

Supporting Information. Melanie M. Pollierer, Thomas Larsen, Anton Potapov, Adrian Brückner, Michael Heethoff, Jens Dyckmans, Stefan Scheu. 2019. Compound-specific isotope analysis of amino acids as a new tool to uncover trophic chains in soil food webs. *Ecological Monographs*.

Appendix S4

Table S1 Trophic fractionation factors of carbon ($\Delta^{13}\text{C}_{\text{C-D}}$; mean \pm SD) for amino acids (AA) in springtails 1 - *Heteromurus nitidus*, springtails 2 – *Sinella curviseta*, and oribatid mites - *Archeogozetes longisetosus*, gamasid mites - *Stratiolaelaps scimitus*, and spiders - *Parasteatoda tepidariorum*.

AA	Springtails 1	Springtails 2	Oribatid mites	Gamasid mites	Spiders
Ala	-0.3 \pm 2.6	-6.2 \pm 2.1	-6.3 \pm 6.0	-2.6 \pm 6.0	-3.7 \pm 3.0
Asx	0.2 \pm 1.9	-3.8 \pm 4.2	-3.1 \pm 3.0	-2.5 \pm 4.1	-2.8 \pm 2.7
Glx	1.2 \pm 2.7	-0.3 \pm 4.2	1.2 \pm 4.3	-2.8 \pm 5.1	-2.5 \pm 2.2
Gly	6.5 \pm 5.8	6.3 \pm 4.4	5.8 \pm 6.4	10.0	-2.2 \pm 6.5
Ile	1.2 \pm 2.2	2.9 \pm 6.7	-0.5 \pm 2.2	-3.8 \pm 3.5	-1.0 \pm 1.5
Leu	1.1 \pm 1.6	-0.3 \pm 5.5	-1.1 \pm 3.1	-1.9 \pm 3.5	0.0 \pm 2.0
Met	0.9 \pm 2.6	0.0 \pm 3.9	0.5 \pm 5.5	-3.6 \pm 5.5	-3.1 \pm 1.9
Phe	-1.9 \pm 1.5	-0.9 \pm 1.5	-1.4 \pm 2.9	0.9 \pm 3.1	-1.7 \pm 2.1
Pro	1.8 \pm 1.5	2.3 \pm 4.1	-0.4 \pm 2.7	-2.2 \pm 6.0	-1.6 \pm 2.4
Ser	3.4 \pm 2.1	-5.1 \pm 5.2	-2.8 \pm 3.8	0.7 \pm 5.3	-3.4 \pm 3.9
Thr	-2.8 \pm 4.7	-4.2 \pm 0.7	-8.0 \pm 1.6	1.1 \pm 3.1	1.9 \pm 2.6
Tyr	-2.0 \pm 2.6				-1.2 \pm 2.0
Val	2.0 \pm 1.6	0.2 \pm 1.8	-1.8 \pm 2.6	-2.3 \pm 5.3	-1.0 \pm 1.7

Table S2 a) Group means and b) coefficients for linear discriminant function analysis (LDA) for consumers with different basal resources. Resources were used as endmembers to predict group membership (Bacteria, Fungi, Plant). Proportions of trace were 0.99 and 0.01 for LD1 and LD2, respectively.

a) Group means:

	Ile	Leu	Phe	Val
Bacteria	-11.7	-16.1	-16.0	-14.7
Fungi	-15.6	-22.2	-19.8	-19.2
Plant	-26.5	-34.2	-28.7	-29.3

b) Coefficients of linear discriminants:

	LD1	LD2
Ile	0.04	-0.88
Leu	-0.67	0.68
Phe	0.36	0.16
Val	1.38	-0.05