Figure S1: Georeferenced daylight drone photo of the 1860L plot with the 50 cm contour lines (yellow lines).

Figure S2: Georeferenced daylight drone photo of the 1860M plot with the 50 cm contour lines (yellow lines).
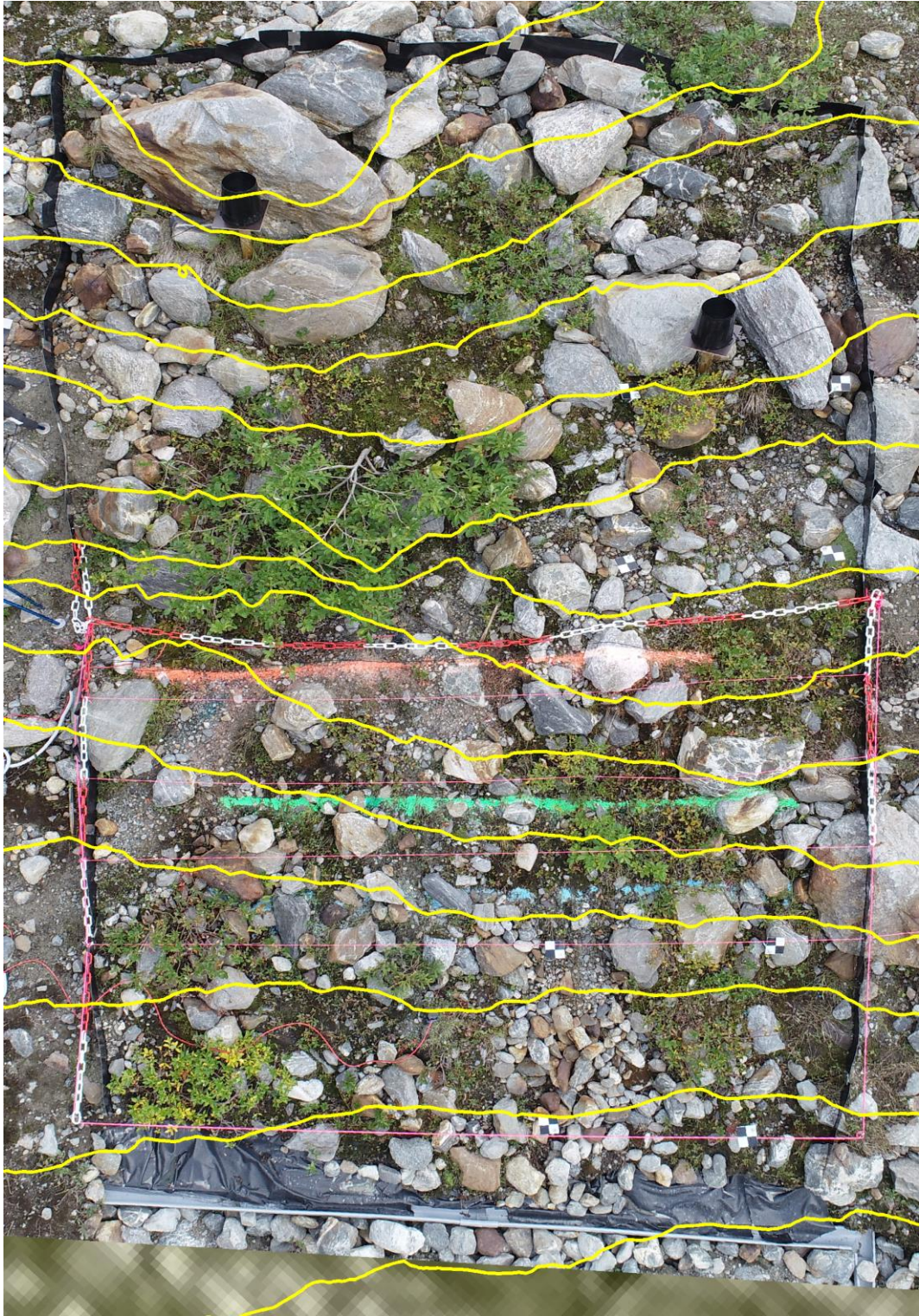
Figure S3: Georeferenced daylight drone photo of the 1990L plot with the 50 cm contour lines (yellow lines).
