

Interactive comment on “Stratified analysis of satellite imagery of SW Europe during summer 2003: the differential response of vegetation classes to increased water deficit” by A. Lobo and P. Maisongrande

Anonymous Referee #2

Received and published: 31 October 2005

This paper addresses the important issue of how vegetation responds to drought at the regional scale. This is clearly an issue of importance to the HESS community. However, I find this paper to be far too vague in its presentation and too qualitative in its analysis to qualify for publication in a scientific journal, such as HESS. Detailed comments are included below to help guide the authors.

1. The methods are unclear. One can reasonably draw from the text multiple possible interpretations of what was done. It would be helpful to have a clear and rigorous set of equations that describe the analysis. For example, I am unsure about the years used, the averaging, the spatial scale, etc. (see, for example, Line 27 of pg 2027 and lines

Full Screen / Esc

Print Version

Interactive Discussion

Discussion Paper

1-7 of page 2028). The definition of the anomalies is vague and non-rigorous (see, only as example since there are many more instances, Pg 2029 Line 27 through Pg 2030 line 2.) The Thornwaite method is too primitive of a choice for estimating PET. More appropriate would be a radiation based estimate, such as Priestly Taylor. Too much space is spent describing well-known issues about the NDVI products. This space would be better spent explaining the analysis. The vegetation classification seems excessively ad hoc.

2. What is the possible roll of grazing in the results?
3. How exceptional was this period, in the broader climatological record?
4. The figure labels do not match those in the text (see for example Section 3.1 and the talk of P-PET).
5. The discussion of the amount of effect on the different vegetation classes is excessively qualitative (exp, Pg 2031, lines 15-19.) Again, there is too much discussion of how things look to the eye, and no substantial quantitative analysis.
6. There is an inadequate connection made to the published literature on the effect of drought on vegetation cover.
7. The discussion of Spring green and Summer green is odd, and at times contradictory from looking at the figures (at times summer green is higher NDVI in spring than spring green?)
8. There is much redundancy in the figures.

Interactive comment on Hydrology and Earth System Sciences Discussions, 2, 2025, 2005.

[Full Screen / Esc](#)[Print Version](#)[Interactive Discussion](#)[Discussion Paper](#)