Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2019-173-RC1, 2019 © Author(s) 2019. This work is distributed under the Creative Commons Attribution 4.0 License.



## Interactive comment on "Technical note: A global database of the stable isotopic ratios of meteoric and terrestrial waters" by Annie L. Putman and Gabriel J. Bowen

## Anonymous Referee #1

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The study of sources, transport pathways, and phase-change processes within the water cycle based on hydrogen and oxygen stable isotope of different water types has been carried out in the World. Certainly, sharing and collecting data is a good idea. I really appreciate your works. At the same time, I would like to thank you very much for your efforts in collecting and sharing data on stable isotopes for all water bodies in global. However, there are some points which were not phrased clearly in this technical note, and I have made additional comments below that might be helpful in guiding a revision. Firstly, only the importance of isotope research and the data collected at present are explained in the abstract. I suggest that the author add the purpose and significance of this technique to the summary section in a short language. Secondly,

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I recommend that the Database records for individual projects could be presented in Table, and it also shows the collection status of water samples on the global map (like Fig.2), and clearly labels specific sites and projects. Thirdly, Can the explanation of the method be more detailed and specific? Can you make a clear illustration of the three ways of introducing new data to the database? I suggest that the author make a simple sketch so that everyone can understand it. Finally, Figure 3 is not clear. I recommend that the author redraw Figure 3. It's better to distinguish the color clear.

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