

Supplementary Material

The Evaluation and Key-Factor Identification of the Influence of Tourism on the Soil of Mount Tai

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Table S1. Tests of Normality (Shapiro-Wilk)

	Statistic		Sig.	
	Group A	Group B	Group A	Group B
AWCD	.941	.953	.565	.698
Shannon	.874	.967	.112	.857
McIntosh	.957	.895	.749	.191
Simpson	.911	.933	.291	.475
Hg	.684	.711	.001	.001
As	.849	.808	.057	.018
Pb	.745	.857	.003	.071
Cd	.916	.909	.323	.278
Cu	.946	.906	.619	.254
Cr	.893	.857	.184	.071
pH	.960	.864	.784	.084
EC	.955	.892	.722	.180
AK	.938	.923	.532	.379
OM	.936	.874	.511	.111
AN	.836	.901	.039	.227
AP	.818	.955	.024	.733
TN	.923	.952	.379	.693

Table S2. Standard deviation of soil physicochemical properties

Sites	pH	EC	OM	AN	AP	AK	TN
A1	0.364	12.818	20.612	1.344	1.022	6.248	0.027
A2	0.118	7.568	6.681	0.501	9.779	2.185	0.087
A3	0.051	7.386	12.635	1.136	8.382	3.978	0.232
A4	0.039	0.830	15.611	0.029	4.412	2.424	0.085
A5	0.478	6.469	17.408	0.407	9.301	1.795	0.139
A6	0.280	7.722	9.758	0.072	15.659	3.505	0.249
A7	0.364	13.956	14.973	0.368	7.401	4.471	0.158
A8	0.309	8.276	1.935	0.219	8.166	1.506	0.153
A9	0.401	4.635	17.676	0.060	10.029	2.176	0.176
A10	0.267	3.510	9.782	0.057	18.591	7.606	0.087
B1	0.434	4.862	2.672	0.330	12.978	2.461	0.045
B2	0.102	11.229	3.061	0.961	6.938	1.993	0.106
B3	0.197	14.150	14.738	1.158	10.440	0.960	0.038
B4	0.248	4.911	16.499	1.428	12.424	4.968	0.040
B5	0.195	2.551	0.029	1.166	9.151	1.014	0.063
B6	0.050	9.900	13.441	1.416	10.705	1.812	0.085
B7	0.236	4.986	12.111	0.762	13.141	4.377	0.104
B8	0.266	14.768	43.022	0.237	12.000	5.224	0.221
B9	0.217	8.675	54.934	0.940	15.477	2.023	0.142
B10	0.304	10.073	24.362	0.119	18.122	0.530	0.137

Table S3. Heavy metal concentrations

	Hg(mg/kg)	As(mg/kg)	Pb(mg/kg)	Cd(mg/kg)	Cu(mg/kg)	Cr(mg/kg)
A1	0.04	9.53	29.40	0.22	18.21	53.40
A2	0.09	6.84	30.19	0.22	24.62	49.77
A3	0.14	6.26	31.61	0.28	25.68	49.48
A4	0.08	6.84	31.42	0.22	28.79	51.65
A5	0.15	6.93	29.78	0.36	26.31	46.38
A6	0.20	7.28	71.38	0.53	36.51	52.46
A7	0.16	7.40	34.52	0.38	42.39	61.06
A8	1.53	11.2	46.61	0.46	39.59	68.86
A9	2.41	13.41	86.79	0.42	46.41	70.41
A10	0.7395	10.44	43.60	0.40	49.79	62.69
Average (A)	0.554	8.613	43.530	0.349	33.830	56.616
B1	0.04	9.55	29.10	0.22	18.20	53.33
B2	0.09	6.13	20.12	0.19	22.16	45.66
B3	0.14	6.29	28.99	0.22	25.66	48.78
B4	0.08	6.11	25.17	0.26	26.11	49.48
B5	0.12	6.17	25.11	0.24	27.17	48.78
B6	0.20	7.33	27.71	0.23	29.9	49.48
B7	0.16	7.13	30.47	0.28	29.99	51.65
B8	1.51	10.25	34.55	0.28	32.23	52.46
B9	2.00	10.14	38.78	0.29	30.19	62.33
B10	1.22	10.59	36.19	0.30	31.89	61.06
Average (B)	0.554	7.969	29.619	0.251	27.350	52.301
B.v.	0.014	7.400	29.060	0.055	21.290	56.880

Abbreviation: Background values (B.v.)

Table S4 Correlation analysis of soil quality variables and the altitude

	AWCD1	Shannon1	McIntosh1	Simpson1	pH1	Ec1	AK1	OM1	AN1	AP1	TN1	Hg1	As1	Pb1	Cd1	Cu1	Cr1	Al.
AWCD1	1	.809**	.874**	.879**	.322	-.261	.314	-.036	.026	.191	.061	-.191	-.360	-.536	-.229	-.150	-.344	-.075
Shannon1		1	.903**	.985**	.334	-.371	.350	-.150	.490	.169	.464	-.118	-.385	-.314	.130	.219	-.132	.098
McIntosh1			1	.949**	.538	-.048	.415	.053	.367	.106	.420	-.051	-.280	-.420	.002	.106	-.057	.109
Simpson1				1	.390	-.275	.418	-.091	.390	.192	.408	-.119	-.361	-.400	.033	.160	-.137	.091
pH1					1	.450	.410	-.035	.099	.444	.315	.279	.252	-.057	.192	.474	.476	.597
Ec1						1	.366	.349	-.135	-.123	.052	.348	.551	-.078	-.163	.142	.605	.359
AK1							1	.046	.077	.174	.441	.469	.421	-.058	.057	.416	.538	.527
OM1								1	-.190	-.144	-.107	-.357	-.319	-.554	-.435	-.646*	-.243	-.581
AN1									1	-.435	.882**	.383	.054	.400	.470	.480	.359	.323
AP1										1	-.236	-.363	-.269	-.287	-.121	.162	-.153	.108
TN1											1	.566	.228	.426	.432	.580	.551	.507
Hg1												1	.901**	.740*	.486	.639*	.859**	.812**
As1													1	.633*	.390	.582	.877**	.788**
Pb1														1	.707*	.613	.589	.580
Cd1															1	.712*	.518	.530
Cu1																1	.793**	.912**
Cr1																	1	.888**
	AWCD2	Shannon2	McIntosh2	Simpson2	pH2	EC2	AK2	OM2	AN2	AP2	TN2	Hg2	As2	Pb2	Cd2	Cu2	Cr2	Al.
AWCD2	1	.812**	.900**	.780**	.376	.404	.526	-.235	.399	.494	.488	.342	.021	.183	.428	.581	.040	.326
Shannon2		1	.942**	.838**	.311	.187	.364	-.363	.477	.251	.613	.507	-.049	.257	.382	.595	.127	.432
McIntosh2			1	.933**	.474	.196	.500	-.306	.562	.419	.689*	.422	-.081	.240	.489	.709*	.065	.438
Simpson2				1	.556	.112	.486	-.338	.506	.451	.748*	.350	-.152	.196	.579	.721*	.085	.482
pH2					1	.503	.711*	-.507	.572	.574	.783**	.510	.432	.755*	.890**	.772**	.579	.727*
EC2						1	.595	-.698*	.034	.280	.252	.689*	.824**	.725*	.604	.433	.712*	.618

[illegible]