

Interactive comment on “Simulating precipitation decline under a Mediterranean deciduous Oak forest: effects on isoprene seasonal emissions and predictions under climatic scenarios” by Anne-Cyrielle Genard-Zielinski et al.

Anonymous Referee #1

Received and published: 9 March 2017

Abstract

Lin 1: Please, change physiology by @gas exchange@.

Lin 20-23: In order to reflect the seasonality in this text, please indicate the lowest values in september and october...

Lin. 20: is not the lowest in April 2013

Lin. 22: Isoprene emission factor and Isoprene emission rates.

Introduction

C1

No comments

Materials and Methods

Pg. 5 Lin. 10 What volume was sampled for each cartridge?

Pg. 8 Lin. 7: HTTP Error 403.14 – Forbidden The Web server is configured to not list the contents of this directory.

Results

Pag 9 Lin. 31: in Fig. 1b shows in May

Pag. 10 Lin. 20: Consider the deepest roots to take water. . . .

Lin. 26: Consider the senescence of leaves.

Discussion

It would be well that in the discussion the authors should take into account that the trees studied can obtain water through the deep roots. Have you determined in any way to get water from the subsoil by *Q. pubescens*?

On the other hand there are more studies that expose the relationship between moderate water stress and the increase of emissions of BVOCs.

Studies that demonstrate the effect of light as an activator of isoprene synthase may also be considered. Are the authors supposing that the activation of isoprene synthase can be due to factors other than light? Could they justify it?

Pag. 13 Lin. 15: put *Q. pubescens* in italics.

Pag. 15 Lin. 12: 2014 is missing the first parenthesis.

Pag. 16, Lin. 9-16: I repeat the importance of taking into account the water supply through the subsoil.

Figure caption

C2

If possible, keep the colors of the legends in all graphs.

Pag. 23 Lin. 3: Instead of July 2013 is June 2013.

Pag. 23 Lin. 9: Instead of June 2012 to 2013 write June 2012 to June 2013.

Pag. 23 Lin. 15: Instead of "among months" would not it be better to say "among water stress treatments"?

Pag. 23 Lin. 18: Instead of June 2012 to 2013 write June 2012 to June 2013.

Fig. 1: It would be very good if the colors differ according to the water treatment.

Reissue the legend of the axis and removing points and putting when necessary. In addition, a horizontal line would help visually to differentiate the years.

Fig. 2: In the legend of the y-axis of the graphs c and d put "isoprene".

Fig. 3. Could they indicate the regression lines and R²? And also indicate to which corresponds each color.

Fig. 4: In the legend of the y-axis it would be better to put: Isoprene ER (%). In addition, at the bottom of the Figure could mark the years of sampling.

Fig. 5: In the legend of the y-axis of the graph (a) put (%) In the legend of the y-axis of the graph (b) put "Isoprene" On the axes x enter the legends of the abbreviated months name.

Pag. 24 Lin. 5: Instead of October is November.

Pag. 24 Lin. 8: Indicate what corresponds to each abbreviation (inst and cum).

Interactive comment on Biogeosciences Discuss., doi:10.5194/bg-2017-17, 2017.