PLANTS WITH ECONOMIC IMPORTANCE ASSOCIATED WITH INSECT GALLS IN THE SERRA DO MENDANHA (RIO DE JANEIRO, RJ)

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RESUMO

The Serra do Mendanha is a remaining area of Atlantic Forest in the city of Rio de Janeiro/RJ. In this area there are some conservation units, such as the Environmental Protection Area of Gericinó-Mendanha (AGM) and the Private Reserve of Natural Heritage Bicho Preguiça (RBP). Insect galls are abnormal changes in plant tissue induced by insects. Among these, six orders include gall inducers: Coleoptera, Diptera, Lepidoptera, Hemiptera, Hymenoptera and Thysanoptera, with Cecidomyiidae (Diptera) being the main galling family. The galler larvae are generally very specific in relation to the host plant and the induced gall morphotype. Many of these species reach the level of the pest, causing great damage to agriculture. The present work aims to indicate the species of plants that present economic importance and that were found as hosts of insect galls in the Serra do Mendanha (Rio de Janeiro/RJ), and to compile the information on the distribution of these gall morphotypes in Brazil. Three visits were made to Serra do Mendanha in areas of ombrophilous forest of AGM and RBP, in the months of October and November 2019 and August 2020, in search of galls of insects in the aerial plant organs. The host plants and the gall morphotypes found were photographed and identified in the field. The identification and distribution were made through photos and with the aid of bibliography. The platforms of Embrapa and Useful Tropical Plants were consulted to define the plant species with economic importance. The Flora do Brasil website was consulted to define the origin and endemism of the host plants. In Serra do Mendanha, a total of 81 gall morphotypes were found in 52 plant species from 17 botanical families, with 17 plants not being determined. Among the host plants found, only 19 were identified at the species level, from 14 vegetal families. Of these, 14 host species are economically important in Brazil, associated with 23 gall morphotypes, induced from Cecidomyiidae (Diptera) (n=14), Agromyzidae (Diptera) (n=1), Thysanoptera (n=1) and seven undetermined inducers, in *Anacardium occidentale* L. (n=1 gall morphotype), *Eugenia uniflora* L. (n=2), *Guarea guidonia* L. Sleumer (n=3), *Lantana camara* L. (n=2), *L. fucata* Lindl. (n=1), *Mikania glomerata* Spreng. (n=2), *Mikania micrantha* Kunth (n=1), *Myrcia splendens* (Sw.) DC. (n=1), *Nectandra membranacea* (Sw.) Griseb. (n=3), *Piper aduncum* L. (n=1), *Porophyllum ruderale* (Jacq.) Cass. (n=2), *Psidium guajava* L. (n=1), *Struthanthus acuminatus* (Ruiz & Pav.) Kuijt (n=1) and *Styrax leprosus* Hook. & Arn. (n=2). All of these plants are native to Brazil, highlighting *Myrcia splendens* which is an endemic species, and except *Lantana camara* and *Psidium guajava* which are naturalized species. Eleven gall morphotypes were previously registered in other 30 localities, in seven Brazilian states (RJ, MG, SP, ES, PE, MS, RS) all in the Atlantic Forest biome, except one register of *Lantana fucata* in Cerrado. The knowledge of the fauna associated with endemic plants and economically important is very important, due to the high specificity, mainly, of Cecidomyiidae in relation to the host and the fact that they are potential pests.

PALAVRAS-CHAVE: Atlantic Forest, APA Gericinó-Mendanha, Cecidomyiidae, RPPN Bicho Preguiça

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