

Digital supplementary material to

PFEIFFER, M., MEZGER, D. & DYCKMANS, J. 2014: Trophic ecology of tropical leaf litter ants (Hymenoptera: Formicidae) – a stable isotope study in four types of Bornean rain forest. – Myrmecological News 19: 31-41.

Appendix S1: Number and mean $\delta^{15}\text{N}$ values of the three soil layers of our studied forest types. Standard deviations (SD) in parentheses.

Forest type	Soil layer	n	$\delta^{15}\text{N}$
Alluvial forest	leaf litter	18	0.69 (\pm 1.16)
	topsoil	15	2.40 (\pm 1.00)
	undersoil	10	4.10 (\pm 0.50)
Limestone forest	leaf litter	10	-1.11 (\pm 0.29)
	topsoil	13	0.23 (\pm 0.87)
	undersoil	0	not present
Kerangas	leaf litter	7	-1.41 (\pm 0.70)
	topsoil	8	0.37 (\pm 0.30)
	undersoil	9	3.24 (\pm 0.97)
Dipterocarp forest	leaf litter	13	-0.50 (\pm 0.47)
	topsoil	16	1.37 (\pm 0.57)
	undersoil	10	4.98 (\pm 0.97)

Appendix S2: List of arthropods used as references for herbivores and predators. For each forest type, we give order and taxon name of these arthropods, their classification as herbivores (H) or predators (P), their sample size, mean of their $\delta^{15}\text{N}$ values including standard deviation (SD). Each group (herbivores / predators) of the four forest types is summarised at the end of the respective list with sample size, Mean value and SD.

Order	Taxon	H / P	N	Mean	SD
alluvial forest					
Lepidoptera	Lepidoptera indet. caterpillar	H	1	1.60	
Orthoptera	Tetrigidae	H	6	0.09	1.35
Orthoptera	Orthoptera indet.	H	1	2.29	
mean all herbivores (alluvial)		H	8	0.55	1.44
Coleoptera	Staphylinidae indet.	P	2	7.55	0.72
Coleoptera	Staphylinidae: Steninae indet.	P	1	8.33	
Coleoptera	Carabidae indet.	P	3	5.61	1.36
Coleoptera	Carabidae: Scaritini indet.	P	1	4.91	
Coleoptera	Carabidae: Brachinini indet.	P	1	7.45	
Coleoptera	Carabidae: Cicindelitae indet.	P	2	6.29	0.35
Heteroptera	Reduviidae indet.	P	4	5.88	1.16
Araneae	Salticidae indet.	P	4	5.47	1.65
Araneae	Salticidae: <i>Myrmarachne</i> sp.	P	1	4.27	
Araneae	Araneae indet.	P	6	6.06	1.73
mean all predators (alluvial)		P	25	6.55	1.44
limestone forest					
Lepidoptera	Lepidoptera indet. caterpillar	H	6	-0.47	1.13
Lepidoptera	Psychidae indet. caterpillar	H	1	-2.08	
Orthoptera	Tetrigidae indet.	H	1	-1.96	
Coleoptera	Curculionidae indet.	H	1	-1.88	
mean all herbivores (limestone)		H	9	0.97	1.17
Coleoptera	Staphylinidae indet.	P	6	1.35	2.14
Coleoptera	Carabidae: Cicindelitae indet.	P	1	2.98	
Heteroptera	Reduviidae indet.	P	2	2.16	0.40
Araneae	Araneae indet.	P	3	4.01	1.20
mean all predators (limestone)		P	12	2.29	1.92
kerangas					
Orthoptera	Gryllidae indet.	H	2	-0.54	0.21
Orthoptera	Orthoptera indet.	H	3	0.79	1.09
Coleoptera	Curculionidae indet.	H	2	-0.12	0.09
mean all herbivores (kerangas)			7	0.15	0.89
Coleoptera	Staphylinidae indet.	P	2	2.58	4.47
Heteroptera	Reduviidae indet.	P	1		
Araneae	Salticidae indet.	P	2	5.76	0.34
Araneae	Araneae indet.	P	3	7.26	1.35
mean all predators (kerangas)			8	5.91	2.89
dipterocarp forest					
Lepidoptera	Lepidoptera indet.	H	1	-0.90	
Orthoptera	Tetrigidae indet.	H	2	0.62	0.29
Orthoptera	Orthoptera indet.	H	1	1.00	
Coleoptera	Curculionidae indet.	H	3	1.22	0.21
mean all herbivores (dipterocarp)			7	0.72	0.89
Coleoptera	Staphylinidae indet.	P	7	3.27	1.89
Coleoptera	Carabidae indet.	P	1	7.97	
Coleoptera	Carabidae: Cicindelitae indet.	P	1	5.88	
Araneae	Araneae indet.	P	4	5.56	1.86
mean all predators (dipterocarp)			13	4.54	2.89

