

Deforestation-induced Fragmentation Increases Forest Fire Occurrence in Central Brazilian Amazonia

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Supplementary Materials

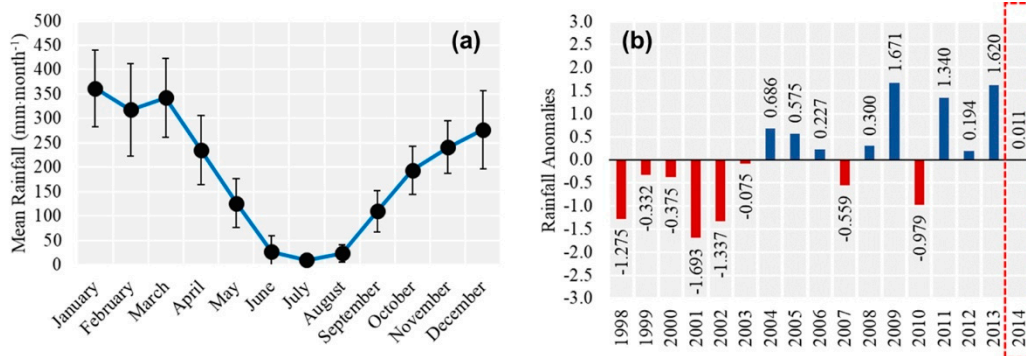


Figure S1. (a) Seasonal rainfall pattern (the vertical black lines are the standard deviations). (b) Normalized rainfall anomalies (1998-2014), calculated based on the methodology proposed by Aragão et al. [1]. Data extracted from product 3B43-v7 of the Tropical Rainfall Measuring Mission Satellite (TRMM) [2].

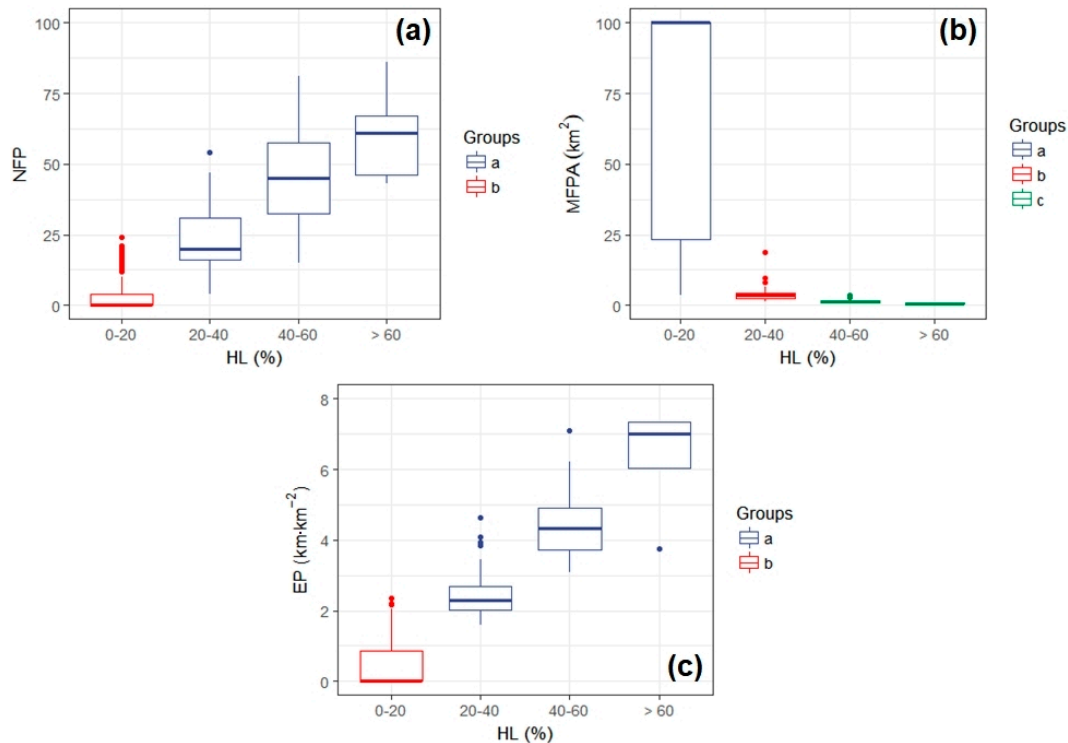


Figure S2. Boxplot of the habitat loss (HL) intervals for the number of forest patches (a; NFP), mean of forest patches areas (b; MFPA) and edges proportion (c; EP). The letters represent the groups resulting from the Kruskal-Wallis post-hoc test. For all analyses, a significance level of 95% (p -value < 0.05) was adopted.

