Hydrological Processes Volume 15 Issue 15 'Post-fire Runoff and Erosion from simulated Rainfall on Small Plots, Colorado Front Range' by J. Benavides-Solorio and L. H. MacDonald, pages 2391–2412, 2001.

A procedural error in our calculations shows that the plot-scale sediment yields should be 2–3 times higher than the values reported in Table IV in Benavides-Solorio and MacDonald (2001). The revised values for each of the 26 plots are shown in Table I. Since the errors were relatively consistent between plots, there are no changes in the significant differences between burn severities and between fires. However, the mean sediment yields for the plots burned at high severity are now 1.3 kg m^{-2} for the Bobcat wildfire and 0.85 kg m^{-2} for the Lower Flowers prescribed fire (Table 1). In each case these values are more than 7 times the mean value for the plots burned at moderate severity. Mean sediment yields from the high-severity plots in the Bobcat and Lower Flowers fires are respectively 16 and 32 times the mean sediment yields from the unburned plots and plots burned at low severity. The calculation error means that the plots burned at high severity now exhibit slightly more variability than originally reported. Sediment concentrations were not changed.

The revised sediment yields have not altered the significance of the relationships between sediment yields and the four site factors of soil hydrophobicity, percent bare soil, soil moisture, and slope shown in Figure 9 in Benavides-Solorio and MacDonald (2001). However, there have been some changes in the coefficients of determination. Soil hydrophobicity—as indicated by the water drop penetration time—now explains only 43% of the variability in sediment yields for the plots burned at high severity ($p = 0{\cdot}03$) (Figure 1a). Percent soil moisture also is less strongly correlated for the high-severity plots ($R^2 = 0{\cdot}43$; $p = 0{\cdot}03$) (Figure 1b). Percent slope can explain 43% of the variability in sediment yields from all plots ($p = 0{\cdot}003$), and this is due to the tendency for the more severely-burned plots with higher sediment yields to be on steeper slopes (Figure 1d). The most important variable is still percent bare soil, as this explains 79% of the variability in sediment yields from the 26 plots ($p < 0{\cdot}001$) (Figure 1c).

The corrected sediment yields for the nine recently-burned, high-severity plots average 1.2 kg m^{-2}. These larger values are more consistent with the hillslope and catchment-scale sediment yields that we have been measuring on the Bobcat Fire. The relatively large magnitude of these values confirm the potential seriousness of post-fire erosion rates in the Colorado Front Range.

REFERENCES

Benavides-Solorio J, MacDonald LH. 2001. Post-fire runoff and erosion from simulated rainfall on small plots, Colorado Front Range. *Hydrological Processes* **15**: 2931–2952.

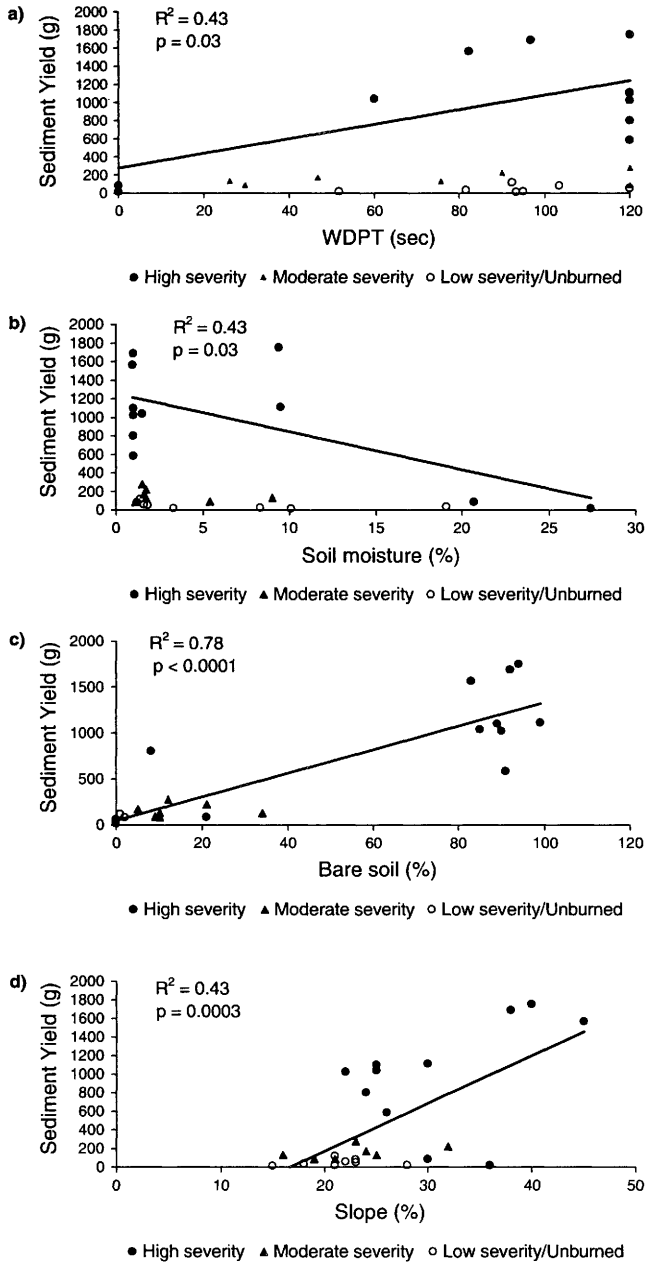

Figure 1. Corrected scatterplots and trend lines for the relationships between plot sediment yields and (a) mean water drop penetration time at 2 cm, (b) percent soil moisture, (c) percent bare soil, and (d) percent slope. The regression lines and statistics in (a) and (b) are only for the high severity plots

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Table I. Corrected sediment yields for each plot by fire and burn severity. The sediment concentrations have not changed. Note that the measured concentrations were increased to account for the sediment collected in the runoff trough at the end of the simulation

Fire	Plot number	Burn severity	Total sediment (g)	Sediment concentration (g L^{-1})
Bobcat	1	High	804	11·0
Bobcat	2	High	1100	19·3
Bobcat	3	High	1030	17·6
Bobcat	4	High	1690	32·3
Bobcat	5	High	1570	30·1
Bobcat	15	High	1040	25·5
Bobcat	16	High	1750	28·6
Mean			**1280**	**23·5**
Bobcat	6	Moderate	223	5·4
Bobcat	7	Moderate	279	5·6
Bobcat	8	Moderate	173	3·6
Bobcat	9	Moderate	86	2·4
Bobcat	14	Moderate	133	2·8
Mean			**179**	**4·0**
Bobcat	13	Low	59	1·5
Bobcat	11	Low	122	2·6
Bobcat	12	Unburned	55	1·4
Bobcat	10	Unburned	85	2·0
Mean			**80**	**1·9**
Lower Flowers	1	High	590	12·3
Lower Flowers	2	High	1110	21·9
Mean			**850**	**17·1**
Lower Flowers	3	Moderate	131	5·1
Lower Flowers	6	Moderate	90	1·9
Mean			**111**	**3·5**
Lower Flowers	4	Unburned	37	0·4
Lower Flowers	5	Unburned	14	0·8
Mean			**26**	**0·6**
Hourglass	1	High	86	2·6
Hourglass	2	High	19	0·9
Mean			**52**	**1·7**
Hourglass	3	Unburned	21	0·5
Hourglass	4	Unburned	23	0·5
Mean			**22**	**0·5**