A Book Review of  Phasmids of Borneo by Philip E. Bragg

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Source: Journal of Orthoptera Research, 10(2) : 369
Published By: Orthopterists' Society
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Borneo, the third largest island in the world, is still largely unexplored despite its long association with visitors from the Northern Hemisphere. Regardless of the widespread publicity about habitat destruction from logging, oil palm plantations and human settlement, a surprising amount of the island remains relatively “natural”. It is thought that approximately 10% of the world stick insect fauna occurs on Borneo. They are largely uncollected because the insects are usually large, take up much room in collections, are difficult to prepare and retain in good condition and are largely nocturnal. But while stick insects may be mostly unstudied by practicing taxonomists, they are extremely popular and many are very well known in another circle: many dozens of species are avidly kept alive and their lifestyles enjoyed by pet fanciers in the U. K. and Europe.

With a book of almost 800 pages (the book is truly a tome as it weighs almost 3 kg!!), one might assume that this is the last word on Bornean stick insects. But it is really the “first word”. Two-thirds of the described species belong to the Necrosciinae, and there is a need for further collecting, rearing and comparison of types in this group. Even with seven trips to Borneo by Bragg, he feels he is just beginning to understand the Necrosciinae. If standards similar to those of the present volume are followed for the remaining Necrosciinae, a book of similar size may result. As Bragg points out, this may be years away, as careful rearing, association of the sexes with the proper species, and attention to variation, is very time consuming.

The book is arranged using the rather outdated classification of Bradley and Galil. This follows an extensive introduction that will be useful to all biologists working with Bornean fauna. Geography and habitats are discussed and there is extensive coverage of food plants and captive rearing. Thankfully, a section on the biology of the Bornean stick insects is separate from the main body of the text. A section on collecting and preservation offers a basis for discussion. Bragg recommends the careful use of ethyl acetate, but notes its tendency to affect colors. This is very true with orthopteroid insects, where cyanide is the best killing agent, but is difficult to obtain most places. He does not mention it. Instead some different, or even novel methods are suggested. Freezing is suggested, if possible, but simply placing the live specimens in a plastic bag in the sun for 1-15 s kills them. This can be done almost anywhere. The author discusses a range of preserving methods but the most obvious one, used by many orthopterists and phasmatoologists, is not mentioned. This involves gutting the freshly killed specimen and inserting into the body cavity a small amount of boric acid powder and talcum in equal amounts. This, combined with quick-drying, preserves all colors and prevents decomposition.

The author utilizes classical descriptive techniques, combining them with modern cladistics, in arriving at his genera arrangements. Hopefully this will lead to a revamped higher classification of the order. The accompanying line drawings are superb and comprise the principal taxonomic structures, habitus poses and eggs. Egg morphology is very important in this group. The book concludes with a history of the Phasmid Database and a full history of all the Bornean taxa. Six appendices contain useful bits ranging from the placement of types in the Leiden Museum to useful collecting equipment.

In this age where economic considerations limit the publication of worthy, meritorious large treatises without stipends, it is no coincidence that the publisher, Mr. C. L. Chan, is himself an avid “phasmatologist”. He has provided Bragg and others the opportunity to study stick insects in Borneo and has borne considerable costs towards the publication of this book. It is not likely to attract a big market because of the nature of the content, however Mr. Chan has a vast knowledge of Bornean ‘sticks’ and a large personal collection and considers publication of this book as a ‘labor of love’. He is an expert photographer, as indicated by the photo on the dust jacket, and magnificent color plates in the body of the book.

The foreword of the Phasmids of Borneo, written by Datuk Tham Nyip Shen, Deputy Chief Minister of Sabah State, is extremely important. It illustrates awareness on the part of the Malaysian government of the need for the documentation of their biota. In Malaysia there is no national insect collection. The primary types of the fauna are kept in a variety of places, ranging from private collections through universities and institutes. But the majority of types are overseas. This book should demonstrate to the Malaysian government the importance of basic taxonomic research and the need for a facility to house the vouchers of research within the country. With the importance the government is now placing on conservation and bioprospecting, for example, this book may be very timely and contribute to achieving these goals.—

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