

**Table S1.** Measured parameters for 68 trees that were used in developing allometric equations for the 6 rainforest tree species.

Tree No	Tree Identification		Tree Coordinates		Stem diameters (cm)		
	Family	Species	Degree (°)	Distance (m)	DBH	Mid-section	Top section
6027	Apocynaceae	Alstonia scholaris	23	31	41.4	41	38
2017	Apocynaceae	Alstonia scholaris	169	19	19.1	10	10
25	Apocynaceae	Alstonia scholaris	105	50	27.8	18	15
7045	Apocynaceae	Alstonia scholaris	39	33	34.1	22.6	18
1007	Apocynaceae	Alstonia scholaris	143	20	33.5	22.6	12
1017	Apocynaceae	Alstonia scholaris	136	27	19	12.5	11
1029	Apocynaceae	Alstonia scholaris	118	47	26.5	16	13
5002	Apocynaceae	Alstonia scholaris	330	20	17.1	12	6
5082	Apocynaceae	Alstonia scholaris	326	36	28.1	17	16
5030	Apocynaceae	Alstonia scholaris	335	41	37.9	25.5	21
6045	Arecaceae	Normanbya normanbyi	11	46	16	10.5	7.6
6047	Arecaceae	Normanbya normanbyi	10	46	11.5	11.5	8.1
6059	Arecaceae	Normanbya normanbyi	358	40	15.9	13.7	11.1
5029	Arecaceae	Normanbya normanbyi	341	44	14.5	11.8	9.9
3007	Arecaceae	Normanbya normanbyi	236	21	11.5	11.14	8.59
7033	Arecaceae	Normanbya normanbyi	55	28	14.5	11.78	8.6
7082	Arecaceae	Normanbya normanbyi	66	55	20.9	13.69	9.87
5080	Arecaceae	Normanbya normanbyi	325	44	15.7	12.73	10.5
5079	Arecaceae	Normanbya normanbyi	321	46	14.3	12.1	10.82
1002	Elaeocarpaceae	Elaeocarpus angustifolius	137	10	51.5	35	30
2018	Elaeocarpaceae	Elaeocarpus angustifolius	172	18	31.1	23	20
7056	Euphorbiaceae	Cleistanthus myrianthus	60	43	20.6	15	11
1060	Euphorbiaceae	Cleistanthus myrianthus	152	46	23.1	16.2	16.62
1013	Euphorbiaceae	Cleistanthus myrianthus	138	23	31	16.84	14.74
1038	Euphorbiaceae	Cleistanthus myrianthus	137	33	16.2	14.6	4.39
1	Euphorbiaceae	Cleistanthus myrianthus	98	8	27.1	27.1	27.1

7	Euphorbiaceae	Cleistanthus myrianthus	97	17	24.6	24.8	22.2
6072	Euphorbiaceae	Cleistanthus myrianthus	12	38	17.9	14.99	11.33
10	Euphorbiaceae	Cleistanthus myrianthus	87	20	34	26.5	20.79
7034	Euphorbiaceae	Cleistanthus myrianthus	50	31	12.3	11.97	11.65
7014	Euphorbiaceae	Cleistanthus myrianthus	38	22	27.5	22.06	20.85
1014	Fabaceae	Castanospermum australe	117	26	126.5	69.33	38.00
7066	Lauraceae	Cryptocarya hypospodia	33	39	43.3	31.04	7.83
7079	Lauraceae	Cryptocarya mackinnoniana	60	47	34.5	27.7	14.96
10030	Lauraceae	Cryptocarya mackinnoniana	209	39	26.7	26.7	26.7
7055	Lauraceae	Endiandra microneura	61	44	38.2	28.5	26
6058	Lauraceae	Endiandra microneura	358	41	25.6	20.56	14.16
3008	Lauraceae	Endiandra microneura	245	21	39.6	39.6	39.6
35	Lauraceae	Endiandra microneura	86	46	14.3	10.22	6.75
2002	Lauraceae	Endiandra microneura	203	12	36.7	26.9	19.7
4054	Lauraceae	Endiandra microneura	266	47	21.4	11.78	14
5085	Lauraceae	Endiandra microneura	338	42	15.7	12.41	10
4027	Lauraceae	Endiandra microneura	291	34	18.2	13.05	12.1
7032	Meliaceae	Dysoxylum papuanum	57	34	39	39	39
6015	Meliaceae	Dysoxylum pettigrewianum	11	26	39.2	27	26
5007	Meliaceae	Dysoxylum alliaceum	334	25	35.7	31.05	27.00
7071	Myristicaceae	Myristica insipida	37	42	34.6	24.8	27.44
6031	Myristicaceae	Myristica insipida	25	45	16.2	14.07	12.32
7061	Myristicaceae	Myristica insipida	39	36	17.2	12.99	10.19
2071	Myristicaceae	Myristica insipida	179	51	25	16.8	13.5
2046	Myristicaceae	Myristica insipida	177	49	21.8	16.2	13.05
23	Myristicaceae	Myristica insipida	102	33	34.3	29	32.1
47	Myristicaceae	Myristica insipida	92	40	36.3	32.7	25.31
6071	Myristicaceae	Myristica insipida	3	36	32	18	15
7059	Myristicaceae	Myristica insipida	47	37	18.2	14	10
19	Myrtaceae	Acmena graveolens	97	35	49.3	41	40
16	Myrtaceae	Acmena graveolens	94	26	43.5	23	18
56	Myrtaceae	Acmena graveolens	76	55	49.4	24.3	23.4
3014	Myrtaceae	Acmena graveolens	214	39	64	64	64

