Interactive comment on “The Iso2k Database: A global compilation of paleo-$\delta^{18}$O and $\delta^{2}$H records to aid understanding of Common Era climate” by Bronwen L. Konecky et al.

Anonymous Referee #1

Received and published: 2 March 2020

The Iso2k database presented here represents a massive data synthesis effort and is a valuable contribution to our ability to effectively analyze regional and large-scale patterns in isotopic data. A random spot check of DOIs, LipD, and original data links, suggests that all the references are correct. This dataset will facilitate many new studies and will be well cited. The data quality of each individual record largely depends on the quality of the original work, but the authors are very thorough in providing the necessary metadata about each record that will allow users to evaluate the original data.

It is also good that the data links to the original author’s study, since many of the
datasets in the compilation are already posted on complementary data repositories like NOAA Paleoclimatology, and includes information on the original authors’ interpretation of the isotopic signal. With this as with other data synthesis products, several records may be listed in multiple data synthesis products (e.g. SISAL for speleothems).

The authors should be commended for section 6.5: we know that, for better or worse, scientific impact is measured in terms of citations, and so future work that simply cites Iso2k instead of the original studies risks undervaluing the scientific contributions of the researchers who generated the original data that forms the basis of the database, potentially influencing especially ECR career advancement. Providing the original citation information makes this easy.

The effort to compile age control points from 'dark literature' is also commendable. I was slightly concerned to see the number of especially lacustrine records where authors did not make age control data available. I wonder if there is a way to permanently host a webform for authors to submit additional information that was requested as part of this version of the database but was not provided, but could be easily included in subsequent revisions. Might be easier than direct emails. This also applies to a few records I know have come out since this paper has been posted - for these large synthesis efforts finding an efficient way to update these databases seems key given the volume of data that is published in each year.