Appendix S3: $\delta^{15}\text{N}_{\text{cor}}$ values of the 151 species used in this study. Given are the species names including species authorities; subfamilies; collecting methods (W = Winkler, B = Barber trap, K = Bait, O = Opportunistic, S = Sweep-netting of lowest vegetation layer); sample size N; mean of $\delta^{15}\text{N}$ values; their SD if applicable and the habitat in which these species were collected (A: alluvial forest, D: dipterocarp forest, K: kerangas and L: limestone forest). The isotope values we show here are from all forest types, so we used corrected values for calculating the mean.

Species	Subfamily	Collecting Methods	N	Mean $\delta^{15}\text{N}_{\text{cor}}$	SD	Habitat
<i>Aenictus dentatus</i> FOREL, 1911	Aenictinae	O	1	4.67		A
<i>Aenictus gracilis</i> EMERY, 1893	Aenictinae	O	1	4.99		D
<i>Aenictus laeviceps</i> SMITH, 1857	Aenictinae	O	4	4.20	0.667	A L
<i>Aenictus pfeifferi</i> ZETTEL & SORGER, 2010	Aenictinae	O	3	5.18	0.320	A
<i>Myopopone castanea</i> SMITH, 1860	Ambyoponinae	O	1	7.11		A
<i>Mystrium camillae</i> EMERY, 1889	Ambyoponinae	W	8	9.29	0.493	A L K D
<i>Cerapachys</i> sp. 1	Cerapachyinae	W	6	9.03	0.473	A L K D
<i>Cerapachys</i> sp. 7	Cerapachyinae	W	4	7.17	1.254	A D
<i>Dolichoderus affinis</i> EMERY, 1889	Dolichoderinae	O	1	1.87		L
<i>Dolichoderus cuspidatus</i> SMITH, 1857	Dolichoderinae	O	1	1.54		L
<i>Dolichoderus indrapurensis</i> FOREL, 1912	Dolichoderinae	O	4	1.00	0.227	A
<i>Philidris</i> sp. 1	Dolichoderinae	O, K	4	5.88	0.120	A L
<i>Tapinoma melanocephalum</i> FABRICIUS, 1783	Dolichoderinae	W	1	7.57		L
<i>Technomyrmex kraepelini</i> FOREL, 1905	Dolichoderinae	W	2	2.99	0.480	L
<i>Technomyrmex lisae</i> FOREL, 1913	Dolichoderinae	W	12	3.57	0.843	A L K
<i>Technomyrmex modiglianii</i> EMERY, 1990	Dolichoderinae	W	3	2.57	0.572	D
<i>Dorylus laevigatus</i> SMITH, 1857	Dorylinae	O	1	6.42		D
<i>Gnamptogenys binghamii</i> (FOREL, 1990)	Ectatomminae	W	2	7.11	0.258	K D
<i>Gnamptogenys cribrata</i> (EMERY, 1990)	Ectatomminae	W	8	7.70	1.426	A L K D
<i>Gnamptogenys palamala</i> (LATTKE, 2004)	Ectatomminae	W	1	4.47		A
<i>Acropyga</i> sp. 3	Formicinae	W	2	7.14	1.277	D
<i>Camponotus arrogans</i> (SMITH, 1857)	Formicinae	W, B, K, O	9	3.21	1.041	A L K D
<i>Camponotus gigas</i> (LATREILLE, 1802)	Formicinae	B, K, O	18	2.88	0.668	A L K D
<i>Camponotus saundersi</i> EMERY, 1889	Formicinae	O	7	1.51	1.040	A L K
<i>Camponotus</i> sp. 2	Formicinae	B	1	0.21		A
<i>Camponotus</i> sp. 3	Formicinae	B	1	1.63		A
<i>Myrmoterus donisthorpei</i> WHEELER, 1916	Formicinae	W	3	5.03	0.585	L D
<i>Nylanderia</i> sp. 1	Formicinae	W	6	4.04	0.835	A K D
<i>Nylanderia</i> sp. 2	Formicinae	W	1	4.24		D
<i>Oecophylla smaragdina</i> (FABRICIUS, 1775)	Formicinae	B, O	4	4.10	0.400	A K
<i>Paraparatrechina</i> sp. 1	Formicinae	W	2	4.41	0.909	A
<i>Paratrechina longicornis</i> (LATREILLE, 1802)	Formicinae	O	3	5.47	0.434	A K
<i>Polyrhachis abdominalis</i> SMITH, 1858	Formicinae	O	5	0.87	0.468	A
<i>Polyrhachis inermis</i> SMITH, 1858	Formicinae	O, S	2	-0.03	0.221	A
<i>Polyrhachis nigropilosa</i> MAYR, 1872	Formicinae	O	2	2.90	0.491	K D
<i>Prenolepis</i> sp. 1	Formicinae	W	1	2.72		L
<i>Prenolepis</i> sp. 2	Formicinae	W	1	4.59		A
<i>Prenolepis</i> sp. 3	Formicinae	W	1	5.38		A
<i>Pseudolasius</i> sp. 1	Formicinae	W	3	8.70	1.989	K D
<i>Pseudolasius</i> sp. 4	Formicinae	W	2	4.23	0.434	D
<i>Acanthomyrmex concavus</i> MOFFET, 1986	Myrmicinae	O	1	6.61		A
<i>Acanthomyrmex ferox</i> (EMERY, 1883)	Myrmicinae	W	12	4.79	1.053	A L K D
<i>Aphaenogaster</i> sp. 1	Myrmicinae	W, K	1	5.69		A
<i>Calyptomyrmex ryderae</i> SHATTUCK, 2011	Myrmicinae	W	1	6.41		A
<i>Crematogaster (Decacrema)</i> sp.	Myrmicinae	O	1	0.72		A
<i>Crematogaster difformis</i> SMITH, 1857	Myrmicinae	O	2	2.22	0.534	A

