SUPPLEMENTARY MATERIAL

The preference for energetic resources is positively associated with predatory activity in ants

Icaro Wilker[1,2], Tom R. Bishop[2,3], Chaim J. Lasmar[1,4], Dara Veiga[1], Letícia G. Souza[5], Antônio C.M. Queiroz[1], Rodrigo M. Feitosa[6], Ana C.A. Neundorf[6], Mila F.O. Martins[5], Guilherme P. Alves[1], Luane K. Fontenele[1,7], Marília M.S. Costa[1,8], Carla R. Ribas[1,9]

[1]Programa de Pós-Graduação em Ecologia Aplicada, Departamento de Ecologia e Conservação, Instituto de Ciências Naturais, Universidade Federal de Lavras, Lavras, Minas Gerais, Brazil
[2]School of Biosciences, Cardiff University, Cardiff CF10 3AX, UK
[3]Department of Zoology and Entomology, University of Pretoria, Pretoria, South Africa
[4]Instituto Nacional da Mata Atlântica, Santa Teresa - ES, Brazil
[5]Laboratório de Ecologia de Formigas, Departamento de Ecologia e Conservação, Instituto de Ciências Naturais, Universidade Federal de Lavras, Lavras, MG, Brazil
[6]Departamento de Zoologia, Universidade Federal do Paraná, Avenida Coronel Francisco Heráclito dos Santos, s/n, Caixa Postal 19020, CEP 81531-980, Curitiba, PR, Brazil
[7]Universidade Federal do Acre, Programa de Pós-graduação em Ciência, Inovação e Tecnologia para Amazônia, Rio Branco, AC, Brazil
[8]Programa de Pós-Graduação em Ecologia, Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, RJ, Brazil
[9]Programa de Pós-Graduação em Biodiversidade e Programa de Pós-Graduação em Etnobiologia e Conservação da Natureza, Departamento de Biologia, Universidade Federal Rural de Pernambuco, CEP 52171-900 - Recife, PE, Brazil

Table S1. Table with transect specifications and localization. “Transect” is the name of transect; “City” is the city of transect (SAA: Santo Antônio do Amparo); “Biome” (AR: Atlantic rainforest; Ce: Cerrado); “Land use” is land use collect, natural (Atlantic Forest and Woodland Savannah) and Coffee (coffee plantation); “Altitude” is in meters above the sea level.

Transect	City	Biome	Land use	Latitude	Longitude	Altitude (m)
a1	SAA	AR	Coffee	20°58'25"S	44°53'31"W	1014
a2	SAA	AR	Coffee	20°58'03"S	44°53'37"W	1000
a3	SAA	AR	Coffee	20°52'45"S	44°58'08"W	994
a4	SAA	AR	Coffee	20°53'19"S	44°58'07"W	1025
a5	SAA	AR	Coffee	20°59'48"S	44°53'07"W	1016
a6	SAA	AR	Coffee	20°59'34"S	44°53'15"W	1002
a7	SAA	AR	Coffee	20°54'08"S	44°52'03"W	1078
a8	SAA	AR	Coffee	20°53'26"S	44°52'03"W	1106
a9	SAA	AR	Coffee	20°51'48"S	44°50'09"W	1025
a10	SAA	AR	Coffee	20°52'12"S	44°49'48"W	1009
a11	SAA	AR	Natural	20°53'33"S	44°52'42"W	1102
a12	SAA	AR	Natural	20°54'07"S	44°53'02"W	1039
a13	SAA	AR	Natural	21°01'15"S	44°53'49"W	1055
a14	SAA	AR	Natural	21°00'39"S	44°53'40"W	1039
a15	Lavras	AR	Coffee	21°10'30"S	44°59'07"W	919
a16	Lavras	AR	Coffee	21°16'40"S	45°06'38"W	924
a17	Lavras	AR	Natural	21°13'44"S	44°58'15"W	936
a18	Lavras	AR	Natural	21°13'19"S	44°57'46"W	929
a19	Patrocínio	Ce	Coffee	18°49'49"S	47°01'31"W	902
a20	Patrocínio	Ce	Coffee	18°51'05"S	47°01'51"W	919
a21	Patrocínio	Ce	Coffee	18°52'45"S	47°05'52"W	937
a22	Patrocínio	Ce	Coffee	18°51'48"S	47°07'09"W	995
a23	Patrocínio	Ce	Coffee	18°41'35"S	46°58'15"W	1130
a24	Patrocínio	Ce	Coffee	18°46'13"S	46°56'03"W	1128
a25	Patrocínio	Ce	Natural	18°51'28"S	47°07'19"W	983
a26	Patrocínio	Ce	Natural	18°53'08"S	47°06'14"W	960
a27	Patrocínio	Ce	Natural	18°46'35"S	46°56'54"W	1126
a28	Patrocínio	Ce	Natural	18°47'20"S	46°57'08"W	1121
a29	Patrocínio	Ce	Natural	18°50'46"S	47°01'21"W	868
a30	Patrocínio	Ce	Natural	18°49'32"S	47°01'31"W	933
a31	Patrocínio	Ce	Coffee	18°47'24"S	46°57'01"W	1129
a32	Patrocínio	Ce	Coffee	18°46'56"S	46°56'50"W	1128

