

Supplementary Material

Changes in irradiance and soil properties explain why typical non-arboreal savanna species disappear under tree encroachment

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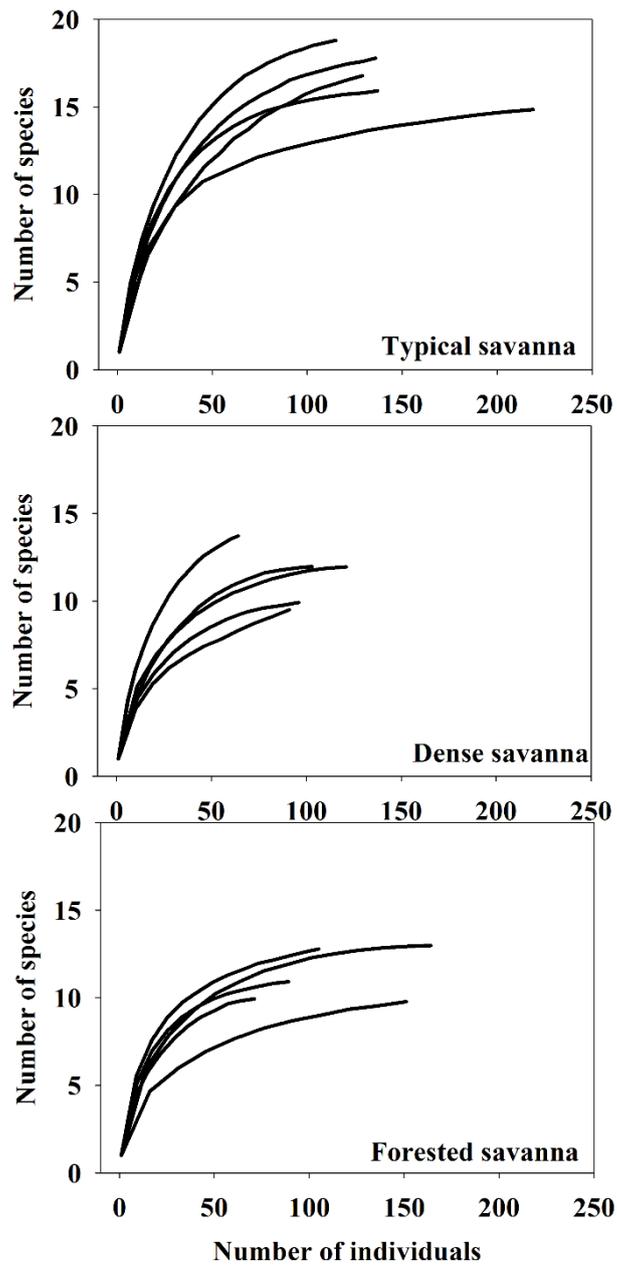


Figure S1 – Rarefaction curves for all studied plots considering: typical savanna, dense savanna and forested savanna. Rarefaction analyses were performed in the EcoSim7.00 software.

Table S1 - List of non-arboreal species and their abundance in a gradient of tree density in Assis Ecological Station, Assis, state of São Paulo, Brazil.

