

Threshold reaction of soil arthropods to nitrogen deposition in urban green space

Lingzi Mo, Guoliang Xu, Jiaen Zhang, Zhifeng Wu, Shiqin Yu, Xiaohua Chen, Bin Peng, Andrea Squartini, Augusto Zanella

Table S1. The total number of individuals of soil fauna community composition in different N treatments (0-10 cm).

Taxa	3 months				6 months				12 months			
	N0	N1	N2	N3	N0	N1	N2	N3	N0	N1	N2	N3
Araneae												
Scytodidae	2	7			9	3	1	1	5	5		
Heteropodidae	1					1		2	1			
Oonopidae							2	1				
<i>Clubiona</i>									2	1	2	1
Oribatida	83	105	76	115	126	177	186	209	100	200	277	232
Prostigmata					11	5	1	6	18			11
Mesostigmata	14	13	7	14	56	33	32	43	99	42	53	29
Julidae												
Parajulidae									1	1		
Polyxenida												
<i>Monographis</i>	5	3		1		1		1	1	2	1	0
Pauropoda												
<i>Pauropus</i>	9	2		3			1		20	11	2	4
Eosentomata												
<i>Anisentomon</i>	1		2	2		1	1		4	4	1	2
<i>Pseudanisentmon</i>									1			
Symphyla												
<i>Symphylella</i>	4	4	5	5	8	5	3	1	9	8	4	9

Continued Table S1

Hymenoptera											
<i>Lasius</i>								1			
<i>Tetramorium</i>				1	2				2	1	
<i>Oligomyrmex</i>								1			
<i>Strumigenys</i>		15		3	13	8	1		33	2	9
<i>Aenictus</i>		1	2	2	11						1
Diptera (larva)											
Chironomidae	1	2	3	3	1	1					
Mycetophilidae					2	1					
Lumbricida											
Microdrile oligochaetes											1
Megadrile oligochaetes					6	4	1				

Table S2. Eigenvalues and variance contributions of the principal components.

	PRIN 1	PRIN 2
Oribatida individuals	-0.528	0.768
Mesostigmata individuals	0.159	0.650
Collembola individuals	0.388	-0.216
Community abundance	-0.098	0.924
Taxa richness	0.825	0.494
Density-Group Index	0.666	0.698
Shannon–Wiener Index	0.968	-0.114
Pielou Index	0.684	-0.581
Margalef Index	0.920	0.123
Percentage of variance	42.656	33.452
Cumulative (%)	42.656	76.108

Table S3. Soil chemical properties after 12 months N treatment (0 -5 cm)

Treatment	pH	NH ₄ ⁺ -N (mg kg ⁻¹)	NO ₃ ⁻ -N (mg kg ⁻¹)	TN (g kg ⁻¹)	TC (g kg ⁻¹)	TP (g kg ⁻¹)
N0	7.79±0.08a	19.34±0.74b	1.48±0.38b	0.82±0.08b	8.78±0.81a	0.30±0.02a
N1	7.08±0.47ab	37.34±9.41b	6.49±0.99b	0.88±0.07b	8.90±0.74a	0.28±0.01a
N2	6.23±0.47bc	78.94±11.71a	17.13±2.45a	1.12±0.23ab	8.66±1.31a	0.34±0.02a
N3	5.73±0.47c	108.69±18.90a	23.18±4.13a	1.33±0.12a	8.60±0.34a	0.31±0.02a
<i>P</i>	<0.05*	<0.01**	<0.01**	0.78	0.99	0.26

Data are presented as mean and standard errors (in brackets) for replicates.

Different letters indicate significant differences between treatments at 0.05 level.

** and * significant at 0.01 and 0.05 level, respectively.

NH₄⁺-N, ammonium nitrogen; NO₃⁻-N, nitrate nitrogen; TN, total nitrogen; TC, total carbon. TP, total phosphor.