Correction to: Prioritization of water erosion–prone sub-watersheds using three ensemble methods in Qareaghaj catchment, Southern Iran

Hamid Reza Pourghasemi¹ · Fatemeh Honarmandnejad¹ · Mahrooz Rezaei² · Mohammad Hassan Tarazkar³ · Nitheshnirmal Sadhasivam⁴

Published online: 16 September 2021

© Springer-Verlag GmbH Germany, part of Springer Nature 2021

Correction to: Environmental Science and Pollution Research (2021) 28:37894–37917

<https://doi.org/10.1007/s11356-021-13300-2>

Unfortunately, we encountered typo-error in the equations presented in Table 3.

The correct Table 3 is provided in this paper.

The online version of the original article can be found at <https://doi.org/10.1007/s11356-021-13300-2>

✉ Hamid Reza Pourghasemi
hr.pourghasemi@shirazu.ac.ir

¹ Department of Natural Resources and Environmental Engineering, College of Agriculture, Shiraz University, Shiraz, Iran

² Soil Science Department, School of Agriculture, Shiraz University, Shiraz, Iran

³ Department of Agricultural Economics, College of Agriculture, Shiraz University, Shiraz, Iran

⁴ Faculty of Geo-Information Science and Earth Observation (ITC), University of Twente, Hengelosestraat 99, 7514 AE Enschede, The Netherlands

Morphometric Parameters	Formula/Definition	Units	References
Stream order (Nu)	Hierarchical order	Dimensionless	(Strahler 1952)
Stream Length (Lu)	Length of the stream	km	(Horton 1945)
Length of basin (Lb)	Maximum length of basin	km	(Ongley 1968)
Stream frequency (Fu)	$Fu = N/A$ where, N = total number of streams, A = area of basin	km ⁻²	(Horton 1945)
Drainage density (Dd)	$Dd = Lu/A$ where, Lu = total length of stream in all orders, A = area of basin	km km ⁻²	(Horton 1945)
Drainage texture ratio (Rt)	$T = N/P$ where, N = total number of streams, P = perimeter of basin.	km ⁻¹	(Horton 1945)
Constant of channel maintenance (C)	$C = \frac{A}{\sum_{j=m}^{j=1} Lu}$ where, A = area of basin, Lu = length of streams in all order	km	(Horton 1945)
Form factor (Rf)	$Rf = A/(Lb)^2$ where, A = area of sub-watershed, Lb = basin length	Dimensionless	(Horton 1945)
Shape factor (Bs)	$Bs = \frac{Lb^2}{A}$ where, Lb = basin length, A = area of sub-watershed	Dimensionless	(Horton 1945)
Compactness coefficient (Cc)	$Cc = 0.28 \times (P/\sqrt{A})$ where, P = perimeter of sub-watershed, A = area of sub-watershed	km ⁻¹	(Horton 1932)
Elongation ratio (Re)	$Re = 1.128 \frac{\sqrt{A}}{Lb}$ where, A = area of sub-watershed, Lb = basin length	Dimensionless	(Schumm 1956)
Basin relief (Bh)	Vertical distance between the lowest and highest points of basin.	m	(Horton 1932)
Relief ratio (Rh)	$Rh = Bh/Lb$ where, Bh = basin relief, Lb = basin length	Dimensionless	(Schumm 1956)
Ruggedness number (Rn)	$Rn = Bh * Dd$ where, Bh = basin relief in km, Dd = drainage density	Dimensionless	(Moore et al. 1991)

Acknowledgements The authors would like to acknowledge Dr. Chen and Dr. Nguyen for their letter to the Editor-in-chief, which made us aware of the typo-error.

Author's contribution All authors read and approved the letter.

Declaration

Ethics approval and consent to participate Not applicable

Consent for publication Not applicable

Competing interests The authors declare that there is no competing interests

References

Horton RE (1932) Drainage-basin characteristics. Trans Am Geophys Union 13:350. <https://doi.org/10.1029/TR013i001p00350>

Horton RE (1945) Erosional development of streams and their drainage basins; hydrophysical approach to quantitative morphology. Bull Geol Soc Am 56:275–370. [https://doi.org/10.1130/0016-7606\(1945\)56\[275:EDOSAT\]2.0.CO;2](https://doi.org/10.1130/0016-7606(1945)56[275:EDOSAT]2.0.CO;2)

Ongley ED (1968) Towards a precise definition of Drainage Basin Axis. Aust Geogr Stud 6:84–88. <https://doi.org/10.1111/j.1467-8470.1968.tb00179.x>

Moore ID, Grayson RB, Ladson AR (1991) Digital terrain modelling: a review of hydrological, geomorphological, and biological applications. Hydrol Process 5:3–30. <https://doi.org/10.1002/hyp.3360050103>

Schumm SA (1956) Evolution of drainage systems and slopes in badlands at Perth Amboy, New Jersey. Bull Geol Soc Am 67:597–646

Strahler AN (1952) Hypsometric (area-altitude) analysis of erosional topography. Bull Geol Soc Am 63:1117–1142. [https://doi.org/10.1130/0016-7606\(1952\)63\[1117:HAAOET\]2.0.CO;2](https://doi.org/10.1130/0016-7606(1952)63[1117:HAAOET]2.0.CO;2)

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.