

Interactive comment on “Seasonal variations recorded in cave monitoring results and a 10 year monthly resolved speleothem $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ record from the Han-sur-Lesse cave, Belgium” by M. Van Rampelbergh et al.

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Dear Mr Guiot,

We thank you and the reviewers for the time and work you have taken to read and comment on our paper. The comments are constructive and will highly improve the quality of the paper. They were incorporated in the manuscript with much care. The abstract was restructured to be more consistent with the comments of reviewer #2. The results and interpretations were better separated as suggested by reviewer #2.

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We also added a paragraph discussing the influence of the visitors in the cave. We also fully agreed with the comments of reviewer #1 on the pH and degassing (also pointed out by reviewer #2) and are very thankful for his suggestions. We reworked the discussion part according to it.

However we do not fully agree with the comment (made by reviewer 2) that we should incorporate a separate section to compare the results with other cave environments. This is already done to a certain extent in the discussion part where the findings of our study are put in a general context and compared with conclusions from other caves in Europe (Frisia et al., 2011; Genty and Deflandre, 1998; Matthey et al., 2008; Riechelmann et al., 2011; Spotl et al., 2005; Verheyden et al., 2008). We agree with the suggestion that comparing the results of different cave studies can be of great interest, but we do not consider that this paper is the best way to present such extensive comparisons. It is better suited for a more general, review paper, which we will be glad to write and eventually submit to CP. The goal of this paper is to understand the Han-sur-Lesse system of caves.

According to the comments, the conclusions were reduced and made “punchier” All the detailed changes are highlighted in green in the manuscript. We also provide a list with an answer on every made comment. We hope that with these changes the manuscript can now be accepted for publication in Climate of the Past.

Kindest Regards,

Maite Van Rampelbergh Sophie Verheyden Mohammed Allan Yves Quinif Eddy Kepens Philippe Claeys

Interactive comment on Clim. Past Discuss., 10, 1821, 2014.

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