

LaSelva Flux Calculation

- 1) Download raw data from data logger. Table1 contains sensor data. Include record numbers when downloading.

5/6/2010 – 8/26/2010: CO2 sensors are 0-7000 ppm range. Measured values are in ppm.

8/26/2010 – current: CO2 sensors are 0-5% range. Measured values are in mV.

This will be automatically handled when running MATLAB.

- 2) Collect meteorological Data at La Selva. Download Excel data from La Selva web site at

<http://www.ots.ac.cr/meteoro/default.php?pestacion=2>

Use “easy” option. Download data by clicking icon on top. Paste Excel data into MATLAB .mat file and save as ‘metData.mat’. Collect the time range overlapping with raw data time range.

- 3) Calculate flux using ‘LaSelvaFlux.m’. Soil bulk density = 0.78 was taken from the book “La Selva”.
- 4) This will save every 5min data in ‘5Min_YYYY-mm-dd.mat’.
- 5) This will also compile all data in one file in ‘LaSelva5Min.mat’.
- 6) Fluxes are calculated every 5 min. and results are saved in ‘LaSelva5Min_YYYY-mm-dd.txt’. The date shown is the date of the last data point.
- 7) Daily average data are also calculated and saved in ‘LaSelvaDailyAvg.xls’.