

**FEEDING AND POTENTIAL SEED DISPERSION BY BATS AT VALE
DO TABOCAS FARM, A CLOUD FOREST ENCLAVE IN THE
BRAZILIAN CAATINGA**

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SUPPLEMENTARY MATERIAL

Table S1. List of species and abundance of bats, separated by sampling sites recorded at Vale do Tabocas Farm, Belo Jardim, state of Pernambuco, northeastern Brazil. Feeding guilds: FR = Frugivore, NE = Nectarivore and ON = Omnivore.

Taxon	N (%)	Feeding Guild	Abundance		
			Site I	Site II	Site III
Phyllostomidae Gray, 1825					
Carolliinae Miller, 1924					
<i>Carollia perspicillata</i> (Linnaeus, 1758)	201 (28.5%)	FR	93	35	61
Glossophaginae Bonaparte, 1845					
<i>Anoura geoffroyi</i> Gray, 1838	5 (0.7%)	NE	4	1	0
<i>Glossophaga soricina</i> (Pallas, 1766)	27 (3.8%)	NE	10	14	2
Lonchophyllinae Griffiths, 1982					
<i>Lonchophylla mordax</i> Thomas, 1903	3 (0.4%)	NE	1	1	0
Phyllostominae Gray, 1825					
<i>Phyllostomus discolor</i> Wagner, 1843	11 (1.5%)	ON	4	5	0
<i>Phyllostomus hastatus</i> (Palas, 1767)	1 (0.1%)	ON	0	1	0
Stenodermatinae Gervais, 1856					
<i>Artibeus fimbriatus</i> Gray, 1838	189 (26.9%)	FR	22	77	36
<i>Artibeus lituratus</i> (Olfers, 1818)	71 (10.1%)	FR	19	14	23
<i>Artibeus planirostris</i> (Spix, 1823)	29 (4.1%)	FR	7	6	5
<i>Platyrrhinus lineatus</i> (É. Geoffroy, 1810)	31 (4.4%)	FR	8	13	5
<i>Sturnira lilium</i> (É. Geoffroy, 1810)	123 (17.5%)	FR	18	55	30
<i>Platyrrhinus recifinus</i> (Thomas, 1901)	12 (1.7%)	FR	1	2	1
Total	703 (100%)		187	224	163

Table S2. List of fruit-bearing plant species at Vale do Tabocas Farm, Belo Jardim, state of Pernambuco, northeastern Brazil.

Family	Species	Common Name
Anacardiaceae	<i>Anacardium occidentale</i> L.	Cajueiro
	<i>Mangifera indica</i> L.	Mangueira
	<i>Spondias mombin</i> L.	Cajazeira
	<i>Spondias purpurea</i> L.	Seriguela
	<i>Spondias tuberosa</i> Arruda	Umbuzeiro
Annonaceae	<i>Annona squamosa</i> Mart.	Pinha
Arecaceae	<i>Orbignya phalerata</i> Mart	Babaçu
	<i>Syagrus cearensis</i> Noblick	Catolé
	<i>Cocos nucifera</i> (L.)	Coco
Caricaceae	<i>Carica papaya</i> L.	Mamoeiro
Chrysobalanaceae	<i>Licania tomentosa</i> (Benth.) Fritsch	Oitizeiro
	<i>Licania rígida</i> Benth	Oitica
Combretaceae	<i>Terminalia catappa</i> L.	Castanhola

