1   **Table S1.** Normal distribution tests for raw and transformed soil variables in the 0–20

2   and 20–40 cm layers in Yujiang.

Variables	Raw			Transform			
	Skewness	Kurtosis	S-W p	Skewness	Kurtosis	S-W p	r
0-20 cm[†]							
pH	0.81	2.55	0.00	0.00	0.42	0.01	-1.3489
SOM	0.21	-0.68	0.06	-0.11	-0.78	0.14	0.6721
TN	0.44	-0.30	0.01	-0.07	-0.60	0.38	0.5512
CEC	0.58	0.75	0.02	0.03	0.50	0.52	0.4655
BS	0.65	0.45	0.00	-0.08	-0.49	0.11	0.5230
20-40 cm[‡]							
pH	0.31	-0.63	0.04	0.12	-0.77	0.14	-
SOM	1.50	3.25	<0.00001	-0.35	1.34	0.08	-
TN	1.05	1.71	<0.00001	-0.46	0.22	0.14	-
CEC	0.88	0.67	<0.00001	-0.07	0.25	0.44	-
BS	0.53	-0.73	<0.00001	-0.66	-0.46	<0.00001	-

3   †: data for 0-20cm were transformed by Box-Cox;

4   ‡: data for 20-40cm were transformed by logarithm.