

Interactive comment on “Assessing extreme droughts in the Iberian Peninsula during 1750–1850 from rogation ceremonies” by F. Domínguez-Castro et al.

Anonymous Referee #2

Received and published: 18 January 2012

Assessing extreme droughts in the Iberian Peninsula during 1750-1850 from rogation ceremonies This is an interesting paper that should be published, after some minor revisions. I am including some comments here and I have also made suggestions in the word file that will be sent to the editor. The text should be reviewed by a native English speaker.

Positive points. 1. This paper synthesizes an enormous quantity of valuable data, gathered since the 1990s by several authors. Furthermore, rogation series from three new sites Calahorra, Teruel and Zafra are now included.

2. It is the first attempt to present regional patterns of drought in Spain for a period

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when no (or few) instrumental data were available. Until now these studies had only been carried out for small regions.

3. It includes new insight on the consequences (or possible consequences) of eruptions on the climate of Spain in 1816 and 1824.

Some points to review 4. Under the title Rogation ceremonies series the authors should give additional information on the new series

5. Under the title “Methods” there are 7 lines that do not refer explicitly to the methodology and only refer that only two areas will be studied. Develop this point, please.

6. Could the synoptical causes of major droughts be indicated (i.e. sequence of months from existing reconstructions?)

7. The authors could discuss more deeply figure 3 and justify the choices that have been made.

Minor remarks

Title: I think the authors should refer to Spain instead of the Iberian peninsula, as there you are not analysing data for Portugal (see p. 3, lines 4, 6, 20 etc where you are referring only Spain, also in the introduction, as well as on p. 5, line 11).

p.1, line 19 - Use the Word ‘hazard’ instead of ‘risk’ (risk= hazard x vulnerability)

p.1, line 26, see file p. 1, last paragraph (b) is not clear p.6, line 10.include the citation of Tabor da et al, 2004, where rogations have also been used as a climate proxy for the 28th century in southern Portugal Reference Tabor da, J.P., Alcoforado, M.-J. and Garcia, J.C.: Climate in southern Portugal in the 18th century. Reconstruction based on instrumental and documentary sources (in Portuguese, with an English summary), Geo-Ecologia, 2, Centro de Estudos Geográficos, Lisboa, 211p, ISBN 972-636-144-3, 2004. This book may be accessed at <http://www.c1ima.org>

p.6, 6th paragraph, lines 20-28. In your sentence, it seems that information would

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only be available for spring, but in figure 2 the bars show that although Spring has the higher number of rogation ceremonies, they also occur in the other seasons (autumn..). Please develop further comments on fig.2

p.7, line 5, see text p.7, line 31 and 32 – justify why you made that decision

p.8, line 26-28 sentence is not clear enough p.8, line 29 – remove ‘;’ p.8, line 15 - Decide if you write the seasons name in capital letters or not , but you cannot write “summer, autumn and Winter” p.8, l.21- see comment within text please p.9, line 3 , remove ‘to’ p.9, line 3 – include ‘;’ p.9, line 6 and 8 – see text p.9, line 10 – remove very p.9, line 20 – refer to the precipitation type (convective?) p.9-10 – As it does not normally rain in Andalusia in Summer, could you explain what is the meaning of rogations in this season in this part of Spain? p. 10, line 17- 19 Not clear enough

p.10, line 21 – title should be more precise p.11 – most paragraphs are too descriptive. p.14, l.5-7 -

Table 1 On the 4th column, some references have a ‘.’ at the end and others not. Table 2. Include a vertical line every 3 columns in order to facilitate the understanding of the table. Table 2 and table 3 – see text

Fig. 1- On figure 1, there is the indication of San Fernando (station Cadiz-San Fernando?) and in table 3 you write Cádiz and on p.7, Cadiz-San Fernando. In Fig.1, there is the indication of Zafra and in Table 3 you write Feria for the same station. Please use always the same name for each met station or sites of rogation series.

Fig. 3- In the figure you use A,B,C etc and in the legend a, b,c. . .

Fig.8 – Spanish records instead of Iberian records.

Interactive comment on Clim. Past Discuss., 7, 4037, 2011.