

Review document about wild boar microanatomy

First, I would like to thank the reviewers for their helpful and positive comments that have helped to improve our manuscript. I hope that these revisions will prove satisfactory to you, and I am at your disposition if you have any comment or request.

Nimrod Marom

Line 214: Please cite the R packages you are using when they are mentioned in the first time (the R Core Team citation is now cited in line 235, below).

the packages are listed in the materials and methods section and I moved the mention to R at the beginning of the paragraph for more clarity when listing the packages used.

Lines 404-408: Why does a correlation of $r=0.32$ (age~trab%) require an explanation, but a nearly similar value ($r=0.29$, age~trabecular_compact) is not considered good enough as an answer? I might have misunderstood, please clarify.

*Age~ trabecular_compact is associated with a **$r=0.17$ and not 0.29** . Line 421, 0.29 is for **the p-value**. We explained age~trab% because it is significantly correlated ($p=0.04$) when age~trabecular_compact is not ($p=0.29$; table 2).*

Ignacio A. Lazagabaster

Thank you for your detailed review, you will find a pdf annotated and revised according to your comments on the previous pdf.

- The authors mention Table 2 throughout the manuscript but I could not find Table 2. Obviously, this needs to be fixed.

Yes, it was missing, thank you for noticing. I added it

L129-Would be interesting to note the actual average distance from those publications here to have an idea of wild boar mobility patterns.

Yes, it would be interesting to compare with our specimens, but I have not seen any information on the average distance of the specimens in this study

- I suggest the authors include a table (if this was not detailed in Table 2) with summary statistics (with statistical comparisons if relevant).

Table 2 provides a summary of the statistical results l.327

- Fig. 5. could be improved if the convex hull around archaeological samples is not drawn and symbols are made larger.

If we prefer to keep the convex hull of the archaeological samples in order to have a clear support to discuss the large dispersion of this group, the size of the points has been increased for clarity.

Max Price

I do think it would be worthwhile, however, to explore other elements. Other elements, such as the phalanges or distal long bones, would be good to examine. These bones bear more weight than the calcaneus and thus might be more sensitive to locomotion.

We agree that these bones will be of interest; the results presented for the cortical thickness of the humeral shaft in Harbers et al. (2020b) are encouraging to explore long bones further.

1) the authors refer to their study as one targeting "microanatomy." I'm not sure cortical density and trabecular bone volume really count as "micro." For bones, I think of Haversian canals or even collagen fibrils when I think "micro."

The elements mentioned are studied in bone histology but bone microanatomy deals with the internal distribution of the various osseous tissues. 2) The authors suggest in the discussion that diet might play a role in impacting these factors. Possibly, but certainly not "probably" as the authors say. It's certainly worth following up on (if one were to repeat the DOMEXP experiment), but I suspect there would be little impact from diet except in cases of severe and long-term malnourishment.

Many thanks for these comments. Indeed, it would be very interesting to explore the effect of malnutrition on bone microanatomy. Although such experiment is fortunately impossible to pursue nowadays to keep in with animal welfare, there are collections that exist in the Julius Kunz Museum where skeletons from malnourished pigs are kept and which should be studied in this direction.