To: Editor-in-Chief of Revista de Biologia Tropical

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### **Cover letter**

**Title:** Spatial patterns and interactions of dominant tree species in an Amazon tropical forest

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### **Description of the paper:**

The objective of this study was to investigate spatial patterns and interactions of three dominant timber tree species in Jamari National Forest, Brazilian Amazon. As main hypotheses, we consider that tropical trees have spatial pattern and interactions dependent of species and scale. Kernel estimator was used aiming to verify the possible influence of first-order factors on species distribution and Inhomogeneous K-function was used to analyze spatial patterns and interactions of the species by means of second-order factors. The results suggest that aggregation pattern is related to ecological characteristics, such as preferential habitat and dispersal limitation, and random patterns results from specific features of its establishment. Considering the interspecific associations of species, spatial attraction results from the same preference for microhabitats and repulsion results from niche segregation

## **Importance of the paper:**

Knowledge of spatial patterns and interactions of tree species allows the understanding of the ecological processes of spatiotemporal structuring of tropical forests, becoming essential for the establishment of strategies for the conservation and management of their resources in long term. The results provide a better understanding of high-value tree species auto-ecology in high-diversity forests, through evidence of their establishment and development.

**Declaration of the authors:** The authors declare that there is no conflict of interest regarding the publishing of the paper by the *Revista de Biologia Tropical*, that the paper has been not published elsewhere, and not include any form of plagiarism. All the authors mentioned above have approved the manuscript and have agreed with the submission of the manuscript. The authors accept to pay the additional pages.

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Sincerely yours, Vinicius Costa Cysneiros



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Sebastiao do Amaral Machado