Associate Editor Decision: Publish subject to technical corrections (10 Jun 2021) by Ivonne Trebs Comments to the Author:

Dear authors,

thank you very much for the responses and rebuttal of the referee comments. Before publication of your final manuscript, I recommend to add some more details (2-3 sentences) of your explanations given in the response letter about the statistical approaches (in particular Aitchison's centered log-ratio transformation). Please also check that the letter size in your Figure files is large enough (also in the Supplement).

Best regards,

Ivonne Trebs

Dear Dr. Trebs, Thank you for your remark, we have introduced the following sentences:

In Materials and Methods:

"The resulting ordination results were also compared with those yielded by the alternative Centered Log Ratio (CLR) data transformation."

In Discussion:

"In order to explore the extent of this possible bias we compared the results of the ordination plots yielded by two data transformation procedures; in addition to the TSS square root transformation, we checked also the Aitchison's centered log-ratio transformation (CLR). Notwithstanding some slight changes in the shape of the ordination plots, observed phenomena and ensuing trends that we point out and describe in this report were found to be the same. The reasons for which, we opted for showing the former transformation procedure (TSS) is that the combination of total sum scaling with square root transformation is the renowned 'Hellinger transformation'. This has been praised as a preferable choice in ecological community comparisons, (Legendre and Legendre 1998), as it offers the best trade-off between linearity and resolution in comparison to chi-square metrics and other approaches. It is also recognized as more balanced for the weight given to rare species. "

The reference from Legendre and Legendre has been added to the references.

The letter size has been inspected and deemed satisfactory

Looking forward to your decision Best wishes

Andrea Squartini