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MORPHOLOGY AND BEHAVIOR BEHIND THE FRUGIVORY AND SEED DISPERSAL IN BRAZILIAN SAVANNA GALLERY FORESTS

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Frugivory is one of the most common feeding habits of animals which can promote effective seed dispersal in tropical forest, such as gallery forest. This plant-animal interaction can be common and of considerable importance for conservation of whole ecosystems. Given this, certain frugivorous and plant characteristics can be evolutionary responses for efficient frugivory and seed dispersal. Furthermore, environmental characteristics, such as biological diversity and conservation status, can also influence the frugivory. We analyzed frugivory in tree species from different Brazilian savanna gallery forests over a one year period. The influence of frugivorous traits (e.g., gape size and some behaviors of birds) and plant characteristics (e.g., diaspore color and pulp percentage) on the amount of fruits eaten was tested. Quantitative (frequency of interaction and feeding index) and qualitative (feeding behavior) components were used to identify potential dispersers between mammals and birds. In general, the amount of fruits eaten was related to morphological (e.g., width of the bird beak base) and behavioral (e.g., agonistic) frugivorous characteristics, as well as morphological plant characteristics (e.g., pulp content). There were notable differences between gallery forests in relation to the diversity of potential dispersers and the amount of trees with effective seed dispersal (e.g., low number of swallowed seeds). Frugivory was related to the plant and animal characteristics and was also more expressive and able to promote seed dispersal in gallery forest with greater diversity of recorded frugivorous. The differences in diversity between the gallery forests can be associated with different status of conservation.

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