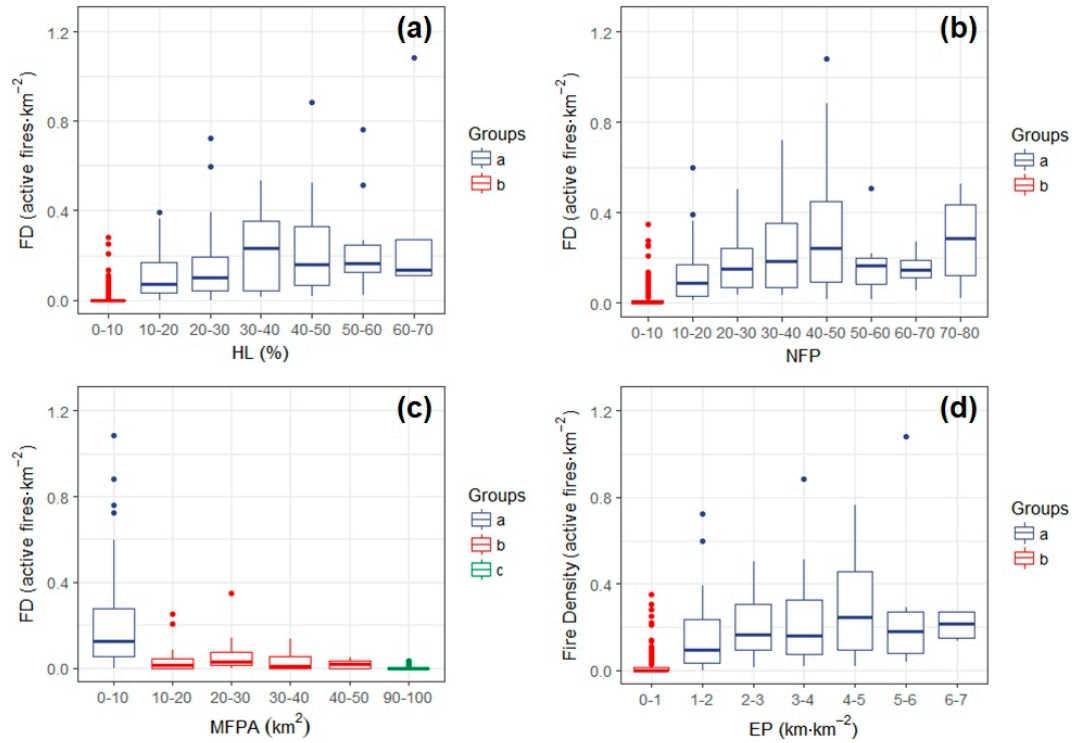


Figure S3. Boxplot of the fire density for the habitat loss intervals (a; HL), number of forest patches (b; NFP), mean of forest patches areas (c; MFPA) and edges proportion (d; EP). The letters represent the groups resulting from the Kruskal-Wallis post-hoc test. For all analyses, a significance level of 95% (p -value < 0.05) was adopted.

