

Supplementary material

Tab. S1 - Summary statistics for soil variables^a.

Soil Variables	Mean	SD	Min.	Max.
Field capacity (%) FC	15.9	4.1	9.0	24.9
Permanent wilting point (%) WP	8.7	2.3	4.6	15.9
Available water (%) AW	7.1	2.7	2.3	13.4
Fine particles (%) FI	72.9	16.3	43.6	99.6
Coarse particles (%) CO	27.1	16.3	0.4	56.4
Clay (%) CLAY	15.9	3.3	9.0	26.4
Sand ISSS criteria (%) SANDIS	70.3	7.4	55.1	83.7
Sand USDA criteria (%) SANDUS	58.8	10.7	40.2	75.5
Silt ISSS criteria (%) SILTIS	13.8	5.7	6.1	28.0
Silt USDA criteria (%) SILTUS	25.4	9.5	13.4	45.7
Porosity (%) PO	49.9	7.1	35.4	65.1
pH	4.6	0.5	3.7	5.6
Exchangeable acidity ($\text{cmol}_{(+)} \cdot \text{kg}^{-1}$) EA	13.4	4.5	5.6	23.6
Total C/Total N TC/TN	29.6	5.0	19.2	41.3
Available P ($\text{mg} \cdot \text{kg}^{-1}$) AP	4.1	1.7	1.4	7.3
Ca^{+2} ($\text{cmol}_{(+)} \cdot \text{kg}^{-1}$)	0.9	0.7	0.2	2.9
K^{+} ($\text{cmol}_{(+)} \cdot \text{kg}^{-1}$)	0.2	0.1	0.1	0.6
Mg^{+2} ($\text{cmol}_{(+)} \cdot \text{kg}^{-1}$)	0.1	0.1	0.0	0.5
Cation exchange capacity ($\text{cmol}_{(+)} \cdot \text{kg}^{-1}$) CEC	18.8	3.1	11.8	24.2
Base saturation (%) SAT	7.5	5.4	2.4	21.1
Easily oxidizable carbon (%) EOC	2.2	0.5	1.3	3.4
EOC/TC	0.6	0.1	0.4	0.7
Amorphous Al ($\text{mg} \cdot \text{g}^{-1}$) Al_A	6.6	2.5	2.5	11.6
Exchangeable Al ($\text{mg} \cdot \text{g}^{-1}$) Al_E	0.6	0.4	0.0	1.3
Inorganic Al ($\text{mg} \cdot \text{g}^{-1}$) Al_I	2.4	2.0	0.0	8.8
Organically bound Al ($\text{mg} \cdot \text{g}^{-1}$) Al_O	9.0	3.8	2.7	17.9
Amorphous Fe ($\text{mg} \cdot \text{g}^{-1}$) Fe_A	4.0	1.5	1.7	7.9
Organically bound Fe ($\text{mg} \cdot \text{g}^{-1}$) Fe_o	4.6	1.7	1.8	7.7
Amorphous Mn ($\text{mg} \cdot \text{g}^{-1}$) Mn_A	0.8	1.4	0.0	6.6
Organically bound Mn ($\text{mg} \cdot \text{g}^{-1}$) Mn_O	0.3	0.4	0.0	1.2
Microbial biomass C ($\text{mg} \cdot \text{kg}^{-1}$) Cmic	115.1	47.8	45.5	232.9
Microbial Biomass C/Total C ($\text{g} \cdot \text{kg}^{-1}$) Cmic/TC	3.0	1.2	1.3	6.1
Mineralizable C ($\text{mg} \cdot \text{kg}^{-1} \cdot \text{week}^{-1}$) Cmin	56.7	21.4	22.0	112.1
Mineralizable C/Total C ($\text{g} \cdot \text{week}^{-1} \cdot \text{kg}^{-1}$) Cmin/TC	1.5	0.7	0.6	3.3
Microbial Biomass N ($\text{mg} \cdot \text{kg}^{-1}$) Nmic	14.0	7.2	3.6	30.7
Microbial biomass P ($\text{mg} \cdot \text{kg}^{-1}$) Pmic	11.1	5.7	4.6	32.2
Microbial metabolic quotient (Cmin/Cmic) ($\text{g} \cdot \text{week}^{-1} \cdot \text{g}^{-1}$) qCO ₂	0.6	0.2	0.1	1.2
Total C/Total N in FH fraction of organic horizon [TC/TN] _{FH}	38.1	5.0	28.6	52.1
Total C/Total N in L fraction of organic horizon [TC/TN] _L	69.5	10.2	48.5	90.8
Organic horizon thickness (cm) OHT	5.1	1.8	2.1	10.0
Biomass per hectare of organic horizon FH fraction ($\text{t} \cdot \text{ha}^{-1}$) O _{FH}	185.2	62.3	100.6	346.3
Biomass per hectare of organic horizon L fraction ($\text{t} \cdot \text{ha}^{-1}$) O _L	58.6	23.5	32.7	128.1

^a SD: standard deviation; FH: fragmented plus humified; L: litter; Min.: Minimum; Max.: Maximum.

Tab. S2 - Summary statistics for climatic variables^a

Climatic Variables	Mean	S.D.	Min.	Max.
Total precipitation (mm) TP	734.2	80.3	596.8	942.5
Winter precipitation (mm) PW	235.6	32.5	182.0	318.8
Autumn precipitation (mm) PA	207.4	26.2	159.1	264.0
Spring precipitation (mm) PSP	183.0	16.2	158.3	237.1
Summer precipitation (mm) PSU	108.0	6.9	92.9	122.6
Mean annual temperature (°C) MAT	9.6	0.4	8.8	10.4
Mean value of maximum temperature in the warmest month (°C) MMWM	26.0	0.4	25.2	26.9
Mean temperature of the warmest month (°C) MTWM	18.1	0.4	17.4	19.0
Mean temperature of the coldest month (°C) MTCM	2.4	0.4	1.5	3.1
Mean value of minimum temperature in the coldest month (°C) MMCM	-2.1	0.4	-2.9	-1.3
Deficit (mm) D	133.0	17.9	99.6	172.6
Surplus (mm) S	249.3	72.3	130.8	445.9
Potential evapotranspiration (mm) PET	617.8	11.6	596.2	641.9
Real evapotranspiration (mm) RET	484.8	10.7	456.9	498.0
Lang Index	77.1	10.9	57.9	107.1
Martonne Index	37.6	4.7	29.4	50.1
Annual Hydric Index (Im)	27.6	13.7	4.3	64.8

^a SD: standard deviation; Min.: Minimum; Max.: Maximum.

Tab. S3 - Summary statistics for physiographic variables.

Physiographic Variables	Mean	SD^a	Minimum	Maximum
Elevation (m) ELV	1067.4	72.0	926.0	1180.0
Latitude (°) LAT	42.7	0.1	42.6	42.8
Slope (%) SLP	2.3	3.2	0.0	12.0

^aSD: standard deviation.