<i>Crematogaster inflata</i> SMITH, 1857	Myrmicinae	O	1	2.97		L
<i>Crematogaster modiglianii</i> EMERY, 1900	Myrmicinae	B, K, O	7	3.36	1.384	A L K
<i>Crematogaster rogenhoferi</i> MAYR, 1879	Myrmicinae	O	1	5.45		A
<i>Crematogaster</i> sp. 1	Myrmicinae	W	7	5.83	1.422	L K D
<i>Crematogaster</i> sp. 2	Myrmicinae	W	1	4.67		L
<i>Crematogaster</i> sp. 9	Myrmicinae	W	7	5.31	1.615	L K D
<i>Eurhopalothrix jemnya</i> TAYLOR, 1990	Myrmicinae	W	1	6.51		L
<i>Eurhopalothrix omnivaga</i> TAYLOR, 1990	Myrmicinae	W	3	7.23	0.229	L D
<i>Lophomyrmex bedoti</i> EMERY, 1893	Myrmicinae	W, B, K	16	4.86	0.618	A L K
<i>Lophomyrmex longicornis</i> RIGATO, 1994	Myrmicinae	W, B, K	10	4.95	1.178	A L
<i>Meranoplus malaysianus</i> SCHÖDL, 1998	Myrmicinae	W	1	5.00		A
<i>Monomorium</i> sp. 1	Myrmicinae	W	4	5.31	0.325	A L D
<i>Monomorium</i> sp. 2	Myrmicinae	W	1	7.60		D
<i>Myrmecina</i> sp. 1	Myrmicinae	W	2	6.61	0.076	A
<i>Myrmecina</i> sp. 2	Myrmicinae	W	4	7.80	0.807	A D
<i>Myrmecaria brunnea</i> SAUNDERS, 1842	Myrmicinae	B, O	11	4.70	0.870	A L
<i>Myrmecaria lutea</i> EMERY, 1900	Myrmicinae	O	1	-0.67		A
<i>Myrmecaria melanogaster</i> EMERY, 1900	Myrmicinae	O	1	2.95		A
<i>Myrmecaria</i> sp. PSE (code of Bakhtiar)	Myrmicinae	O	1	4.98		A
<i>Carebara</i> sp. 1	Myrmicinae	W	5	7.23	0.469	A K D
<i>Carebara</i> sp. 2	Myrmicinae	W	5	6.35	0.574	A K D
<i>Carebara</i> sp. 3	Myrmicinae	W	3	8.49	0.291	K D
<i>Carebara</i> sp. 4	Myrmicinae	W	1	4.20		D
<i>Carebara</i> sp. 6	Myrmicinae	W	1	5.91		A
<i>Pheidole aglae</i> FOREL, 1913	Myrmicinae	W, B, K	3	4.77	0.234	A K
<i>Pheidole annexus</i> EGUCHI, 2001	Myrmicinae	W	4	6.50	0.871	K D
<i>Pheidole aristotelis</i> FOREL, 1913	Myrmicinae	W	8	5.74	0.993	A L K D
