

Table S1: Radiocarbon concentrations, biological parameters (C_{mic} - microbial biomass-derived C), elemental contents (OC - organic carbon, N - total nitrogen), and grain size analyses of the soil profiles A, D, and G.

profile	depth (cm)	radiocarbon concentrations		biological parameters		elemental parameters			grain size fractions				
		bulk OC (pMC)	fine silt & clay (pMC)	root mass (g l ⁻¹ soil)	C_{mic} ($\mu\text{g g}^{-1}$ DW)	OC (%)	N (%)	C/N	coarse & medium sand (200-2000 μm) (g kg ⁻¹ soil)	fine sand (63-200 μm) (g kg ⁻¹ soil)	coarse silt (20-63 μm) (g kg ⁻¹ soil)	medium silt (6.3-20 μm) (g kg ⁻¹ soil)	fine silt & clay (<6.3 μm) (g kg ⁻¹ soil)
A	10	101.6 ± 0.4	100.7 ± 0.4	2.5	104.9	1.69	0.072	23	476	209	118	122	49
	35	95.3 ± 0.4	95.3 ± 0.4	0.9	44.3	0.49	0.024	20	304	325	162	73	55
	60	67.3 ± 0.8	81.8 ± 0.3	0.1	16.5	0.26	0.010	28	421	331	72	41	34
	85	67.7 ± 0.9	81.8 ± 0.3	0.0	5.4	0.07	0.007	10	527	233	152	52	37
	110	56.3 ± 0.7	67.3 ± 0.3	0.0	36.6	0.05	0.003	19	233	654	67	20	26
	135	46.0 ± 0.8	-	0.0	51.8	0.05	0.002	26	-	-	-	-	-
	160	85.5 ± 0.6	-	0.4	6.1	0.26	0.018	15	-	-	-	-	-
D	10	100.1 ± 0.4	100.4 ± 0.4	1.4	167.9	1.55	0.059	26	439	218	188	76	55
	35	93.1 ± 0.4	91.0 ± 0.4	1.6	202.7	0.62	0.028	23	435	192	222	79	66
	60	72.6 ± 0.6	80.5 ± 0.3	0.3	14.1	0.13	0.010	13	479	200	218	62	37
	85	32.6 ± 0.6	66.7 ± 0.3	0.0	125.3	0.05	0.008	7	831	108	18	15	28
	110	60.5 ± 0.7	60.8 ± 0.3	0.0	24.1	0.04	0.005	8	26	837	93	20	25
	135	63.0 ± 0.3	-	0.4	18.7	0.13	0.014	10	-	-	-	-	-
	160	66.5 ± 0.4	-	0.6	26.1	0.13	0.011	12	-	-	-	-	-
G	10	100.9 ± 0.5	98.9 ± 0.4	1.2	216.4	1.54	0.056	28	394	229	216	86	55
	35	105.0 ± 0.7	93.0 ± 0.4	1.5	32.1	0.71	0.031	23	415	208	224	80	63
	60	55.8 ± 0.7	81.6 ± 0.3	0.1	8.0	0.09	0.006	15	514	242	157	54	28
	85	57.3 ± 0.6	66.4 ± 0.3	0.0	-	0.05	0.007	8	195	620	79	66	40
	110	49.6 ± 0.6	59.8 ± 0.3	0.0	1.0	0.06	0.008	8	33	834	80	23	30
	135	71.8 ± 0.6	-	1.0	12.8	0.17	0.019	9	-	-	-	-	-
	160	48.7 ± 0.7	-	0.0	-	0.02	0.003	7	-	-	-	-	-