

SUPPLEMENTARY MATERIAL 1**to Zach, Horna, Leuschner and Zimmermann: “Patterns of wood carbon dioxide efflux across a 2,000-m elevation transect in an Andean moist forest”**

S 1 Species list of the measured tree stems at 1,050, 1,890 and 3,050 m a.s.l. Some trees could not be determined to species level (indet). Given are diameters at breast height (DBH; cm) and tree height (h; m) as measured in August 2005. For each tree, the mean annual rate of stem CO₂ efflux (R_{Smean} ; $\mu\text{mol CO}_2 \text{ m}^{-2} \text{ surface area s}^{-1}$) is the average over four measurement campaigns conducted between August 2005 and September 2006.

Species	Family	DBH	h	R_{Smean}
1,050m				
indet	Annonaceae	10.05	9.9	1.07
indet	Annonaceae	21.37	14.5	1.10
<i>Schefflera</i> sp.	Araliaceae	27.67	18.8	1.18
<i>Pourouma</i> cf.	Cecropiaceae	14.32	13.4	0.38
<i>Alchornea</i> sp.	Euphorbiaceae	8.75	13.3	0.52
indet	Lauraceae	13.66	12.3	0.66
indet	Lauraceae	17.07	11.9	0.62
<i>Miconia punctata</i>	Melastomataceae	9.80	14.0	0.66
<i>Miconia punctata</i>	Melastomataceae	11.93	10.5	1.04
indet	Melastomataceae	15.35	11.8	0.86
<i>Inga</i> sp.	Mimosaceae	16.34	17.8	0.74
indet	Mimosaceae	10.08	18.1	0.88
<i>Ficus</i> sp.	Moraceae	14.16	16.2	1.38
<i>Ficus</i> sp.	Moraceae	14.64	14.2	0.39
<i>Ficus</i> sp.	Moraceae	16.03	14.2	0.92
<i>Ficus</i> sp.	Moraceae	43.85	29.9	1.32
<i>Virola</i> cf.	Myristicaceae	14.17	15.0	0.40
indet	Myrtaceae	10.96	11.2	1.06
<i>Chrysophyllum</i> sp.	Sapotaceae	8.84	11.2	0.99
<i>Pouteria</i> cf.	Sapotaceae	20.79	16.8	1.36
<i>Pouteria</i> cf.	Sapotaceae	43.72	26.6	0.73

Species	Family	DBH	h	R _{Smean}
1,890 m				
<i>Ilex amboroica</i>	Aquifoliaceae	9.63	7.5	0.25
<i>Schefflera</i> sp.	Araliaceae	9.16	14.5	0.09
<i>Clethra revoluta</i>	Clethraceae	23.45	12.7	0.70
<i>Hyeronima moritziana</i>	Euphorbiaceae	9.52	13.7	0.29
<i>Endlicheria oreocola</i>	Lauraceae	20.80	10.0	0.34
<i>Nectandra</i> sp.	Lauraceae	11.64	12.4	1.30
<i>Ocotea aciphylla</i>	Lauraceae	10.21	10.5	0.78
<i>Graffenrieda emarginata</i>	Melastomataceae	24.91	17.4	0.37
<i>Graffenrieda emarginata</i>	Melastomataceae	26.11	16.5	0.56
<i>Graffenrieda emarginata</i>	Melastomataceae	26.47	19.8	0.34
<i>Miconia punctata</i>	Melastomataceae	10.62	14.0	0.77
<i>Miconia punctata</i>	Melastomataceae	12.00	7.1	0.66
<i>Miconia punctata</i>	Melastomataceae	14.45	12.5	0.52
<i>Myrsine coriacea</i>	Myrsinaceae	3.76	7.1	0.05
<i>Ladenbergia oblongifolia</i>	Rubiaceae	12.14	9.7	0.43
<i>Palicourea</i> sp.	Rubiaceae	3.02	3.7	0.14
<i>Matayba inelegans</i>	Sapindaceae	4.46	5.6	0.58
<i>Matayba inelegans</i>	Sapindaceae	8.17	8.3	1.11
<i>Matayba inelegans</i>	Sapindaceae	10.53	12.7	1.04
<i>Micropholis guyanensis</i>	Sapotaceae	8.35	7.8	0.47
3,050 m				
<i>Ilex weberlingii</i>	Aquifoliaceae	8.20	5.72	0.13
<i>Hedyosmum</i> sp.	Chloranthaceae	9.36	4.19	0.40
<i>Clusia</i> sp.1	Clusiaceae	17.67	5.80	0.25
<i>Clusia</i> sp.2	Clusiaceae	8.94	6.79	0.07
<i>Weinmannia loxensis</i>	Cunoniaceae	10.50	6.13	0.22
<i>Cerrostema</i> cf.	Ericaceae	3.60	3.74	0.19
indet	Ericaceae	15.60	6.22	0.06
<i>Axinea</i> sp.	Melastomataceae	8.99	4.80	0.31
<i>Myrsine andina</i>	Myrsinaceae	9.55	7.74	0.07
indet	Myrsinaceae	3.92	4.80	0.09
<i>Monnina</i> sp.	Polygalaceae	2.48	3.51	0.17
<i>Styrax foveolaria</i>	Styracaceae	12.06	3.43	0.25
<i>Symplocos</i> sp.	Symplocaceae	9.80	6.68	0.25