Family	Species	Common Name
Cucurbitaceae	<i>Momordica charantia</i> L.	Melão-de-são-caetano
Fabaceae	<i>Inga</i> sp.	Ingá
	<i>Hymenaea courbaril</i> L.	Jatobá
Lauraceae	<i>Persea americana</i> Mill.	Abacateiro
Lythraceae	<i>Punica granatum</i> L.	Romã
Malpighiaceae	<i>Malpighia glabra</i> L.	Acerola
	<i>Byrsonima crassifolia</i> (L.) Kunth	Murici
Meliaceae	<i>Azadirachta indica</i> A. Juss.	Nin indiano
Moraceae	<i>Ficus carica</i> L.	Figo
	<i>Ficus mexiae</i> Standl.	Figueira/Gameleira
Moraceae	<i>Artocarpus heterophyllus</i> Lam.	Jaqueira
Musaceae	<i>Musa paradisiaca</i> L.	Bananeira
Myrtaceae	<i>Psidium cattleianum</i> Sabine	Araçá
	<i>Psidium guajava</i> L.	Goiabeira
	<i>Plinia cauliflora</i> (Mart.) Kausel	Jabuticabeira
	<i>Eugenia uniflora</i> L.	Pitanga
	<i>Myrcia multiflora</i> (Lam.) DC.	Cambuí
	<i>Syzygium</i> sp. L.	Jambo vermelho
	<i>Syzygium cumini</i> (L.) Skeels	Jambolão/Azeitona
	<i>Myrcia guianensis</i> (Aubl.) DC.	Araçazinho
Passifloraceae	<i>Passiflora cincinnata</i> Mast.	Maracujá-do-mato
Primulaceae	<i>Myrsine garneriana</i> A.DC.	capororoca
Rhamnanaceae	<i>Ziziphus joazeiro</i> Mart	Juazeiro
Rubiaceae	<i>Coffea arabica</i> L.	Cafeeiro
	<i>Genipa americana</i> L.	Jenipapo
Rutaceae	<i>Citrus reticulata</i> Macfad	Laranjeira
	<i>Citrus limonum</i> (L.)	Limoeiro
	<i>Citrus reticulata</i> L.	Tangerina
Santalaceae	<i>Phoradendron affine</i> (Pohl ex DC.) Engl. & K. Krause	Erva de passarinho
Sapindaceae	<i>Talisia esculenta</i> (A. St.-Hil.) Radlk	Pitomba
Sapotaceae	<i>Manilkara triflora</i> (Allemão) Monach.	Maçaranduba
Simaroubaceae	<i>Simarouba amara</i> Aubl.	Marupá
Solanaceae	<i>Solanum paniculatum</i> L.	Jurubeba
	<i>Solanum stipulaceum</i> Roem. & Schult	Fumo-bravo
	<i>Solanum asperum</i> Rich.	Jurubeba
	<i>Capsicum baccatum</i> L.	Pimenta-cumari
Urticaceae	<i>Cecropia pachystachya</i> Trécul	Embaúba
Vitaceae	<i>Vitis</i> sp.	Uva

Table S3. Food items consumed by phytophagous bats at Vale do Tabocas Farm, Belo Jardim, state of Pernambuco, northeastern Brazil. N = number of fecal samples in which each food item was recorded for each bat species. N (%) = percentage of fecal samples in which each seed or pulp item occurred in relation to the total number of fecal samples analyzed. Bat species abbreviations: Cp – *Carollia perspicillata* (Linnaeus, 1758); Af – *Artibeus fimbriatus* Gray, 1838; Sl – *Sturnira lilium* (E. Geoffroy, 1810); Al – *Artibeus lituratus* (Olfers, 1818); Pl – *Platyrrhinus lineatus* (É. Geoffroy, 1810); Ap – *Artibeus planirostris* (Spix, 1823); Gs – *Glossophaga soricina* (Pallas, 1766); Pr – *Platyrrhinus recifinus* (Thomas, 1901); Pd – *Phyllostomus discolor* Wagner, 1843; Ag – *Anoura geoffroyi* Gray, 1838; Lm – *Lonchophylla mordax* Thomas, 1903. Seed dispersal categories: NT – not transported; SYN – synzoochoric (transported but not ingested); END – endozoochorous (ingested). * *Anacardium occidentale* captured in a mist net with bite marks. ** Seed removed from the mouth of *A. lituratus* (Olfers, 1818). *** Pollen removed from the snout of *C. perspicillata*.

Items Consumed	Cp	Af	Sl	Al	Pl	Ap	Gs	Pr	Pd	Ag	Lm	N (%)	Seeds
Fruit													
Anacardiaceae													
<i>Mangifera indica</i> L.	2											2 (0.38)	NT
<i>Anacardium occidentale</i> L.*												1(0.19)	SYN
Arecaceae													
<i>Syagrus</i> sp.	2			2		1						5 (0.97)	SYN
Myrtaceae													
<i>Psidium guajava</i> L.	1		1	1								3 (0.58)	END
<i>Syzygium cumini</i> (L.) Skeels		1										1 (0.19)	SYN
Moraceae													
<i>Ficus mexiae</i> Standl.	4	38	3	10	5	7	1	5				73 (14.14)	END
<i>Maclura tinctoria</i> (L.) D. Don ex. Steudel	2	1										3 (0.58)	END
Piperaceae													
<i>Piper</i> sp.	3											3 (0.58)	END
Solanaceae													
<i>Solanum stipulaceum</i> Roem. & Schult	20	7	19									46 (8.91)	END
<i>Solanum paniculatum</i> L.	7		10									17 (3.29)	END
<i>Solanum asperum</i> Rich.	13		9									22 (4.26)	END
<i>Solanum</i> sp.	5	2	3									10 (1.93)	END
Urticaceae													

