i> Boheman, 1858	1	0	0	0	1
16.	<i>Coprophanæus corythus</i> Harold, 1863	11	11	1	11	34
17.	<i>Deltochilum carrilloi</i> González-Alvarado & Vaz-de-Mello, 2014	27	1	0	15	43
18.	<i>Deltochilum lobipes</i> Bates, 1887	1	5	1	0	7

19.	<i>Deltochilum pseudoparile</i> Paulian, 1938	116	2	1	72	191
20.	<i>Deltochilum scabriusculum</i> Bates, 1887	7	11	0	0	18
21.	<i>Dichotomius amplicollis</i> Harold, 1869	9	3	0	2	14
22.	<i>Eurysternus caribaeus</i> Herbst, 1789	5	0	0	2	7
23.	<i>Eurysternus mexicanus</i> Harold, 1869	0	2	0	0	2
24.	<i>Onthophagus batesi</i> Howden & Cartwright, 1963	5	26	0	1	32
25.	<i>Onthophagus carpophilus</i> Pereira & Halffter, 1961	6	0	0	1	7
26.	<i>Onthophagus crinitus</i> D'Orbigny, 1904	0	1	0	0	1
27.	<i>Onthophagus cyclographus</i> Bates, 1887	19	151	102	8	280
28.	<i>Onthophagus landolti</i> Harold, 1880	1	9	6	1	17
29.	<i>Onthophagus longimanus</i> Bates, 1887	27	0	0	18	45
30.	<i>Onthophagus maya</i> Zunino, 1981	13	1	1	57	72
31.	<i>Onthophagus yucatanus</i> Delgado-Castillo, Peraza & Deloya, 2006	13	6	0	11	30
32.	<i>Phanaeus endymion</i> Harold, 1863	9	2	0	7	18
33.	<i>Pseudocanthon perplexus</i> LeConte, 1847	0	6	0	0	6
34.	<i>Sisyphus mexicanus</i> Harold, 1863	0	2	2	0	4
35.	<i>Uroxys deavilai</i> Delgado & Kohlmann, 2007	40	164	2	28	234
36.	<i>Uroxys micros</i> Bates, 1887	31	51	0	11	93
37.	<i>Uroxys platypyga</i> Howden & Young, 1981	59	2	0	24	85
PR= Primary forest, SF= Secondary forest, RF= Riparian forest, P= Pastures						



Appendix 3. Temporal distribution of dung beetle species of the Bahlum Pakal Community Ecological Reserve, Nueva Betania, Chiapas, Mexico. Darker colors indicate a greater abundance of species.



Appendix 4. Additive diversity partitioning of the diversity of dung beetle species of the Bahlum Pakal Community Ecological Reserve, Nueva Betania, Chiapas, Mexico between two spatial scales (α , β_1 (between traps), β_2 (between environments)). Diversity values were compared with estimated values calculated by a null model. The symbol (*) indicates that the result is significantly different from the estimated value.