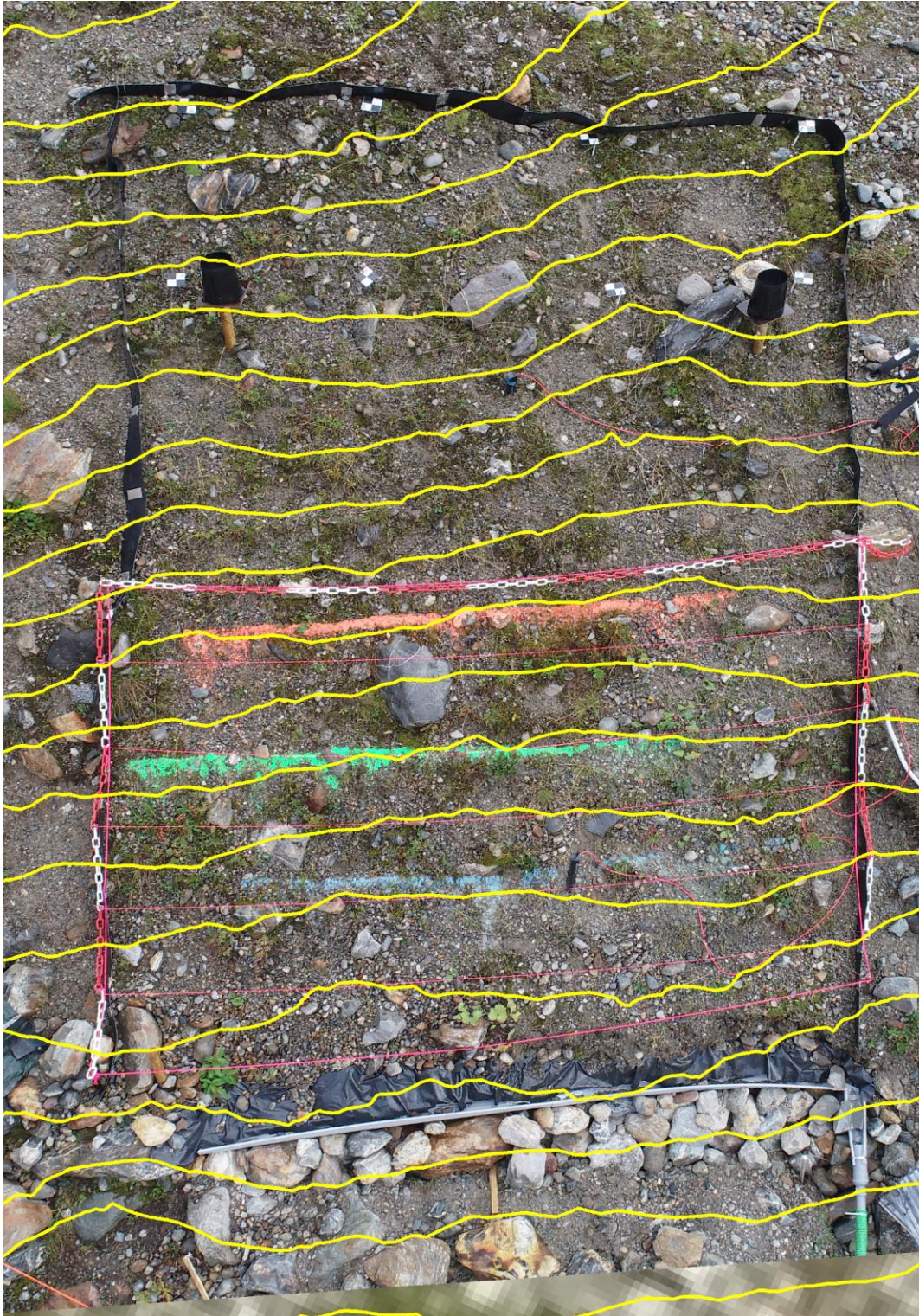
Figure S4: Georeferenced daylight drone photo of the 1990M plot with the 50 cm contour lines (yellow lines).
