

## Diurnal, seasonal, and altitudinal trends in microclimate across a tropical montane cloud forest

Joshua M. Rapp<sup>1,3,\*</sup>, Miles R. Silman<sup>1,2</sup>

<sup>1</sup>Department of Biology and <sup>2</sup>Center for Energy, Environment, and Sustainability, Wake Forest University, Winston-Salem, North Carolina 27106, USA

<sup>3</sup>Present address: Harvard Forest, Harvard University, Petersham, Massachusetts 01366, USA

\*Email address: rapp.joshua@gmail.com

*Climate Research: 55: 17–32 (2012)*

### Supplement 1.

Table S1. Lapse rate (decrease in temperature with altitude; °C/km) in the Kosñipata Valley by month (July 2007 – June 2008). Lapse rates calculated for each day using mean daily, daytime (06:00-18:00), nighttime temperatures (18:00-06:00), and pre-dawn (05:00-06:00) then averaged over each month and the entire year. Numbers in parentheses are standard deviations.

Month	N	Understory								Canopy							
		Mean	Day	Night	Pre-dawn	Mean	Day	Night	Pre-dawn								
July	31	5.04 (0.86)	4.80 (1.00)	5.27 (0.76)	5.34 (0.89)	4.85 (1.15)	4.72 (1.39)	4.96 (0.97)	4.53 (1.23)								
August	31	5.53 (0.69)	5.34 (0.79)	5.71 (0.70)	5.82 (0.82)	5.43 (1.24)	5.14 (1.41)	5.72 (1.14)	5.64 (1.48)								
September	30	6.23 (0.58)	6.13 (0.63)	6.33 (0.58)	6.22 (0.80)	6.30 (0.63)	6.38 (0.69)	6.23 (0.62)	6.07 (0.77)								
October	31	5.81 (0.63)	5.70 (0.62)	5.91 (0.66)	5.96 (0.86)	5.87 (0.62)	6.02 (0.75)	5.72 (0.60)	5.67 (0.70)								
November	30	5.15 (0.44)	4.98 (0.56)	5.31 (0.36)	5.38 (0.37)	5.30 (0.72)	5.31 (0.90)	5.28 (0.61)	4.93 (0.71)								
December	31	5.21 (0.32)	5.09 (0.41)	5.33 (0.33)	5.41 (0.45)	5.40 (0.51)	5.44 (0.66)	5.36 (0.44)	5.22 (0.71)								
January	31	5.05 (0.17)	5.02 (0.18)	5.08 (0.20)	5.08 (0.26)	5.20 (0.32)	5.26 (0.44)	5.14 (0.24)	4.98 (0.37)								
February	29	5.14 (0.34)	5.05 (0.47)	5.23 (0.30)	5.28 (0.37)	5.28 (0.57)	5.33 (0.80)	5.24 (0.39)	5.12 (0.53)								
March	31	5.32 (0.40)	5.23 (0.44)	5.40 (0.43)	5.39 (0.44)	5.42 (0.43)	5.42 (0.52)	5.41 (0.40)	5.25 (0.56)								
April	30	4.98 (0.60)	4.86 (0.72)	5.10 (0.50)	5.13 (0.57)	4.84 (0.96)	4.78 (1.21)	4.90 (0.77)	4.71 (0.94)								
May	31	4.94 (0.79)	4.75 (0.89)	5.13 (0.75)	5.19 (0.92)	4.58 (1.26)	4.53 (1.33)	4.63 (1.26)	4.47 (1.23)								
June	30	4.82 (0.41)	4.48 (0.53)	5.16 (0.40)	5.13 (0.53)	4.17 (0.88)	3.92 (1.00)	4.43 (0.84)	4.18 (1.03)								
Year	366	5.27 (0.67)	5.12 (0.76)	5.42 (0.64)	5.44 (0.73)	5.22 (0.98)	5.19 (1.15)	5.25 (0.88)	4.89 (0.84)								