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Supplementary Material

Elemental composition of plants from the serpentine soil of Sugashima Island, Japan

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**Table S1. Metal concentrations in the plants inhabiting Island Sugashima
serpentine soil area**

binomial	K mg kg ⁻¹	Ca mg kg ⁻¹	Mg mg kg ⁻¹	Fe mg kg ⁻¹	Mn mg kg ⁻¹	Zn mg kg ⁻¹	Cu mg kg ⁻¹	Co mg kg ⁻¹	Ni mg kg ⁻¹	Cr mg kg ⁻¹	Sr mg kg ⁻¹	Sample no. (without 1)
<i>Adenophora triphylla</i> var. <i>japonica</i>	9470	5710	2380	247	25.3	31.7	6.23	6.34	15.7	3.06	10.5	n=4
<i>Akebia quinata</i>	3070	15700	12100	165.00	102	11.5	2.06	17.6	17.1	1.46	45.7	
<i>Alnus firma</i>	2680	2300	2440	132	60.5	3.19	5.12	9.48	7.05	4.74	N.D.	
<i>Artemisia indica</i> var. <i>maximowiczii</i>	27000	1810	9680	149	29.4	55.4	14.4	3.8	28.5	1.32	9.04	
<i>Arthraxon hispidus</i>	2730	1590	3080	52.0	24.0	45.0	1.35	N.D.	N.D.	1.31	12.5	n=4
<i>Asarum fauriei</i> Franch. var. <i>takaai</i>	4400	4210	9280	245	14.6	35.6	3.47	2.92	17.9	2.45	11.2	
<i>Buxus microphylla</i>	3430	14400	4630	566.00	83.0	21.3	1.63	17.6	471	5.19	49.8	
<i>Callicarpa japonica</i>	2120	3310	4400	80.8	23.1	27.2	12.3	3.83	17.5	N.D.	14.4	
<i>Calystegia soldanella</i>	21300	5980	6030	383	74.8	16.6	6.25	13.1	16.3	5.44	23.2	n=4
<i>Chenopodium album</i>	63600	4660	5810	62.8	30.8	15.8	3.94	8.01	8.64	N.D.	23.1	
<i>Cirsium suzukaense</i>	8960	8240	4390	349	33.0	33.3	8.85	N.D.	35.3	3.61	26.6	
<i>Cammelia communis</i>	12000	6240	1920	44.1	27.9	18.7	1.32	18.8	1.01	N.D.	19.9	
<i>Coreopsis lanceolata</i>	7370	4630	2960	518.00	12.9	9.43	9.41	5.96	10.2	8.40	18.3	n=4
<i>Crocosmia×crocosmiiflora</i>	12500	6920	3150	67.3	16.1	17.3	2.80	N.D.	1.61	N.D.	14.7	
<i>Cyperus micrairia</i>	5650	1020	1740	164	133	19.3	1.12	23.9	N.D.	N.D.	10.5	
<i>Daphniphyllum tejsmannii</i>	3700	3050	7110	30.9	11.4	1.13	N.D.	0.14	4.46	1.63	12.2	
<i>Dendropanax trifidus</i>	5430	6290	1780	39.8	1510	152.0	N.D.	13.4	1.71	N.D.	63.2	n=4
<i>Dianthus japonicus</i>	8750	6170	4920	824	26.7	32.3	2.27	11.6	15.6	6.38	47.4	
<i>Dicranopteris pedata</i>	3040	1680	1400	54.8	368	21.2	2.09	7.80	4.55	N.D.	57.3	
<i>Dioscorea japonica</i>	12500	1640	2860	1.01	2.01	22.3	4.18	8.61	6.30	5.91	4.34	
<i>Dryopteris sacrosancta</i>	2650	746	2200	68.3	13.1	8.93	0.00	N.D.	3.28	N.D.	7.74	n=4
<i>Eurya emarginata</i>	1780	4710	2500	50.5	965	6.21	3.42	N.D.	22.6	14.6	17.6	
<i>Forficulum japonicum</i>	4360	3300	3880	34.5	21.5	35.7	1.47	1.96	11.7	N.D.	3.80	