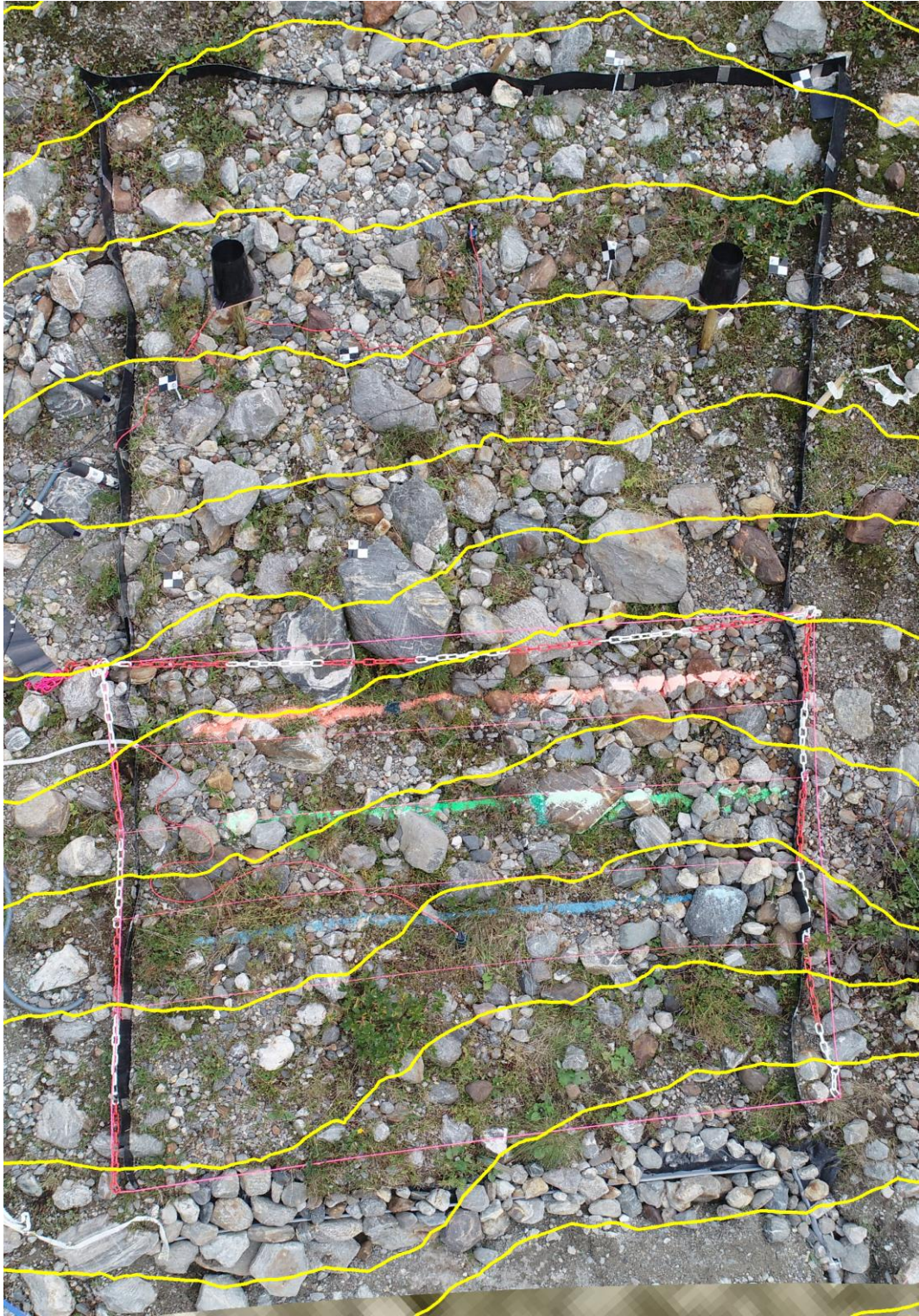
Figure S5: Georeferenced daylight drone photo of the 1990H plot with the 50 cm contour lines (yellow lines).
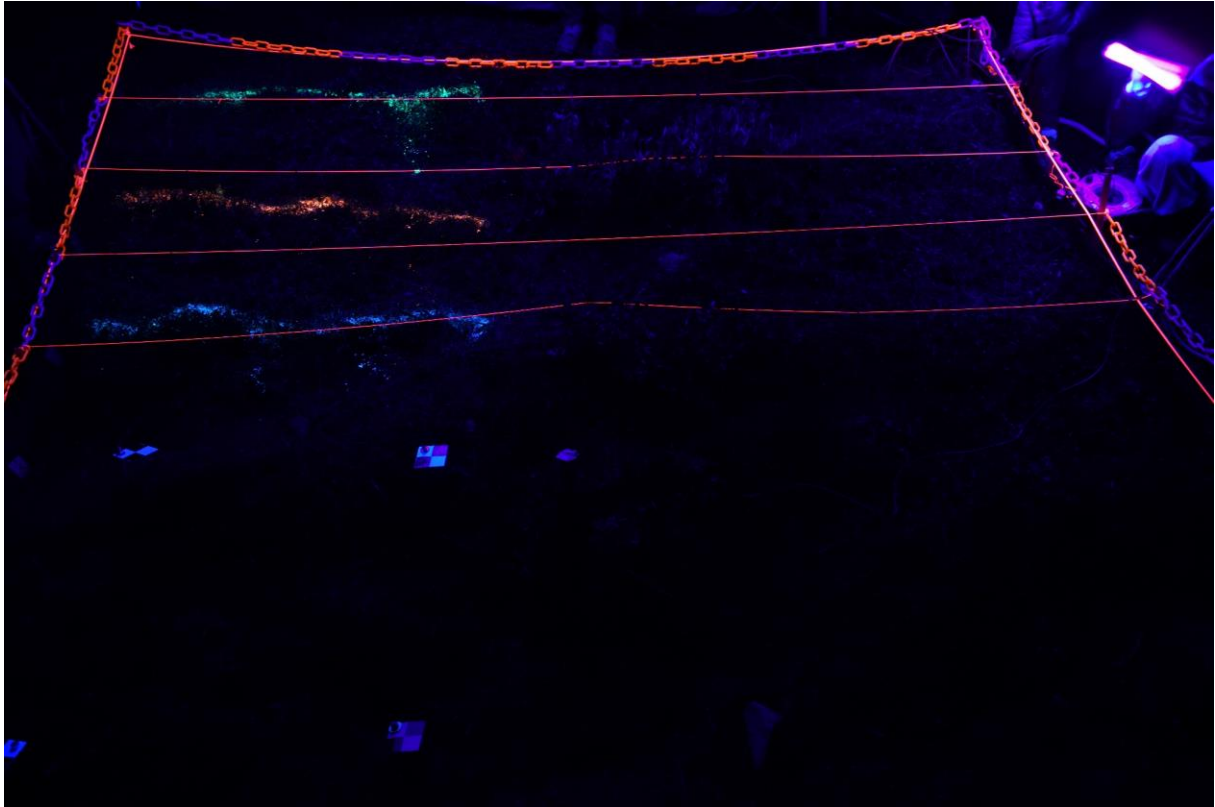
Figure S6: Nighttime photo of the 1860L plot, taken after the high intensity (HI) experiment. The sand was illuminated with two LED lamps before and with six UV lamps (of which one can be seen in the top right corner) before and while taking the photo. The orange sand ribbon was added prior to the low intensity experiments (LI), the green sand prior to the medium intensity (MI) experiments, and the blue sand prior to the HI experiments.

Figure S7: Nighttime photo of the 1860M plot, taken after the high intensity (HI) experiment. The sand was illuminated with two LED lamps before and with six UV lamps before