

Comment on **essd-2022-199**

Anonymous Referee #1

Referee comment on "TiP-Leaf: a dataset of leaf traits across vegetation types on the Tibetan Plateau" by Yili Jin et al., Earth Syst. Sci. Data Discuss.,
<https://doi.org/10.5194/essd-2022-199-RC1>, 2022

The manuscript titled "TiP-Leaf: A dataset of leaf traits across vegetation types on the Tibetan Plateau" provides relevant information to further understand the floristic composition and leaf trait variation for the vegetation in the Tibetan Plateau. In itself, the monumental task of measuring leaf traits and compiling the data for the species from 336 sites across the Tibetan Plateau is to be appreciated and will greatly benefit the scientific community by filling out information gaps at the regional scale in further studies or global meta-analysis. However, I believe there are some points in the structure and content of the current manuscript that need to be improved. To this end, please find my specific comments below.

- Line 141-142: Please elaborate on what you define as the "degree of drought" to further subclassify the vegetation regions. If you refer to the Annual Drought Index or any other parameter (mentioned below in the M&Ms), please explain this to make it clear to the reader.
- Line 190-194, Data analysis: I am missing the description of the "statistical analyses" mentioned in this paragraph as well as the packages and software used to make the analyses. What was the purpose of making the linear models at the site level? Please elaborate.
 - Also, why did you use the averages of the leaf traits per site when you have a variety of life forms and life strategies, which will translate into contrasting differences in the leaf traits, particularly in the morphological ones?
- Section 5.3 Leaf trait relationships (L 248-260): Could you explain why you have selected to analyze the relationships between these traits? For instance, it would be nice to see some explanation (**even if it is a brief one**) linking this aspect of variation in certain traits (e.g., LT, LDMC, LMA) to the mechanisms of variation among different plant functional types and environments surveyed in this study.
- Lastly, I greatly encourage the writers to revise the usage of the English language.

As for the data set (Excel file), I suggest the following minor corrections:

- Line 55, for the species *Artemisia frigida* in Site TP2018080501. Could you explain why it is classified as a "Coniferous forest"? I would suggest that the term "alpine scrubland" is more appropriate according to the vegetation types and floristic composition described for this site. Also, the elevation seems quite high for a forest.

As a side note, is there any information on the soil types at each of the sampling sites? Because that would also be useful information to fully understand the floristic composition and distribution for people not familiar with Chinese flora.