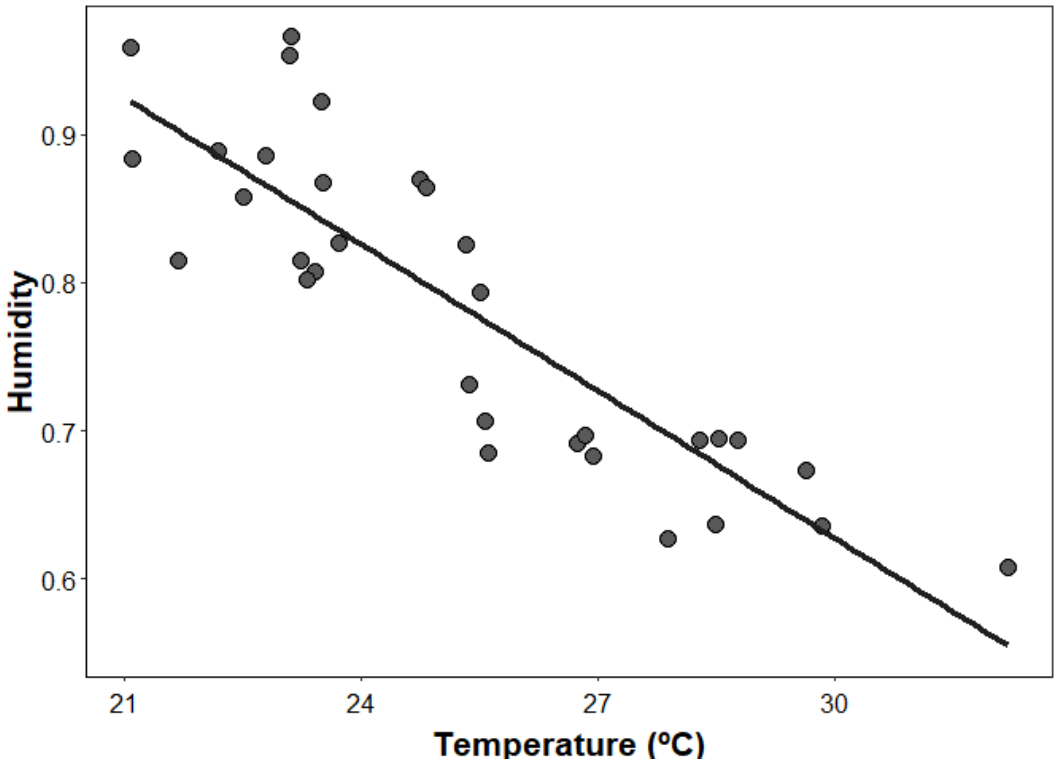

Figure S1. High negative Spearman correlation between microclimate variables (ρ = -0.86; $p < 0.001$).

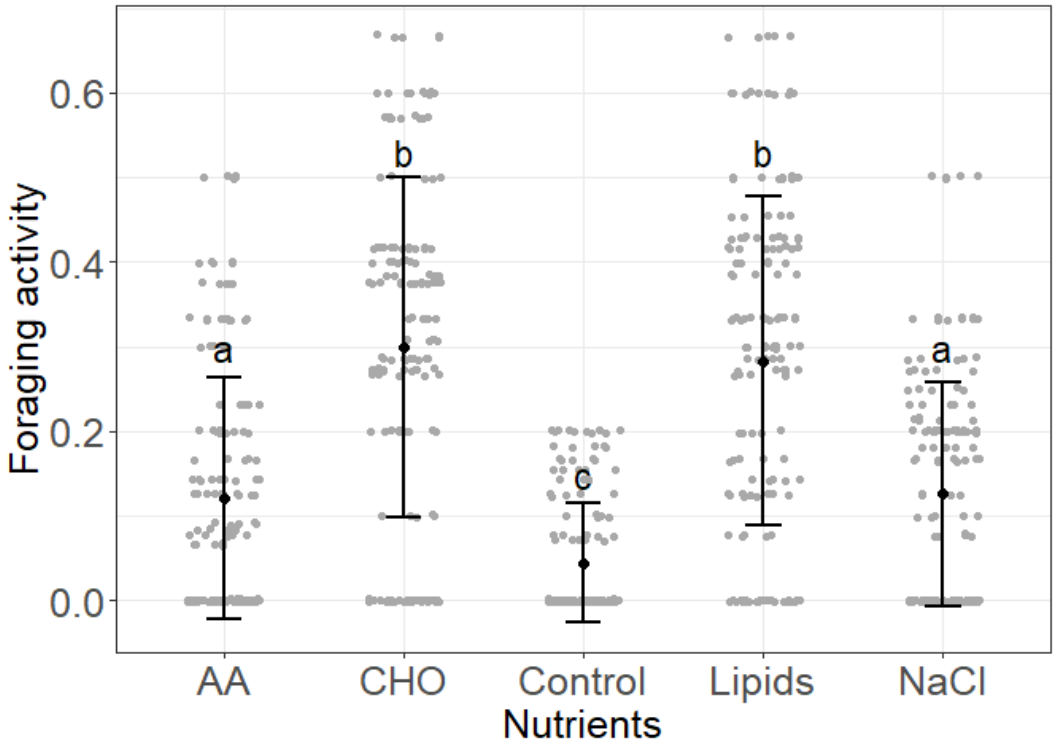

Figure S2. General foraging activity between five nutrients (AA: amino acids; CHO: carbohydrates; Control: Water; Lipids: Vegetal oil; and NaCl: Salt). The foraging activity for Control is lower than other nutrients (Gaussian GLM: $df = 795$; $F = 65.091$; $p < 0.001$).

