

Dear Editor,

We are very thankful for your consideration and for the reviewer's suggestions. We made the changes requested by the reviewer, as we agreed with them (with one exception). The changes made are therefore:

- L39: there are more than 212 sites.

Indeed, even before 2015, there were more than 212 eddy covariance sites globally, but not all of them were included in the FLUXNET2015 release. Many of these sites were part of different network, contributed data separately, or did not meet the specific data requirements for FLUXNET2015. We modified the text as:

~~Overall~~ In its 2015 release, FLUXNET represented 212 sites worldwide of eddy covariance.

- L140: what is long-term?

We inserted a text to explicit this: "i.e., > 10 years whenever possible" and thus suggest 10 years as being the threshold for long-term.

10 years seemed a reasonable threshold, given that eddy covariance is still a young method. In our selection set of sites, 19 over the 29 sites have an observation period > 10 yrs. The supplementary table ST1 discloses the exact series length.

- L182: Lasslop et al. 2008 is a study that one can use to argue that eddy covariance data uncertainty can approximate a normal distribution.

We included this citation in the manuscript and thus the reference too.

- L206: The EC footprint is less than 1 km²

There are indeed some debates regarding the size of the footprint. To us it was only important to underline that the study is not a tree-level study (ie. ~ 100 m²).

After some debates we decided to change the manuscript and mention a 0.1 km² footprint size.

- Figure 3 and elsewhere: note that the biospheric rather than atmospheric convention is being used for the sign of NEE (I may have missed it in the text).

Here we inserted a sentence to clarify this (L180).

264: it would be helpful to remind the reviewer that GPP here represents annual GPP.

We modified the text correspondingly.

297: this is far too many significant digits for a study of forest biomass.

The reviewer makes a confusion between the coma that separates the thousands with a dot. No decimal places are being used in the number. We removed the coma.

We also took the opportunity to reformat the Supplementary material and institutional addresses, in order to address the comments made by Daria Karpachova on the MS record.

On behalf of all the authors, respectfully,
Olivier Bouriaud