

Table S1 The codes, latitude, and longitude of plants with paired soils

Codes	Plant species	Family	Longitude	Latitude
S1	<i>Oenothera biennis</i> L.	Brassicaceae	117.24439182	28.33082216
S2	<i>Cyclosorus interruptus</i>	Polypodiaceae	117.24405919	28.33019894
S3	<i>Verbena officinalis</i> L.	Verbenaceae	117.24268614	28.33155957
S4	<i>Xanthium strumarium</i> L.	Asteraceae	117.24435970	28.33155886
S5	<i>Solidago canadensis</i> L.	Asteraceae	117.24390908	28.33121903
S6	<i>Saccharum arundinaceum</i> Retz.	Poaceae	117.24277204	28.33257955
S7	<i>Pteris multifida</i> Poir.	Pteridaceae	117.24251456	28.33233411
S8	<i>Pteris vittata</i> L.	Pteridaceae	117.24369447	28.33057688
S9	<i>Phytolacca acinosa</i> Roxb.	Phytolaccaceae	117.24384463	28.33019903
S10	<i>Artemisia sieversiana</i> Ehrhart ex Willd.	Asteraceae	117.24260035	28.33195628
S11	<i>Pennisetum sinense</i> Roxb.	Poaceae	117.21621517	28.32462520
S12	<i>Lophatherum gracile</i> Brongn.	Poaceae	117.21538736	28.32567708
S13	<i>Elsholtzia splendens</i> Nakai	Lamiaceae	117.21491314	28.32585010
S14	<i>Canna indica</i> L.	Cannaceae	117.21464790	28.32578671
S15	<i>Aster subulatus</i> Michx.	Asteraceae	117.21613214	28.32489686
S16	<i>Sedum plumbizincicola</i>	Crassulaceae	117.21481397	28.32533311
S17	<i>Mosla chinensis</i> Maxim	Lamiaceae	117.21563378	28.32477002
S18	<i>Vetiveria zizanioides</i> L.	Poaceae	117.21588032	28.32536001

Note: The cultivated plants were grown in a demonstration zone and they included *Pennisetum sinense* Roxb. (energy plant), *Sedum plumbizincicola* (cadmium hyper-accumulator), *Elsholtzia splendens* Nakai (copper tolerant plant), and *Canna indica* L. (landscape plant).

