

## BOOK REVIEW

**Beccaloni, G. W., Viloría, A. L., Hall, S. K. & Robinson, G. S. (2008).  
Catalogue of the Hostplants of the Neotropical Butterflies / Catálogo de las  
Plantas Huésped de las Mariposas Neotropicales.**

m3m-Monografías Tercer Milenio, Volume 8. Zaragoza, Spain: Sociedad Entomológica Aragonesa (SEA)/Red Iberoamericana de Biogeografía y Entomología Sistemática (RIBES)/Ciencia y Tecnología para el Desarrollo (CYTED)/Natural History Museum, London, U. K. (NHM)/Instituto Venezolano de Investigaciones Científicas, Venezuela (IVIC). 1-536 pp., 1 fig, 3 tabs.

In the late 1990s while completing a revision of the genus *Adelpha*, I attempted to compile all hostplant records for the genus from the literature and from unpublished sources. By no means a botanist and with not a single word of German to my credit, I struggled for many hours with works such as Fritz Hoffmann's 1936 notes on immature stages of Santa Catharina butterflies, published in the obscure *Entomologische Rundschau*. Even with the wondrous online translation engine, Babel Fish, to help me, my notes record cryptic results such as "*Adelpha syma*... crawler-type vehicle at blackberry" ("Raupe an Brombeeren"). With the "Catalogue of the Hostplants of the Neotropical Butterflies" now at my fingertips, it takes me approximately seven seconds to locate *A. syma* in the index, flip to the records for this species, and find that the species has been recorded on *Rubus fruticosus* (Rosaceae), among other plants. To George Beccaloni and his collaborators on this epic compilation of the hostplants of the world's richest butterfly fauna, I believe we owe an enormous debt.

That this catalog was published at all seems something of a miracle, given the monumental amount of work it contains, and the fact that the final effort needed to finish it had to be completed in the first two authors' own time. Most records were compiled by 2000, but finding the time and funds to publish the book took another eight years. Discoveries over these last years are therefore not included, but as the authors point out, modern papers are far more accessible thanks to electronic media and mail.

The catalog begins with a brief introduction to the methods used to compile hostplant records and some fascinating summary statistics. Records were extracted from 884 scientific articles written in English, Spanish, Portuguese, German and French, dating back to 1865. Records were also obtained from correspondence with lepidopterists and from unpublished sources such as the manuscripts and drawings by Margaret Fountaine and Arthur Moss at the Entomological Library of the Natural History Museum, London. A total of 18,513 records are included, of which an impressive 3,656 (20%) were previously unpublished. These new records alone must represent one of the greatest single contributions to advancing our knowledge of neotropical butterfly hostplant use, and the 79 lepidopterists responsible for them have shown great generosity in making them available here. About a quarter of all neotropical species have at least one hostplant record, feeding on 169 families of higher plants, Bryophyta, dead leaves, bark and bugs. Unsurprisingly, the swallowtails (Papilionidae) prove to be the best known group, with records for 76% of species, while at the other end of the scale, the highly diverse Hesperinae, Lycaenidae, Riodinidae and Satyrinae average about 16%.

Simply extracting and compiling records from the literature

alone would seem a daunting enough task, but the authors go a step further in attempting to evaluate record validity. Misidentifications of butterflies or plants, mistaken citations of earlier records, captive records, oviposition records off the hostplant, use of ambiguous common names and changes in classification are all common sources of errors. The authors used a combination of original information, personal communication and personal experience to assign a classification of "plausible", "dubious" or "erroneous" to every record. Ultimately, it is multiple independent records of the same hostplant that offers the best evidence of record validity, and the authors have therefore endeavored to exclude obvious duplicate records and citations. Butterfly and plant taxonomy was updated using the most modern sources available, including an unpublished version of the neotropical butterfly checklist (Lamas,





This work is the first to bring together all the scattered information on what the caterpillars of the Neotropical butterflies eat. It contains more than 18,000 hostplant records, 3,656 of which have not been published before. The bulk of the records were abstracted from 884 scientific articles and books, many of which are only available in large specialist libraries.

