

Table S1. List of samples with date of sampling, typology, coordinates, mass load per square meter (where available), and performed analyses								
Sample	Sampling date (2017)	Typology	Coordinates		Mass load (g/m ²)	Grain-size		Density (g/cm ³)
			Latitude	Longitude		Sieving	CAMSIZER	
PH1	17 March	Total deposit	-	-	310	X	X	
PH2	17 March	Total deposit ¹	-	-	1128	X	X	X
PH3	17 March	Total deposit ¹	-	-	428	X		
PH4	17 March	Total deposit	-	-	6881	X	X	X
PH5	17 March	Total deposit	-	-	17294	X	X	X
PH6	17 March	Total deposit ²	-	-	7216	X	X	X
PH7	17 March	Total deposit ²	-	-	18396	X	X	X
PH8	17 March	Altered clasts ³	-	-	-			
PH9	17 March	Total deposit	-	-	4870	X	X	X
PH10	17 March	Total deposit	-	-	1469	X	X	X
PH11	21 September	Upwind clasts	37°43'52.71"N	15°0'36.62"E	-			
PH12	21 September	Upwind clasts	37°43'52.75"N	15°0'36.52"E	-			X
PH13	24 March	3 largest clasts	37°43'51.14"N	15°0'29.62"E	-			
PH14	24 March	29 clasts ($\phi - 3/-5$)	37°43'51.14"N	15°0'29.62"E	-			X
PH15	24 March	3 largest clasts	37°43'51.00"N	15°0'29.20"E	-			
PH16	24 March	3 largest clasts	37°43'50.71"N	15°0'28.39"E	-			
PH17	24 March	16 clasts ($\phi - 4/-5$)	37°43'50.71"N	15°0'28.39"E	-			X
PH18	24 March	Total deposit	37°43'50.44"N	15°0'26.74"E	722	X	X	X
PH19	24 March	6 clasts ($\phi - 4/-6$)	37°43'50.19"N	15°0'26.75"E	-			X
PH20	17 October	Block	37°43'51.84"N	15°0'31.90"E	-			
PH21	17 October	Block	37°43'51.70"N	15°0'31.83"E	-			
PH22	17 October	Block	37°43'51.94"N	15°0'31.95"E	-			
PH23	17 October	Block	37°43'51.64"N	15°0'31.78"E	-			
PH24	2 November	38 clasts ($\phi - 6$)	37°43'51.26"N	15°0'32.15"E	-			
PH25	2 November	33 clasts ($\phi - 6$)	37°43'50.57"N	15°0'32.04"E	-			
PH26	2 November	30 clasts ($\phi - 6$)	37°43'52.06"N	15°0'32.07"E	-			
PH27	2 November	35 clasts ($\phi - 6$)	37°43'52.75"N	15°0'31.72"E	-			
PH28	2 November	42 clasts ($\phi - 6$)	37°43'53.46"N	15°0'31.20"E	-			
PH29	2 November	34 clasts ($\phi - 6$)	37°43'51.76"N	15°0'31.34"E	-			
PH30	2 November	35 clasts ($\phi - 6$)	37°43'52.32"N	15°0'30.93"E	-			
PH31	2 November	35 clasts ($\phi - 6$)	37°43'52.90"N	15°0'30.61"E	-			
PH32	2 November	38 clasts ($\phi - 6$)	37°43'51.14"N	15°0'31.37"E	-			
PH33	2 November	35 clasts ($\phi - 6$)	37°43'50.52"N	15°0'31.21"E	-			

¹Samples PH2 and PH3 were collected from the same sampling site. They include the coarse and fine portions of the total deposit, respectively.

²Samples PH6 and PH7 were collected from the same sampling site. They include the coarse and fine portions of the total deposit, respectively.

³Sample PH8 sample includes selected and altered clasts collected around the previous 6 sampling sites