<i>Gleichenia japonica</i>	6720	2430	1840	115.00	523	15.5	2.44	6.20	40.8	1.01	39.3	
<i>Hemerocallis littorea</i>	11400	12000	3840	30.8	9.33	32.7	4.80	15.9	2.83	N.D.	29.5	n=4
<i>Hypericum androsaemum</i>	10700	4100	5020	521	30.9	16.6	4.05	14.1	23.0	6.44	28.7	
<i>Ilex serrata</i>	2940	4680	2750	29.20	10.80	10.8	3.83	7.39	4.80	N.D.	30.7	
<i>Juniperus. conferta</i>	2970	5920	1490	102	37.1	9.20	N.D.	1.69	9.85	N.D.	9.89	
<i>Justicia procumbens</i>	12600	22000	6820	273	24.3	29.2	2.75	4.60	13.3	2.23	84.3	n=2
<i>Kalmelia pinnatifida</i>	24600	9000	2820	125	43.6	68.1	29.2	N.D.	5.22	N.D.	38.0	
<i>Lactuca indica</i> var. <i>lacinata</i>	11000	4680	2270	15.40	20.3	23.4	6.49	9.97	8.09	N.D.	11.9	
<i>Leonurus japonicus</i>	6860	5010	2600	383	30.0	13.1	8.46	N.D.	11.9	4.45	10.1	
<i>Lilium lancifolium</i>	22800	5950	4880	57.30	15.1	27.6	7.17	13.2	6.44	N.D.	22.4	n=2
<i>Lilium longiflorum</i>	16000	3600	2240	12.7	7.35	18.0	2.43	13.2	2.28	N.D.	11.7	
<i>Lonicera japonica</i>	3730	3800	2360	324	14.3	7.76	5.95	10.6	8.01	6.68	15.8	
<i>Lxeris dentate</i>	7380	975	1070	37.9	12.4	7.29	2.62	18.5	1.11	4.89	4.98	
<i>Lysimachia mauritiana</i>	12700	6120	12200	3730	80.9	20.1	3.59	20.4	52.4	15.3	32.6	n=2
<i>Mallotus japonicus</i>	3020	2620	3570	122.00	110	9.92	5.74	N.D.	5.43	1.18	11.1	
<i>Miscanthus sinensis</i>	7230	2000	1640	80.2	21.9	7.72	2.57	7.57	1.12	0.96	19.2	
<i>Myrica rubra</i>	3120	2680	2780	62.5	91.6	8.84	2.19	N.D.	15.7	1.08	4.15	
<i>Oenothera stricta</i>	1790	12100	5120	19.6	12.1	15.9	2.35	7.87	8.12	N.D.	60.4	n=2
<i>Onychium japonicum</i>	7780	466	660	40.7	9.30	8.33	N.D.	1.75	3.00	1.97	N.D.	
<i>Osmunda japonica</i>	4660	1610	2020	48.2	46.0	12.9	N.D.	N.D.	12.4	1.55	15.1	
<i>Patrinia villosa</i>	4220	3940	5040	736.00	40.8	52.1	8.56	N.D.	14.1	15.7	13.0	
<i>Pertya glabrescens</i>	7360	3150	2140	53.6	11.4	20.4	15.70	2.04	3.66	4.52	15.8	n=2
<i>Phytolacca americana</i>	15100	6330	11500	46.8	77.0	15.2	3.06	13.70	4.39	N.D.	15.2	
<i>Pinus thunbergii</i>	1720	1080	1310	121	70.6	14.1	2.27	2.24	2.51	2.93	4.67	
<i>Polygonum thunbergii</i>	9860	4450	4270	30.7	18.0	17.9	4.23	9.10	11.6	N.D.	19.2	
<i>Portulaca oleracea</i>	74900	2290	10300	119	146	15.9	8.11	10.8	17.6	N.D.	28.7	n=2
<i>Pueraria lobata</i>	21100	12500	4390	131	35.9	17.0	6.51	4.55	13.2	N.D.	47.4	
<i>Quercus phillyraeoides</i>	1730	3220	2360	64.50	348	7.43	1.84	N.D.	5.82	N.D.	7.54	
<i>Rhododendron sanctum</i>	3030	1640	987	233	22.8	6.32	5.71	6.02	5.08	9.90	N.D.	