<i>Pheidole</i> cf. <i>clypeocornis</i> EGUCHI, 2001	Myrmicinae	W	2	4.95	0.014	K
<i>Pheidole</i> cf. <i>kikutai</i> EGUCHI, 2001	Myrmicinae	W	7	5.86	0.928	A D
<i>Pheidole fervens</i> F. SMITH, 1858	Myrmicinae	W	1	5.84		D
<i>Pheidole gombakensis</i> EGUCHI, 2001	Myrmicinae	W	2	6.63	1.378	K
<i>Pheidole havilandi</i> FOREL, 1911	Myrmicinae	W	1	4.70		D
<i>Pheidole huberi</i> FOREL, 1911	Myrmicinae	W	1	4.99		A
<i>Pheidole longipes</i> F. SMITH, 1857	Myrmicinae	W	4	5.70	1.224	K D
<i>Pheidole lucioccipitalis</i> EGUCHI, 2001	Myrmicinae	W	4	5.23	0.155	D
<i>Pheidole parvicorpus</i> EGUCHI, 2001	Myrmicinae	W	6	6.92	1.075	K D
<i>Pheidole plagiaria</i> F. SMITH, 1860	Myrmicinae	W	2	6.70	1.601	A D
<i>Pheidole planidorsum</i> EGUCHI, 2001	Myrmicinae	W	1	5.25		L
<i>Pheidole quadrensis</i> FOREL, 1900	Myrmicinae	W	10	5.15	0.670	A L D
<i>Pheidole quadricuspis</i> EMERY, 1990	Myrmicinae	W	2	5.38	0.517	A
<i>Pheidole retivertex</i> EGUCHI, 2001	Myrmicinae	W	2	5.60	0.571	K D
<i>Pheidole rugifera</i> EGUCHI, 2001	Myrmicinae	W	6	5.47	0.526	D
<i>Pheidole sabahna</i> EGUCHI, 2000	Myrmicinae	O	1	6.62		D
<i>Pheidole sauberi</i> FOREL, 1905	Myrmicinae	W	2	5.19	1.128	A
<i>Pheidole tjibodana</i> FOREL, 1905	Myrmicinae	W	2	5.89	1.371	A D
<i>Pheidole upeniki</i> FOREL, 1913	Myrmicinae	W	2	7.54	0.066	K D
<i>Pheidologeton affinis</i> JERDON, 1851	Myrmicinae	W, B, K	4	6.42	3.146	A K D
<i>Pheidologeton pygmaeus</i> EMERY, 1867	Myrmicinae	O	1	5.80		A
<i>Pheidologeton silenus</i> (SMITH, 1858)	Myrmicinae	W	1	8.03		L
<i>Pristomyrmex rigidus</i> WANG, 2003	Myrmicinae	W	1	6.71		L
<i>Proatta butteli</i> FOREL, 1912	Myrmicinae	W	9	5.48	0.918	L D
<i>Pyramica aello</i> BOLTON, 2000	Myrmicinae	W	1	8.53		D
<i>Pyramica mitis</i> BROWN, 2000	Myrmicinae	W	1	6.50		K

