

Supplementary Material



Figure S1: Ground cover at the two extremes of woody biomass in the vegetation studied. Under the lower biomass vegetation at the study site – the cerrado *stricto sensu* – the soil is covered by sparse grasses, forbs and shrubs (a). Under the higher biomass vegetation – the cerradão – the soil is covered by sparse seedlings and saplings of tree species, and a continuous litter layer (b).



a



b

Figure S2: Rain measuring devices. Funnel precipitation gauge used to collect gross rainfall and throughfall (a) and polyurethane collector used to collect the stemflow (b).

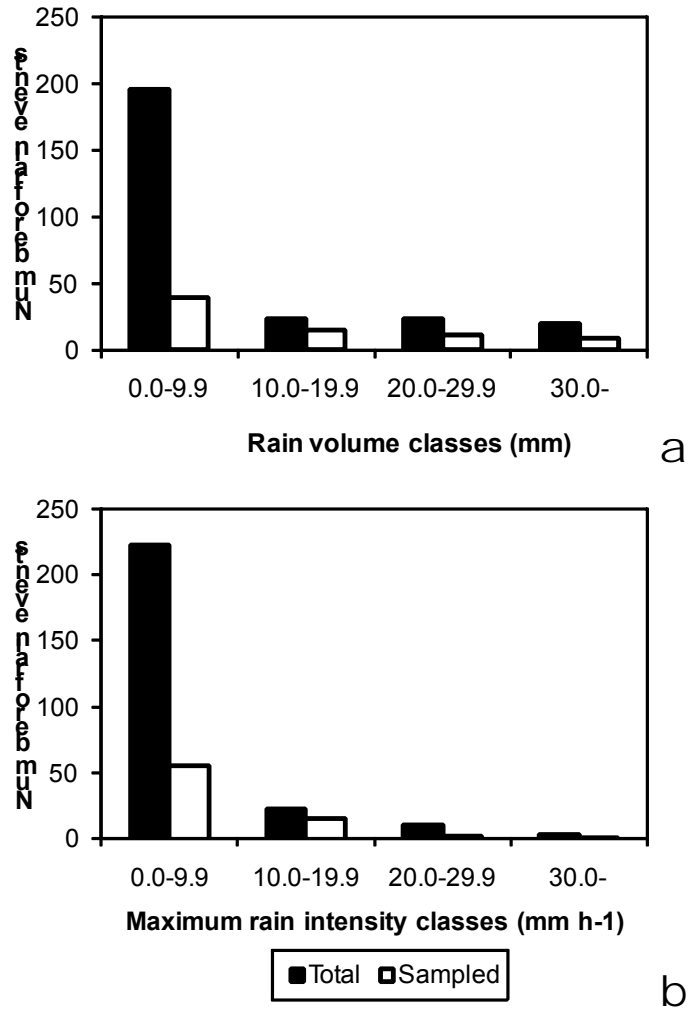


Figure S3: Frequency of rain volume (a) and intensity (b) among all rain events sampled during the study period (black bars) and in the events used in the analyses of throughfall, when the variation coefficient among gross precipitation gauges was lower than 15% (white bars).

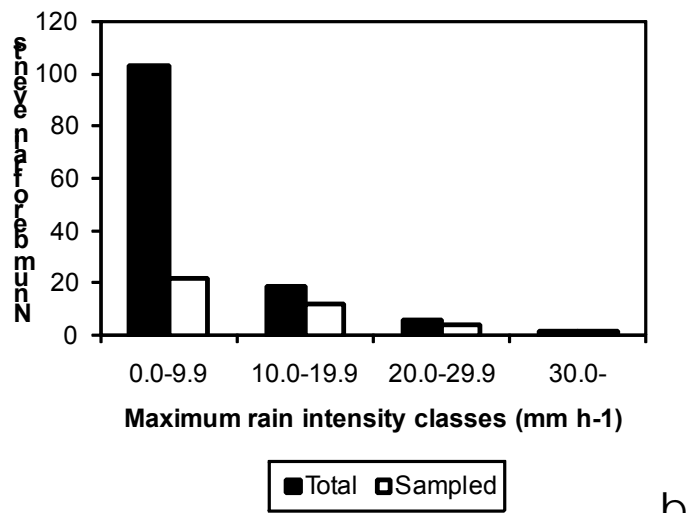
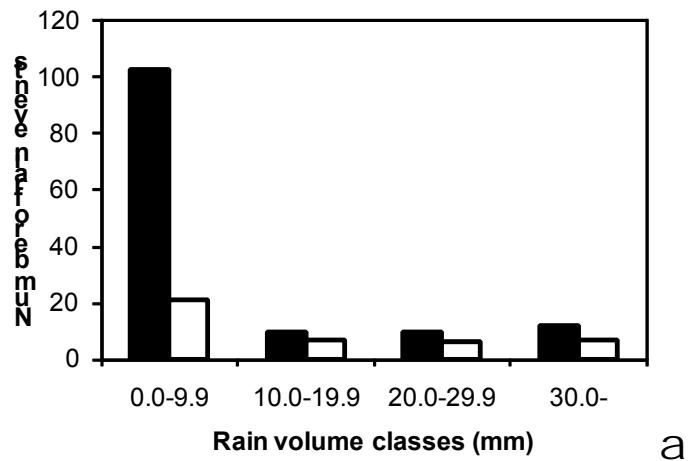


Figure S4: Frequency of rain volume (a) and intensity (b) among all rain events sampled during the study period (black bars) and in the events used in the analyses of stemflow, when the variation coefficient among gross precipitation gauges was lower than 15% (white bars).

Table S1: Tree basal area (TBA) and density, corresponding to the 14 plots (1000 m² each) used in the linear regression to estimate throughfall. Plot numbers correspond to the number of each plot in the network of permanent plots for ecological studies at the Assis Ecological of Assis, state of São Paulo, Brazil.

plot	TBA (m ² ha ⁻¹)	density (ind ha ⁻¹)
1	16.6	2010
2	11.1	1370
3	7.7	1160
5	10.0	1140
6	15.3	1550
7	12.9	1850
8	16.0	2080
13	11.6	1190
16	12.9	1280
18	18.0	1580
26	22.9	1360
32	23.1	2150
33	27.0	1840
34	27.2	2120

Table S2: Rainfall volume (mm) collected over the study period in each of the 14 plots used in the linear regression to estimate throughfall (%). The values correspond to the sum of rainfall volume collected in 26 occasions.

plot	Throughfall volume (mm)	Rainfall volume in open areas (mm)
1	789.9	908.5
2	794.0	908.5
3	872.6	908.5
5	883.5	908.5
6	805.5	908.5
7	837.2	908.5
8	831.0	908.5
13	855.1	908.5
16	789.7	908.5
18	722.2	908.5
26	786.7	908.5
32	736.9	908.5
33	662.9	879.3*
34	701.9	908.5

*Data from plot 33 were missed in one of the 26 occasions. Throughfall in this plot was calculated on the basis of the volume of rainfall in open areas in 25 occasions.

Table S3. Tree basal area (TBA) and stemflow volume (liters) collected in 17 occasions in each sub-plot (100 m² each) used in the model to estimate stemflow (%). Total rainfall in the sampling period corresponding to 583.1 mm.

sub-plot	TBA (m ² ha ⁻¹)	Stemflow volume (liters)
2.1	11.96	647.1
3.1	6.79	278.2
6.8	8.58	444.6
7.7	9.37	497.7
8.8	7.95	197.8
18.5	9.99	640.5
26.9	30.41	1374.6
33.2	23.29	1670.6