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### FLORISTIC RELATIONSHIPS AMONG PLANT COMMUNITIES ON BRAZILIAN ROCK OUTCROPS

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Rock outcrops constitute unique landscapes, which shelter large geological and biological diversity, and are distributed in a fragmented way throughout the Brazilian territory. The aim of this study was to evaluate the general floristic relationships among plant communities from Brazilian rock outcrops, according to their regions and rock types. We compiled floristic lists of 123 rupicolous plant communities, totaling 10452 occurrences and 4034 species, distributed in 162 angiosperm families. The floristic composition among regions (North, Northeast, South, Southeast and Midwest) and substrates (quartzite, granite, *canga*, itabirite and syenite) was compared through similarity analyses ANOSIM (one-way) in the software Past, and NMDS (non-metric multidimensional scaling) in R software (package Vegan). The ANOSIM revealed significant floristic differences among regions (global  $R = 0.32$ ,  $p = 0.0001$ ) and substrates (Global  $R = 0.40$ ,  $p = 0.0001$ ). Rock outcrop's communities from Northeast and South regions were the most different from the others, probably due to their higher isolation in terms of climatic conditions. Visually, the NMDS separated four groups: northeastern inselbergs (granitic outcrops); inselbergs from *Rio de Janeiro* and *Espírito Santo* states; rock outcrops from *Serra do Mar* and *Serra da Mantiqueira*; and *Serra do Espinhaço*. The NMDS' first axis revealed significantly different relationships among quartzite outcrops and most of the other rock types' communities, suggesting quartzite outcrops house more unique species. But we must be careful about this conclusion, since these ecosystems are still poorly known, lacking floristic descriptions for many areas, including those of quartzitic rocks. The high diversity and low floristic relationships presented here highlight the importance of these environments to Brazilian plant diversity, as well as the necessity of prioritize them as target to ecological studies and conservation actions.

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