<i>Recurvidris browni</i> BOLTON, 1992	Myrmicinae	W	1	6.41		A
<i>Strumigenys aechme</i> BOLTON, 2000	Myrmicinae	W	3	4.60	0.269	A L D
<i>Strumigenys ignota</i> BOLTON, 2000	Myrmicinae	W	1	7.18		L
<i>Strumigenys macerina</i> BOLTON, 2000	Myrmicinae	W	1	6.58		A
<i>Strumigenys naberia</i> BOLTON, 2000	Myrmicinae	W	1	7.04		A
<i>Strumigenys rofocala</i> BOLTON, 2000	Myrmicinae	W	7	7.38	1.255	A L D
<i>Strumigenys rotogetus</i> BOLTON, 2000	Myrmicinae	W, O	7	5.59	0.343	A
<i>Strumigenys signea</i> FOREL, 1905	Myrmicinae	W	3	5.99	0.520	D
<i>Tetramorium</i> sp. (<i>chepocha</i> -group)	Myrmicinae	W	2	6.07	0.628	K
<i>Tetramorium</i> sp. (<i>scabrosus</i> -group)	Myrmicinae	W	2	5.88	0.426	L K
<i>Tetramorium curtulum</i> EMERY, 1895	Myrmicinae	W	3	6.44	0.435	A K
<i>Tetramorium meshena</i> (BOLTON, 1976)	Myrmicinae	W	2	5.18		A
<i>Tetramorium insolens</i> (SMITH, 1861)	Myrmicinae	W	1	5.42	1.418	K
<i>Tetramorium</i> sp. near <i>vertigum</i> BOLTON, 1977	Myrmicinae	W	9	5.38	0.912	A L K
<i>Vollenhovia</i> sp. 1	Myrmicinae	W	2	7.14	0.836	D
<i>Anochetus</i> sp. 1	Ponerinae	W	3	7.11	0.812	A L
<i>Anochetus</i> sp. 2	Ponerinae	W	8	6.37	1.015	A L K D
<i>Diacamma</i> sp. 1	Ponerinae	B, K, O	10	5.65	0.990	A L K D
<i>Emeryopone buttelreepeni</i> (FOREL, 1912)	Ponerinae	W	2	4.05	0.023	A L
<i>Hypoponera</i> sp. 16	Ponerinae	W	1	8.19		K
<i>Hypoponera</i> sp. 1	Ponerinae	W	1	7.63		A
<i>Hypoponera</i> sp. 10	Ponerinae	W	3	7.11	0.203	A L
<i>Hypoponera</i> sp. 11	Ponerinae	W	1	7.21		L
<i>Hypoponera</i> sp. 14	Ponerinae	W	2	6.91	0.183	A D
<i>Hypoponera</i> sp. 3	Ponerinae	W	9	6.97	1.535	A L K D
<i>Hypoponera</i> sp. 4	Ponerinae	W	2	5.08	2.181	A L
<i>Hypoponera</i> sp. 7	Ponerinae	W	6	7.64	1.035	A L K D
<i>Hypoponera</i> sp. 9	Ponerinae	W	1	8.02		A
<i>Hypoponera</i> sp. AL16B	Ponerinae	W	9	6.93	1.211	A K D
<i>Leptogenys</i> sp. 1	Ponerinae	B, O	4	6.86	0.934	A
<i>Leptogenys</i> sp. 1b	Ponerinae	B	1	7.25		L
<i>Leptogenys</i> sp. 3	Ponerinae	B	3	4.57	0.339	A K
<i>Leptogenys</i> sp. 4	Ponerinae	O	1	7.01		A
<i>Leptogenys</i> sp. 5	Ponerinae	O	3	5.89	0.564	A L
<i>Leptogenys</i> sp. 6	Ponerinae	O	2	8.14	0.755	A L
<i>Leptogenys</i> sp. 7	Ponerinae	O	1	3.57		L
<i>Leptogenys</i> sp. 8	Ponerinae	O	1	8.12		A
<i>Odontomachus rixosus</i> SMITH, 1857	Ponerinae	W	11	5.79	0.681	A K D
<i>Odontoponera transversa</i> (SMITH, 1857)	Ponerinae	B, O	4	6.22	0.593	A D
<i>Pachycondyla pildorsalis</i> YAMANE, 2007	Ponerinae	W	4	6.92	1.402	A L K D
<i>Pachycondyla tridentata</i> SMITH, 1858	Ponerinae	O	2	5.03	0.477	A
<i>Pachycondyla</i> sp. 1	Ponerinae	W	1	6.94		D
<i>Pachycondyla</i> sp. 2	Ponerinae	W	2	6.80	0.168	D
<i>Pachycondyla</i> sp. 6	Ponerinae	W	1	8.87		A
<i>Pachycondyla</i> sp. 7	Ponerinae	W	2	9.19	0.247	K
<i>Pachycondyla</i> sp. 9	Ponerinae	W	2	8.36	0.045	D
<i>Pachycondyla</i> sp. 10	Ponerinae	W	1	9.83		D
<i>Plathythyrea</i> sp. 1	Ponerinae	O	1	4.81		A
<i>Discothyrea</i> sp. 1	Proceratiinae	W	1	8.31		D
<i>Probolomyrmex maryatya</i> EGUCHI, YOSHIMURA & YAMANE, 2006	Proceratiinae	W	1	6.62		A
<i>Proceratium</i> sp. 2	Proceratiinae	W	1	9.48		A
<i>Tetraponera</i> sp. 1	Pseudomyrmicinae	O	1	4.49		A