The Neotropical region (which encompasses Central and South America, and the Caribbean) has the richest butterfly fauna (7,783 species) of any of the world's biogeographic regions. This book contains hostplant records for about 1,991 of these species, which represent 614 of the 957 butterfly genera found in the region. Neotropical butterflies utilize a very diverse range of hosts: 169 families of higher plants, with a few caterpillars feeding on Bryophyta (mosses and liverworts), dead leaves, bark, and even bugs (Homoptera). The scientific names of both the hosts and the butterflies have been updated to accord with the latest classifications.

This book will be an invaluable reference source for anyone interested in Neotropical butterflies and their biology. It is of particular relevance to amateur and professional lepidopterists, butterfly farmers, agriculturalists, and ecologists.

Este trabajo reúne por primera vez toda la información dispersa sobre la alimentación de las orugas de las mariposas neotropicales. Contiene más de 18,000 registros de plantas huésped, 3,656 de los cuales se encontraban todavía inéditos. La mayoría de los registros fueron extraídos de 884 artículos y libros científicos, muchos de los cuales solamente están disponibles en grandes bibliotecas especializadas.

La región neotropical (que abarca Centro y Suramérica, además de las islas del Caribe) alberga una fauna de mariposas más rica que la de cualquier otra de las regiones biogeográficas del mundo (7,783 especies). Este libro contiene registros de plantas huésped para 1,991 de estas especies, las cuales representan 614 de los 957 géneros de mariposas propios de la región. Las mariposas neotropicales utilizan una amplia gama de huéspedes: 169 familias de plantas superiores, con unas pocas orugas que se alimentan de Bryophyta (musgos y hepáticas), hojarasca, madera y hasta chinches (Homoptera). Los nombres científicos tanto de las plantas huésped como de las mariposas han sido actualizados de acuerdo a las últimas clasificaciones.

Este libro será una valiosa fuente de referencias para cualquier persona interesada en las mariposas neotropicales y en su biología. Es una obra de particular relevancia para lepidopterólogos profesionales y aficionados, criadores de mariposas, agricultores y ecólogos.



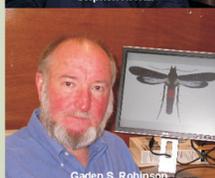
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Stephen K. Hall



Gaden S. Robinson

with the record validity, country and record source. Records for butterflies or plants are easily located by use of three indices, one for hostplant families that lists butterfly species numbers, one for hostplant genus, species and subspecies, and one for butterfly genus, species and subspecies. Two further invaluable additions are an appendix giving the identification of common names for hostplants, and an appendix providing synonyms, misspellings and old combinations of plant names from the literature with their current valid name.

Bringing together such a vast body of information from often highly inaccessible and disparate sources is enough of an achievement in itself. Nevertheless, the authors' commitment to making the information broadly available is further evidenced by a bilingual (English and Spanish) presentation throughout, and by making the book available for order online at <http://www.sea-entomologia.org/> for the extremely reasonable price of 18 Euros (currently about \$23). For an A4 size volume with over 500 pages, that seems a real bargain.

The authors claim that this book should be of interest to "... amateur and professional lepidopterists, butterfly farmers, butterfly houses/zoos, and everyone else who is interested in what the caterpillars of these wonderful insects eat", and they are absolutely correct. To declare a book "indispensable" is surely one of the great clichés of book reviews, but here it is a truly deserved accolade.

#### REFERENCES CITED

- Lamas, G. (Ed.)  
2004. *Checklist: Part 4A. Hesperioidea - Papilionoidea*. In: Heppner, J. B. (Ed.), *Atlas of Neotropical Lepidoptera. Volume 5A*. Gainesville, Association for Tropical Lepidoptera; Scientific Publishers.

2004). As a result, the authors have done everything possible to ensure the validity of the included records, a testament to the meticulous nature, in particular, of the first author.

The main body of the catalogue, the records, is arranged phylogenetically by butterfly family and then largely alphabetically. Each butterfly species (including unidentified species) is numbered and hostplant records are listed by plant family and species,

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