

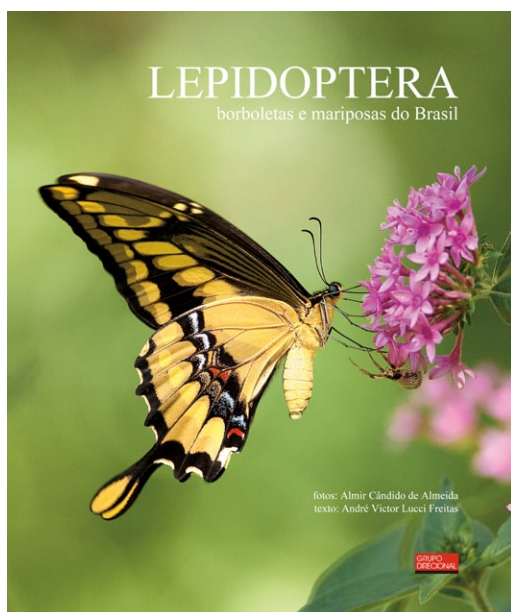
## BOOK REVIEW

**Almir Cândido de Almeida & André Victor Lucci Freitas (2012).  
LEPIDOPTERA. BORBOLETAS E MARIPOSAS DO BRASIL. (LEPIDOPTERA.  
BUTTERFLIES AND MOTHS OF BRAZIL).**

Exclusiva Publicações Ltda., São Paulo, Brazil. 208 pp.

From the largest rain forest on Earth to the unique coastal forests of the Mata Atlântica, Brazil's vast territory encompasses an extraordinary array of landscapes. Brazil's biodiversity is also rivaled by few other countries, with more than 3000 species of butterflies and about 23,000 species of moths. Almeida and Freitas' new book is a spectacular tribute to this highly successful group of insects.

According to the book's preface, Almir Cândido de Almeida travelled for ten years throughout Brazil taking the photographs which are the main feature of this book. With the exception of a *Morpho* wing found on the ground, all 228 photos are of live butterflies in natural settings. These are photographs of exceptional clarity, quality, and beauty. Pages 26 to 53 comprise photos of eggs, caterpillars and pupae, of both moths and butterflies; the globular, orange eggs of *Heraclides hectorides* look to me like sticky, glistening toffee-apples, while the softly focused, dense black and cream hairs of an arctiid caterpillar recall the resplendent plumes of birds-of-paradise. The remainder of the book is devoted to adult butterflies and moths, representing a great diversity of regions, taxa and behaviors. Species range from the most common and widespread, like the intense *Dryas iulia* nectaring on a gaudy yellow bloom, to fantastic Atlantic forest endemics such as the brassoline *Blepolenis bassus*. A great variety of hairstreaks clamber about among flowers, some apparently unaware of lurking crab spiders. Spectacularly camouflaged sphingids and noctuids hide among lichen-clad tree trunks and dead leaves, interspersed among metallicly spangled tortricids. Riodinids glitter in the sun, while every hair and scale stand out on the wings of euptychiine satyrines perched quietly in the forest gloom.



*Arcas ducalis* (photo by Almir Cândido de Almeida)

Water droplets sparkle on the wings of the skipper *Pyrgus orcus* and sunlight picks out the translucent spots of the ithomiine *Pseudoscada erruca*, imbibing protective chemicals from an Asteraceae flower. I do not know enough about Lepidoptera in Brazil to judge how rare are the figured species, but certainly there were many that I have never seen alive, and I savored every image in the book.

The book also contains an introductory ten pages of text by Freitas, in Portuguese, summarizing the diversity and biology of Brazilian Lepidoptera. Although readily comprehensible to a reader with no knowledge of Lepidoptera, the text is well-written, authoritative and interesting even for those who study the group. A map shows the six Brazilian biomes, Amazônia, Mata Atlântica, Caatinga, Cerrado, Pantanal, and Campos Sulinos, and the text continues with sections that define Lepidoptera, discuss basic morphology, the differences between butterflies and moths, the life cycle of Lepidoptera, feeding behavior, wing patterns, enemies and defense. Being written for a popular audience, there are no bibliographic references in the text, but Freitas' extensive knowledge of Lepidoptera biology is evident throughout. The text concludes with remarks on conservation of Brazilian Lepidoptera, noting that 57 species are listed as at risk of extinction in the latest Brazilian Red List. Fifty-five of these species are butterflies, highlighting the relatively poor knowledge of moths.

This book is a passionate, unashamed celebration of the beauty of Lepidoptera. For those of us who spend our lives in contemplation of butterflies and moths this book reminds us why, and for those who have yet to discover these marvelous insects, perhaps this book will help them to do so.

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