

Supplementary Material

Shrubs alter alpha and beta diversity of soil fauna in a semiarid grassland

Haining Gao^A, Caixia Li^A, Yang Jiao^A, Yong Zhang^A and Qi Feng^{B,}*

^ACollege of Life Science and Engineering, Hexi University, Zhangye 734000, China

^BKey Laboratory of Ecohydrology of Inland River Basin, Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, Lanzhou 730000, China

*Correspondence to: Email: qifeng@lzb.ac.cn

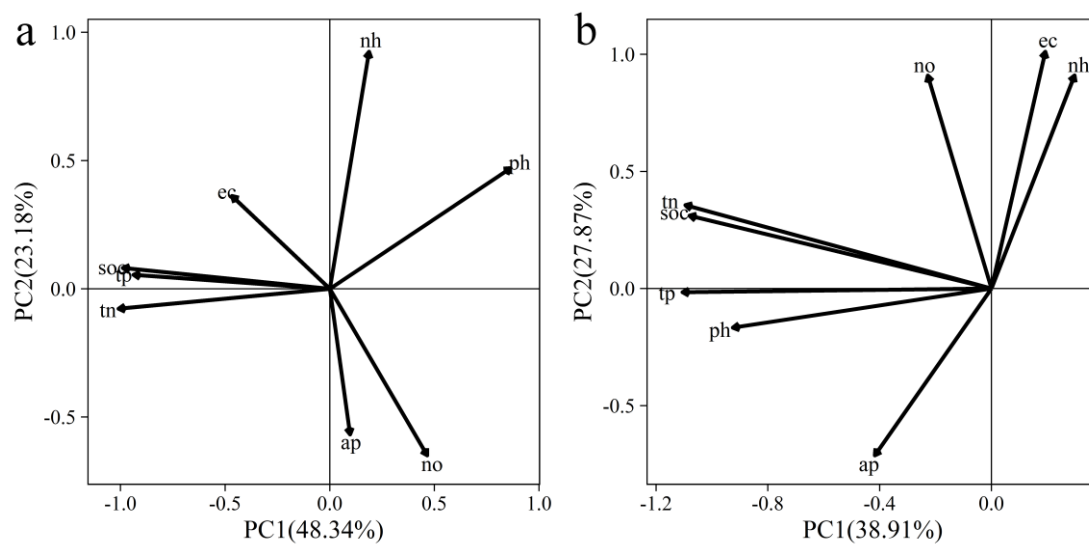


Fig. S1 PCA analysis of soil properties. a: the PCA of soil properties b: the PCA of soil distance based on Euclidean Distance.

Table S1 Abundance (mean $\pm$ SE) distribution of soil fauna under shrub and in open space.

Soil fauna	With shrub	With shrub
<i>Mesorhabditis</i>	0.0 $\pm$ 0.0	0.7 $\pm$ 1.5
<i>Panagrolaimus</i>	2.7 $\pm$ 4.3	5.3 $\pm$ 6.1
<i>Protorhabditis</i>	2.7 $\pm$ 4.3	8.7 $\pm$ 5.1
<i>Acrobeloides</i>	0.7 $\pm$ 1.5	4.7 $\pm$ 5.6
<i>Cephalobus</i>	0.0 $\pm$ 0.0	0.7 $\pm$ 1.5
<i>Heterocephalobus</i>	2.0 $\pm$ 3.0	6.0 $\pm$ 6.0
<i>Tylopharynx</i>	0.7 $\pm$ 1.5	1.3 $\pm$ 1.8
<i>Aphelenchoides</i>	2.0 $\pm$ 3.0	4.0 $\pm$ 4.3
<i>Aphelenchus</i>	0.7 $\pm$ 1.5	5.3 $\pm$ 5.6
<i>Mononchus</i>	0.7 $\pm$ 1.5	8.0 $\pm$ 6.1
<i>Enchodelus</i>	2.0 $\pm$ 4.5	4.0 $\pm$ 3.7
<i>Mylonchulus</i>	0.0 $\pm$ 0.0	4.0 $\pm$ 4.5
<i>Dorylaimus</i>	0.0 $\pm$ 0.0	1.3 $\pm$ 1.8
<i>Mylodiscus</i>	1.3 $\pm$ 1.8	10.0 $\pm$ 5.3
<i>Epidorylaimus</i>	0.7 $\pm$ 1.5	2.0 $\pm$ 1.8
<i>Eudorylaimus</i>	3.3 $\pm$ 4.1	11.3 $\pm$ 10.2
<i>Labronema</i>	0.0 $\pm$ 0.0	2.0 $\pm$ 3.0
<i>Mesodorylaimus</i>	0.0 $\pm$ 0.0	0.7 $\pm$ 1.5
<i>Prodorylaimium</i>	3.3 $\pm$ 3.3	8.0 $\pm$ 6.9
<i>Laimydorus</i>	2.7 $\pm$ 4.3	2.0 $\pm$ 1.8
<i>Tylenchus</i>	0.7 $\pm$ 1.5	2.7 $\pm$ 2.8
Scoliidae	0.2 $\pm$ 0.4	0.2 $\pm$ 0.4