Table S2. Ant species richness and number of workers sampled in natural habitats (forests) in the Atlantic rainforest. "Pitfall" refers to the ants collected in pitfall traps. "Larvae" refers to ants collected in predation experiments using *Tenebrio molitor* Linnaeus, 1758 larvae (for larvae, we did not compute the number of workers, only the presence or absence of ants). The other columns refer to the nutrients experiment (CHO: carbohydrates, Lipids: vegetable oil, AA: amino acids/whey protein, NaCl: salt, and Water).

Atlantic rainforest: Natural habitat							
Species	**Pitfall**	**CHO**	**Lipids**	**AA**	**NaCl**	**Water**	**Larvae**
Dolichoderinae							
Linepithema gallardoi (Brèthes, 1914)	1	0	0	0	0	0	0
Linepithema leucomelas (Emery, 1894)	30	0	0	0	0	0	1
Linepithema pulex Wild, 2007	26	1	0	0	0	0	1
Linepithema sp. 2	5	0	0	0	0	0	0
Dorylinae							
Labidus coecus (Latreille, 1802)	2	0	0	0	0	0	0
Ectatomminae							
Ectatomma edentatum Roger, 1863	85	9	2	0	0	0	1
Gnamptogenys sulcata (Smith, 1858)	13	0	0	0	0	0	0
Holcoponera striatula (Mayr, 1884)	48	1	0	0	0	0	1
Formicinae							
Acropyga decedens (Mayr, 1887)	2	0	0	0	0	0	0
Brachymyrmex bruchi Forel, 1912	2	0	0	0	0	0	0
Brachymyrmex cordemoyi Forel, 1895	3	0	0	0	0	0	0
Brachymyrmex minutus Forel, 1893	1	0	0	0	0	0	0
Brachymyrmex pictus Mayr, 1887	1	0	0	0	0	0	0
Brachymyrmex sp. 1	1	0	0	0	0	0	0
Camponotus (Myrmophaenus) sp. 8	1	0	0	0	0	0	0
Camponotus cingulatus Mayr, 1862	140	0	0	0	0	0	1
Camponotus rufipes (Fabricius, 1775)	4	0	0	0	0	0	0
Camponotus lespesii Forel, 1886	37	0	0	0	0	0	0
Camponotus melanoticus Emery, 1894	1	0	0	0	0	0	0
Camponotus (Tanaemyrmex) sp. 1	1	0	0	0	0	0	0
Camponotus (Tanaemyrmex) sp. 4	4	0	0	0	0	0	0
Myrmicinae							
Acromyrmex aspersus (Smith, 1858)	424	0	0	0	0	0	0
Acromyrmex hispidus Santschi, 1925	3	0	0	0	0	0	0
Apterostigma pilosum Mayr, 1865	5	0	0	0	0	0	0
Apterostigma sp. 3	2	0	0	0	0	0	0
Apterostigma wasmannii Forel, 1892	1	0	0	0	0	0	0

