Table S1. Description of the sampling points and total Hg contents in soil.

Sample	Brief description	Total Hg (mg/kg)	$GEM_{soil-air}$ (ng/m^3)	GPS coordinates
		Jedová Hora		
1	Next to entrance to the shaft	4.78 ± 0.46	-	N 49°47′31.0′′ E 13°53′13.4′′
2	Mine waste dumpsite next to the shaft	8.23 ± 0.39	-	N 49°47′29.1′′ E 13°53′15.0′′
3	Approximately 20 meters downhill from the mine entrance	8.75 ± 0.14	-	N 49°47′28.5′′ E 13°53′14.9′′
4	Approximately 50 meters downhill from the point No.3	8.90 ± 0.12	-	N 49°47′26.1′′ E 13°53′17.8′′
5	Approximately 50 meters downhill from the point No.4	0.221 ± 0.039	-	N 49°47′24.6′′ E 13°53′17.2′′
6	Downhill close to the main path to the mine	19.7 ± 2.4	-	N 49°47′25.3′′ E 13°53′6.5′′
7	Downhill close to the main path to the mine	135 ± 1	-	N 49°47′24.8′′ E 13°53′0.4′′
		Horní Luby		
1	Next to entrance to the shaft	34.2 ± 2.6	2	N 50°15′54.1′′ E 12°23′35.7′′
2	Mine waste dumpsite	56.1 ± 7.3	8	N 50°15′51.8′′ E 12°23′37.2′′
3	Bed of the dried-up lake among the dumpsites	9.90 ± 0.03	-	N 50°15′48.8′′ E 12°23′35.4′′
4	Bank of the lake	50.5 ± 6.0	498	N 50°15′48.8′′ E 12°23′35.3′′
5	Mine waste dumpsite	15.4 ± 2.1	9	N 50°15′48.2′′ E 12°23′38.1′′
6	Mine waste dumpsite	3.34 ± 0.79	-	N 50°15′45.7′′ E 12°23′41.3′′
7	Next to entrance to the old mine drift	117 ± 9	-	N 50°15′35.8′′ E 12°23′58.5′′

Table S2. Average mercury contents in the shoots and roots of the individual plant species at the Jedová Hora location (n = 3).

Sampling point No.	Family	Species		Hg (mg/kg)
1	Rosaceae	*Fragaria vesca*	shoots	0.031
			roots	0.035
1	Plantaginaceae	*Veronica chamaedris*	shoots	0.249
			roots	0.557
1	Fabaceae	*Astragalus glycyphyllos*	shoots	0.637
			roots	2.77
1	Fabaceae	*Vicia sp*	shoots	0.063
			roots	0.074
1	Violaceae	*Viola sylvestris*	shoots	0.080
			roots	0.451
2	Rubiaceae	*Galium odoratum*	shoots	0.096
			roots	2.95
2	Violaceae	*Viola sylvestris*	shoots	0.023
			roots	0.214
2	Plantaginaceae	*Veronica chamaedris*	shoots	0.056
			roots	0.193
2	Urticaceae	*Urtica dioica*	shoots	0.055
			roots	0.091
2	Rosaceae	*Geum urbanum*	shoots	0.055
			roots	0.861
2	Fabaceae	*Vicia sp*	shoots	0.817
			roots	5.55
2	Urticaceae	*Urtica dioica*	shoots	0.037
			roots	0.108
2	Rubiaceae	*Galium odoratum*	shoots	0.084
			roots	0.493
3	Rosaceae	*Fragaria vesca*	shoots	0.021
			roots	0.331
3	Plantaginaceae	*Plantago major*	shoots	0.158
			roots	1.21
3	Asteraceae	*Taraxacum sp.*	shoots	0.223
			roots	0.632
3	Rosaceae	*Geum urbanum*	shoots	0.163
			roots	0.287
3	Violaceae	*Viola sylvestris*	shoots	0.075
			roots	0.179
4	Rosaceae	*Fragaria vesca*	shoots	0.022
			roots	0.773
4	Rubiaceae	*Galium odoratum*	shoots	0.023
			roots	1.54
4	Urticaceae	*Urtica dioica*	shoots	0.085
			roots	0.708
4	Violaceae	*Viola sylvestris*	shoots	0.025
			roots	0.296
4	Asteraceae	*Taraxacum sp*	shoots	0.086
			roots	0.292

