

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

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**Potential competing interests:** No potential competing interests to declare.

Overall, this work is interesting and well-written, with only minor areas for improvement. Below are specific points to address for clarity.

## **Abstract:**

- Please specify where the tissue was obtained and identify the type of tissue used in the abstract
- Mention that mitogenomes from an additional six specimens were obtained and analyzed.
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## **Introduction:**

- Some sentences lack references, which should be included to support statements made. In other cases, only a single reference is provided, where several references should be used. For example, in the sentence, "DNA analyses of museum specimens have proven to be a valuable resource for discovering new species and genera," multiple references could support this broad statement.

## **Methods:**

- The sentence, "Landmarks were digitized using the TPS series of software[37], and the statistical analyses were conducted in MorphoJ[38], and the R Software[39] with the package 'geomorph,'" could be rephrased for clarity. Since R is a software environment and programming language, a clearer version might be: "Landmarks were digitized using the TPS series of software [37], and statistical analyses were conducted in MorphoJ [38] and R [39] using the 'geomorph' package."

## **Results:**

- You mention conducting both Maximum Likelihood (ML) and Bayesian analyses, but only ML results are presented. If the Bayesian analysis produced similar results, please state this clearly in the Results section and consider adding the Bayesian tree as Supplementary Material for completeness.
- It may enhance readability to use a distinct color to highlight the *thorquatus* group in the phylogenetic tree.

## **Tables, Figures and Supplementary Data:**

- Supplementary Data should begin with SD1, followed by SD2, and so on, in sequential order. If possible, rename and reorganize files so that SD1 is the first cited, followed by SD2, and SD3.
- What is the X-axis of Figure 5? Is it meant to represent p-distance?
- Please add more details to the legend of Figure 6. Specifically, please explain the significance of the circle size, branch length, the meaning of the orange color, and the nature of the “traces” in the branch.

I was not able to see the **Supplementary Data**