

Table S3. Soil chemical properties and variations between seasons by ecosystems. Statistical significance was assessed using the Kruskal-Wallis test with p-value adjustment via the Benjamini–Hochberg false discovery rate (FDR) method.

Condition	pH	EC	SOM	SOC	P	S	ECEC	B	Ca	Mg	K	Na	Fe	Cu	Mn	Zn
Tr_Dry_Forest_Dry	6.35	1.15	4.15	2.41	10.57	100.16	34.99	0.49	20.04	13.91	0.55	0.51	61.08	7.13	5.87	1.29
Tr_Dry_Forest_Rainy	6.12	0.92	3.22	1.87	10.66	93.57	33.61	0.32	20.95	11.80	0.50	0.35	145.64	8.68	9.46	1.64
Andean_Forest_Dry	5.28	0.99	11.51	6.66	4.93	23.06	13.64	0.48	8.75	3.27	0.18	0.15	165.95	2.05	8.04	2.15
Andean_Forest_Rainy	5.30	1.32	12.24	9.42	6.00	15.72	18.36	0.30	12.41	4.19	0.34	0.14	198.57	2.16	10.44	2.78
Paramo_Dry	4.80	0.48	22.23	12.73	6.27	9.24	8.72	0.14	0.81	0.85	0.31	0.14	579.20	1.02	3.38	1.67
Paramo_Rainy	4.34	1.46	14.83	25.56	5.35	13.02	9.23	0.16	0.82	0.55	0.51	0.15	743.09	1.13	4.61	2.62
p-value	0.003	> 0,05	1.84E-05	8.22E-06	> 0,05	> 0,05	0.0011	> 0,05	0.011	9.02E-05	0.016	> 0,05	0.011	0.00044	> 0,05	0.013
p-value adjust (Benjamini–Hochberg)	0.008	> 0,05	1.48E-04	1.32E-04	> 0,05	> 0,05	0.00352	> 0,05	0.022	4.81E-04	0.0256	> 0,05	0.022	0.00176	> 0,05	0.023
Condition	pH	EC	MO	CO	P	S	ECEC	B	Ca	Mg	K	Na	Fe	Cu	Mn	Zn
Dry	5.51	1.01	9.27	5.35	7.60	56.37	22.76	0.45	13.03	7.82	0.36	0.31	160.08	4.23	6.60	1.71
Rainy	5.52	1.15	8.44	7.63	8.03	50.49	24.31	0.29	15.09	7.25	0.43	0.24	229.20	4.99	9.41	2.25
p-value	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05	> 0,05

Color Interpretation
Higher values in dry season
Higher values in rainy season
Statistically significant variations