4	Plantaginaceae	*Plantago major*	shoots	0.052
			roots	0.175
4	Lamiaceae	*Glechoma hederacea*	shoots	0.021
			roots	0.075
4	Hypericaceae	*Hypericum perforatum*	shoots	0.016
			roots	0.192
4	Plantaginaceae	*Veronica chamaedris*	shoots	0.042
			roots	0.104
4	Rosaceae	*Geum urbanum*	shoots	0.079
			roots	3.44
5	Euphorbiaceae	*Euphorbia cyparissias*	shoots	0.019
			roots	0.162
5	Fabaceae	*Astragalus glycyphyllos*	shoots	0.010
			roots	0.051
5	Rosaceae	*Fragaria vesca*	shoots	0.108
			roots	0.044
5	Plantaginaceae	*Veronica chamaedris*	shoots	0.023
			roots	0.319
5	Rubiaceae	*Galium odoratum*	shoots	0.050
			roots	0.103
5	Asteraceae	*Taraxacum sp.*	shoots	0.051
			roots	0.185
5	Violaceae	*Viola sylvestris*	shoots	0.011
			roots	0.309
5	Plantaginaceae	*Plantago major*	shoots	0.038
			roots	0.062
5	Hypericaceae	*Hypericum perforatum*	shoots	0.034
			roots	0.043
5	Asteraceae	*Achillea millefolium*	shoots	0.085
			roots	0.772
6	Rosaceae	*Fragaria vesca*	shoots	0.036
			roots	0.331
6	Euphorbiaceae	*Euphorbia cyparissias*	shoots	0.073
			roots	0.481
6	Violaceae	*Viola sylvestris*	shoots	0.332
			roots	0.867
6	Asteraceae	*Taraxacum sp.*	shoots	0.096
			roots	1.66
6	Plantaginaceae	*Veronica chamaedris*	shoots	0.044
			roots	2.15
6	Plantaginaceae	*Plantago major*	shoots	0.295
			roots	1.99
6	Urticaceae	*Urtica dioica*	shoots	0.202
			roots	0.110
6	Rosaceae	*Geum urbanum*	shoots	0.044
			roots	0.192
6	Rubiaceae	*Galium odoratum*	shoots	0.286
			roots	1.16
6	Fabaceae	*Astragalus glycyphyllos*	shoots	0.069
			roots	9.64

7	Rubiaceae	*Galium odoratum*	shoots	0.080
			roots	0.483
7	Urticaceae	*Urtica dioica*	shoots	0.510
			roots	0.200
7	Violaceae	*Viola sylvestris*	shoots	0.590
			roots	9.78
7	Rosaceae	*Fragaria vesca*	shoots	0.155
			roots	0.506
7	Rosaceae	*Geum urbanum*	shoots	0.375
			roots	2.76
7	Fabaceae	*Onobrychis viciifolia*	shoots	0.829
			roots	13.4

Table S3. Average mercury contents in the shoots and roots of the individual plant species at the Horní Luby location (n = 3).

Sampling point No.	Family	Species		Hg (mg/kg)
1	Ranunculaceae	*Ficaria verna*	shoots	0.329
			roots	1.59
1	Urticaceae	*Urtica dioica*	shoots	0.120
			roots	0.441
1	Rubiaceae	*Galium aparine*	shoots	0.098
			roots	14.8
1	Apiaceae	*Aegopodium podagraria*	shoots	0.196
			roots	0.913
2	Urticaceae	*Urtica dioica*	shoots	0.054
			roots	0.364
2	Rosaceae	*Geum urbanum*	shoots	0.040
			roots	0.814
2	Oxalidaceae	*Oxalis acetosella*	shoots	0.114
			roots	0.748
2	Dryopteridaceae	*Dryopteris filix-mas*	shoots	0.055
			roots	0.778
2	Convallariaceae	*Convallaria majalis*	shoots	0.221
			roots	0.343
3	Urticaceae	*Urtica dioica*	shoots	0.155
			roots	0.964
3	Rubiaceae	*Galium aparine*	shoots	0.121
			roots	10.1
3	Lamiaceae	*Ajuga reptans*	shoots	0.116
			roots	5.43
3	Dryopteridaceae	*Dryopteris filix-mas*	shoots	0.138
			roots	1.05
3	Ranunculaceae	*Ficaria verna*	shoots	0.271
			roots	0.575
3	Rosaceae	*Geum urbanum*	shoots	0.448
			roots	1.58
3	Apiaceae	*Aegopodium podagraria*	shoots	0.133
			roots	7.24
4	Rubiaceae	*Galium aparine*	shoots	0.106

