

Suggestions for revision or reasons for rejection

Thanks for carefully considering the reviews and revising this manuscript. The revisions have improved the quality of the text, I like the additional information in Fig. 2.

Now only some few details might benefit from re-phrasing or clarification to improve understanding of the dataset and the text for future users.

l. 73: For reference to the current GPD version, I would suggestion to only refer to <https://www.paleofire.org> plus adding the date (or period) when the data was retrieved/downloaded, as Power et al., 2010 refer to version 1 of the Global Charcoal Database.

We have amended this citation and added the reference and retrieval date to the reference list.

I am not fully convinced concerning your explanation in the response to one review: “All Neotoma and PANGAEA data were entered with the source as 'author' because those databases explicitly show that those records were submitted directly by the authors.”

A lot of datasets in the GPD have also been added by authors, which might, however, not be clear in any case. I am also bit irritated by your addition in the text “Original char data from any source are classified in SahulCHAR as CHARSOURCE = ‘author’. Data sourced from another database either from digitization data or unknown origins are classified as ‘paleofire database’, and data digitized from published diagrams for SahulCHAR are classified as ‘digitized’” Here, especially the “any” in the first sentence is unclear (in respect to the preceding sentence) and “digitization data” vs. “data digitized”.

I would suggest to classify: 1) all datasets that derive from a paleofire database as such, 2) only those that were so far not at all included in any paleofire database and provided by a data author as “author” and all that you newly digitized as “digitized”.

We have amended this in the database. For sites with material directly obtained from author for this study it is now referred to as CHARSOURCE = ‘author’. Sites where data was obtained from a database but were originally author submitted are now CHARSOURCE = ‘paleofire database (author)’, with the DATASRCDS listed as “Author submitted data from Global Paleofire Database or PANGAEA Database”. Sites obtained from GPD but not known if author submitted are still listed as CHARSOURCE = ‘paleofire database’.

Concerning your addition of the following: “we have not included new chronologies” (l. 185), please specify in the text or in Table 3, where the “estimated age for sample” entry derives from then. From the original records of the “CHARsource” you specified before? Maybe just a short reference in the text to Table 3 could help here.

We have added to the text in line 183 “Original chronologies produced by original authors are included, yet it is recommended that re-calibration of age-depth models is conducted using the most appropriate and up to date methods for records included in SahulCHAR at time of use.” And added to table 3 that the Estimated age for sample is from original publications.

In the supplement, please add a clear comprehensive caption for the provided table S1 and refer to this table in the text where you mention that records from the GPD were included after careful checking and corrections (e.g., end of chapter 1 or chap 2.2.1 Charcoal and black carbon metadata, that should actually be chapter 2.2.2 as a 2.2.1 is already existing). Please add a caption for the R script in the supplement, too, and also refer to it in the main text to make users aware of it.

We have included references to the Supplementary information and this additional text in the Data Summary section:

“SahulCHAR is hosted on the OCTOPUS platform (<https://octopusdata.org>) and can be accessed directly from the web interface (<https://octopus-db.github.io/documentation/usage.html#web-interface>) or accessed via Web Feature Service (<https://octopus-db.github.io/documentation/usage.html#web-feature-service>). The WFS data can be accessed directly through GIS or R software (see supplement for example code).”