

Review of: "Ancient DNA Clarifies the Identity and Geographic Origin of the Holotype of the Genus *Ctenomys*"

Daniel Petit¹

¹ LABCIS, UR 22722, Faculty of Science and Technology, F-87000 Limoges., Université de Limoges, France

Potential competing interests: No potential competing interests to declare.

This work is a compelling, well-conducted, and highly intriguing investigation. It is remarkable that the MNHN specimen of *C. brasiliensis* and one individual of *C. minutus* share the same sequence! I won't replicate my colleagues' outstanding review. I just want to draw attention to a few points that weren't previously emphasized.

To support the selected outgroups, I would like to have the position of the *Ctenomys* genus in Rodentia, at the very least the closest genera within Octodontoidea, such as *Spalacopus* and *Octodon* (Octodontidae). There is no literature to support the selection of outgroups in the figure 3 legend. See Voloch, C.M., Vilela, J.F., Loss-Oliveira, L. *et al.* Phylogeny and chronology of the major lineages of New World hystricognath rodents: insights on the biogeography of the Eocene/Oligocene arrival of mammals in South America. *BMC Res Notes* **6**, 160 (2013). <https://doi.org/10.1186/1756-0500-6-160>.

It could be helpful to have some terms that describe some of the genus's habitat and anatomical characteristics.

The statement "Moreover, Darwin [25] identified a tuco-tuco as *Ctenomys brasiliensis*" mentions the word tuco tuco. As a common name, it ought to have been written sooner in the introduction.

Since it is difficult to follow the relationship between the introductory text and figure 2, I believe that the handling of the geographic theories regarding the type locality may be better (of course, this topic is extensively developed in the discussion). It states that "Minas" in Uruguay was most likely the location where *C. brasiliensis*/*C. pearsoni* was collected (Fig. 2B). Figure 2C depicts this location; could you please update it? Could you add to figure 2C the present northern limit of the range of the *Ctenomys* genus in South America, which would rule out the idea that Minas Gerais is its origin?

I regret that the landmark location is provided in Supplementary Data SD3, but I am not aware of the limitations of the figure numbers specified by Qeios. They ought to be incorporated into the article's text, in my opinion.