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Biogeosciences Discussions

Interactive comment on "Relating ring width of Mediterranean evergreen species to seasonal and annual variations of precipitation and temperature" *by* W. Nijland et al.

Anonymous Referee #2

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With great interest I read the paper on the relation of treerings and annual variations of precipitation and temperature within the Mediterranean. The paper is very well written and clearly demonstrates the ability to derive climate signals from evergreen species. They use a novel approach with striking results. I recommend this paper for publication in Biogeosciences with only minor revisions.

Page 357: Climate productivity relations. . . I would suggest to add a small section on the work of researchers from the remote sensing community. They have been studying the relationship between vegetation and climate for a long time and made quite some progress (e.g Sellers et al., 1989, Field et al., 1995).

Page 360: Please add a figure with the location of the catchment

Page 363: line 25 Bootstrapped. . .. Significance testing. Please cite this statement. In addition, other researchers (e.g. Hooten and Wikle, 2007) often use EOFs to obtain the dominant signal. Please explain why bootstrapping is a better way to compare the time series in relation to EOF.

Page 367: The link between the tree ring and GPP is very interesting (although we are in this case just looking at two years). Personally I would also be interested in the Evaporation signal from the Fluxnet sites, because this signal can directly be linked to water availability.

References

Hooten MB and CK Wikle (2007) Shifts in the spatio-temporal growth dynamics of shortleaf pine Environmental and Ecological Statistics Volume 14, Number 3, 207-227, DOI: 10.1007/s10651-007-0016-1

Sellers, et al., (1989) Calibrating the simple biosphere model for Amazonian tropical forest using field and remote sensing data. I - Average calibration with field data, journal of applied meteorology, vol. 28, p. 727-759.

Field, et al.(1995) Global net primary production: Combining ecology and remote sensing, Remote Sensing of Environment, Volume 51, Issue 1, Remote Sensing of Land Surface for Studies of Global Change, p 74-88, ISSN 0034-4257, DOI: 10.1016/0034-4257(94)00066-V.

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