

Interactive comment on “Fire history in western Patagonia from paired tree-ring fire-scar and charcoal records” by A. Holz et al.

R. Villalba (Editor)

ricardo@mendoza-conicet.gov.ar

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Dr. Andres Holz Department of Geography, University of Colorado, Boulder, Colorado, USA Dear Andres,

Thanks you and co-authors for the submission to Climate of the Past Discussion of the manuscript entitled: Fire history in western Patagonia from paired tree-ring fire-scar and charcoal records by A. Holz, S. Haberle, T. T. Veblen, R. De Pol-Holz, and J. Southon. Comments from two referees have already been published during the Open Discussion step of your manuscript. The Open Discussion was formally closed on December 23th, 2011. In addition to these reviews, I received the day after closing de Open Discussion, a third review of your manuscript. According to Climate of the Past Discussion policy, no further comments can be uploaded after the discussion is

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closed. However, referees are able to send his/her review by email to the handling editor of your contribution, as it was the case with the third review. Following Climate of the Past Discussion's policy, I will forward the third review to you shortly.

The three reviewers agree that the manuscript is an interesting and much needed contribution for understanding the processes underlying charcoal deposition in southern South America. The manuscript represents a significant contribution to the fire history in the wet forest of southern South America, the scientific approach used by the authors is valid, and the results are presented in a well-structured form. The three reviewers agree that the manuscript should be accepted subject to minor revisions.

In addition to the comments from the referees, I am particularly concerned with the strength in the relationships between fires inferred from charcoal and tree-ring records. Although significant relationships between both records are reported by the authors, the differences in temporal resolution used for plotting the records shown in figures 5a and 5b makes difficult to infer any clear relationships between charcoal and fire-scar records. One possibility is to present, in addition to the raw records of fires from tree rings, the smooth versions of the fire-scar records used to calculate the Pearson's correlation ranks. A comparison based on a similar temporal resolution (25 years) for both charcoal and fire-scar records may provide readers a clearer picture of the relationships between records.

At this stage, I encourage you to submit a revised version of the manuscript for completion of the peer-review process, addressing the comments and suggestions provided by the three reviewers and the handling editor. From your previous responses to the suggestions from Vera Markgraf and Marcela Tonello during the Open Discussion step, I note that you and the co-authors are willing to address most comments on the manuscript. The revised manuscript should be submitted no later than 4 to 8 weeks after the end of the open discussion.

Sincerely, Ricardo Villalba

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