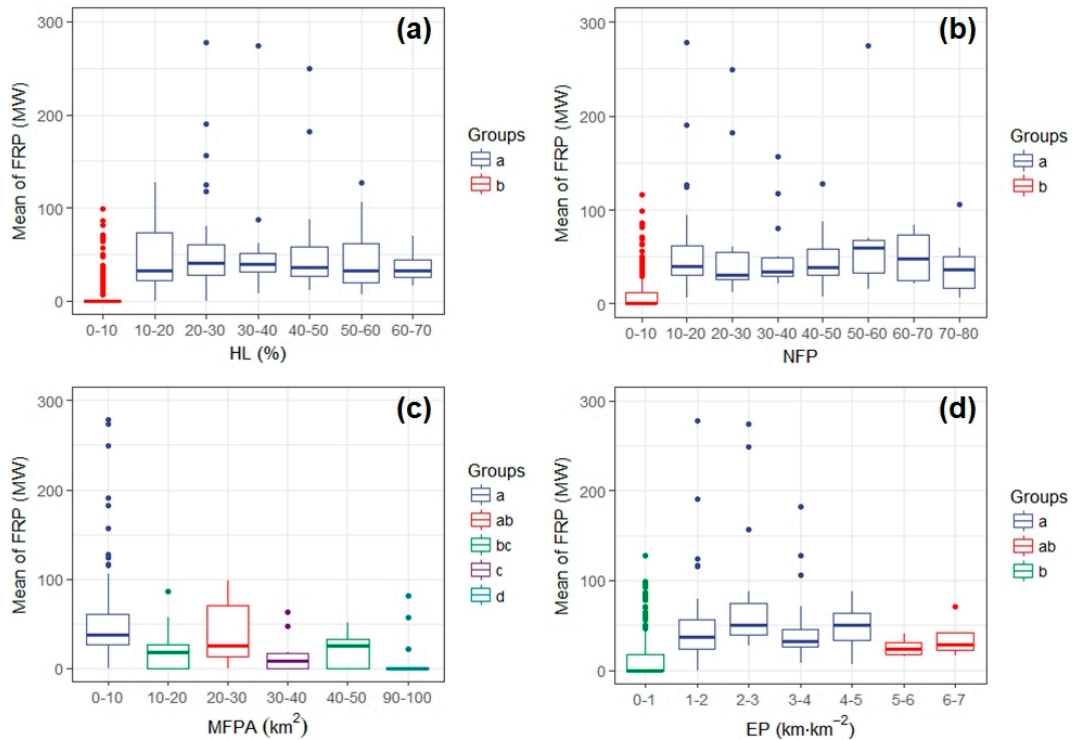


Figure S4. Boxplot of the Fire Radiative Power (FRP) for the habitat loss intervals (a), number of forest patches (b; NFP), mean of forest patches areas (c; MFPA) and edges proportion (d; EP). The letters represent the groups resulting from the Kruskal-Wallis post-hoc test. For all analyses, a significance level of 95% (p -value < 0.05) was adopted.

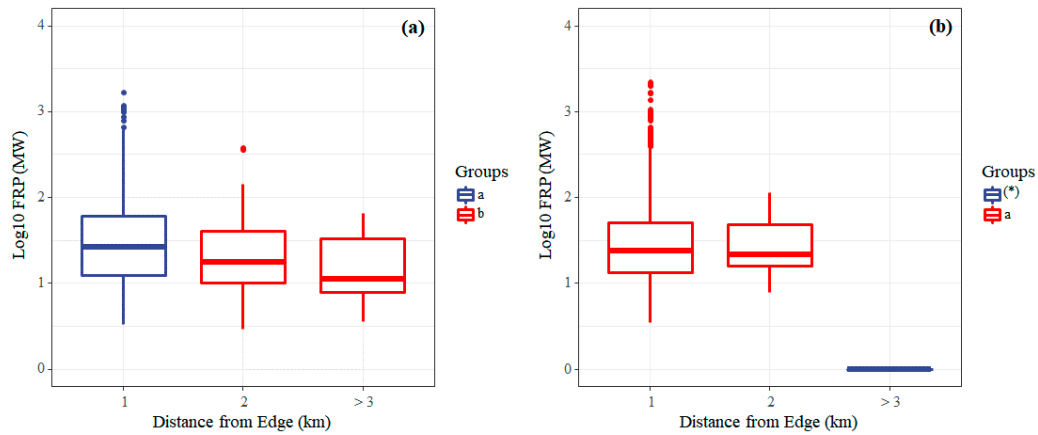


Figure S5. Boxplot of Fire Radiative Power (FRP) for different distances from the edges in forest areas (a) and in deforested areas (b). The letters represent the groups resulting from the Kruskal-Wallis post-hoc test (p -value = 0.03 for Figure S5a and p -value = 0.22 for Figure S5b). (*) No active fires were observed. The log transformations were performed only to improve visualization of the data in the figure (the Kruskal-Wallis and post-hoc tests were performed using the original data). For all analyses, a significance level of 95% (p -value < 0.05) was adopted.

References

1. Aragao, L.E.O.; Malhi, Y.; Roman-Cuesta, R. M.; Saatchi, S.; Anderson, L.O.; Shimabukuro, Y.E. Spatial patterns and fire response of recent Amazonian droughts. *Geophys. Res. Lett.* **2007**, *34*, L07701
2. National Aeronautics and Space Administration. Tropical Rainfall Measuring Mission—TRMM. Available online: <http://trmm.gsfc.nasa.gov/>.