

ZOOLOGIA

FIRST CHECKLIST OF CECIDOMYIIDAE (DIPTERA) IN THE STATE OF MINAS GERAIS (SOUTHEASTERN BRAZIL)

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Cecidomyiidae (Diptera) are the most diverse gall-inducing insects in the world. Due to this habit, they are commonly known as “gall midges”. In Brazil, Cecidomyiidae are represented by 261 species. The faunas of Rio de Janeiro (RJ) and Minas Gerais (MG) are the most investigated, concentrating the highest number of insect gall inventories and described cecidomyiids. In the former, 104 species have been reported, while the number of species in the later is still unknown. Minas Gerais has a territorial extension of 586,522.12 Km² and three phytogeographic domains: Cerrado (cover about 54% of the territory), Atlantic Forest (40%), and Caatinga (8%). This paper presents the first checklist of gall midge species of MG, shows their distribution in the state, and points out endemism and/or useful host species. A literature review was performed on the database “Web of Science”, using “Cecidomyiidae” and “Minas Gerais” as keywords. All insect galls Brazilian inventories published from 1988 to 2020 were examined, as well as taxonomical papers. Collecting localities were retrieved from original papers. Phytogeographic domains were established using maps of vegetation of IBGE. Information about host plant species (endemism, distribution in Brazilian domains and categories of the conservation status) was obtained from Flora do Brasil 2020. Plant uses were verified in the Useful Tropical Plants 2014 website. To quantify the fauna similarity between Cerrado x Atlantic Forest areas and MG x RJ, the Sorensen’s Index was adopted. Forty-three gall midge species occur in MG, 42 are gall-inducers and one is a successor in galls. Cecidomyiids occur on 35 plant species of 17 families. Nineteen hosts are useful and five endemic. Asteraceae and Calophyllaceae harbor the highest number of gall midge species. *Lopesia* and *Asphondylia* are the best represented genera of Cecidomyiidae. Fourteen gall midge species are known exclusively from MG. Cerrado hosts 32 cecidomyiid species and Atlantic Forest 18. Sorensen’s index indicates a similarity of 0.36 between them. The gall midge fauna of MG shows a similarity index of 0.30 with RJ. As both states share other host plant species, this value can be greater than that indicated here. Nine mesoregions show records of gall midges, most data being concentrated in the Metropolitan Mesoregion of Belo Horizonte, where most studies have been developed. Three gaps in the gall midges distribution are indicated: Vale do Mucuri, Northwest of MG, and West of MG.

Key-words: Endemism. Fauna composition. Useful host plants.

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