Appendix S4: Trophic levels in ant genera within subfamilies. Given are subfamilies, ant genera and their mean corrected $\delta^{15}\text{N}$ values, number of specimens and standard deviation. Besides we give results of Unequal N HSD post hoc tests after ANOVAs performed separately for subfamilies. The respective ANOVA results are given in Table 2.

Subfamily	Genus	$\delta^{15}\text{N}$ cor. means	N	SD																					
Formicinae					[1]	[2]	[3]	[4]	[5]	[6]	[7]														
	[1] <i>Acropyga</i>	7.141	2	1.28		0.009	0.622	0.190	0.199	0.000	1.000														
	[2] <i>Camponotus</i>	2.588	36	1.10	0.009		0.215	0.297	0.608	0.179	0.000														
	[3] <i>Myrmoteras</i>	5.032	3	0.59	0.622	0.215		0.963	0.968	0.005	0.519														
	[4] <i>Nylanderia</i>	4.428	7	0.77	0.190	0.297	0.963		1.000	0.001	0.011														
	[5] <i>Oecophylla</i>	4.098	4	0.40	0.199	0.608	0.968	1.000		0.021	0.034														
	[6] <i>Polyrhachis</i>	1.122	9	1.14	0.000	0.179	0.005	0.001	0.021		0.001														
	[7] <i>Pseudolasius</i>	6.915	5	2.83	1.000	0.000	0.519	0.011	0.034	0.001															
Dolichoderinae					[1]	[2]	[3]	[4]																	
	[1] <i>Dolichoderus</i>	1.235	6	0.42		0.000	0.000	0.000																	
	[2] <i>Philidris</i>	5.878	4	0.12	0.000		0.000	0.357																	
	[3] <i>Technomyrmex</i>	3.328	17	0.84	0.000	0.000		0.002																	
[4] <i>Tapinoma</i>	7.575	1	0.00	0.000	0.357	0.002																			
Aenictinae	<i>Aenictus</i>	4.665	9	0.64	no test																				
Myrmicinae					[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	
	[1] <i>Acanthomyrmex</i>	4.925	13	1.13		1.000	1.000	1.000	1.000	1.000	1.000	0.066	0.996	0.008	0.979	0.720	1.000	0.436	0.992	0.647	1.000	0.863	0.965	1.000	
	[2] <i>Aphaenogaster</i>	5.688	1	0.00	1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
	[3] <i>Calyptomyrmex</i>	6.411	1	0.00	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
	[4] <i>Crematogaster</i>	4.433	27	1.90	1.000	1.000	1.000		0.999	1.000	0.979	0.005	1.000	0.000	0.014	0.227	1.000	0.000	0.220	0.242	0.966	0.596	0.811	0.999	
	[5] <i>Lophomyrmex</i>	4.894	26	0.86	1.000	1.000	1.000	0.999		1.000	1.000	0.057	0.997	0.002	0.585	0.689	1.000	0.034	0.936	0.620	1.000	0.851	0.960	1.000	
	[6] <i>Meranoplus</i>	5.001	1	0.00	1.000	1.000	1.000	1.000	1.000		1.000	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.997	1.000	1.000	
	[7] <i>Monomorium</i>	5.770	5	1.06	1.000	1.000	1.000	0.979	1.000	1.000		0.867	0.910	0.997	1.000	1.000	1.000	1.000	1.000	0.997	1.000	0.998	1.000	1.000	
	[8] <i>Myrmecina</i>	7.403	6	0.88	0.066	1.000	1.000	0.005	0.057	0.998	0.867		0.001	1.000	0.733	1.000	1.000	0.987	0.660	1.000	0.435	1.000	1.000	1.000	
	[9] <i>Myrmecaria</i>	4.214	14	1.67	0.996	1.000	1.000	1.000	0.997	1.000	0.910	0.001		0.000	0.110	0.102	1.000	0.003	0.167	0.129	0.826	0.457	0.691	0.997	
	[10] <i>Oligomyrmex</i>	6.897	15	1.20	0.008	1.000	1.000	0.000	0.002	1.000	0.997	1.000	0.000		0.565	1.000	1.000	0.996	0.443	1.000	0.638	1.000	1.000	1.000	
