Appendix S2

Table S1 Amino acid imbalances as calculated by the difference between diet and consumer (mol percent) in springtails 1 - *Heteromurus nitidus*, springtails 2 – *Sinella curviseta*, and oribatid mites -*Archegozetes longisetosus* fed with lime leaves - *Tilia cordata*, lupine - *Lupinus albus*, fungi - *Chaetomium globosum*, yeast 1 and 2 - *Saccharomyces cerevisiae*, and bacteria - *Pseudomonas flourescens*, and spiders - *Parasteatoda tepidariorum*, and gamasid mites - *Stratiolaelaps scimitus*, fed with respective springtails 1 and springtails 2/oribatid mites.

Species	Resource	Ala	Asx	Glx	Gly	Ile	Leu	Met	Phe	Pro	Ser	Thr	Tyr	Val
Springtails 1	Fungi	-3.6 ± 1.7	0.8 ± 0.1	1.5 ± 0.6	-1.0 ± 1.5	-2.7 ± 0.0	-0.8 ± 0.5	-0.2 ± 0.1	0.7 ± 0.8	0.8 ± 0.6	0.8 ± 0.1	2.0 ± 0.4	2.6 ± 0.6	-3.3 ± 0.2
Springtails 1	Bacteria	2.9 ± 1.3	-1.8 ± 0.4	-2.2 ± 1.0	-1.9 ± 0.5	2.0 ± 0.9	6.0 ± 1.9	-0.5 ± 0.1	-0.4 ± 0.4	-2.2 ± 0.3	-3.0 ± 0.3	-1.7 ± 0.3	-0.2 ± 0.3	2.8 ± 0.9
Springtails 1	Lime leaves	-1.0 ± 0.4	0.0 ± 0.3	-1.6 ± 0.6	-1.8 ± 1.5	-0.2 ± 0.3	2.0 ± 0.5	0.0 ± 0.1	0.3 ± 0.3	0.7 ± 0.2	1.1 ± 0.2	-0.1 ± 0.2	-0.5 ± 0.3	0.7 ± 0.2
Springtails 1	Yeast 1	-2.2 ± 0.5	1.2 ± 0.4	5.2 ± 1.5	1.8 ± 0.3	-0.5 ± 0.4	-6.6 ± 1.3	-0.4 ± 0.3	1.2 ± 0.5	-2.2 ± 0.1	1.9 ± 0.5	1.2 ± 0.6	-0.1	-2.2 ± 0.9
Springtails 2	Lupine	-5.5 ± 1.0	3.2 ± 0.2	4.2 ± 1.2	-0.1 ± 0.6	-0.7 ± 0.3	7.9 ± 0.2	-0.9 ± 0.1	-0.4 ± 0.4	-2.1 ± 0.6	-1.7 ± 0.1	-3.1 ± 0.3	0.6 ± 0.2	-2.2 ± 0.8
Springtails 2	Bacteria	2.2	-2.1	0.7	1.8	1.7	3.4	-0.6	0.4	-4.3	-3.1		0.1	2.3
Springtails 2	Yeast 2	-3.3 ± 0.2	0.1 ± 0.6	0.5 ± 0.1	-0.4	0.1 ± 0.3		-0.7 ± 0.1	0.3 ± 0.1	-2.4 ± 0.3	-0.7 ± 0.1	-0.7 ± 0.6		-1.0 ± 0.0
Oribatid mites	Lupine	-6.4 ± 1.5	4.6 ± 0.9	10.1 ± 0.6	-1.1	-2.7 ± 0.5	2.6 ± 0.4	-0.2 ± 0.2	0.7 ± 0.4	-1.5 ± 0.4	-0.3 ± 0.6	-3.4 ± 0.8	0.7 ± 0.1	-5.9 ± 0.1
Oribatid mites	Bacteria	7.7 ± 1.7	-3.6 ± 0.2	-0.1 ± 0.9		0.0 ± 0.3	0.9 ± 1.2	-0.8 ± 0.3	-0.1 ± 0.2	-3.9 ± 0.3	-4.3 ± 0.4	-4.0 ± 0.2	-0.4	2.6 ± 1.3
Oribatid mites	Lime leaves	-0.5 ± 3.2	-1.3 ± 2.3	2.7 ± 2.5	-1.3	-1.7 ± 0.7	-2.2 ± 0.4	0.3 ± 0.4	1.8 ± 0.7	-1.1 ± 0.8	0.5 ± 1.2	-1.0 ± 1.2		-0.5 ± 2.5
Oribatid mites	Yeast 2	-2.1 ± 1.5	-1.6 ± 0.6	-0.6 ± 0.8	-3.8 ± 1.4	-1.5 ± 2.2		-0.6 ± 0.7	0.6 ± 0.3	-1.2 ± 0.4	-0.8 ± 0.4	-0.4 ± 0.4		-1.0 ± 0.5
Spiders	Fungi	0.1 ± 1.9	1.2 ± 1.3	2.0 ± 1.5	-2.3 ± 1.9	0.1 ± 0.7	-1.0 ± 1.2	0.4 ± 0.5	0.1 ± 0.4	-0.3 ± 0.7	-0.1 ± 0.5	0.6 ± 0.8	-1.2 ± 1.9	1.3 ± 0.9

Spiders	Bacteria	4.3 ± 2.4	-1.8 ± 1.6	-3.5 ± 2.8	2.0 ± 2.4	0.7 ± 0.8	0.6 ± 1.1	-0.4 ± 0.6	-1.4 ± 0.9	0.1 ± 0.3	-1.9 ± 0.8	-0.9 ± 0.9	-0.7 ± 0.6	3.2 ± 1.5
Spiders	Lime leaves	1.0 ± 2.2	0.5 ± 0.6	0.5 ± 1.9	-2.1 ± 1.5	1.1 ± 0.4	0.7 ± 2.1	0.5 ± 0.4	-0.1 ± 0.5	-0.5 ± 0.8	-0.8 ± 0.8	0.7 ± 0.4	-1.8 ± 2.7	1.8 ± 1.3
Spiders	Yeast 1	4.2 ± 2.0	-0.3 ± 1.1	-3.8 ± 1.6	-6.7 ± 1.6	2.0 ± 0.9	6.3 ± 1.2	0.5 ± 0.2	-1.5 ± 0.5	2.0 ± 0.3	-2.3 ± 0.7	0.2 ± 0.6	-2.9 ± 1.8	3.7 ± 1.4
Gamasid mites	Lupine	-0.1 ± 2.7	-1.7 ± 5.7	2.2 ± 2.8	0.5 ± 1.8	1.7 ± 3.8	-1.7 ± 3.9	-0.4 ± 1	0.2 ± 0.7	-0.7 ± 2.3	0.7 ± 1.4	-1.9 ± 2.1		-0.2 ± 4.2
Gamasid mites	Yeast 2	-0.1 ± 4.3	0.6 ± 1.4	-0.2 ± 1.5	-0.4	0.3 ± 1.3	0.6 ± 3.0	-1.0 ± 1.1	-1.4 ± 1.6	0.7 ± 1.0	-0.1 ± 1.9	-0.7 ± 0.9		0.4 ± 2.7