

BOOK REVIEW

**Hajo B. P. E. Gernaat, Borgesius G. Beckles & Tinde van Anandel. (2012).
BUTTERFLIES OF SURINAME. A NATURAL HISTORY**

Published by KIT Publishers, Amsterdam, Netherlands. 680pp., 5 maps, 1,475 color images (52 color plates), 19 b/w photo, 329 figs. Hardcover, semi-glossy paper, 20.3 cm x 25.4 cm. ISBN 978-94-6022-171-2. Available for \$US 89.95 from Stylus Publishing, LLC, P.O. Box 605, Herndon, VA 20172-0605, (703-661-1581), <http://www.styluspub.com/Books/SearchResults.aspx?str=butterflies+of+suriname>.

This book is the first of an intended series on the butterflies of Suriname, and includes a broad introduction to the country's butterflies presented in an ecological and historical context. The contents are divided into four parts, with the last two dedicated specifically to butterflies. Part I begins by explaining technical terms used in the book, including biological classification and Latin names (5 pp.), and concludes with eleven pages describing the geography, climate, geology, and soil types of Suriname. Part II is composed on an introduction to plants (11 pp.) and the rain forest (20 pp.), plant diversity in Suriname (5 pp.), and a discussion of Suriname's principal habitat types (9pp.) found in each of its ecological regions, including the coastal plain, the savanna belt, and the inland mountainous region.

Part III includes a detailed introduction to the butterflies of Suriname (58 pp.), and a synopsis of the history of butterfly study in the country (39 pp.). The introduction summarizes butterfly taxonomy, biology, and ecology, including seven color plates illustrating mimicry complexes, and discusses Suriname's butterflies in the context of the world and the Neotropical fauna. The historical overview of the study of Suriname's butterflies summarizes the contributions of many individuals, including Maria Sibylla Merian (*Metamorphosis Insectorum Surinamensium*), Carl Linnaeus (*Systema Naturae*), Daniel Rolander (*Diarium Surinamicum*), Peter Cramer and Caspar Stoll (*Uitlandsche Kapellen* and the *Aanhangsel*-including four color plates illustrating Cramer butterfly types), Johann Cristian Fabricius, J. C. Sepp (*Surinaamsche Vlinders*), August Kappler and Heinrich Benno Möschler (*Beiträge zur Schmetterlingsfauna von Surinam*), among several others. This section clearly demonstrates the great historical importance of Suriname in the study of butterflies.

The final section of the book, Part IV (393 pp.), includes species accounts and 41 color plates detailing 150 of Suriname's butterfly species. These include common, widespread species that are likely to be encountered by casual observers, and a mix of additional, less common species, representing all the families and most subfamilies in the country, chosen more or less at random, including Hesperidae (10 spp.), Papilionidae (13 spp.), Pieridae (14 spp.), Lycaenidae (7 spp.), Riodinidae (11 spp.), and nymphalid subfamilies Danainae (4 spp.), Ithomiinae (11 spp.), Morphinae (13 spp.), Satyrinae (16 spp.), Charaxinae (6 spp.), Biblidinae (15 spp.), Nymphalinae (12 spp.), Limenitidinae (2 spp.) and Heliconiinae (17 spp.). Each species account includes photos (up to 16 for some taxa), identification characteristics, type description, distribution of the species, number of subspecies, distribution of the subspecies occurring in Suriname, distribution within Suriname, habitat and behavior, foodplants, (possible) foodplants for Suriname, data on the life history, and data on parasitoids. Species accounts draw from a great variety of published sources, and are thus quite informative and thorough.

The book concludes with seven appendices, an extensive list of references and an index. Appendices include: I. How to enjoy the forest- what to do and what not to do; II. The butterflies of Suriname and their natural history in the *Metamorphosis Insectorum Surinamensium* by Maria Sybilla Merian; III. The Cramer butterfly types for Surinam in the Netherlands Center for Biodiversity (NCB) Naturalis; IV. Data on figured specimens (plates 1-52); V. Glossary of Surinamese, scientific and English names for plants and animals used in the book; VI. Glossary of technical terms; VII. Authors, photography and the SLI (Suriname Lepidoptera Institute). A huge amount of information is presented in these easy-to-use appendices, which I consulted frequently while exploring the contents of this volume.

This is a truly extraordinary book! I have seen few regional guides on butterflies that are packed so full of information and so beautifully illustrated. Color images grace nearly every page, and the various tables and color plates makes information easy to access. Related sections within the book are even cross-referenced, making the book easier to use. The quality of the photographs in the book is exceptional, and the text is clearly written and easy to digest. The classification of butterflies used in the book is current, as of about mid-2011). I noticed just a few small errors or inconsistencies. For example, on plate 12, the female identified as *Entheus matho dius* Mabille, 1898 is not that species, but appears to be the female of *E. eunyas* Austin, O. Mielke & Steinhauser, 1997 or a similar, related species. Likewise, the skipper identified on page 289 (fig. 10-14) as *Apaustus menes* (Stoll, 1782) is apparently a species of *Eutocus* Godman, 1901, probably *E. fabulinus* (Plötz, 1884). Spelling errors I noticed include captions to color plate 8 (2 & 3: "*Astraptus*" should be "*Astraptus*" [also on p. 593]; 9: "*Spathbilepia*" should be "*Spathilepia*"), and the images comprising figure 11-18 are not lettered (though are identified by letters in the caption). In a work of this magnitude, a few small errors such as these are inevitable, and in no way do they detract from the overall great quality and readability of the book's contents.

This volume goes far above and beyond most introductory texts on butterflies, and can easily be used as an introductory text anywhere in the neotropics. It is no exaggeration to say this is one of the finest books on butterflies I've seen published in recent years. The authors are to be congratulated on their impressive accomplishment, and thanked for their generous contribution. I sincerely hope that subsequent volumes, which I await with great anticipation, will be as detailed and informative as the current volume.

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