3032	Myrtaceae	Acmena graveolens	244	40	47.7	36.4	24.9
34	Myrtaceae	Acmena graveolens	85	47	18.5	10.95	10.44
7018	Myrtaceae	Acmena graveolens	59	24	42.3	12.16	10.15
29	Myrtaceae	Acmena graveolens	99	51	54.8	39.9	26.5
17	Myrtaceae	Acmena graveolens	91	24	40.5	25.4	8.85
5025	Myrtaceae	Syzygium sayeri	300	34	50.6	49.28	48.00
7039	Myrtaceae	Syzygium sayeri	36	30	30.2	23.32	18.00
6039	Rubiaceae	Canthium sp. (Whitfield Range)	14	45	22.2	13.18	14.36
6053	Sapotaceae	Palaquium galactoxylon	5	40	66.2	48	48

Tree No	Heights (m)		Crown Heights (m)		Crown diameters (m) At maximum diameter	
	Stem	Total	At base of crown	At maximum diameter	D1	D2
6027	16.2	26.57	20.80	23.54	4.20	4.10
2017	11.1	12.10	11.10	11.60	4.00	4.00
25	13.85	19.85	13.85	16.20	4.40	4.60
7045	20	25.00	20.00	25.00	4.20	4.80
1007	20	23.00	20.00	22.00	6.20	4.00
1017	9.3	12.60	9.30	10.00	3.90	3.00
1029	16.1	20.44	16.10	19.44	2.60	3.00
5002	11.55	13.00	11.55	13.00	3.00	4.00
5082	18.1	21.50	18.10	18.10	3.00	1.80
5030	18.5	19.20	15.80	16.90	5.80	4.00
6045	19.7	22.40	19.70	22.40	3.20	3.20
6047	15.9	18.60	15.90	18.60	4.00	4.00
6059	15.5	18.60	15.50	18.60	4.80	4.80
5029	16.7	19.45	16.70	16.70	3.60	3.60
3007	12.5	14.50	12.50	12.50	4.40	4.40
7033	19.3	21.30	19.30	19.30	3.60	3.60
7082	21.5	24.80	21.50	21.50	4.40	4.40
5080	16.45	19.50	16.45	19.50	5.60	5.60
5079	17	19.70	17.00	19.70	4.80	4.80
1002	17.8	25.00	17.80	24.70	16.00	12.43
2018	13.7	25.10	13.70	19.40	6.00	7.60
7056	13.4	15.85	13.40	14.63	3.40	3.40
1060	13	15.63	13.00	14.10	3.30	3.50
1013	12.3	17.10	12.30	14.50	2.90	3.20
1038	7	11.10	7.00	7.60	3.50	3.20
1	5	14.50	8.30	10.00	4.40	4.20
7	7.7	18.00	12.20	12.20	3.80	2.60
6072	8.1	15.60	8.10	10.80	3.40	1.40

10	12.1	20.80	12.10	14.20	2.60	2.40
7034	3.8	9.50	3.80	6.00	2.80	3.10
7014	9.5	19.70	11.70	14.70	3.20	4.10
1014	20.60	32.05	20.60	24.00	7.00	8.80
7066	18.5	27.10	18.50	21.10	9.15	6.45
7079	15.15	18.60	15.15	16.88	3.80	3.90
10030	10.75	12.75	10.75	10.75	3.00	2.60
7055	14.1	22.30	14.10	18.20	4.20	5.40
6058	14.1	22.35	15.60	18.78	2.80	2.50
3008	17.4	28.65	17.40	22.50	5.50	3.20
35	13.35	15.30	13.35	13.60	2.80	1.30
2002	14.8	21.60	16.35	18.20	5.00	5.10
4054	15	28.85	15.00	16.80	3.20	3.00
5085	11.5	15.90	11.50	12.10	1.60	1.60
4027	12.9	18.10	12.90	15.35	2.20	3.00
7032	12.45	21.80	12.45	21.80	7.00	10.30
6015	12.1	22.20	12.10	13.57	4.00	10.00
5007	10.90	21.30	10.90	16.40	5.00	3.40
7071	11.25	22.30	11.25	15.00	3.50	3.60
6031	10.3	13.50	10.30	11.50	2.10	1.80
7061	11.1	14.00	11.10	11.40	3.00	3.45
2071	14.4	18.65	14.40	14.40	4.00	2.80
2046	14	18.10	14.00	14.90	1.60	2.00
23	10.65	20.30	10.65	12.50	5.20	3.40
47	7.5	16.20	11.40	13.30	2.00	2.40
6071	15.1	21.30	15.10	18.40	4.20	3.40
7059	10.5	13.70	10.50	12.10	2.20	4.00
19	14	31.00	14.00	14.00	1.80	1.60
16	25.1	30.65	25.10	27.10	1.60	1.60
56	12.3	27.70	12.30	19.40	5.00	4.20
3014	19.3	29.25	19.30	25.60	5.00	7.20
3032	20.85	27.70	20.85	24.10	6.80	4.90
34	9.63	20.65	13.80	16.00	2.80	2.40

7018	16.4	24.60	16.40	20.25	4.40	6.20
29	24.4	29.10	24.40	24.65	5.60	5.20
17	17.1	24.80	17.10	17.10	2.40	3.10
5025	14.00	25.90	18.90	18.90	13.50	11.80
7039	17.00	25.49	17.00	22.74	5.20	5.20
6039	17.1	20.10	17.10	18.30	2.00	6.20
6053	19	25.50	19.00	21.50	8.50	7.70