			roots	1.56
4	Apiaceae	*Aegopodium podagraria*	shoots	0.054
			roots	5.61
4	Ranunculaceae	*Anemone nemorosa*	shoots	0.121
			roots	0.248
4	Rosaceae	*Geum urbanum*	shoots	0.333
			roots	2.83
4	Urticaceae	*Urtica dioica*	shoots	0.111
			roots	3.06
5	Urticaceae	*Urtica dioica*	shoots	0.152
			roots	3.28
5	Apiaceae	*Aegopodium podagraria*	shoots	0.066
			roots	1.71
5	Dryopteridaceae	*Dryopteris filix-mas*	shoots	0.075
			roots	0.588
5	Oxalidaceae	*Oxalis acetosella*	shoots	0.066
			roots	0.763
5	Violaceae	*Viola sylvestris*	shoots	0.063
			roots	2.43
6	Ranunculaceae	*Anemone nemorosa*	shoots	0.091
			roots	0.035
6	Dryopteridaceae	*Dryopteris filix-mas*	shoots	0.073
			roots	0.481
6	Urticaceae	*Urtica dioica*	shoots	0.140
			roots	0.229
6	Rubiaceae	*Galium aparine*	shoots	0.062
			roots	0.454
6	Oxalidaceae	*Oxalis acetosella*	shoots	0.057
			roots	0.956
7	Ranunculaceae	*Ranunculus bulbosus*	shoots	0.026
			roots	1.18
7	Hypericaceae	*Hypericum perforatum*	shoots	0.061
			roots	2.87
7	Oxalidaceae	*Oxalis acetosella*	shoots	0.021
			roots	6.283
7	Rubiaceae	*Galium aparine*	shoots	0.075
			roots	0.668
7	Asteraceae	*Pilosella officinarum*	shoots	0.110
			roots	5.12

Table S4. The Spearman's ϱ correlation coefficients of the interrelationships of the individual variables.

Jedová Hora						
	roots	shoots	BAF r	BAF s	TF	soil
roots	1.000	0.542	0.327	-0.149	-0.682	0.464
shoots	0.542	1.000	-0.023	0.218	0.191	0.381
BAF r	0.327	-0.023	1.000	0.662	-0.413	-0.552
BAF s	-0.149	0.218	0.662	1.000	0.339	-0.726
TF	-0.682	0.191	-0.413	0.339	1.000	-0.223
soil	0.464	0.381	-0.552	-0.726	-0.223	1.000
Horní Luby						
	roots	shoots	BAF r	BAF s	TF	soil
roots	1.000	-0.024	0.600	-0.199	-0.844	0.155
shoots	-0.024	1.000	0.157	0.564	0.501	-0.320
BAF r	0.600	0.157	1.000	0.549	-0.437	-0.638
BAF s	-0.199	0.564	0.549	1.000	0.460	-0.942
TF	-0.844	0.501	-0.437	0.460	1.000	-0.288
soil	0.155	-0.320	-0.638	-0.942	-0.288	1.000
All						
	roots	shoots	BAF r	BAF s	TF	soil
roots	1.000	0.434	0.382	-0.228	-0.746	0.511
shoots	0.434	1.000	0.023	0.241	0.219	0.339
BAF r	0.382	0.023	1.000	0.623	-0.399	-0.502
BAF s	-0.228	0.241	0.623	1.000	0.410	-0.764
TF	-0.746	0.219	-0.399	0.410	1.000	-0.304
soil	0.511	0.339	-0.502	-0.764	-0.304	1.000