Reviewer 1

general comments

This paper shows the relationship between stomatal activity and dynamics with respect to ammonia, exploring the correlations between several environmental variables involved in the process. I found the topic very interesting, and the work is well written: the data quality is very good in my opinion, and the data are explored very carefully, and discussed thoroughly. The authors addressed with the appropriate references the arguments posed by the study.

The weak point of this study is the poor temporal representativity of the dataset: this aspect is exposed in section 4.1, which I completely agree with. I think despite of the impossibility of setting new relationships to model the NH3 dynamics, this dataset provides a very useful verification of the known environmental dynamics, and especially shows very clearly what are the issues with NH3 measurements, setting a good standard for potential new measurements of NH3 fluxes.

Given the good quality of the paper, I agree with the authors that it is a shame the amount of data that needed to be rejected is so large: however, I believe this work is very worth publishing, not only for the scarcity of datasets on atmospheric ammonia fluxes in general (and even less of these standards!), but also for the analysis structure of the data, that provides a good methodology to be used not only by the future measurements that are taking places at the same site. Therefore I recommend its publication almost in its current shape, and I list below some minor points.

specific comments

The authors operate a filtering procedure that leads to considering 9% of all data valid for the evaluation of ammonia dynamics. While I understand the logic of excluding data for all the reasons listed, I think eliminating 91% of data is a fierce manipulation exercise. The conclusions of such reasoning are, by definition, not representative of the behaviour of the vegetation as such, but of particular conditions. This is addressed in the discussion and conclusions, but I suggest to reinforce the fact that this kind of dataset should not be used to aid annual inventories, perhaps in the abstract (but I'd leave it to the authors' and editor's choice where to insert it).

The following sentence: 'It also makes the dataset unsuitable to aid annual inventories.' Is added at pg 14, line 20.

technical corrections

P4 L30: remove either "ammonia" or NH3 in the sentence.
Done