

Supplementary information

Decadal-scale decay of landslide-derived fluvial suspended sediment after Typhoon Morakot
Gregory Ruetenik¹, Ken L. Ferrier¹, and Odin Marc²

¹ Department of Geological Sciences, University of Wisconsin-Madison, Madison, WI, USA

² Geosciences Environnement Toulouse, France

Overview

The supplementary tables contain information about the suspended sediment monitoring data at the fluvial gauging stations and the landslide characteristics inside the drainage basins above them. These are contained as spreadsheets in a separate supplementary data file.

Table S1: Gauging station locations, IDs, drainage basin areas, duration of monitoring, and nested gauging stations

Table S2: Pre-Morakot values of rating curve parameters \tilde{a}_{pre} and b_{pre} , basin-averaged landslide intensity, characteristic decay times of \tilde{a}

Table S3: Annual values of the rating curve parameter \tilde{a}

Table S4: Annual values of the rating curve parameter b

Table S5: Annual values of the suspended sediment discharge Q

Figures S1 and S2 contain the changes in the rating curve parameters relative to their pre-Morakot values for each year after Morakot. Regression slopes through these annual datasets are summarized in Figure 11 in the main text.

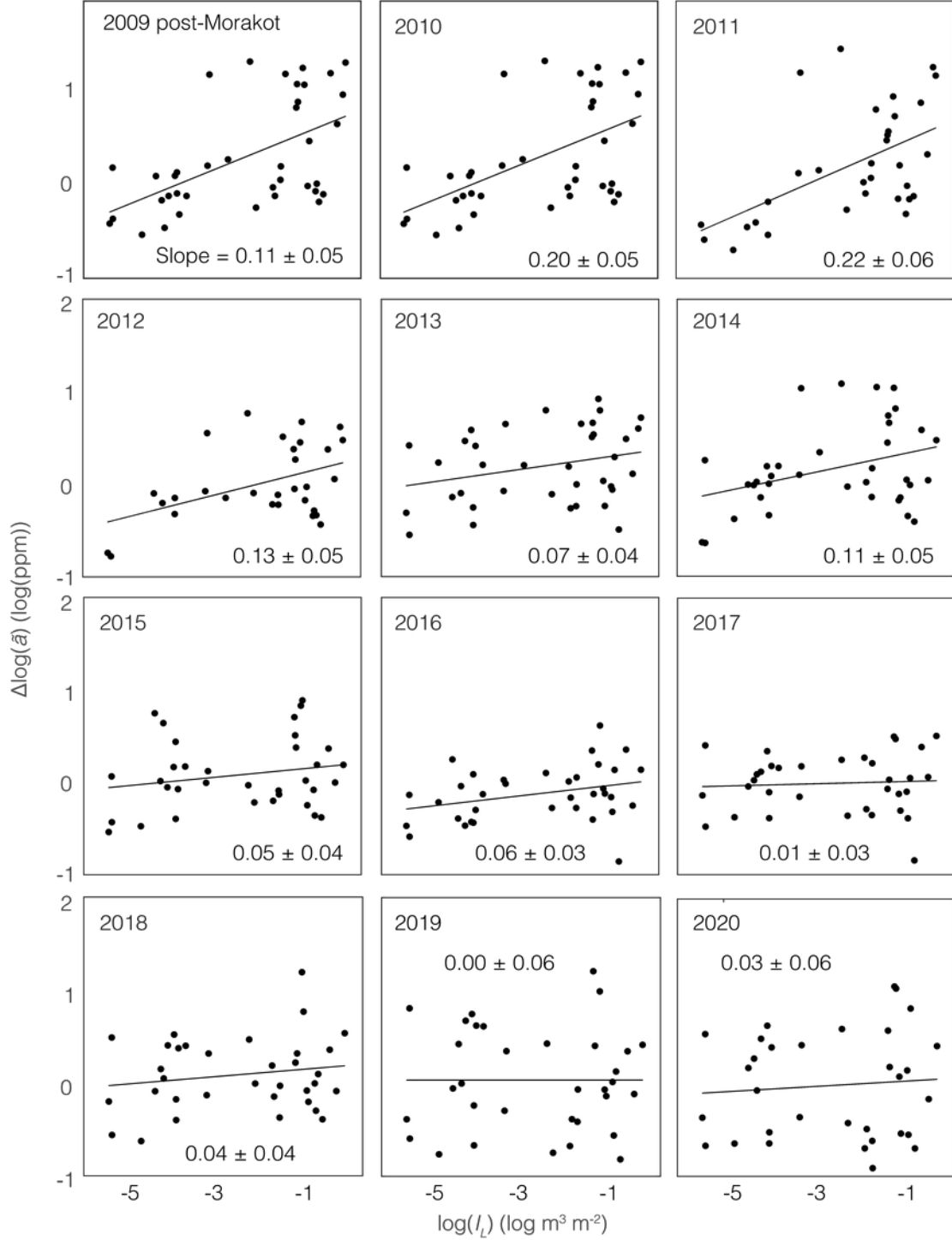


Figure S1. Sensitivity of changes in \tilde{a} to the intensity of Morakot-induced landslides I_L . $\Delta \log(\tilde{a})$ is the difference between $\log(\tilde{a})$ at a given time after Morakot relative to its value before Morakot. E.g., in the upper left panel, $\Delta \log(\tilde{a})$ is $\log(\tilde{a})$ in the post-Morakot portion of 2009 minus $\log(a_{pre})$. Values in each panel are mean \pm standard error of the slope of the regression. These are the same values summarized in Figure 11b in the main text.