	[11] <i>Pheidole</i>	5.754	73	1.00	0.979	1.000	1.000	0.014	0.585	1.000	1.000	0.733	0.110	0.565		1.000	1.000	0.999	1.000	0.996	1.000	0.998	1.000	1.000	
	[12] <i>Pheidologeton</i>	6.587	6	2.55	0.720	1.000	1.000	0.227	0.689	1.000	1.000	1.000	1.000	1.02	1.000	1.000		1.000	1.000	0.999	1.000	0.993	1.000	1.000	
	[13] <i>Recurvidris</i>	6.412	1	0.00	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000	
	[14] <i>Strumigenys</i>	6.234	23	1.22	0.436	1.000	1.000	0.000	0.034	1.000	1.000	0.987	0.003	0.996	0.999	1.000	1.000		0.999	1.000	0.999	1.000	1.000	1.000	
	[15] <i>Tetramorium</i>	5.683	18	0.84	0.992	1.000	1.000	0.220	0.936	1.000	1.000	0.660	0.167	0.443	1.000	0.999	1.000	0.999		0.999	1.000	0.996	1.000	1.000	
	[16] <i>Eurhopalothrix</i>	7.047	4	0.40	0.647	1.000	1.000	0.242	0.620	1.000	0.997	1.000	0.129	0.443	1.000	0.996	1.000	1.000	0.992		0.992	0.965	1.000	1.000	
	[17] <i>Proatta</i>	5.475	9	0.92	1.000	1.000	1.000	0.966	1.000	1.000	1.000	0.435	0.826	0.638	1.000	0.993	1.000	0.999	1.000	0.965		0.986	0.999	1.000	
	[18] <i>Pyramica</i>	7.516	2	1.44	0.863	1.000	1.000	0.596	0.851	0.997	0.998	1.000	0.457	1.000	0.998	1.000	1.000	1.000	1.000	0.996	1.000	0.986		1.000	
	[19] <i>Vollenhovia</i>	7.143	2	0.84	0.965	1.000	1.000	0.811	0.960	1.000	1.000	1.000	0.691	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	1.000		1.000	
[20] <i>Pristomyrmex</i>	6.709	1	0.00	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
Ponerinae					[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]												
	[1] <i>Anochetus</i>	6.569	11	0.99		0.772	0.521	0.990	1.000	0.864	1.000	0.738	0.985												
	[2] <i>Diacamma</i>	5.654	10	0.99	0.772		0.929	0.221	0.956	1.000	0.999	0.037	1.000												
	[3] <i>Emeryopone</i>	4.046	2	0.02	0.521	0.929		0.275	0.660	0.891	0.711	0.139	1.000												
	[4] <i>Hypoponera</i>	7.066	35	1.25	0.990	0.221	0.275		0.735	0.287	0.988	0.993	0.933												
	[5] <i>Leptogenys</i>	6.315	16	1.50	1.000	0.956	0.660	0.735		0.986	1.000	0.218	0.995												
	[6] <i>Odontomachus</i>	5.791	11	0.68	0.864	1.000	0.891	0.287	0.986		1.000	0.048	1.000												
	[7] <i>Odontoponera</i>	6.218	4	0.59	1.000	0.999	0.711	0.988	1.000	1.000		0.882	0.997												
	[8] <i>Pachycondyla</i>	7.472	15	1.59	0.738	0.037	0.139	0.993	0.218	0.048	0.882		0.843												
[9] <i>Platythrea</i>	4.812	1	0.00	0.985	1.000	1.000	0.933	0.995	1.000	0.997	0.843														
Ectatomminae	<i>Gnamptogenys</i>	7.298	11	1.54	no test																				
Proceratiinae	<i>Probolomyrmex</i>	6.624	1	0.00	no test																				
	<i>Proceratium</i>	9.478	1	0.00	no test																				
	<i>Discothyrea</i>	8.315	1	0.00	no test																				
Cerapachyinae	<i>Cerapachys</i>	8.283	10	1.25	no test																				
Amblyoponinae					[1]	[2]																			
	[1] <i>Myopopone</i>	7.113	1	0.00		0.017																			
	[2] <i>Mystrium</i>	9.289	8	0.49	0.017																				
Dorylinae	<i>Dorylus</i>	6.424	1	0.00	no test																				