Atta sexdens (Linnaeus, 1758)	269	0	0	0	0	0	0
Basiceros disciger (Mayr, 1887)	2	0	0	0	0	0	0
Crematogaster pr. *chodati* Forel, 1921	1	0	0	0	0	0	0
Crematogaster rochai Forel, 1903	1	0	0	0	0	0	0
Cyphomyrmex minutus Mayr, 1862	2	0	0	0	0	0	0
Hylomyrma reitteri (Mayr, 1887)	1	0	0	0	0	0	0
Mycetomoellerius urichii (Forel, 1893)	39	0	0	0	0	0	0
Myrmicocrypta squamosa Smith, 1860	17	0	0	0	1	0	0
Pheidole aper Forel, 1912	10	0	0	1	0	0	1
Pheidole brevicona Mayr, 1887	8	1	0	0	1	0	0
Pheidole fallax Mayr, 1870	38	0	185	0	0	0	1
Pheidole gertrudae Forel, 1886	0	0	0	0	18	0	0
Pheidole oxyops Forel, 1908	0	1	135	0	0	0	0
Pheidole sigillata Wilson, 2003	5	0	12	0	0	0	0
Pheidole sp. 3	18	32	29	15	0	0	0
Pheidole sp. 4	1	0	0	0	0	0	0
Pheidole sp. 12	47	12	12	3	3	0	1
Pheidole sp. 15	0	0	39	0	0	0	0
Pheidole sp. 16	0	0	0	2	0	0	0
Pheidole sp. 27	0	0	43	0	0	0	0
Pheidole sp. 29	0	0	12	0	0	0	0
Pheidole sp. 30	13	0	0	0	0	0	0
Pheidole sp. 46	0	0	5	0	0	0	0
Pheidole sp. 55	22	0	0	0	0	0	0
Pheidole sp. 69	0	23	2	0	0	0	0
Pheidole sp. 71	0	1	0	0	0	0	0
Pheidole sp. 73	65	35	161	17	0	1	1
Pheidole sp. 77	1	0	0	0	0	0	0
Pheidole transversostriata Mayr, 1887	3	0	0	0	0	0	0
Solenopsis sp. 1	1	0	0	0	0	0	0
Solenopsis sp. 3	1	0	0	2	0	0	0
Solenopsis sp. 4	2	18	7	0	0	0	0
Solenopsis sp. 7	3	0	0	0	0	0	0
Solenopsis sp. 8	10	10	2	5	0	0	1
Solenopsis sp. 10	9	0	13	2	1	0	0
Solenopsis sp. 11	10	0	0	0	1	0	0
Strumigenys appretiata (Borgmeier, 1954)	2	0	0	0	0	0	0
Strumigenys denticulata Mayr, 1887	1	0	0	0	0	0	0
Strumigenys subedentata Mayr, 1887	1	0	0	0	0	0	0
Wasmannia affinis Santschi, 1929	10	0	0	0	0	0	0
Wasmannia auropunctata (Roger, 1863)	0	3	0	0	0	0	0
Ponerinae							
Hypoponera sp. 3	2	0	0	0	0	0	0
Neoponera marginata (Roger, 1861)	1	0	0	0	0	0	0
Odontomachus chelifer (Latreille, 1802)	8	0	0	0	0	0	1
Odontomachus meinerti Forel, 1905	3	0	0	0	0	0	0

Pachycondyla harpax (Fabricius, 1804)	1	0	0	0	0	0	0
Pachycondyla striata Smith, 1858	52	0	0	0	0	0	1
Total of ant workers	**1,527**	**147**	**659**	**47**	**25**	**1**	**NA**
Total of ant species	**63**	**11**	**15**	**8**	**6**	**1**	**12**

Table S3. Ant species richness and number of workers sampled in coffee plantations in the Atlantic rainforest. "Pitfall" refers to the ants collected in pitfall traps. "Larvae" refers to ants collected in predation experiments using *Tenebrio molitor* Linnaeus, 1758 larvae (for larvae, we did not compute the number of workers, only the presence or absence of ants). The other columns refer to the nutrients experiment (CHO: carbohydrates, Lipids: vegetable oil, AA: amino acids/whey protein, NaCl: salt, and Water).

Atlantic rainforest: Coffee plantation							
Species	**Pitfall**	**CHO**	**Lipids**	**AA**	**NaCl**	**Water**	**Larvae**
Dolichoderinae							
Dorymyrmex brunneus Forel, 1908	17	0	0	0	0	0	0
Linepithema cerradense Wild, 2007	7	4	0	0	1	0	0
Linepithema neotropicum Wild, 2007	359	119	2	130	61	4	1
Linepithema pulex Wild, 2007	25	0	0	0	0	0	0
Linepithema sp. 1	0	0	0	0	2	0	0
Linepithema sp. 4	0	0	0	0	0	0	1
Ectatomminae							
Ectatomma brunneum Smith, 1858	1	0	3	0	0	0	0
Ectatomma permagnum Forel, 1908	2	0	0	0	0	0	0
Holcoponera striatula (Mayr, 1884)	117	1	14	1	0	0	1
Formicinae							
Brachymyrmex cordemoyi Forel, 1895	75	0	0	0	0	0	0
Brachymyrmex pictus Mayr, 1887	4	0	0	0	0	0	0
Brachymyrmex pilipes Mayr, 1887	3	0	0	0	0	0	0
Camponotus melanoticus Emery, 1894	7	4	0	0	25	0	0
Nylanderia sp. 7	2	0	0	0	0	0	0
Myrmicinae							
Atta sexdens (Linnaeus, 1758)	7	0	0	0	0	0	0
Carebara pr. *brasiliana* Fernández, 2004	1	0	0	0	0	0	0
Mycetomoellerius sp. 1	1	0	0	0	0	0	0
Mycocepurus smithii (Forel, 1893)	2	0	0	0	0	0	0
Pheidole fallax Mayr, 1870	6	0	2	0	0	0	0
Pheidole obscurithorax Naves, 1985	52	0	0	0	0	0	1
Pheidole oxyops Forel, 1908	1	56	23	0	0	0	1
Pheidole radoszkowskii Mayr, 1884	102	6	96	1	2	0	1
Pheidole risii Forel, 1892	0	0	5	0	0	0	0
Pheidole subarmata Mayr, 1884	96	209	401	2	50	1	1
Pheidole sp. 5	2	2	0	0	0	0	0
Pheidole sp. 6	0	0	0	0	0	0	1
Pheidole sp. 12	2	0	0	0	0	0	0
Pheidole sp. 65	8	0	0	0	0	0	1

