# Supplementary information: Differences in Leaf Temperature between Lianas and Trees in the Neotropical Canopy 

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Figure S1. Monthly total precipitation and average monthly air temperature during wet and dry seasons in contrasting ENSO years at Parque Natural Metropolitano, Panama. Vertical red lines represent the campaigns of data collection.


Figure S2. Mean values of temperature (red lines) and relative humidity (blue lines) during the days of data collection according to the meteorological station on the crane at Parque Natural Metropolitano, Panama. Vertical red bars represent the time of data collection.

Table S1. Number of trees (NT), thermal infrared images collected (TIR), and leaves selected (LS) to address the first hypothesis during the wet and dry season in contrasting ENSO years at the canopy of Parque Natural Metropolitano, Panama. NL: host trees without lianas; L: host trees with lianas.

| ENSO | Season | Condition | Species |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | A. excelsum |  |  | A. spraguei |  |  | C. elastica |  |  | L. seemannii |  |  |
|  |  |  | NT | TIR | LS | NT | TIR | LS | NT | TIR | LS | NT | TIR | LS |
| El Niño | Wet | NL | 4 | 14 | 64 | 2 | 3 | 15 | 4 | 10 | 54 | 2 | 6 | 30 |
| El Niño | Wet | L | 4 | 17 | 58 | 2 | 8 | 39 | 4 | 16 | 74 | 2 | 4 | 10 |
| El Niño | Dry | NL | 2 | 8 | 40 | 2 | 4 | 20 | 2 | 5 | 25 | 2 | 6 | 30 |
| El Niño | Dry | L | 2 | 6 | 30 | 2 | 7 | 34 | 2 | 6 | 30 | 2 | 7 | 34 |
| La Niña | Wet | NL | 2 | 5 | 25 | --- | --- | --- | 2 | 5 | 25 | 2 | 3 | 19 |
| La Niña | Wet | L | 2 | 6 | 25 | --- | --- | --- | 2 | 7 | 35 | 2 | 5 | 16 |
| La Niña | Dry | NL | 3 | 9 | 45 | --- | --- | --- | 3 | 11 | 54 | 3 | 8 | 45 |
| La Niña | Dry | L | 3 | 6 | 30 | --- | --- | --- | 2 | 7 | 34 | 2 | 5 | 25 |

Table S2. Number of host trees (HT), thermal infrared images collected (TIR), and leaves selected (LS) to address the second hypothesis during the wet and dry season in contrasting ENSO years at the canopy of Parque Natural Metropolitano, Panama.

| ENSO | Season | Leaf type | Species |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | A. excelsum |  |  | A. spraguei |  |  | C. elastica |  |  | L. seemannii |  |  |
|  |  |  | HT | TIR | LS | HT | TIR | LS | HT | TIR | LS | HT | TIR | LS |
| El Niño | Wet | Tree |  | 17 | 58 |  | 8 | 39 |  | 16 | 74 |  | 4 | 10 |
| El Niño | Wet | Liana | 4 | 25 | 119 | 2 | 9 | 45 | 4 | 14 | 69 | 2 | 5 | 25 |
| El Niño | Dry | Tree | 2 | 6 | 30 | 2 | 7 | 34 | 2 | 6 | 30 | 2 | 7 | 34 |
| El Niño | Dry | Liana | 2 | 7 | 35 | 2 | 6 | 29 | 2 | 6 | 30 | 2 | 7 | 35 |
| La Niña | Wet | Tree | 2 | 6 | 25 | --- | --- | --- | 2 | 7 | 35 | 2 | 5 | 19 |
| La Niña | Wet | Liana | 2 | 6 | 30 | --- | --- | --- | 2 | 7 | 35 | 2 | 5 | 26 |
| La Niña | Dry | Tree | 3 | 6 | 30 | --- | --- | --- | 2 | 7 | 34 | 2 | 5 | 25 |
| La Niña | Dry | Liana | 3 | 5 | 25 | --- | --- | --- | 2 | 7 | 33 | 2 | 5 | 25 |

