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Comment on essd-2021-142

Anonymous Referee #2

Referee comment on "Vertical profiles of leaf photosynthesis and leaf traits and soil nutrients in two tropical rainforests in French Guiana before and after a 3-year nitrogen and phosphorus addition experiment" by Lore T. Verryckt et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2021-142-RC2, 2021

This study presents a complete dataset for leaf and soil nutrient traits in two rainforests under treatments of nitrogen and phosphorus addition. This dataset can help improve our understanding of the changes of leaf and soil traits under nutrient additions in the P-limited forest ecosystems, and help improve model representations of forest carbon and nutrient cycles through providing parameters and mechanisms. The manuscript is well written. The experimental methods and dataset are described in detail. However, there are some serious deficiencies in this manuscript as described as below:

- The manuscript only presents the experiments, dataset and descriptions, but there is lack of a detailed analysis on the results (Section: Results and Analysis). Without the analysis results, the readers did not really know how the impacts of nutrient addition on leaf and nutrient traits.
- A follow-up problem is that the measured data are not showed in figures or tables in the manuscript. Some key data should put in the manuscript rather than only in the excel sheets in the data website (zenodo).
- Some additional data or discussion should be provided in this manuscript. As I know, there were some previous studies for researching the impacts of nutrient additions on forest biophysics, ecophysiology and nutrient cycles in the neighboring Amazon rainforests. A comparison or synthesis among these studies can help cross-validate or falsify the data and results in this study.