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To the Editor of PCI Ecology

Padova, November 12, 2018

**Subject:** Revision of the manuscript "Inferring macro-ecological patterns from local species' occurences" by A. Tovo, M. Formentin, S. Suweis, S. Stivanello, S. Azaele and A. Maritan

## Dear Editor and dear referees

many thanks for the consideration of our manuscript. We are very grateful to the editor and both referees for their comments. Indeed, their reports have stimulated us to improve our manuscript i) illustrating better the theoretical framework of our approach; ii) clarifying differences and similarities with our previous work in Science Advances.

We are confident in the revised version we fully answered to all the reviewers' concerns. In particular, one major concern of the editor and the referees was the lack of clarity in our original manuscript in its more theoretical part, which we have now edited and improved according to their comments. We only refrain from adding the classical interpretation of a Negative Binomial in terms of successes and fails of a sequence of binary independent trials. We deem this characterization is somehow misleading for two reasons: i) classically  $r \in \mathbb{N}$  whereas in our framework  $r \in \mathbb{R}^+$  ii) we recover a negative binomial as the equilibrium distribution of a birth an death process with immigration and we do not see any immediate correspondence between successes and fails of a sequence of binary independent trials and individuals of a species.

All minor corrections by all the referees have been taken into account and the text has been modified accordingly.

All changes are marked in red in the track change version of our paper.

We thank you in advance for your consideration, looking forward to hearing from you.

Sincerely yours,

Samir Suweis,

on the behalf of the authors