

## Corrigendum

# Corrigendum to “Introducing a Chaotic Component in the Control System of Soil Respiration”

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In the article titled “Introducing a Chaotic Component in the Control System of Soil Respiration” [1], the corresponding author’s e-mail address has been corrected as shown above.

In addition, Tables 1 and 2 were omitted in error, which correspond to Figures 4–6.

In Section 3.2 (Control Complexity of the System), the following sentence should be revised to reflect the above: “We further examined the variability of  $Q_{10}$

values, as seen in Figures 4 and 5” to “We further examined the variability of  $Q_{10}$  values with  $T$  and  $WC_s$ , utilizing four exponential functions, as seen in Table 1 and Figures 4–5.”

In Section 4 (Treating the Control Complexity), the following sentence should also be revised from “Overall, the nonlinear chaotic system is simplified and can be further developed” to “The model performance and corresponding weathering parameters are shown in Table 2.”

TABLE 1: Four coupling functions of  $(T_a, WC_s)$  were employed in the analyses of  $Q_{10}$  with  $T_a$  and  $WC_s$ , with the fitted parameters and the statistics in model performance.

Models	$R^2$	RMSE	$F$ -stat	$p$ value
$Q_{10} = 0.0186WC_s - 0.0028T_s + 1.389$	0.134	0.502	1.47	0.254
$Q_{10} = 1.4151e^{0.0101WC_s - 0.0016T_s}$	0.133	0.503	1.45	0.259
$Q_{10} = 1.3258e^{(-0.002T_s + 0.0175)WC_s}$	0.136	0.502	1.49	0.250
$Q_{10} = 1.4151e^{0.0101WC_s - 0.0016T_s}$	0.120	0.506	1.30	0.297

Note:  $n = 21$ ;  $T_a$ : air temperature 10 cm above the soil surface;  $WC_s$ : soil volumetric water content at 5 cm depth;  $F$ -stat:  $F$ -statistic vs. constant model; error degrees of freedom = 18.

TABLE 2: Performance of equation (3) with weathering parameters after rainfall.

Rainfall (time)	$\lambda$	$\mu$	$R^2$	RMSE
~1 mm				
3 days after	1.2972	0.2688	0.91	0.12
4 days after	0.0740	0.0543	0.86	0.10
7 days after	1.1437	0.2840	0.90	0.09
0.6–3.6 mm				
5 days after	1.1321	0.2575	0.95	0.07
9 days after	1.1922	-0.0797	0.93	0.11
~1.7 mm				
1 day after	0.9915	0.1741	0.90	0.10

## References

- [1] P. An, W.-F. Wang, X. Chen, J. Qian, and Y. Pan, "Introducing a chaotic component in the control system of soil respiration," *Complexity*, vol. 2020, Article ID 5310247, 8 pages, 2020.