Pheidole sp. 73	1	0	0	0	0	0	1
Pheidole sp. 75	8	13	0	0	2	1	0
Pheidole sp. 99	1	0	0	0	0	0	0
Pogonomyrmex naegelii Emery, 1878	2	0	0	0	0	0	0
Solenopsis gr. saevissima sp. 1 (Smith, 1855)	112	237	281	6	1	0	1
Solenopsis sp. 2	1	0	0	0	0	0	0
Solenopsis sp. 3	0	3	0	0	0	0	0
Solenopsis sp. 4	1	0	0	0	0	0	0
Solenopsis sp. 8	9	0	0	0	0	0	0
Strumigenys louisianae Roger, 1863	5	0	0	0	0	0	0
Ponerinae							
Hypoponera sp. 1	1	0	0	0	0	0	0
Hypoponera sp. 2	1	0	0	0	0	0	0
Hypoponera sp. 3	1	0	0	0	0	0	0
Hypoponera sp. 4	9	0	0	0	0	0	0
Hypoponera sp. 5	6	0	0	0	0	0	0
Pachycondyla striata Smith, 1858	13	0	0	0	1	0	1
Total of ant workers	**1,070**	**654**	**827**	**114**	**145**	**6**	**NA**
Total of ant species	**39**	**11**	**9**	**5**	**9**	**3**	**12**

Table S4. Ant species richness and number of workers sampled in natural habitat (woodland savannah) in the Cerrado. "Pitfall" refers to the ants collected in pitfall traps. "Larvae" refers to ants collected in predation experiments using *Tenebrio molitor* Linnaeus, 1758 larvae (for larvae, we did not compute the number of workers, only the presence or absence of ants). The other columns refer to the nutrients experiment (CHO: carbohydrates, Lipids: vegetable oil, AA: amino acids/whey protein, NaCl: salt, and Water).

Cerrado: Natural habitat							
Species	**Pitfall**	**CHO**	**Lipids**	**AA**	**NaCl**	**Water**	**Larvae**
Dolichoderinae							
Linepithema neotropicum Wild, 2007	16	0	0	0	0	0	0
Linepithema pulex Wild, 2007	87	3	0	0	1	0	0
Lenepthema sp. 1	9	0	0	0	0	0	0
Lenepthema sp. 3	1	0	0	0	0	0	0
Dorylinae							
Neivamyrmex sp. 1	1	0	0	0	0	0	0
Ectatomminae							
Ectatomma edentatum Roger, 1863	7	6	0	0	0	0	1
Gnamptogenys sulcata (Smith, 1858)	2	0	0	0	0	0	0
Holcoponera striatula (Mayr, 1884)	17	0	0	0	0	0	0
Formicinae							
Brachymyrmex minutus Forel, 1893	2	0	0	0	0	0	0
Brachymyrmex pictus Mayr, 1887	14	0	0	0	0	0	0
Brachymyrmex sp. 2	3	0	0	0	0	0	0
Brachymyrmex sp. 3	6	0	0	0	0	0	0
Brachymyrmex sp. 4	1	0	0	0	0	0	0
Camponotus crassus Mayr, 1862	4	0	0	0	0	0	0
Camponotus fastigatus Roger, 1863	4	0	0	0	0	0	1
Camponotus atriceps (Smith, 1858)	2	0	0	0	0	0	0
Camponotus cingulatus Mayr, 1862	441	7	0	0	0	0	0
Camponotus ager (Smith, 1858)	19	0	0	0	0	0	0
Camponotus lespesii Forel, 1886	19	0	0	0	0	0	1
Camponotus melanoticus Emery, 1894	0	19	0	0	0	0	0
Camponotus (Tanaemyrmex) sp. 1	2	0	0	0	0	0	0
Nylanderia docilis (Forel, 1908)	18	11	0	1	0	0	0
Nylanderia sp. 7	1	0	0	0	0	0	0
Nylanderia steinheili (Forel, 1893)	35	20	0	1	0	1	0
Myrmicinae							
Acromyrmex aspersus (Smith, 1858)	206	0	0	0	0	0	0