and while taking the photo. The orange sand ribbon was added prior to the low intensity experiments (LI), the green sand prior to the medium intensity (MI) experiments, and the blue sand prior to the HI experiments.

Figure S8: Nighttime photo of the 1990L plot, taken after the high intensity (HI) experiment. The sand was illuminated with two LED lamps before and with six UV lamps (of which two can be seen at the bottom of the photo) before and while taking the photo. The orange sand ribbon was added prior to the low intensity experiments (LI), the green sand prior to the medium intensity (MI) experiments, and the blue sand prior to the HI experiments.
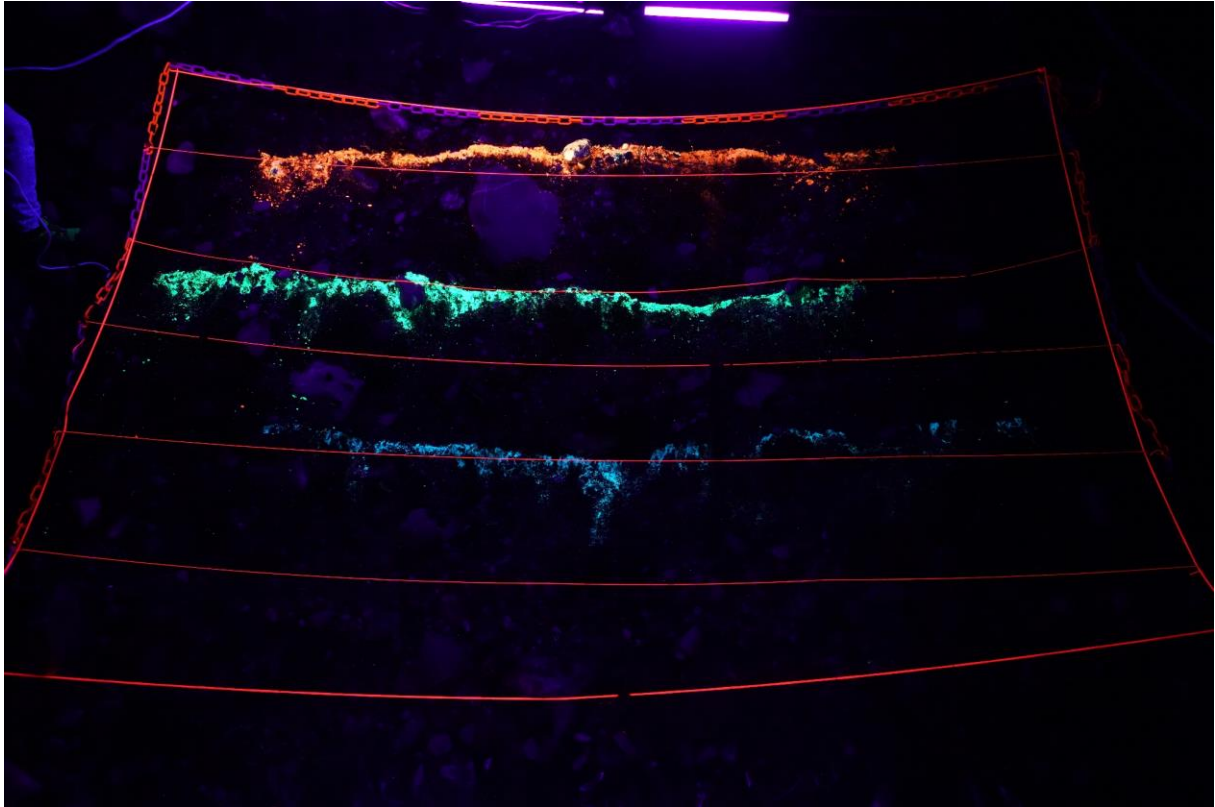
