

Supplementary material

Figure S1. Main horizons of a typical soil sequence from well-drained to bad-drained podzol area. Data related to soil profiles indicated in the figure are given in Table S1.

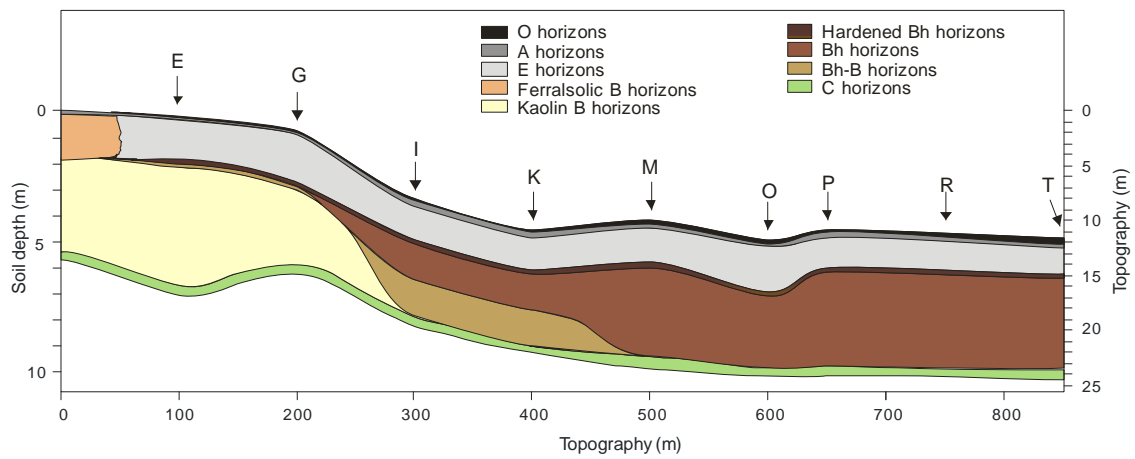


Table S1. Soil carbon and horizons type, thickness and texture of soil profiles indicated in Fig. S1 (sandy, S, loamy sand, LS, sandy loam, SL, sandy clay loam, SCL, sandy clay, SC, clay, C, clay loam, CL, silty clay loam, SiCL, silty loam, SiL).

Sample depth (cm)	Horizon thickness (m)	C%	Soil texture	Horizon type	Sample depth (cm)	Horizon thickness (m)	C%	Soil texture	Horizon type
<i>Profile E</i>					<i>Profile M</i>				
5-10	0.20	1.56	S	A	5-10	0.20	17.77	-	O
25-35	0.20	0.19	S	E	25-35	0.20	0.47	S	E
45-55	0.20	0.16	S	E	45-55	0.20	0.13	S	E
85-95	1.35	0.14	S	E	85-95	0.95	0.19	S	E
205-209	0.10	2.42	S	Bh	160-165	0.10	0.11	S	E
215-225	0.25	1.27	SCL	Bh-Fe	165-170	0.10	3.70	S	Bh
485-495	0.35	0.12	C	B	170-180	0.25	3.50	S	Bh
535-545	-	0.13	C	BC	200-210	0.45	1.71	SC	Bh
<i>Profile G</i>					245-255	0.50	1.06	C	Bh
5-10	0.15	2.01	S	A	295-305	0.50	1.10	SC	Bh
20-30	0.25	0.25	S	E	345-355	0.50	0.97	SCL	Bh
50-60	0.30	0.16	S	E	395-405	0.50	0.75	CL	Bh
110-120	1.30	0.15	S	E	445-455	0.35	0.29	SiC	Bh-B
200-205	0.05	2.65	S	Bh	495-500	-	0.15	SiC	C
205-215	0.15	1.55	SCL	Bh	<i>Profile O</i>				
300-310	-	0.14	C	B	5-10	0.25	17.29	-	O
<i>Profile I</i>					20-30	0.20	0.52	S	A
5-10	0.20	5.25	S	A	<i>Profile P</i>				
30-40	0.25	0.37	S	E	5-10	0.10	1.45	S	A
100-110	1.05	0.20	S	E	40-50	0.35	0.17	S	E
150-160	0.20	4.89	S	Bh	90-100	0.85	0.20	S	E
190-200	0.05	3.46	S	Bh	135-140	0.05	1.97	S	Bh
250-260	0.80	1.02	SCL	Bh	150-155	0.15	3.80	LS	Bh
310-320	0.45	0.48	C	Bh	185-195	0.40	1.50	SL	Bh
370-380	0.70	0.35	C	Bh-B	240-250	0.55	3.04	C	Bh
410-420	0.70	0.25	CL	Bh-B	265-275	0.25	3.33	C	Bh
440-450	-	0.13	C	C	340-345	0.70	0.68	SC	Bh
<i>Profile K</i>					415-420	0.80	0.31	C	Bh-C
5-10	0.15	3.59	S	A	435-440	-	0.10	SiC	C
40-50	0.35	0.24	S	E	<i>Profile R</i>				
110-120	1.05	0.19	S	E	5-10	0.20	16.57	-	O
160-165	0.25	6.72	LS	Bh	25-35	0.25	1.655	S	A
180-190	0.25	3.19	LS	Bh	<i>Profile T</i>				
195-205	0.20	3.18	SL	Bh	5-10	0.20	8.25	-	O
225-235	0.10	2.16	SC	Bh	20-30	0.10	1.81	S	A
235-245	0.10	1.89	C	Bh	45-55	0.20	0.15	S	E
245-255	0.20	0.86	C	Bh	115-125	1.00	0.16	S	E
265-275	0.25	0.98	C	Bh	145-155	0.05	3.95	LS	Bh
285-290	0.15	0.57	C	Bh-B	160-170	0.10	4.25	LS	Bh
325-335	0.60	0.50	C	Bh-B	170-180	0.30	3.90	SL	Bh
385-395	0.45	0.27	C	Bh-B	235-245	1.00	1.65	CL	Bh
445-450	0.40	0.25	SiC	B-C	315-325	2.45	1.14	CL	Bh
450-455	-	0.13	SiC	C	405-410	-	0.13	SiC	C