Species/Family	Growth form	Occurrence		
		Typical savanna	Dense savanna	Forested savanna
Anacardiaceae				
<i>Anacardium humile</i> A. St.-Hil.	subshrub	5	-	-
Annonaceae				
<i>Annona crassiflora</i> Mart.	shrub	7	-	-
Apocynaceae				
<i>Forsteronia pilosa</i> (Vell.) Müll.Arg.	climber	-	-	5
<i>Temnadenia violacea</i> (Vell.) Miers	climber	-	-	2
Asteraceae				
<i>Ageratum conyzoides</i> L.	herb	12	-	-
<i>Lepidaploa aurea</i> (Mart. ex DC.) H. Rob.	subshrub	3	-	-
<i>Lepidaploa chamissonis</i> (Less.) H. Rob.	shrub	5	-	-
Bignoniaceae				
<i>Arrabidaea pulchella</i> (Cham.) Bureau	climber	5	5	10
<i>Anemopaegma arvense</i> (Vell.) Stellfeld ex De Souza	subshrub	2	-	-
Bromeliaceae				
<i>Ananas ananasoides</i> (Baker) L.B. Sm.	herb	25	8	-
<i>Bromelia balansae</i> Mez	herb	-	30	26
Celastraceae				
<i>Peritassa campestris</i> (Cambess.) A.C. Sm.	subshrub	5	10	-
<i>Tontelea micrantha</i> (Mart. ex Schult.) A.C. Sm.	subshrub	2	-	-
Convolvulaceae				
<i>Merremia macrocalyx</i> (Ruiz & Pav.) O'Donell	climber	-	-	4
Cyperaceae				
<i>Cyperus virens</i> Michx.	herb	17	-	-
<i>Fimbristylis</i> sp.	herb	54	5	-
<i>Rhynchospora albiceps</i> Kunth	herb	204	256	175
Erythroxylaceae				
<i>Erythroxylum campestre</i> A.St.-Hil.	subshrub	6	-	-
Fabaceae				
<i>Andira humilis</i> Mart. ex Benth.	subshrub	5	-	-
<i>Chamaecrista desvauxii</i> (Collad.) Killip	subshrub	2	1	-
<i>Chamaecrista flexuosa</i> (L.) Greene	subshrub	25	3	-
<i>Mimosa xanthocentra</i> Mart.	subshrub	7	-	-
Lamiaceae				
<i>Hyptis</i> sp.	herb	33	10	-
<i>Peltodon tomentosus</i> Pohl.	herb	6	-	-
Malpighiaceae				
<i>Mascagnia cordifolia</i> (A. Juss.) Griseb.	climber	-	3	12

Melastomataceae				
<i>Leandra lacunosa</i> Cogn.	shrub	1	9	4
<i>Miconia fallax</i> DC.	shrub	5	-	-
<i>Miconia paucidens</i> DC.	shrub	-	9	9
Menispermaceae				
<i>Cissampelos ovalifolia</i> DC.	herb	6	2	-
Myrtaceae				
<i>Campomanesia adamantium</i> (Cambess.) O.Berg	shrub	28	-	-
<i>Eugenia anomala</i> D.Legrand	subshrub	13	6	6
<i>Eugenia pitanga</i> (O. Berg) Nied.	subshrub	13	-	-
<i>Eugenia</i> sp.	subshrub	-	5	16
<i>Psidium grandifolium</i> Mart. ex DC.	shrub	3	-	-
<i>Psidium laruotteanum</i> Cambess.	subshrub	3	-	-
Orchidaceae				
<i>Epidendrum elongatum</i> Jacq.	herb	13	11	-
Poaceae				
<i>Aristida longiseta</i> Steud.	herb	13	-	-
<i>Axonopus pressus</i> (Nees ex Steud.) Parodi	herb	201	-	-
<i>Gymnopogon foliosus</i> (Willd.) Nees	herb	-	8	-
<i>Panicum sellowii</i> Nees	herb	-	12	-
<i>Paspalum</i> sp1.	herb	-	-	20
undetermined sp1.	herb	-	3	-
Rubiaceae				
<i>Coccocypselum lanceolatum</i> (Ruiz & Pav.) Pers.	herb	1	7	16
<i>Cordia concolor</i> (Cham.) Kuntze	shrub	-	-	9
<i>Psychotria hoffmannseggiana</i> (Willd. ex Schult.) Müll.Arg.	subshrub	2	68	177
<i>Palicourea marcgravii</i> A. St.-Hil.	shrub	-	4	34
Sapindaceae				
<i>Serjania confertiflora</i> Radlk.	climber	-	1	-
<i>Serjania lethalis</i> A. St.-Hil.	climber	23	41	114
Sapotaceae				
<i>Pradosia brevipes</i> (Pierre) T.D. Penn.	subshrub	8	-	-
Smilacaceae				
<i>Smilax campestris</i> Griseb.	climber	24	7	-
<i>Smilax fluminensis</i> Steud.	climber	-	3	1
Verbenaceae				
<i>Lippia balansae</i> Briq.	shrub	1	-	-
Total		774	527	640