

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

**Anonymous Referee #2**

Received and published: 3 July 2013

### General Comments.

This manuscript addresses the very important concern of the overall utility of coarse resolution satellites (e.g. MODIS) to detect finer scale variability that may be observable with much less frequency. This is very important for a host of ecological and environmental monitoring issues, including the application here to assessing phenology in tropical forests. I recommend acceptance following a few minor corrections.

### Specific Comments

My primary objection to this manuscript is the use of the scale terminology such as ‘multiresolution’. In my mind, the term multiresolution should be reserved for assessing the underlying spectra of the process and attempting to understand the contribution

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of various scales to the observed characteristics at a different scale. Here, the term is more in the straight aggregation of fine scale information to coarse scale. True, this does address my definition above, but only in a superficial manner. There is no attempt here to address how much information is contributed from the finer scale as a function of time, as a function of patch size, as a function of the different forest classes etc. I would therefore suggest either a small discussion on how these are not being done in this manuscript, or a refinement of the terminology. In particular, the title should drop the use of the word multiresolution.

A secondary issue is that many of the results are fairly obvious: e.g. that mean EVI is related to leafy trees (Figure 4). While this may not always be the case, it is what the EVI is primarily sensitive to. The authors attempt to address some of these issues in the discussion, but perhaps they could strengthen the argument for the novelty of the manuscript.

### Technical Corrections

Page/line

Page 9/200: ‘insure’ should be ‘ensure’

Page 11/250: abbreviations should be defined in the text prior to use

Page 12/266: Figure 4?

Figure 1: I don’t think this caption is particularly helpful. I don’t see what the characteristics or criteria are in these figures? What are the colors? Figure 4. I would recommend adding the scatterplot of the wet season.

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

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