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# Interaction between hoverflies (Diptera: Syrphidae) and inflorescences of *Spondias tuberosa* Arruda (Anacardiaceae) in Ituiutaba, Minas Gerais, Brazil.

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## Abstract

Hoverflies (Diptera: Syrphidae) provides important ecosystem services such as biological control and pollination. The flowers visited by hoverflies usually have light coloration, accessible nectar and pollen, gathered in inflorescences. The Anacardiaceae specie *Spondias tuberosa* Arruda, popularly called "umbu", is an endemic tree from Brazil, distributed along *Cerrado* and *Caatinga* biomes, their fruits are important source of alternative income to local population. The aim of this study was to collect and identify hoverflies visiting *S. tuberosa* and analyze the abundance and diversity of individuals throughout the year in Ituiutaba, Minas Gerais, Brazil. The individuals were collected with entomological net, for three hours in the morning from 7:00 am to 10:00 am, in urban areas (A1 and A4), conservation unit (A2) and rural area (A3), from June 2020 to October 2021. The faunal index was calculated through ANAFAU program. The flowering cycle of *S. tuberosa* was alternated between the four study areas, however, the floral interactions with the hoverflies were higher during the rainy season, this relationship was due to the higher production of "umbu" flowers in this period. A total of 345 specimens were captured, distributed in nine genera. Area A1 had the highest abundance of hoverflies with 216 insects (62.6%), followed by area A3 with 56 (16.2%), area A4 with 53 (15.4%) and area A2 with 20 (5.8%). *Allograpta* Osten Sacken, 1875, *Eristalinus* Rondani, 1845, *Ocyrtamus* Macquart, 1834 and *Ornidia* Le Peletier & Serville, 1828 interacted with *S. tuberosa* flowers in all seasons. *Allograpta* was classified as superdominant, superabundant, superfrequent and constant in urban areas, while *Ocyrtamus* indicated preference for rural areas (A3) and *Toxomerus* Macquart, 1855 preference for forest environment (A2). The flowers of *S. tuberosa* were very attractive to hoverflies, providing food resources, mainly to *Allograpta* in the urban environment.

**Keywords:** inventory, pollinator, Brazil southeast.

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