Figure S9: Nighttime photo of the 1990M plot, taken after the high intensity (HI) experiment. The sand was illuminated with two LED lamps before and with six UV lamps (of which two are visible at the top) before and while taking the photo. The orange sand ribbon was added prior to the low intensity experiments (LI), the green sand prior to the medium intensity (MI) experiments, and the blue sand prior to the HI experiments.
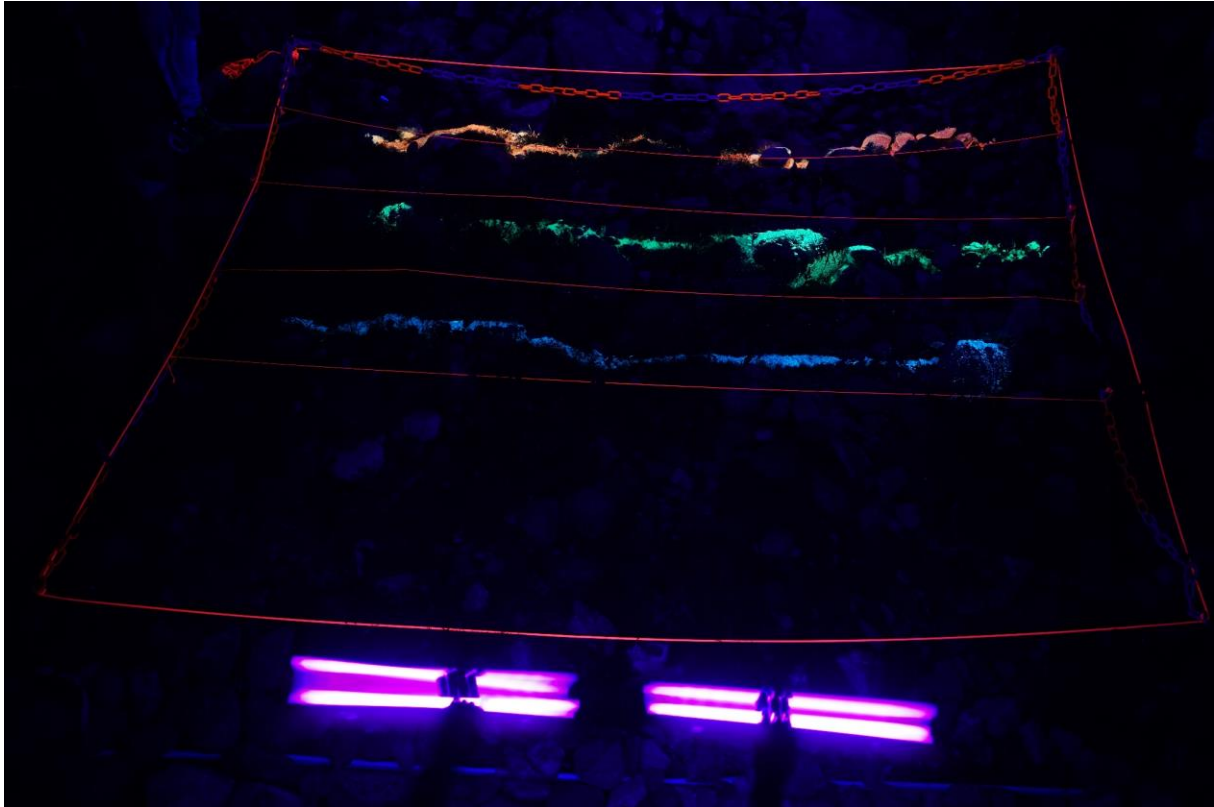
Figure S10: Nighttime photo of the 1990H plot, taken after the high intensity (HI) experiment. The sand was illuminated with two LED lamps before and with six UV lamps (of which two can be seen at the bottom of the photo) before and while taking the photo. The orange sand ribbon was added prior to the low intensity experiments (LI), the green sand prior to the medium intensity (MI) experiments, and the blue sand prior to the HI experiments.