Ichneumonidae	0.0±0.0	0.2±0.4
Apoidea	0.4±0.9	0.4±0.5
Vespidae	1.0±1.4	1.2±1.6
Acrididae	6.6±4.8	2.0±3.9
Miridae	0.0±0.0	0.2±0.4
Pentatomidae stinkbug larva	0.0±0.0	0.6±0.9
Lygaeidae	1.8±2.2	1.0±1.7
Pyrrhocoridae	0.2±0.4	0.0±0.0
Veliidae	0.0±0.0	0.2±0.4
Lycosidae	6.8±4.7	11.0±10.9
Pisauridae	0.0±0.0	0.8±1.8
Liocranidae	0.2±0.4	0.0±0.0
Leiobunum	1.0±2.2	4.0±7.3
Scolopendridae	0.0±0.0	0.2±0.4
Linyphiidae	0.0±0.0	0.2±0.4
Clubionidae	0.2±0.4	0.2±0.4
Carabidae	2.2±2.9	1.8±1.1
Tenebrionidae	2.2±2.2	0.4±0.5
Carabidae larva	0.0±0.0	0.2±0.4
Staphylinidae	0.0±0.0	2.8±4.2
Ptiliidae Erichson	0.0±0.0	0.2±0.4
Formicidae	26.4±26.5	12.2±10.8
Delphacidae	0.0±0.0	0.8±1.1
Muscidae	20.4±28.0	8.4±8.6
Apoidea	0.0±0.0	0.2±0.4

Liposcelididae	0.2±0.4	0.0±0.0
Loposcelis	0.0±0.0	0.2±0.4
Dolichopodidae	0.0±0.0	0.2±0.4
Hypogastruridae	0.2±0.4	0.2±0.3
Hypogastruridae larva	0.0±0.0	0.1±0.2
Onychiuridae	0.0±0.0	0.1±0.2
Isotomidae	0.5±1.1	0.2±0.4
<i>Friesea</i>	0.0±0.0	0.1±0.2
<i>Paranurophorus</i>	0.9±2.0	0.0±0.0
<i>Coloburella</i>	0.3±0.4	0.1±0.2
Paronellidae	0.0±0.0	0.1±0.2
<i>Gustavia</i>	0.0±0.0	0.1±0.2
<i>Carabodes</i>	0.0±0.0	0.1±0.2
<i>Microotritia</i>	0.1±0.2	0.0±0.0
<i>Pygmephorus</i>	0.1±0.2	0.0±0.0
Eupodidae	0.3±0.3	0.1±0.2
Stigmaeidae	0.0±0.0	0.3±0.3
Cunaxidae	0.1±0.2	0.1±0.2
Bdellidae	0.2±0.4	0.0±0.0
<i>Xenocaligonellidus</i>	0.1±0.2	0.0±0.0
<i>Holaspulus</i>	0.0±0.0	0.1±0.2