Acromyrmex hispidus Santschi, 1925	19	0	0	0	0	0	0
Acromyrmex subterraneus (Forel, 1893)	716	0	0	0	0	0	0
Atta sexdens (Linnaeus, 1758)	1,196	0	0	0	0	0	0
Carebara brevipilosa Fernández, 2004	4	0	0	0	0	0	0
Crematogaster corticicola Mayr, 1887	0	0	0	0	0	0	1
Cyphomyrmex minutus Mayr, 1862	2	0	0	0	0	0	0
Mycetomoellerius urichii (Forel, 1893)	1	0	0	0	0	0	0
Mycetomoellerius sp. 1	1	0	0	0	0	0	0
Mycetophylax lectus (Forel, 1911)	1	0	0	0	0	0	0
Ochetomyrmex sp. 1	1	0	0	0	0	0	0
Pheidole aberrans Mayr, 1868	2	0	0	0	0	0	0
Pheidole fallax Mayr, 1870	15	16	1	0	9	0	1
Pheidole gertrudae Forel, 1886	0	3	23	0	0	0	0
Pheidole jelskii Mayr, 1884	6	0	8	0	0	0	1
Pheidole oxyops Forel, 1908	2	0	0	0	0	0	1
Pheidole pr. deima Wilson, 2003	1	0	0	0	0	0	0
Pheidole pr. radoszkowskii Mayr, 1884	0	0	2	0	0	0	0
Pheidole radoszkowskii Mayr, 1884	408	158	222	3	74	3	1
Pheidole sarcina Forel, 1912	3	0	0	0	0	0	0
Pheidole sigillata Wilson, 2003	0	0	3	0	0	0	0
Pheidole sp. 12	60	32	3	4	1	2	0
Pheidole sp. 15	4	2	32	0	0	0	0
Pheidole sp. 19	4	0	0	0	0	0	0
Pheidole sp. 22	0	5	10	0	8	0	0
Pheidole sp. 41	5	0	0	0	0	0	0
Pheidole sp. 55	3	0	0	0	0	0	1
Pheidole sp. 65	18	0	0	0	0	0	0
Pheidole sp. 69	0	23	0	0	0	0	0
Pheidole sp. 71	5	1	5	0	0	0	0
Pheidole sp. 73	0	32	0	0	0	0	0
Rogeria lirata Kugler, 1994	1	0	0	0	0	0	0
Sericomyrmex saussurei Emery, 1894	382	0	0	0	0	1	0
Solenopsis sp. 3	1	0	0	0	0	0	0
Solenopsis sp. 4	1	0	0	0	0	0	0
Solenopsis sp. 10	1	0	0	0	0	0	0
Solenopsis sp. 11	5	0	0	0	0	0	0
Solenopsis sp. 21	0	0	0	0	0	1	0
Wasmannia auropunctata (Roger, 1863)	14	15	26	0	0	0	0
Ponerinae							
Hypoponera sp. 2	1	0	0	0	0	0	0
Neoponera sp. 1	1	0	0	0	0	0	0
Odontomachus chelifer (Latreille, 1802)	8	0	0	0	0	0	0
Pachycondyla striata Smith, 1858	51	0	2	0	0	0	1
Pseudomyrmecinae							
Pseudomyrmex gr. pallidus sp. 1 (Smith, 1855)	1	0	0	0	0	0	0
Pseudomyrmex phyllophilus (Smith, 1858)	1	0	0	0	0	0	0

Total of ant workers	**3,862**	**353**	**337**	**9**	**93**	**8**	**NA**
Total of ant species	**60**	**16**	**12**	**4**	**5**	**5**	**10**

Table S5. Ant species richness and number of workers sampled in coffee plantations in the Cerrado. "Pitfall" refers to the ants collected in pitfall traps. "Larvae" refers to ants collected in predation experiments using *Tenebrio molitor* Linnaeus, 1758 larvae (for larvae, we did not compute the number of workers, only the presence or absence of ants). The other columns refer to the nutrients experiment (CHO: carbohydrates, Lipids: vegetable oil, AA: amino acids/whey protein, NaCl: salt, and Water).

Cerrado: Coffee plantation							
Species	**Pitfall**	**CHO**	**Lipids**	**AA**	**NaCl**	**Water**	**Larvae**
Dolichoderinae							
Dorymyrmex brunneus Forel, 1908	50	13	0	0	4	0	1
Linepithema neotropicum Wild, 2007	28	2	0	0	1	0	0
Ectatomminae							
Holcoponera striatula (Mayr, 1884)	70	43	12	0	0	0	1
Formicinae							
Brachymyrmex cordemoyi Forel, 1895	28	0	0	0	0	0	0
Brachymyrmex pilipes Mayr, 1887	3	0	0	0	0	0	0
Camponotus cingulatus Mayr, 1862	1	0	0	0	0	0	0
Camponotus melanoticus Emery, 1894	1	0	0	0	1	0	0
Myrmicinae							
Cardiocondyla minutior Forel, 1899	1	0	0	0	0	0	0
Mycocepurus smithii (Forel, 1893)	1	0	0	0	0	0	0
Pheidole aberrans Mayr, 1868	1,491	0	0	0	0	0	0
Pheidole fallax Mayr, 1870	50	5	31	0	0	1	1
Pheidole gertrudae Forel, 1886	12	0	9	0	0	1	0
Pheidole obscurithorax Naves, 1985	0	0	133	0	0	1	0
Pheidole oxyops Forel, 1908	1	0	0	0	0	0	0
Pheidole radoszkowskii Mayr, 1884	35	0	0	0	0	0	0
Pheidole sp. 5	0	0	0	0	0	0	1
Pheidole sp. 6	0	0	0	1	0	0	1
Pheidole sp. 7	0	7	0	0	0	0	0
Pheidole sp. 65	0	0	80	1	0	0	0
Pheidole sp. 75	35	0	0	0	0	0	0
Pheidole subarmata Mayr, 1884	41	25	96	0	0	0	1
Pheidole vallifica Forel, 1901	7	35	5	0	1	0	0
Solenopsis gr. *saevissima* sp. 1 (Smith, 1855)	21	0	0	1	0	0	1
Solenopsis sp. 17	1	0	0	0	0	0	0
Solenopsis sp. 18	76	0	0	0	0	0	0
Total of ant workers	**1,953**	**130**	**366**	**3**	**7**	**3**	**NA**
Total of ant species	**20**	**7**	**7**	**2**	**4**	**3**	**7**