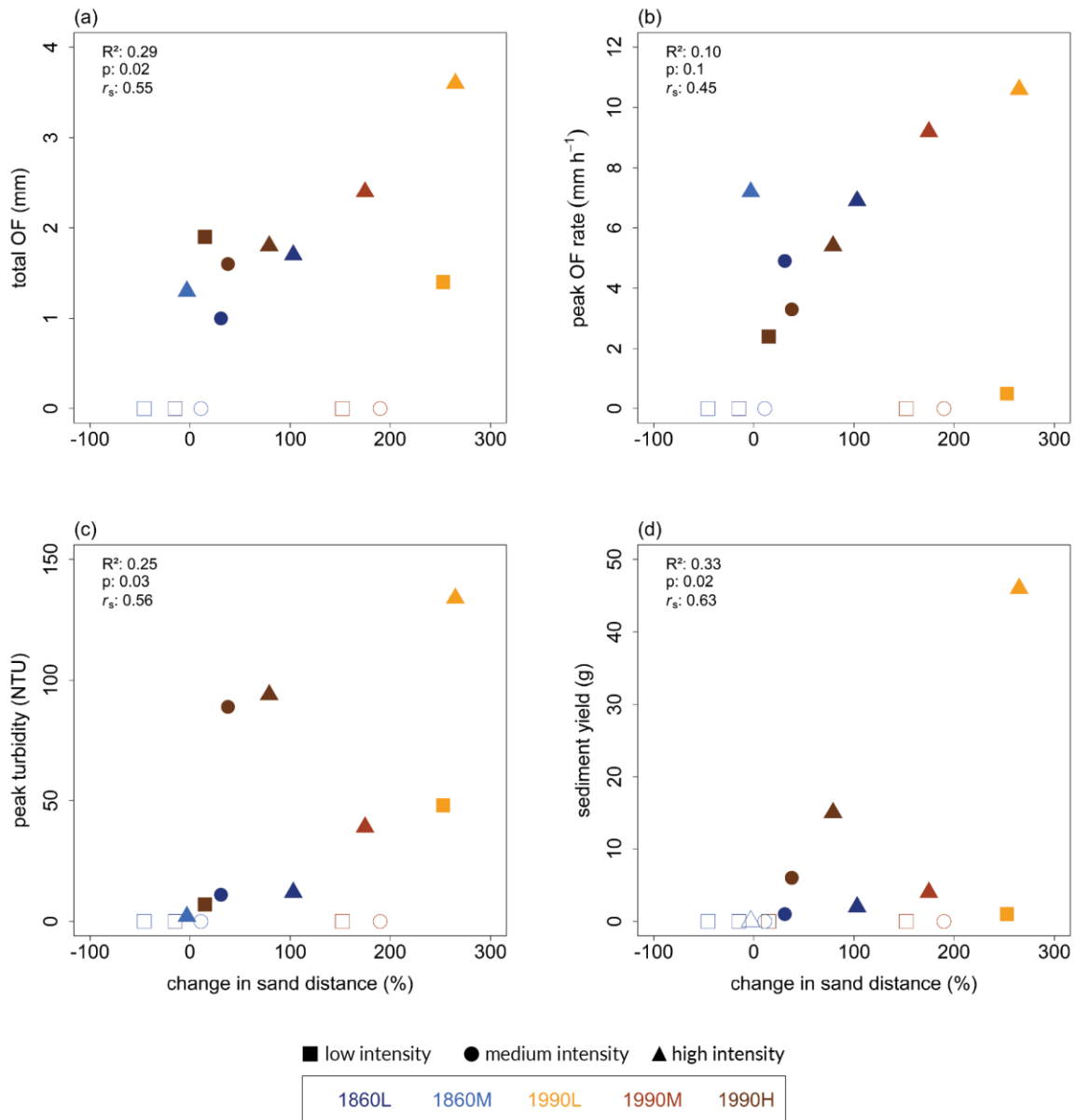
Figure S11: Scatterplots showing the relations between the change in sand distance (ΔD) and total overland flow (OF; a), peak OF rate (b), peak turbidity (c) and total sediment yield (d) for all sprinkling experiments. The color of the symbols represents the plot (1860L, 1860M, 1990L, 1990M, 1990H); the symbol represents the intensity of the sprinkling experiment (LI, MI, HI). Open symbols are used for experiments that did not generate any OF at the bottom of the plot (and for which there is no turbidity measurement or sediment yield). The coefficient of determination (R^2) and corresponding p-value, as well as the Spearman rank correlation coefficient (r_s) are given in the upper left corner of each subplot.