Appendix S5: Results of the F-Test comparing the variances of $\delta^{15}\text{N}$ values for species sampled in different forest types and transects. Given are p-values (above diagonal) and (F-values) for the F-test (R 2.11.1, stat package). Calculation was performed with mean $\delta^{15}\text{N}$ values of species of single transects. AL1 = alluvial forest transect1 (n = 91, max = 9.478, min = -0.67), DI = dipterocarp forest (n = 65, max = 8.381, min = 0.735), LI1 = limestone forest transect1 (n = 45, max = 7.917, min = -1.295), LI2 = limestone forest transect2 (n = 19, max = 7.573, min = 0.262), KE = Kerangas (n = 42, max = 7.214, min = 0.378): No calculation was made for the second transect in alluvial forest (n = 4). All differences are not significant.

	AL1	DI	LI1	LI2	KE
AL1		0.166	0.9998	0.7405	0.1068
DI	1.3883		0.2392	0.5923	0.6734
LI1	1.0079	0.726		0.7586	0.1519
LI2	1.1668	0.8405	1.1576		0.4182
KE	1.5752	1.1347	1.5629	1.3501	

Appendix S6: Distribution of $\delta^{15}\text{N}$ among the ant communities in the different forest types. For alluvial forest and limestone forest baseline corrected values are given to correct for the sampling at two transects.

