Biogeosciences

Discussions

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Interactive comment on "Drought reduces tree growing season length but increases nitrogen resorption efficiency in a Mediterranean ecosystem" *by* Raquel Lobo-do-Vale et al.

Anonymous Referee #1

Received and published: 1 October 2018

Dear editor The author Lobo-do Vale et al submitted manuscript- Drought reduces tree growing season length but increases nitrogen resorption efficiency on a Mediterranean ecosystem. This paper is interesting, well fall into the research scopes of Biogeosciences. But it is not prepared for this version, it need more effort to modify it for the whole paper. Now I will suggest major revision.

Dear author

Thanks for the author Lobo-do-Vale et al present the study entitled with Drought reduces tree growing season length but increases nitrogen resorption efficiency on a Mediterranean ecosystem. It is interesting and also crucial important to add the knowl-

edge on the influences by climate extremes (in particular for growing seasons) on Mediterranean ecosystems. The paper has shown a lot of information (phenophases such as bud development, budburst, shoot growth, and nitrogen resorption efficiency) based on the rich data collected in extreme drought years of 2005 and normal year of 2004. Personally, I quite like these topics and results, it well-fits for the research scopes of Biogeosciences. But there are a lot of descriptions and sentences are not clear for whole paper. Two main suggestions, one is to analyse the variables with the aridity index including temperature and precipitation together, such as SPEI or others. Second, the authors should take more time on the grammar, logic and structure for the whole paper.

Abstract Line 25 Please describe directly the sentence, such as the contrasting years of extreme drought in 2005 and moderate year in 2004. Line 15-18 Please short the sentence and represent your main purposes for this paper. Line 21 Is it -21% or 21%? Line 24 Is it +22% or 22% Which results are the crucial finding in your abstract, please highlight it.

Introduction Page 2 Line 6 Which ecosystem services, please add them. Line 7 Please add the details on the complex and highly variable Line 7-8 Are you sure all of the citations relate to this clarity. And the paper has stacked serval studies, please check the whole paper whether they are well-correlated to your sentence. Line14 Do you test the aridity including both temperature and precipitation, such as SPEI for the aridity site such as Mediterranean basin. Line 16-18 Although these studies are correlated with the clarity, need to reduce these citation number. Line 19-20, Which information is scarce?

Page 3 Line 15-27, Please add the aridity including temperature and precipitation. Page 7 Line 26 Is it $p < 0.05$? please check them whole paper. Line 21-22 I do not find the two years are contrasting, but similar for the temperature, please recheck. Page 8 Line 8 and 13 Is it $p > 0.05$? check for the whole paper Page 13 Do you have the graph or data to show the correlation? If not, please add it. Line 14-15 Is it necessary to

discuss here, maybe better put it in discussion section. Line 17 If you used the BAI instead of basal area increment, please continue to use it after the first definition. Line 18 Please also show the regression in the supporting figure.

Page 14 Line 8 Do you compare the values between years? Why use "among"? Line 14 What it means for "considered globally", and there is no regression in the graph. Line 15-16 Why discuss the result not in the discussion section? Page 16 Line 5 Why use "among"? Line 8-9 Are you sure the citations mentioned the same results with yours?

Page 19 Line 11 This sentence is not understandable, please restructure it

Please also note the supplement to this comment:
https://www.biogeosciences-discuss.net/bg-2018-393/bg-2018-393-RC1-supplement.pdf

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Interactive comment on Biogeosciences Discuss., https://doi.org/10.5194/bg-2018-393, 2018.