Items Consumed	Cp	Af	Sl	Al	Pl	Ap	Gs	Pr	Pd	Ag	Lm	N (%)	Seeds
<i>Cecropia pachystachya</i>	7	13	10	8	11	2	6	1	5			63 (12.20)	END
Trécul													
Unidentified seed													
Sp. 1	8			2				1				11 2.13)	END
Sp. 2 **				1								1 (0.19)	SYN
Sp. 3			1									1 (0.19)	END
Sp. 4				1								1 (0.19)	END
Sp. 5		1				2						3 (0.58)	END
Sp. 6	1											1 (0.19)	END
Sp. 7	1											1 (0.19)	END
Sp. 8	1											1 (0.19)	END
Sp. 9		1										1 (0.19)	END
Sp. 10	1											1 (0.19)	END
Sp. 11					1							1 (0.19)	END
Sp. 12			1									1 (0.19)	END
Unidentified pulp													
Green	75	36	30	10	4	7	7	1	4	3	2	179 (34.6)	
Orange	3		1	1								5 (0.97)	
Yellow	2	1	1									4 (0.77)	
Cream		2	3									5 (0.97)	
Brown	1	1										2 (0.38)	
Pollen***	2***						2					4 (0.77)	
Insect	17	4	2	1	1	3	10		3	2	1	44 (8.52)	
Items in the diet	22	13	14	10	5	6	5	4	3	2	2		
Total of samples	178 (34.5)	108 (20.9)	94 (18.2)	37 (7.2)	22 (4.3)	22 (4.3)	26 (5.0)	8 (1.5)	12 (2.3)	5 (0.96)	3 (0,58)	516 (100%)	
Abundance of bats	201 (28.6)	189 (26.9)	123 (17.5)	71 (10.1)	31 (4.4)	29 (4.1)	27 (3.8)	12 (1.7)	11 (1.5)	5 (0.7)	3 (0.4)	703 (100%)	

Table S4. Frequency of the food items consumed by phytophagous bats during the dry and rainy seasons at Fazenda Vale do Tabocas, Belo Jardim, state of Pernambuco, northeastern Brazil. R = Rainy season, D = Dry season.

Season		Rainy					Dry							
Item	Consumed	A	M	J	J	A	S	O	N	D	J	F	M	Total
Fruits														
Anacardeaceae														
<i>Mangifera indica</i>	R			2										2
<i>Anacardium occidentale</i>	D										1			1
Arecaceae														
<i>Syagrus</i> sp.	D						2		3					5
Myrtaceae														
<i>Psidium guajava</i>	R					3								3
<i>Syzygium cumini</i>	R	1												1
Moraceae														
<i>Ficus mexiae</i>	R/D	6	3	7	1			1	13	22	6	14		73
<i>Maclura tinctoria</i>	R/D	1		1									1	3
Piperaceae														
<i>Piper</i> sp.	R/D	1										2		3
Solanaceae														
<i>Solanum stipulaceum</i>	R/D	19			1	1		3	5	8	4	2	3	46
<i>Solanum paniculatum</i>	R/D	1	3	1	2	1	3	2			1	2	1	17
<i>Solanum asperum</i>	R/D	1		1	3	1	10	2	1	2	1			22
<i>Solanum</i> sp.	R/D	2		1		2	1	2	1		1			10
Urticaceae														
<i>Cecropia pachystachya</i>	R/D	10	3	1			1	1			5	17	25	63
Unidentified seeds														
Sp. 1	D						1		5	5				11
Sp. 2	R			1										1
Sp. 3	D						1							1
Sp. 4	D							1						1
Sp. 5	D											3		3
Sp. 6	D							1						1
Sp. 7	D							1						1
Sp. 8	D						1							1
Sp. 9	R	1												1
Sp. 10	D						1							1
Sp. 11	R				1									1
Sp. 12	R	1												1
Unidentified pulps	R/D	15	14	13	16	12	26	36	20	16	19	6	2	195
Pollen	R/D	1		1					2					4
Insect	R/D	5	2	1	1		4	4	2	3	7	9	6	44
Total														516