Table S6. Mean and sd (standard deviation) for ant foraging in different resources (presence of ants). "Biome" refers to the biome sampled (AR: Atlantic rainforest and Cerrado); "Habitat" refers to the land use sampled (Natural: Forest in Atlantic rainforest and woodland savannah in Cerrado; Coffee: coffee plantation in both biomes); "n" indicates the number of transects; "Param." indicates mean and sd parameters; "Pitfall" is the number of ant species. "Larvae" is the number of insect predation by ants; and five nutrients (CHO: carbohydrates, Lipids: vegetable oil, AA: amino acids/whey protein, NaCl: salt, and Water).

Biome	Habitat	n	Param.	Pitfall	Larvae	CHO	Lipids	AA	NaCl	Water
AR	Natural	6	mean	20	11.12	0.53	0.53	0.40	0.20	0.03
AR	Natural	6	sd	6.54	4.79	0.50	0.50	0.49	0.40	0.18
AR	Coffee	12	mean	11.68	9.06	0.35	0.38	0.20	0.23	0.08
AR	Coffee	12	sd	6.65	7.27	0.48	0.49	0.40	0.42	0.27
Cerrado	Natural	6	mean	21.66	8.66	0.80	0.66	0.16	0.33	0.20
Cerrado	Natural	6	sd	5.04	8.18	0.40	0.47	0.37	0.47	0.40
Cerrado	Coffee	8	mean	12.71	5.42	0.47	0.32	0.05	0.12	0.07
Cerrado	Coffee	8	sd	8.93	6.48	0.50	0.47	0.22	0.33	0.26

Table S7. The first column presents the comparison of ant composition between land use types: Natural AR (forest in the Atlantic rainforest), Natural Ce (woodland savannah in Cerrado), Coffee AR (coffee plantation in the Atlantic rainforest), and Coffee Ce (coffee plantation in Cerrado); and resource types: AA (amino acids), CHO (carbohydrates), Lipids (vegetable oil), NaCl (sodium) and Larvae (predation experiment). The table includes degrees of freedom (d.f.), sums of squares (SumOfSqs), coefficient of determination (R^2), F value (F), and P value (p-value; significant values are < 0.05).

Question 1: How similar is the species composition across land uses and resources?					
Natural AR *vs* Natural Ce	**d.f.**	**SumOfSqs**	**R^2**	**F**	**p-value**
Land use type	1	0.74	0.29	4.50	0.002
Resource type	4	1.08	0.45	1.64	0.054
Natural AR *vs* Coffee AR					
Land use type	1	1.49	0.54	12.47	0.002
Resource type	4	0.77	0.28	1.62	0.231
Natural AR *vs* Coffee Ce					
Land use type	1	1.25	0.38	5.77	0.003
Resource type	4	1.11	0.34	1.27	0.280
Natural Ce *vs* Coffee AR					
Land use type	1	1.12	0.48	9.02	0.002
Resource type	4	0.71	0.30	1.42	0.235
Natural Ce *vs* Coffee Ce					
Land use type	1	1.21	0.38	5.34	0.006
Resource type	4	1.03	0.32	1.13	0.374
Coffee AR *vs* Coffee Ce					
Land use type	1	0.51	0.26	3.62	0.003
Resource type	4	0.88	0.45	1.56	0.132