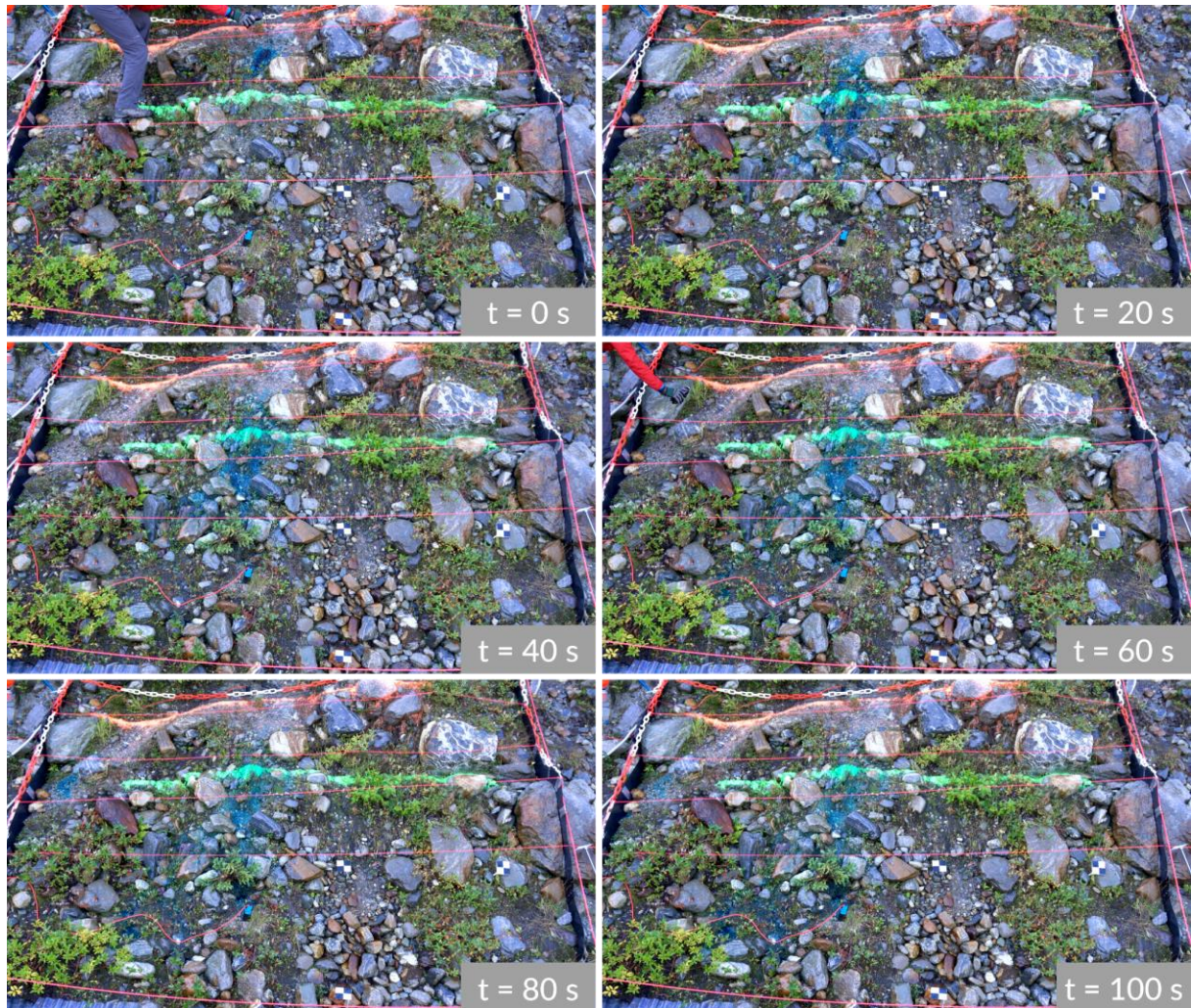
Figure S12: Photos showing the movement of the brilliant blue tracer on the 1990L plot during the medium intensity (MI) experiment. A screenshot is shown for every 20 seconds from 0 to 100 seconds, where time (t) = 0 marks the time of the blue dye application.
