


Twelfth International Symposium on Pollination (ISPXII)

16 - 20 October 2023

Kirstenbosch Botanic Gardens, Cape Town, South Africa

EVALUATION OF PLANT-POLLINATOR INTERACTIONS IN THE BRAZILIAN CERRADO

Murilo M. Guimarães[1], Sara S. Domingos[2], Camila S. Souza[3], Rafaela C. Marinho[4], João C. F. Cardoso[4], Pietro K. Maruyama[5], Marina Wolowski[6], Paulo Eugênio Oliveira[4], Kayna Agostini[2]

Universidade Federal de Lavras, Lavras, Brazil[1], Universidade Federal de São Carlos, Araras, Brazil[2], Universidade Estadual de Montes Claros, Montes Claros, Brazil[3], Universidade Federal Uberlândia, Uberlândia, Brazil[4], Universidade Federal de Minas Gerais, Belo Horizonte, Brazil[5], Universidade Federal de Alfenas, Alfenas, Brazil[6]

ABSTRACT

The Brazilian Cerrado is the second largest biome in South America and is considered a biodiversity hotspot. Given the current global biodiversity crisis, plant-pollinator interactions are fundamental to ecosystem regulation and maintenance. Here, we conducted a data survey of plant-pollinator interactions in the Cerrado, adopting biodiversity data standards. A systematic review of the literature was carried out on the Web of Science and Dimensions platforms, up to March 2022, resulting in 99 references. We also included interactions recorded in the Cerrado by more than fifty scientists up to December 2022. The interaction database standard of the Brazilian Plant-Pollinator Interactions Network (REBIPP) was used to compile each interaction (http://db.rebipp.org.br/). We recorded 393 plant species interacting with 511 animal species, totaling 1,864 interactions, for which we developed a metanetwork. Among the 77 botanical families sampled, Fabaceae (19%), Rubiaceae (7%) and Malpighiaceae (7%) had the highest number of species. The animals were divided into 12 functional groups, with bees (52%) and birds (8%) being the most diverse and with the highest number of established interactions. This reinforces patterns found for local works in the Cerrado but also demonstrates the diversity of less frequent groups (e.g., bats, moths). This data will be included in the REBIPP database and can be used to support decision-making for the conservation of Cerrado. The results obtained here represent a joint effort by several researchers in the synthesis of knowledge and identification of information gaps for the Cerrado.