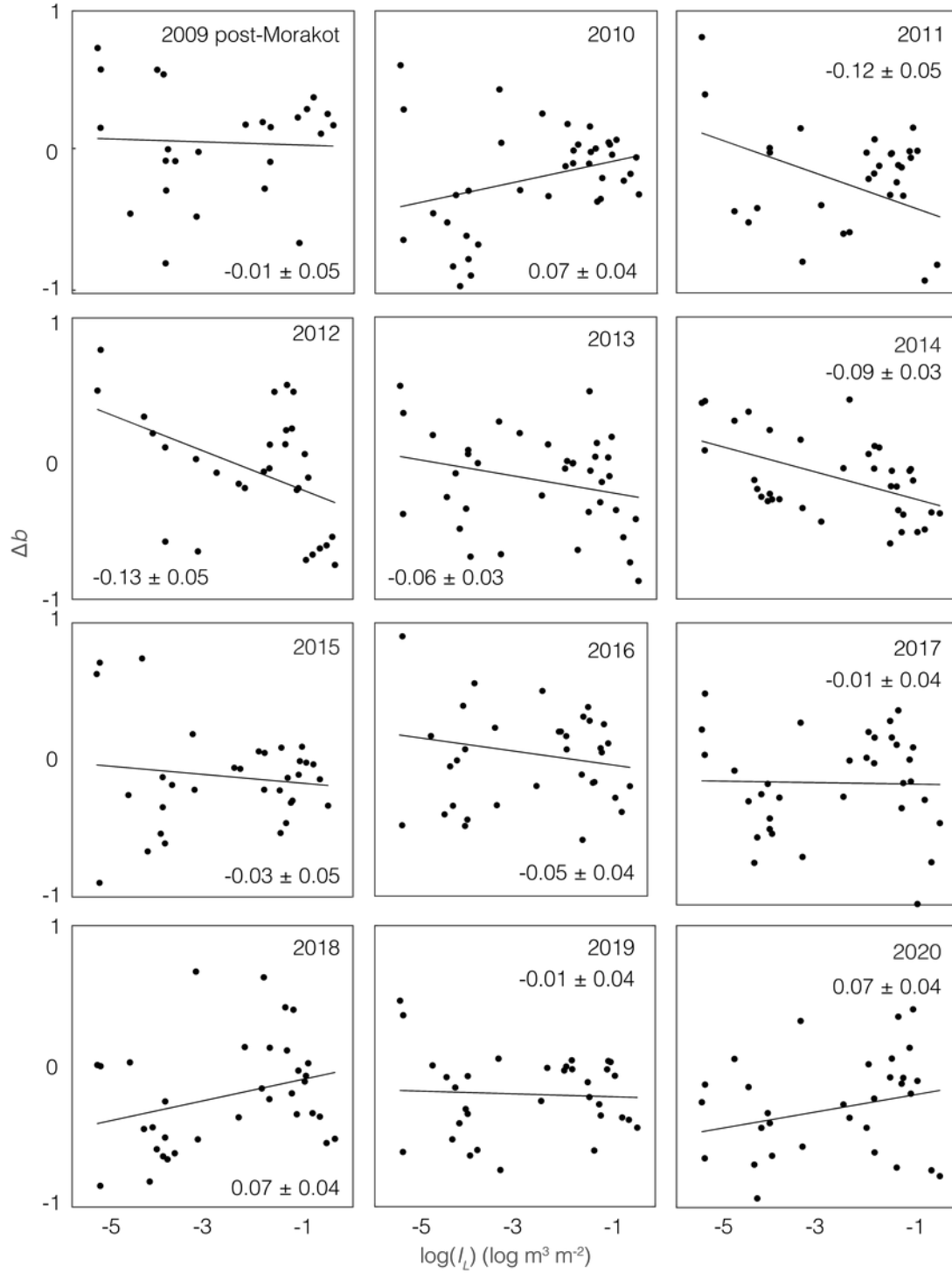


Figure S2. Sensitivity of changes in b to the intensity of Morakot-induced landslides I_L . Δb is the difference between b at a given time after Morakot relative to its value before Morakot. E.g., in the upper left panel, Δb is b in the post-Morakot portion of 2009 minus b_{pre} . Values in each panel are mean \pm standard error of the slope of the regression. These are the same values summarized in Figure 11d in the main text.