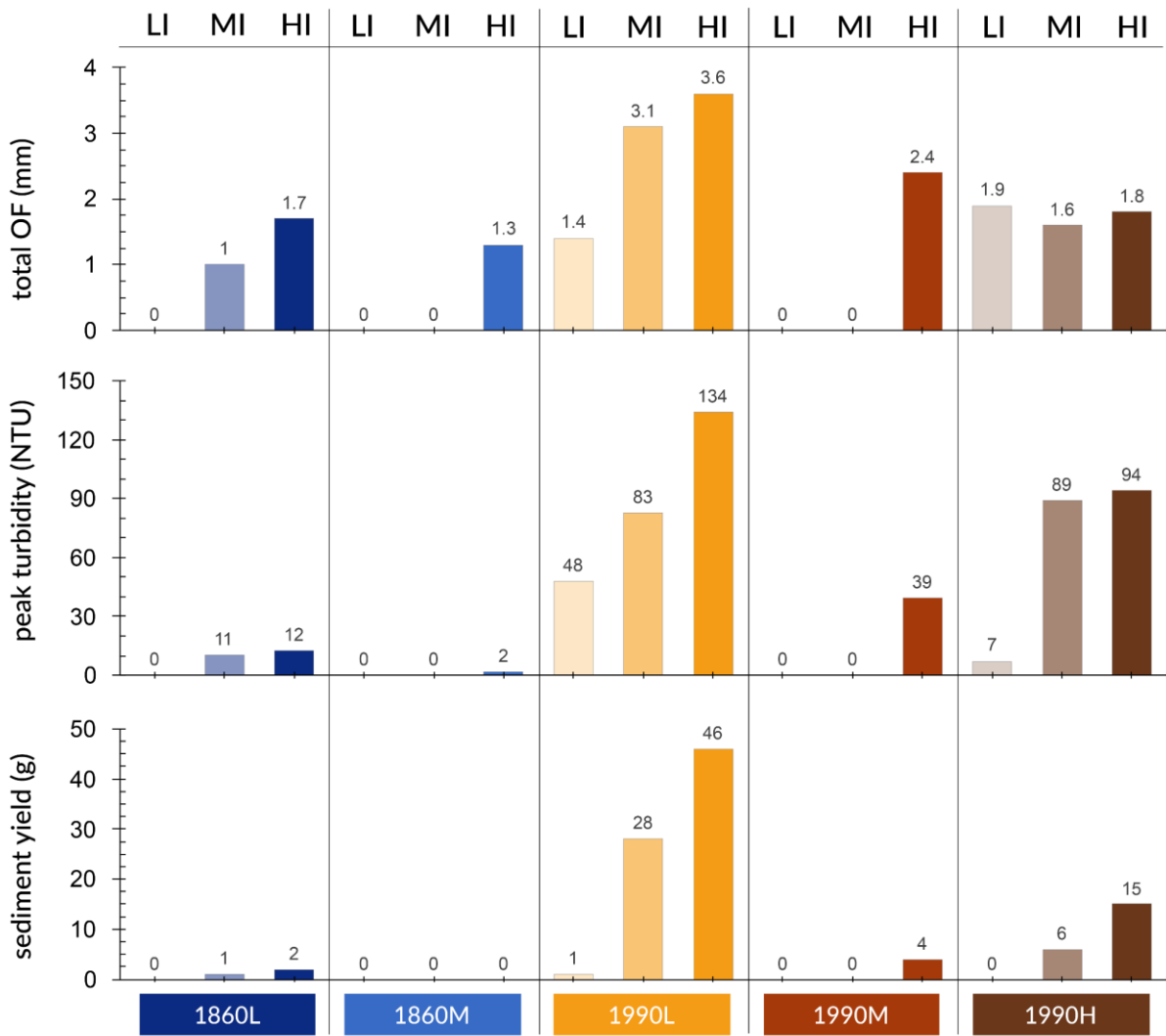
Figure S13: Bar charts of total OF, peak turbidity (NTU), and the sediment yield (g) for each sprinkling experiment (LI, MI and HI represent low, mid and high intensity experiments, respectively) for each plot (1860L, 1860M, 1990L, 1990M, and 1990H). The absence of a bar indicates the lack of measurable OF (and thus also turbidity and sediment yield). The number above the bars denotes the actual value for each experiment.