





DATA PAPER

Special Feature: ATLANTIC Data Papers

Plant-herbivore interactions in Atlantic Forest: A dataset of host plants and their gall-inducing insects

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Abstract

Galls play a significant role in the plant–insect interactions in various ecosystems worldwide. Consequently, research on gall-inducing insects and their host plants has garnered considerable attention in recent years, with a wealth of uncompiled data. This dataset, comprising 2,059 records of 868 native species, 361 genera, and 106 families of host plants, provides valuable information regarding the Atlantic Forest biome, one of the world's most important rainforests. The five most common botanical families represented in the dataset are Myrtaceae, Asteraceae, Fabaceae, Melastomataceae, and Rubiaceae, accounting for 40.41% of all records and 40.21% of the total number of species. In addition, exotic host plant species from families such as Anacardiaceae, Asteraceae, Fabaceae, Myrtaceae, and Verbenaceae are presented. The dataset also includes 204 species of gall-inducing insects, with a large predominance of Diptera (189 species), followed by seven species of Hemiptera, four species of Lepidoptera, and two species each of Coleoptera and Thysanoptera. This study is the first to compile inventories of plant-galling insect communities and information on the diversity and distribution of insect galls and their host plants in the Atlantic Forest. The dataset highlights areas for further research on patterns of diversity and distribution and offers a foundation for developing and testing new ecological hypotheses. Researchers are encouraged to cite this data paper when utilizing the information in their publications and to

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inform us of the application of the data. No copyright restrictions were applied to the dataset.

KEYWORDS

Diptera, Cecidomyiidae, herbivory, insect galls, Myrtaceae, neotropical forests, plant–insect interactions, Restinga, tropical forest interactions

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DATA AVAILABILITY STATEMENT

The complete metadata and data are available as [Supporting Information](#) in Data [S1](#). Data are also available in Zenodo at <https://doi.org/10.5281/zenodo.16953593>.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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