

Interactive comment on “The water balance components of undisturbed tropical woodlands in the Brazilian Cerrado” by P. T. S. Oliveira et al.

Anonymous Referee #1

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The paper is generally well structured and written, the conclusions are supported by the analysis of the data presented. The paper could be accepted for publication after considering my comments below:

- 1) Since the authors analyze data sets from two sites with similar characteristics, a summary table would help the reader to have a clearer view. As it stands now is rather confusing.
- 2) Page 12992 (sub-subsection 2.1.2): Authors mention here that the some characteristics of the IAB site (density of trees and diversity index) are similar to those found at PDG site and refer to Fidelis and Godoy 2003. It is better to include that information in the previous section, when describing the PDG site (carrying the reference as well).

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- 3) Page 12994, lines 6-8: The software/tool used in the analysis is irrelevant if the authors are confident in the method. If so, the information can be omitted.
- 4) Page 12977, lines 22-23: It is not clear why authors present the results of Juarez et al. (2008) without making any other comment or comparison. Would their results (in Amazon rainforest) be comparable with this work? If so, a further discussion should be included. If not, the phrase can be removed.
- 5) Page 12977, lines 24-27: How would you evaluate Ruhoff results with this work? Do you have a possible explanation on why the present study results are better for R2 and RMSE values? Would the issue be in their analysis, flux tower data quality or MODIS products?
- 6) Since there is flux data available from PDG since 2000 (used in Ruhoff et al.), why that particular year was not included in this study?
- 6) Page 12998, lines 13-14: Authors mention that they observed a significant number of rainfall events in the dry season. Would you label this particular dry season as atypical? If so, would that compromise your analysis?
- 7) A final table with the found ET results for IAB and PDG sites would make reader's life easier.
- 8) Figure 1: Background is too busy and it is almost impossible to see the map lines and text. Using a plain light colour would be more appropriate.
- 9) Figure 2: This figure is very busy and confusing. It is not possible to clearly see the instrumentation, and it does not add anything to the description given in the text. It can be totally removed without prejudice.

Other minor observations and suggestions:

- a) Figure 4: I would suggest the use of two different colours instead of two shades (black and grey).

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b) Figure 5: I suggest the use of colorblind-friendly colours instead of the chosen ones (red+purple+blue).

c) Figure 6: Also here I suggest the use of different colours to be colorblind-friendly. In addition to that, although it may be obvious for a reader that already went through the whole text, the figure caption should bring the description of the used variables. For example "(...) where P is the precipitation, ET is the evapotranspiration, and dS is the water storage change (...)".

d) Page 12990, line 18: "(...) flux tower measurements and vegetation (...) " (no comma).

e) Page 13001, line 10: " evapotranspiration".

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 11, 12987, 2014.