Review file for "Revision of 'Aspidosaurus' novomexicanus, a Permo-Carboniferous dissorophid from New Mexico" by Bryan Gee, published in Open Palaeontology.

This file contains the editorial and reviewer comments for the one round of review for this manuscript. Confidential comments to the editor and marked up/tracked changes documents are not included.

Round 1 of reviews

Dear Dr Bryan Gee,

We have reached a decision regarding your submission, "Revision of 'Aspidosaurus' novomexicanus, a Permo-Carboniferous dissorophid from New Mexico", to *Open Palaeontology*.

Our decision is to: Accept Submission.

Thank you for your submission, and for your patience while we collected the reviews.

Following reviewers' reports, we are please to accept your submission for publication in Open Palaeontology. The final reviewer comments are in the Review Files section of our submission platform in a file called Gee_reviews_collated, and attached to this email. Both reviewers were very positive about your manuscript.

Please do a final review of your submission. We do not provide a copyediting service and it is your responsibility to make sure that you are happy with the spelling, grammar, images, etc. in this submission.

In particular one of the reviewers recommended a few very minor changes to the manuscript, bullet pointed below. If you were able to make these during this review I would be grateful. In the case of the first one I realise you may not have an additional image available, given that the blurring does not cover the main point of interest I (the ?sacral rib) don't worry if this is not possible.

- in figure 6C and D some anatomical structures are slightly out of focus, these images could be replaced
- in the description of the postcranium, each new bone is indented in the text. Highlighting these indentations with bold descriptions (e.g. Osteoderms, Ribs) might help the reader find sections more quickly.
- In line 525 a reference to the relevant figure might be helpful

When you submit a final version of your manuscript, please provide:

- a revised editable version of the manuscript with tracked changes,
- a revised 'clean' version of the manuscript (with no tracked changes),
- all necessary supplementary files,
- please make sure the MorphoBank data is made available for publication.

Please also make sure that your manuscript follows the journal style guide (on the website, and attached here).

If you would like to, please transfer your manuscript to our Overleaf LaTeX template (Overleaf LaTeX template). This will help speed up the production process. If you are unfamiliar with LaTeX or would rather not do this, please let me know and the editorial team will do it.

You will be able to resubmit any necessary files by logging in to the OJS platform or from this URL: https://www.openpalaeo.org/workflow/index/8456/3

Thank you again for your submission to Open Palaeontology. If you have any queries, or any problems with uploading your final files to the system, please do not hesitate to contact us by email or in the online discussion area.

Best wishes

Richard Dearden, Handling Editor rpdearden@gmail.com

Harriet B. Drage, Managing Editor harriet.drage@unil.ch

On behalf of the Open Palaeontology team

Reviewer #1

Dear author,

dear editor,

It was a great pleasure to review the article "Revision of 'Aspidosaurus' novomexicanus, a Permo-Carboniferous dissorophid from New Mexico" by Bryan M. Gee.

In this article, the author provides a redescription of the enigmatic 'Aspidosaurus' novomexicanus. Even though the material is badly weathered, the author does an outstanding job providing anatomical descriptions. The manuscript is well written, figured and overall easy to follow. In the discussion section of the manuscript, the author provides a clear justification for his reasonings positioning 'A'. novomexicanus as a nomen dubium. It quickly becomes clear, that the author is an expert on dissorophids and knows what he is doing. I therefore support the acceptance and publication of this beautiful manuscript in the current form.

To raise a few points of criticism, these changes could improve the readability of the manuscript, but are so little that they do not warrant minor revision:

 in figure 6C and D some anatomical structures are slightly out of focus, these images could the replaced

- in the description of the postcranium, each new bone is indented in the text.
 Highlighting these indentations with bold descriptions (e.g. Osteoderms, Ribs)
 might help the reader find sections more quickly.
- In line 525 a reference to the relevant figure might be helpful

Reviewer #2

This a well-composed manuscript, providing robust taxonomic work to resolve species within a notable wastebasket taxon. The manuscript provides a detailed and updated description of a historic specimen with the expressed goal to determine its validity as a taxon, thus clarifying the diversity of Permo-Carboniferous dissorophids in North America. It addresses past work and recontextualizes the previous findings under present understanding of Olsoniformes comprehensively and professionally, offering clarity on the taxonomic history of the reader. The manuscript also provides a model for the quality of future taxonomic work and provides excellent guidance for additional taxonomic studies of dissorophoids. I ran a parsimony analysis and found the same result as the author. I have no reservations and no criticism for the scientific content of this paper.

The manuscript is written in a concise and informative manner. There are a few grammatical errors that I identified, but I do not want to overstep the work of the editorial team.