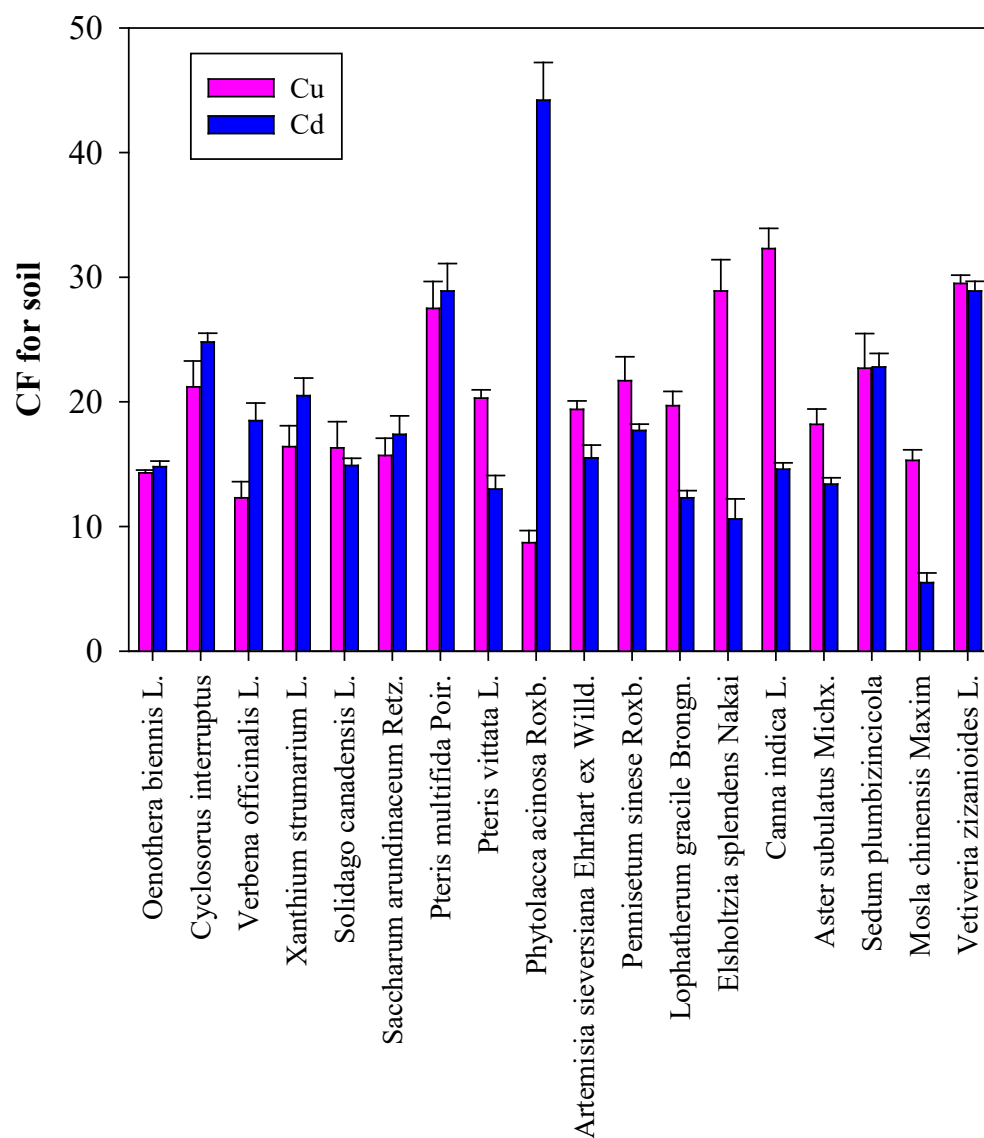


Fig. S1 The CF values for copper and cadmium around the copper smelter

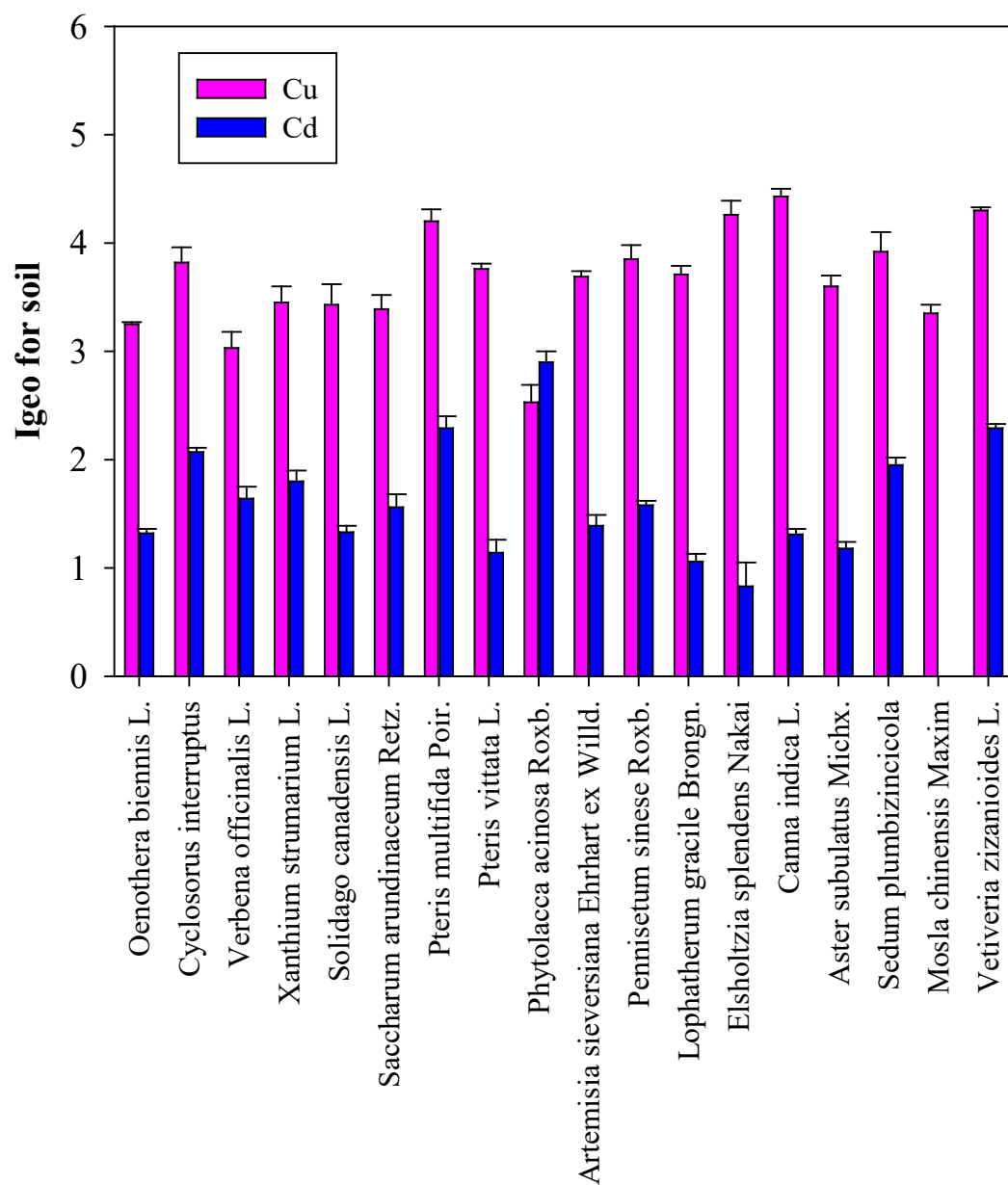


Fig. S2 The Igeo values for copper and cadmium around the copper smelter

Table S2 Concentrations of copper (mg/kg) and cadmium (mg/kg) in roots, shoots, and leaves.

Species of plants	Root-Cu	Shoot-Cu	Leaf-Cu	Root-Cd	Shoot-Cd	Leaf-Cd
<i>Oenothera biennis</i> L.	45.1±2.65fg	7.2±1.09h	66.8±6.94de	2.21±0.16defgh	0.85±0.02fg	1.82±0.32d
<i>Cyclosorus interruptus</i>	149±1.29d	37.4±1.72f	60.2±2.84def	3.41±0.12def	4.09±0.04c	1.97±0.13cd
<i>Verbena officinalis</i> L.	47.2±5.19fg	10.4±3.29h	93.1±6.04c	1.99±0.35efgh	0.32±0.04g	2.45±0.35cd
<i>Xanthium strumarium</i> L.	94±15ef	23.8±3.61fg	74.4±4.01d	2.65±0.32defg	3.12±1.67cd	1.33±0.21d
<i>Solidago canadensis</i> L.	47.8±10.9fg	4.2±1.16h	46.7±1.28fgh	1.15±0.07gh	0.79±0.32fg	1.15±0.02d
<i>Saccharum arundinaceum</i> Retz.	23.5±2.26g	4.3±1.02h	8.1±0.26j	1.42±0.05gh	1.68±0.2ef	1.53±0.58d
<i>Pteris multifida</i> Poir.	71.7±9.66ef	25±4.39f	31.1±4.25hi	3.97±0.43d	3.71±0.08c	4.82±0.47b
<i>Pteris vittata</i> L.	139.7±8.36d	33.3±0.28f	57±2.19ef	1.81±0.06fgh	2.51±0.05de	2.16±0.11cd
