

Corrigendum

Evidence for megaflood slack-water deposits in the Siyom River Valley, eastern Himalaya – CORRIGENDUM

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In Morey et al (2026) the authors presented calculations of slack-water sediment concentration inferred from mapped deposit thickness and modeled settling time (Figure 8 in Morey et al., 2026). They calculated grain settling velocity w_s (Equation 2 in Morey et al., 2026) using a constant drag coefficient C_D . In fact, the drag coefficients for grains of diameter $d = 18$ and $d = 56 \mu\text{m}$, the representative sizes used in the calculations, are not constant but vary as a function of particle Reynolds number Re because the grains are small enough that their settling is resisted by viscous drag caused by laminar flow around the grains (e.g., Ferguson and Church, 2004). Within the range of particle Reynolds numbers for these grain sizes, the drag coefficient is $C_D = 24/Re$ where $Re = w_s d / \nu$ with $\nu = 1 \times 10^{-6} \text{ m}^2/\text{s}$ being the kinematic viscosity of water.

In this corrigendum the authors recalculate inferred sediment concentrations using the correct expression for the drag coefficient (Figure 1). The figure illustrates that suspended-sediment concentrations between ca. 4–160 kg/m^3 can explain the measured thickness of event facies deposits observed in T1 terraces. Inferred concentrations are much greater than total suspended-solid measurements collected from the modern Siang River ($\sim 0.1 \text{ kg}/\text{m}^3$; Das et al., 2014) and measurements from rivers experiencing outburst floods (Marín et al., 2013; Bailey et al., 2025).

References

- Bailey, L.P., Shugar, D.H., Tilston, M., Hubbard, S.M., Giesbrecht, I., Del Bel Belluz, J., Jackson, J.M., et al., 2025. Land-to-sea sediment fluxes from a major glacial lake outburst flood were stepped rather than instantaneous. *Journal of Geophysical Research: Earth Surface* **130**, e2024JF008126.
- Das, B., Boruah, P., Kar, D., 2014. Study of seasonal variation of water quality of River Siang in Arunachal Pradesh, India. *Journal of Environmental Science, Toxicology and Food Technology* **8**, 11–20.

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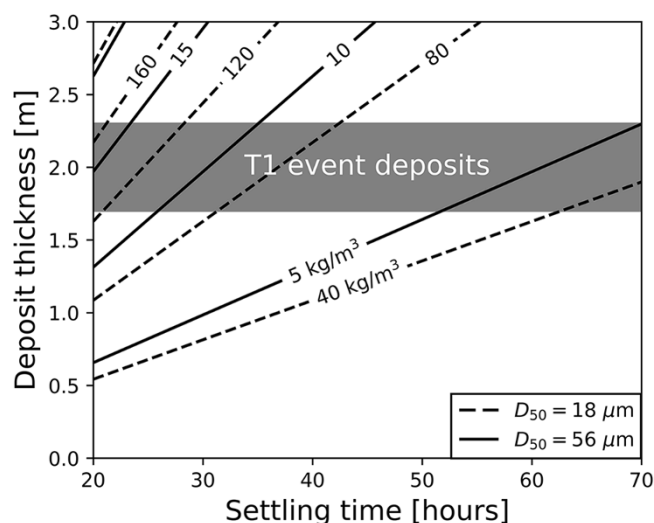


Figure 1. Corrected contour plot illustrating the relationship between settling time and deposit thickness for a column of stagnant water with various suspended sediment concentrations. Solid line contours show predictions for 56 μm particles, corresponding to the D50 of El facies. Dashed line contours show predictions for 18 μm particles, corresponding to the D50 of Ec facies. Gray box outlines the range of conditions necessary to explain the total thickness of Ec and El facies observed in T1 terraces at Sites 4 and 5 given the potential duration of stagnant water inundation in the Siyom valley predicted by Morey et al. (2022).

- Ferguson, R.I., Church, M., 2004. A simple universal equation for grain settling velocity. *Journal of Sedimentary Research* **74**(6), 933–937.
- Marín, V.H., Tironi, A., Paredes, M.A., Contreras, M., 2013. Modeling suspended solids in a Northern Chilean Patagonia glacier-fed fjord: GLOF scenarios under climate change conditions. *Ecological Modelling* **264**, 7–16.
- Morey, S.M., Lang, K.A., Huntington, K.W., Shobe, C.M., Nath, S., Loreen, C., 2026. Evidence for megaflood slack-water deposits in the Siyom River Valley, eastern Himalaya. *Quaternary Research*, 1–16. <https://doi.org/10.1017/qua.2026.10089>.