

Interactive comment on “Retrospect and prospect of a section-based stratigraphic and palaeontological database – Geobiodiversity Database” by Hong-He Xu et al.

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Corresponded author's respond to the first reviewer's comment

Thank Peter for kind and nice comment and revision suggestions of the manuscript. We revised the manuscript carefully. The reviewer gave detailed information about the palaeobiological database and the history. We really benefit.

The manuscript is not a review but a description of the data the GBDB has and we also introduce something new of the database and the website, something we did after the change of the managements of the GBDB. The turnover occurred at the end of 2018

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and my taking over occurred in the middle of 2019. There are too many things beyond the academic. But the palaeontology community is so small, even our colleagues in the Europe and the USA seem to know and spread gossips about the database. This is not good. I admit that in the first version of the manuscript there are something negative and critical. But in the new version, I deleted them. I see the disadvantages of the GBDB, make the updates, and look ahead.

After the turnover of the GBDB a survey is given in the community. we received some feedbacks and found the existing problems of the GBDB. Such represent the users wishes of the GBDB that is why we made the updates. We are confident to the future of the GBDB and the thing we are doing.

I am sorry to say that this manuscript is not a review of the quantitative study of palaeontology and stratigraphy, or a review of the palaeontological database. Deep knowledge of the numerical study of the palaeontology and stratigraphy is not given here. and we don't think it is proper here. Previous papers published by Fan et al gave these introductions. We here only give the retrospect. Previous papers stated little on the data structures or comparisons. We don't do the duplicate job.

The reviewer's suggestion on the correlation software, such are CONOP and SinoCor, is followed. Accordingly, the manuscript is revised.

About the terrestrial organism fossil records, we did more checking and realized the importance of J Alroy' work. We here want to emphasize that the terrestrial fossil records had been neglected for a long time till we collect these data into the GBDB. These parts were revised in the new manuscript accordingly.

About the section records of the GBDB. We realized the previous downloading result shows only section result and is not compatible to the fossil occurrences result. Then we updated the database, making the flexible searching and downloading options. Users can download either data individually.

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About the big data. we admit the data volume of ours is relatively not big enough than other fields. We here just emphasized the change of the study method and are hoping to promote the data-driven study. Actually, using data of GBDB several had output several impressive scientific results.

The data uploaded to the Xenodo include the section data of the GBDB, one can use them to do the palaeogeographical and biodiversity or other related study, just as previous authors did. The website sometime is not quick enough, probably because that the sever is in China and the too many data are loading when the first time visiting. The fossil-ontology represents our next plan for the database which is for the non-structured data of the fossils and strata.

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