<i>Phytolacca acinosa</i> Roxb.	27.3±2.34g	5.8±3.41h	50.1±1.9efg	19.95±0.4a	5.77±0.17b	4.72±0.34b
<i>Artemisia sieversiana</i> Ehrhart ex Willd.	156±10d	9.1±1.2h	40.4±1.01ghi	3.55±0.41def	3.68±0.53c	3.98±0.01d
<i>Pennisetum sinese</i> Roxb.	244±17c	106±8.3c	130.5±7.74b	3.73±0.35de	3.63±0.02c	1.78±0.4d
<i>Lophatherum gracile</i> Brongn.	27.9±0.07g	11.6±0gh	32.3±1.3hi	0.92±0.01gh	1.42±0.07f	0.34±0.08d
<i>Elsholtzia splendens</i> Nakai	357±35.8a	219±15a	269±25.37a	2.61±0.05defg	1.52±0.1f	1.3±0.3d
<i>Canna indica</i> L.	312±14.6b	26.7±1.09f	28.5±1.05i	1.97±0.3efgh	1.11±0.15fg	0.41±0.09d
<i>Aster subulatus</i> Michx.	75.7±20.8ef	27.3±0.11f	39.5±1.27ghi	1.92±0.54efgh	0.95±0.09fg	1.74±0.02d
<i>Sedum plumbizincicola</i>	131.1±7.51d	73.2±8.47d	59.7±1.13def	16.43±3.02b	34.24±0.09a	18.53±3.66a
<i>Mosla chinensis</i> Maxim	85±0.19ef	50.5±3.68e	27.6±0.44i	0.4±0.05h	1.33±0.02fg	1.17±0.07d
<i>Vetiveria zizanioides</i> L.	297±40b	177±13b	102.8±6.93c	5.83±0.59c	1.52±0.34f	1.83±0.01d
Mean value	129	47.3	67.7	4.22	4.01	2.95

Mean ($n = 3$) and standard error followed by different letters indicated significant differences ($p < 0.05$)