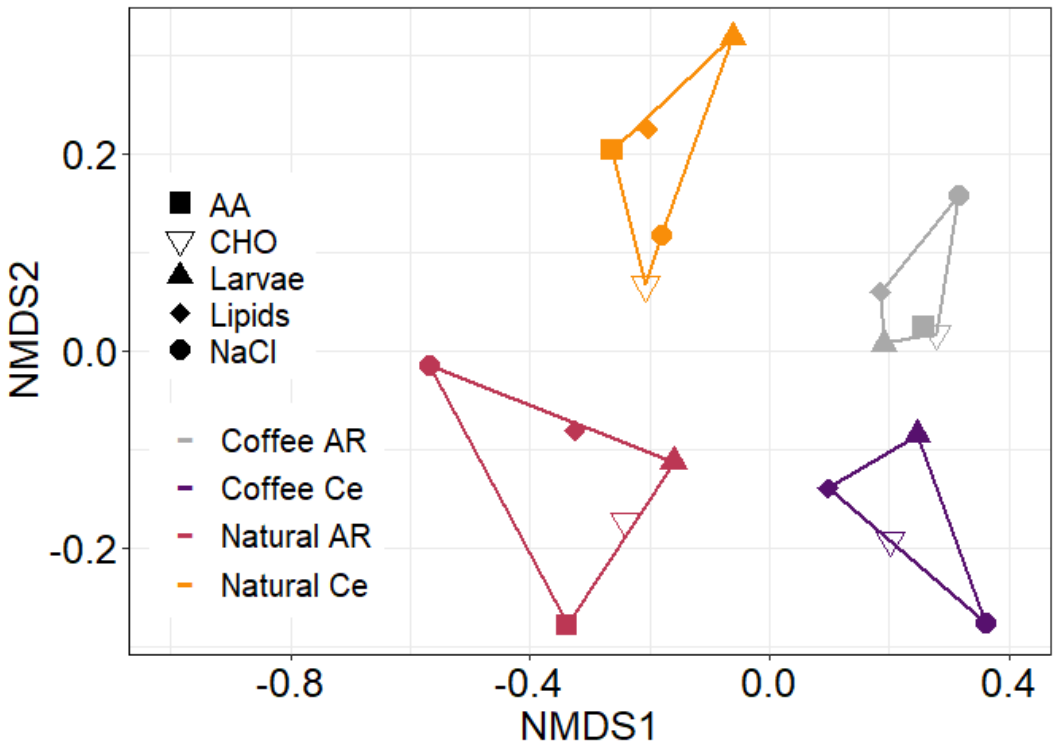

Figure S3. Ant species composition differs between land use types: Natural AR (forest in the Atlantic rainforest; medium pink), Natural Ce (woodland savannah in Cerrado; orange), Coffee AR (coffee plantation in the Atlantic rainforest; grey), and Coffee Ce (coffee plantation in Cerrado; purple). However, it does not differ significantly with respect to resource types: Larvae (predation experiment; full triangle), CHO (carbohydrates; empty triangle), Lipids (vegetable oil; diamond), AA (amino acids; square), and NaCl (salt; circle). The species composition used was measured using the turnover component of Sørensen dissimilarity (βsim).

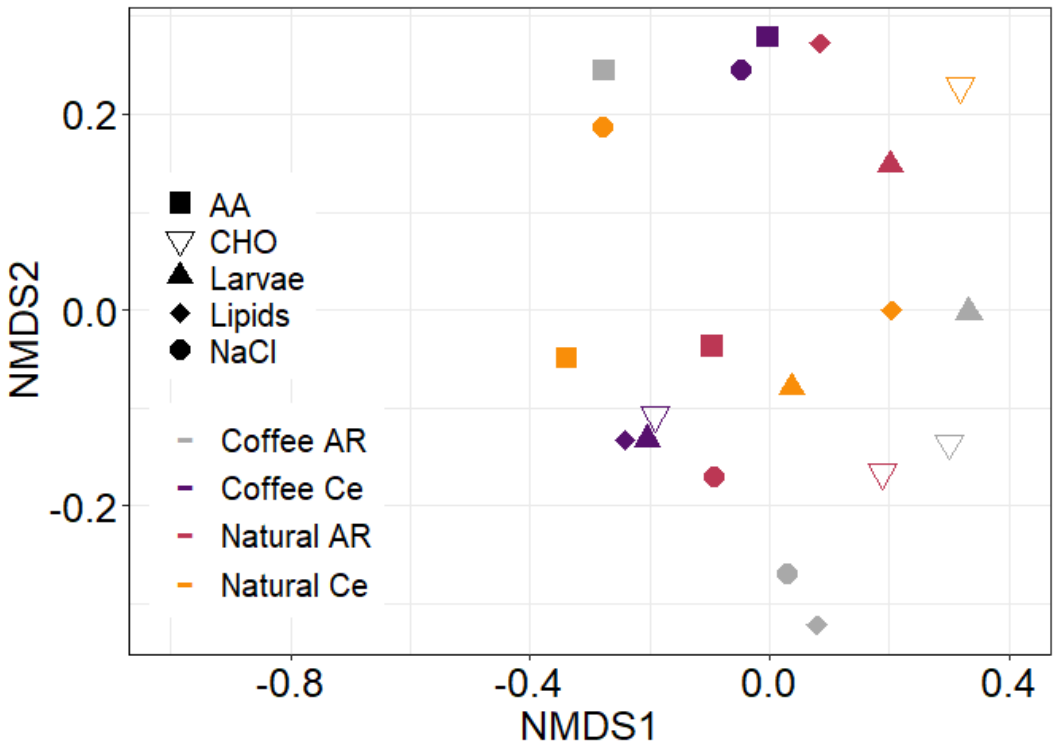

Figure S4. Ant species composition differs between land use types: Natural AR (forest in the Atlantic rainforest; medium pink), Natural Ce (woodland savannah in Cerrado; orange), Coffee AR (coffee plantation in the Atlantic rainforest; grey), and Coffee Ce (coffee plantation in Cerrado; purple). However, it does not differ significantly with respect to resource types: Larvae (predation experiment; full triangle), CHO (carbohydrates; empty triangle), Lipids (vegetable oil; diamond), AA (amino acids; square), and NaCl (salt; circle). The species composition used was measured using nestedness component of Sørensen dissimilarity (βsne).