<i>Rhus javanica</i> var. <i>roxburghii</i>	2480	1270	1270	68.6	17.8	1.69	1.70	2.39	1.13	2.20	3.62	n=3
<i>Rosa wichuriana</i>	4540	5970	1350	142	22.4	N.D.	4.66	1.48	3.47	3.96	22.1	
<i>Salvia isensis</i>	6250	4620	8490	231	34.0	35.4	7.30	19.9	35.4	2.98	21.8	
<i>Sanguisorba officinalis</i>	4340	8870	3710	333	36.6	7.90	2.51	N.D.	7.92	4.28	26.8	
<i>Sanguisorba tenuifolia</i>	4790	3100	3200	94.4	22.8	1.19	0.00	4.69	2.05	2.69	5.90	n=2
<i>Senecio nemorensis</i>	9400	2740	1970	90.5	21.6	25.0	4.15	N.D.	3.89	N.D.	8.77	
<i>Siegesbeckia orientalis</i> subsp. <i>pubescens</i>	6070	5180	4710	233	83.5	43.6	11.8	9.68	11.50	2.93	13.9	
<i>Sisyrinchium atlanticum</i>	3420	1200	1160	42.5	10.1	4.16	N.D.	13.6	N.D.	2.06	7.73	
<i>Smilax china</i>	4500	626	368	10.2	10.1	4.93	4.81	N.D.	2.37	3.98	N.D.	n=2
<i>Solidago canadensis</i> var. <i>scabra</i>	18400	9340	3110	156	84.4	50.9	6.96	11.8	4.38	1.14	27.9	
<i>Solidago virgaurea</i> var. <i>asiatica</i>	8880	6440	3890	1130.00	71.3	46.0	9.03	17.0	30.9	18.0	15.4	
<i>Sanchus asper</i>	15500	26200	6130	99.80	26.3	12.1	5.37	9.69	7.61	N.D.	22.3	
<i>Sphenomeris chinensis</i>	6730	962	1000	136	110	36.7	4.75	2.18	21.9	2.12	5.07	n=3
<i>Stachyurus praecox</i>	11700	4550	4450	84.20	21.1	23.9	7.92	N.D.	25.3	N.D.	10.0	
<i>Stephanandra incisio</i>	4000	5430	2250	86.7	45.4	27.7	5.37	6.69	21.6	N.D.	63.7	
<i>Swertia japonica</i>	1250	1620	6090	10600	250	33.3	8.10	29.8	176	168	N.D.	
<i>Tetrapanax papyriferus</i>	15100	1850	1270	83.5	24.1	32.8	4.91	5.86	1.03	N.D.	4.11	n=3
<i>Thalictrum minus</i> var. <i>hypoleucum</i>	6680	1570	1160	53.00	30.1	11.6	8.02	11.2	8.23	N.D.	3.80	
<i>Thymus serpyllum</i> ssp. <i>Quinquecostatus</i>	6730	10200	6950	3580.00	129	26.3	9.25	8.21	73.3	34.2	25.5	
<i>Veronica peregrine</i>	16300	11700	4450	283	31.5	33.1	1.41	8.41	10.4	1.52	40.2	
<i>Viola grypoceras</i> f. <i>variegata</i>	9590	3940	9080	2260	97.5	44.0	6.70	3.63	81.4	19.2	16.7	n=3
<i>Vitis ficifolia</i>	7200	5020	4950	206.00	53.6	N.D.	4.56	4.61	18.9	1.91	27.1	
<i>Youngia denticulate</i>	8100	5870	4020	351	47.9	21.2	5.16	4.92	19.7	3.02	23.3	
Average①	9890	5270	3900	362	90.2	22.4	4.93	7.23	20.3	4.53	21.86	n=4
Standard Deviation	11600	4620	2750	878	214	21.0	4.44	6.31	56.1	11.1	16.99	
Median	7030	4500	3090	97.1	30.5	17.6	4.21	6.27	8.17	1.53	16.25	
Max.	74900	26200	12200	10600	1510	152	29.2	28.8	471	168	84.3	

Landplants in Japan*	K	Ca	Mg	Fe	Mn	Zn	Cu	Co	Ni	Cr	Sr
Average②	14200	16500	3650	116	546	46.1	97.8	2.91	1.93	1.01	224
Median	11500	14500	3210	79.9	187	22.0	47.1	0.161	1.34	0.654	166
sample number	649	636	565	539	635	647	22.0	482	48.0	139	583