

Neotropical Insect Galls

Geraldo Wilson Fernandes • Jean Carlos Santos
Editors

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 Springer

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Preface

This book is about the most fascinating group of insects; those who are able to trespass the defensive lines of their host plants and induce galls. The gall is often regarded as an extended phenotype of the inducing insect, from where their offspring are protected from environmental harshness and nourished with food of great quality. In this book the reader will find the most updated information on host induction, ecology, botany, entomology, evolution, and geography of galling insects in the New World Tropics and sub-Tropics. The book is rich in new information that addresses all sorts of subjects all the way from the first reactions of the host cells to the gall inducing larvae to biodiversity to species distribution and interactions.

The study of galling insects and their host plants in the Neotropics bloomed in the mid-1980s and became widespread in recent years. These studies were capable of unveiling many new phenomena, interaction forces, and of challenging many accepted paradigms in the science of insect ecology. These studies helped to bring this forgotten insect taxa to the main stream of modern ecology, botany and entomology. The reason to bring all these studies into a single book is an attempt to summarize the work done so far, to promote syntheses and open new perspectives for deeper understanding of galling insect evolutionary ecology and biogeography, and foster new collaboration among Neotropical students.

We hope that the reader will benefit from the information provided by the book. Many sources of studies related to galling insects in the Neotropics are difficult to be located, are in Portuguese or in Spanish. Hence, the book may represent a unique source where one can find a syntheses done by the authors themselves. The book was written to a broad audience interested in botany, zoology, and entomology. Otherwise, anyone interested in general biology will not find any difficulty in following it. Hence, a major goal of the contribution is to attempt to provide new insights and new tinkering, to foster and provide the space to galvanize communication among those interested in the Neotropical galling insects.

The sources of inspiration for writing the book were many, but perhaps the most important was the wish to provide a deep look into what Neotropical students had done in the field of galling insect ecology up to date and sieve the information in order to signal new pathways to lead to further understanding of the ecology of

galling insects and their host plants. Also we aimed at start bridging the enormous gap existing in the studies of temperate and tropical galling studies.

The work was not an easy one and we hope we have succeeded. We thank the collaborators for the responsiveness to our pledge. The book is structured in three parts: a botanical one, an ecological/evolutionary one, and finally a more biogeographical one. Finally, we would like to express our most sincere gratitude to many colleagues, students, and sponsors that trusted in this endeavor.

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