

REVISION NOTES

C. HUNT (Referee #1)

The use of apostrophes has been corrected to improve the English.

Anonymous Referee (Referee #2)

1 – The references have been corrected.

2 – The figure has been corrected.

3 – The multiple quotations of references have been revised as possible.

4 – Considering the exceptional concentration of sites in the Sierra de Atapuerca, the suggested addition of the locality to the introduction has been followed. However, we consider quoting the main article concerning Sima del Elefante (Carbonell et al., 2008, Nature 458), because quoting the most ancient site of the locality is more relevant to our introduction (presenting some the earliest and most important European sites prior to 1 Ma) rather than a synthesis on the entire succession of occupations in the region. Therefore, we did not considered as fully coherent to mention to Vallparadis site, both for its later attribution (later than 1 Ma) and the recent active debates that concern it.

A. BRUCH (Referee #3)

- *We agree with the main limit the referee exposed: the local specificity of the Boiano basin mainly is closely linked to edaphic conditions, not to local climate factors. Thus, the Boiano refuge conditions are rather defined and characterized by physiographic and edaphic parameters (see the newly added reference Orain et al., 2013, Palaeogeogr., Palaeocl.). Following these considerations, the manuscript has been revised to clarify this point.*

- page 5185, line 8: delete “an” **Done**

- page 5188, line 13 + Fig. 3 & 4: **Done**

- page 5188, line 22 + 5193, line 12: **Revised.** This comparison is even enlarged to “northern parts of Europe”.

- page 5188 line 25 ff: the referee reported that discussion of the figure 4 is not very clear.

“the last occurrence of Tertiary relicts was not recorded at the same time all along the peninsula. Please be more specific.”: We clarified the differences between northern Italy and central and southern areas of the peninsula.

If you write “Tsuga disappeared during OIS 13” this means Tsuga disappeared at the same time everywhere in Italy. Which is exactly the point you want to make here? The diachronous disappearance of different relict taxa? How does this fact contribute to your argument of emerging heterogeneous environments?

By clarifying this point in the previous revision, we consider that these data are now relevant to demonstrate the heterogeneous patterns of environments among regional and local areas within southern Italy.

- page 5203 table 2: what is “closed grassland”? better use “grassland” **Done**

- page 5204 Figure 1 “studied archaeological sites” better use “compiled” **Done**

G. Scardia (short comment)

As answered within the open discussions, this point have been revised.

D. Magri (short comment)

- The remark about the lack of precision and discussion concerning the disappearance of *Cedrus* from Europe is very relevant, but it is indeed not fully coherent to discuss it here. Considering the very limited importance of *Cedrus* within the demonstration, the taxa has been deleted from the list of the taxa disappearing during the studied period.

- The other suggested minor revisions have been applied.