**Tescopaco dry forest dataset README**

Title: Empirical evidence for resilience of tropical forest photosynthesis in a warmer world

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This dataset contains flux data collected from 1 January 2006 to 31 December 2006 at the Tesopaco eddy flux tower in Mexico, kindly provided by Enrico A. Yepez and Jaime Garatuza-Payan and included in the analyses presented in Smith et al. (2020). The data were collected every 30 minutes (except for LAI, which was daily). Please see Perez-Ruiz et al. (2010) and Verduzco et al. (2015) for details on data collection methods and Álvarez-Yépiz et al. (2008) for further site information.

The following files are included:

**1) "tesopaco\_2006\_V1.csv"**

This is the full 2006 dataset for the Tesopaco eddy flux site, comprising data from 1 January 2006 to 31 December 2006 (day of year 1 to 365). Cells missing data are labelled ‘-9999’.

------------- COLUMN DESCRIPTIONS -------------

Column Variable Description

1. Year # Year

2. Day # Day of year

3. Hour # Hour of day

4. NEE # Net ecosystem exchange of CO2 (umol/m2/sec)

5. LE # Latent heat flux (W/m2)6. H # Sensible heat flux (W/m2)

7. Rg # Global incident radiation (W/m2)

8. Tair # Air temperature, 13 m (degC)

9. Tsoil # Soil temperature, -5 cm (degC)

10. vpd # Vapour pressure deficit (kPa)

11. precip # Precipitation (mm)

12. Ustar # Friction velocity (m/sec)13. LAI # Leaf area index (m2/m2)

**2) "tesopaco\_2006\_V2.csv"**

This version is the subset of the Tesopaco dataset used in Smith et al. (2020). The main difference to V1 of the dataset is that V2 only includes the period we determined to be the growing season, based on an LAI threshold of 2.08 (see Methods, Smith et al. 2020). Cells missing data are labelled ‘NA’.

The following additional changes / data selections were made to V2 of the dataset:

* Date column added
* Reco and GEP values calculated from NEE – see Methods section, Smith et al. 2020
* Applied Ustar threshold of 0.15 m s-1 (as used by Perez-Ruiz et al. 2010)

Please note: this dataset includes all global incident radiation (Rg) values and not just those over the saturating value (300 W/m2), which were selected for the analyses presented in Smith et al. (2020).

------------- COLUMN DESCRIPTIONS -------------

Column Variable Description

1. Year # Year

2. Day # Day of year

3. Date # Date in format: MM/DD/YYYY

4. Hour # Hour of day

5. NEE # Net ecosystem exchange (umol/CO2/m2/s)

6. Reco # Ecosystem respiration (umol/CO2/m2/s)

7. GEP # Gross ecosystem productivity (umol/CO2/m2/s)

8. LE # Latent heat flux (W/m2)9. H # Sensible heat flux (W/m2)

10. Rg # Global incident radiation (W/m2)

11. Tair # Air temperature, 13 m (degC)

12. Tsoil # Soil temperature, -5 cm (degC)

13. vpd # Vapour pressure deficit (kPa)

14. precip # Precipitation (mm)

15. Ustar # Friction velocity (m/sec)16. LAI # Leaf area index (m2/m2)

**References**

Álvarez-Yépiz, J. C., Martínez-Yrízar, A., Búrquez, A. & Lindquist, C. Variation in vegetation structure and soil properties related to land use history of old-growth and secondary tropical dry forests in northwestern Mexico. *Forest Ecology and Management* **256**, 355–366 (2008).

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