

Rebuttal letter

Morrison Formation Sauropod Consensus

Dear Jordan Mallon,

thanks for the organization and management of the peer review for our article. We have pasted the comments of you and the reviewers below, and will respond to them point by point, in red font. The Morrison Formation Sauropod Consensus has also been updated significantly in the meantime, so that some more changes than proposed by the reviewers were necessary.

We hope that with the current revision we addressed the comments of the reviewers in due manner, and that the MS is now ready for recommendation. Otherwise, please let us know and we'll be happy to provide further information or make additional corrections and changes.

Best wishes,

Emanuel Tschopp, and co-authors

Reviews and **Answers:**

A most useful database

The database and accompanying manuscript submitted by Tschopp et al. is of considerable value to sauropod researchers, as both reviewers agree. However, as emphasized by Dr. Carpenter, some explicit mention needs to be made as to how other researchers can contribute to the database. I also sympathize with his concerns that this database not become a simple means by which the authors are able to push their preferred taxonomy. An entry assuaging these concerns by making explicit an objective protocol for updates would, I think, help to this end. With these few relatively minor revisions, I should think this database would greatly help sauropod researchers everywhere, as material from the Morrison Formation (as with material from Alberta, which I am familiar with) is scattered across the globe. In fact, we have here at the Canadian Museum of Nature some Morrison Formation sauropod material that I noticed has not yet made the list. I should be happy to contribute to the database, then, when it is made public.

- Jordan Mallon Canadian Museum of Nature

Many thanks, we will address these points below, after the respective comments of the reviewers.

Reviews

Reviewed by Kenneth Carpenter, 2019-08-09 19:50

The Morrison sauropod database by Tschopp et al has the potential to be useful for anyone working on the group. I appreciate their willing to make their database freely available. It would be helpful if they would make it more explicit how researchers can provide update of new specimens, correct errors, submit additions, etc.

We agree, and added some more detailed information, creating a distinct subsection “How to Contribute”. We also changed the settings in the google spreadsheet so that everybody with the link can comment, and not just view the document. This should facilitate the proposal of minor edits.

I presume that Tschopp et al. would like to have this database up in perpetuity, in which case there needs to be a way to ensure database updates in the event that the lead (Tschopp) is no longer able to make those.

We added some parts in different sections where we invite other researchers to become spreadsheet editors. The more people are involved, the easier it is to keep the spreadsheet alive if one or several people cannot do it anymore. Other than adding more people we don't really know what can be done to ensure perpetual access.

This database will only remain useful if it does not become a "work-around" to proper taxonomic argument. To be blunt, the database should not be a way to do revisionist taxonomy. So long as the database remains neutral, then this is a superb tool for anyone interested in Morrison sauropods. Hopefully, other researchers will follow their lead and develop similar databases for other dinosaur groups, and not just from the Morrison.

We agree. In fact, the combination of us authors was a deliberate strategy to ensure this spreadsheet reflects current consensus. Several co-authors work on Morrison sauropod taxonomy, and actively produce revisions and descriptions of old and new material. We all have differing opinions for certain taxa/specimens, and agree on others. Alternative interpretations are also always mentioned in the “further info” column.

(I assume there is a reason why *Maraapunisaurus* is excluded?)

There really isn't, other than we just didn't have the time yet. It is now updated.

Reviewed by Femke Holwerda, 2019-09-02 16:55

Dear authors and editors,

I would say this paper should have very minor corrections. The paper reads like a train, and I only had some small grammatical or style remarks, and errors to report (see annotated pdf). It is nice to read the process as it happened with this database; this paper is a good example of how a database needs to grow via trial and error (and doesn't come to life completely perfect) and is never completely done. I can definitely appreciate the amount of work having gone into this database, and hope that it can be repeated for other collections as well. For my PhD, I got a few sheets of paper with the collection numbers and references of my 'PhD animal' *Patagosaurus*, of

which nobody knows anymore what the numbers refer to, and where some material is stored. So this paper is very useful in addressing these type of issues.

Thanks for the suggestions. We included (almost) all the comments from the attached annotated MS.

One last suggestion is maybe adding a piechart with the amount of specimens, taxa etc, to demonstrate visually the amount of work that went into this database.

We added some more details in the exploratory data analysis, and corrected some numbers, because the “consensus” has been updated considerably in the meantime, especially regarding locality and stratigraphy data. Any pie chart would therefore just reflect the current state of the spreadsheet instead of actually available data. We think that adding a figure would be a little misleading.

Please let me know if you need more information from me.

Best wishes,

Femke Holwerda

[Download the review \(PDF file\)](#)