Table S1. Paleosol geochemistry data

				wt%										
Sample	Soil type	Horizon	Height (m)*	Fe_2O_3	MnO	P_2O_5	SiO_2	TiO_2	ZrO_2	Al_2O_3	CaO	Na_2O	MgO	K_2O	MAT (˚C)†
HB-99	Alfisol	Bt	6	4.17	0.35	0.19	51.56	0.60	0.02	11.60	10.20	2.02	2.00	2.16	14.9
HB-113	Alfisol	Bt	18	5.67	0.15	0.26	50.00	0.63	0.05	13.45	6.78	1.53	2.58	2.69	15.0
HB-13	Alfisol	Bt	24.5	1.75	0.14	0.14	62.07	0.45	0.03	8.70	11.18	1.61	1.04	1.74	17.1
HB-133	Alfisol	Bt	41	2.55	0.03	0.08	60.38	0.57	0.04	14.69	5.61	2.15	2.34	2.96	14.3
HB-55	Alfisol	Bt	66.5	5.44	0.17	0.17	51.00	0.63	0.02	13.24	6.88	1.71	2.71	2.36	13.5
HB-59	Alfisol	Bt	72.5	6.27	0.12	0.29	49.22	0.65	0.02	14.59	7.28	1.22	2.65	2.46	13.7
HB-70	Alfisol	Bt	83	4.53	0.15	0.16	55.20	0.52	0.03	10.83	8.15	1.86	2.10	2.19	16.3
HB-78	Alfisol	Bt	93	3.13	0.29	0.38	49.18	0.37	0.02	9.43	13.78	1.64	1.90	2.01	17.6
HB-86	Alfisol	Bt	99	5.24	0.13	0.11	51.00	0.56	0.04	11.85	6.37	1.77	4.23	2.53	14.9
HB-182	Alfisol	Bt	107	6.62	0.11	0.15	50.57	0.62	0.03	14.00	5.08	2.04	2.38	2.53	14.2

* Height refers to stratigraphic height in HB sections, "peak EECO" defined as ~40 - 90m (Figure 4; Hyland and Sheldon, 2013; Hyland et al., 2017).

† MAT presented is "high" estimates from $PPM_{1.0}$ as described in Stinchcomb et al. (2016) and Section 4.1