

## ***Interactive comment on “Multiresolution quantification of deciduousness in West Central African forests” by G. Viennois et al.***

**Anonymous Referee #3**

Received and published: 8 August 2013

### General Comments

The paper is excellent overall, and complete. I would like to see stronger comparisons between this work and ground-truthing work, including but not limited to the comparative analysis presented in Figure A3.

### Specific Comments

Figure A3 and Figure 5 are redundant, yes? Why not just include Figure A3?

The term ‘averaging’ on line 14 in the abstract might not be correct or precise.

The introduction lacks enough discussion of pheno-cameras, which provide another means of ground truthing this type of system; they are limited in spatial distribution but

C4167

provide better information than CO<sub>2</sub> fluxes regarding phenology.

I agree with Referee #2 that there is some terminology at issue, although I am fine with ‘multi-resolution’. ‘hyper-temporal’ should be clarified; it is jargon even in the company of experts.

7183 5-13 gives p-values that are acceptable, but R<sup>2</sup> values that are in the range of ~0.5, which is poor in an absolute sense, even if they are comparable with other similar studies like Bohlman (2010). Because the leafiness metrics are based on these regression coefficients, I think there is significant doubt as to the quality of the resulting classification. The quality can only be established in an absolute sense by ground truth or manual checking, and this is a type of validation that needs more attention to make strong claims about the quality of the algorithm. There is discussion about this point at the end of the paper, of course, but isn’t it possible to do more?

Figure A3 would seem to be an opportunity to do more to strengthen the characterization of accuracy, even in a qualitative sense. Can the Mayaux et al. (2004) data be plotted with comparable colors?

Several figure captions need another sentence to summarize for the reader the take-away point that is to be understood from the data presented.

---

Interactive comment on Biogeosciences Discuss., 10, 7171, 2013.

C4168