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## **BOOK REVIEW**

## THE BUTTERFLIES OF HONG KONG

by M. J. Bascombe, G. Johnston, and F. S. Bascombe

1999. Academic Press, San Diego, California. 422pp, 222 color pl. (21 x 28cm). \$239.95 cloth. ISBN 0-12-080290-2.

In the 99 years that the British occupied Hong Kong, several books were completed on the butterflies of Hong Kong (unfortunately, none for moths of Hong Kong), already starting with a small checklist in 1893. Clearly, the current book is the finest and most complete in this long tradition; indeed, it is unquestionably the most complete treatment for any area of Southeast Asia. The authors have put together a remarkable encyclopedia of what is known for the 219 species occurring in Hong Kong. Since the text is entirely in English, the many relatively unreadable books with Chinese and Japanese texts that have been published over the years for East Asian butterflies are now amply made up for with this new book for Hong Kong. The overlap in coverage for widespread species makes the book essential for all students interested in Southeast Asian butterflies, including such nearby areas as Taiwan (65% overlap of species with Hong Kong) and the Philippines (47% overlap of species); 18% of the Hong Kong species even occur in Japan and 92% occur in India (percentages tabulated by the authors). With this new book and studies on the fauna over the past 100 years, the Hong Kong butterfly fauna is perhaps the best known for this region of China. Notwithstanding the large human population of Hong Kong, few persons who have not visited Hong Kong may know that there remain considerable natural areas within the boundaries of the former British colony, since most residents are densely packed within the urban areas of Hong Kong. The authors each have resided in Hong Kong for over 25 years, continually studying the local fauna since moving there. Gweneth Johnston also was co-author of a 1980 book on Hong Kong butterflies.

The new book for Hong Kong includes 222 color plates at the end of the book, with only 86 of these devoted to museum specimens of the adults; the remainder of the color plates show immature stages for 166 of the species. Additionally, the entire text is interspersed throughout with color photographs of adults taken in nature, as well as some added figures of immature stages. The introductory section includes color figures of habitats in Hong Kong and life history examples. The introductory section (70 pp.) covers all details of butterfly morphology, life cycles, behavior, distributions, and habitats pertaining to the Hong Kong fauna, all well-illustrated and including a number of SEM micrographs of morphological details. There are exellent maps showing features of Hong Kong and the area in relation to the Southeast Asian region. The color plates and other color figures are all excellent, bright, sharp and well printed. The plates showing museum specimens all have both wing surfaces illustrated. The introduction also has a brief history of butterfly studies in Hong Kong and a review of the classification adopted. The end of the book has a checklist for the species treated.

The main text of the book treats all species in detail, including figures of genitalia, wing venation, and some color photos taken in nature. The text gives descriptions and diagnoses of the higher taxa (families, subfamilies, tribes), as well as for the genera and species. The classification adopted for the book is somewhat outdated at higher levels and follows many conventional treatments where the skippers are segregated as a separate superfamily, but everything else appears to be up-to-date. The checklist to species is somewhat condensed, since subspecies for Hong Kong are listed on the same line as the main species name. Thre is an appendix with notes on a few species that are strays or reported in error for Hong Kong. A third appendix lists known hostplants for Hong Kong butterflies. There are 3 further appendices: one listing known parasitoids of Hong Kong butterflies, one on rearing techniques, and a final one listing names and addresses for a selection of suppliers (mainly British) and useful book titles. There is an extensive bibliography of papers and books on the Hong Kong fauna, plus a general index and index to technical terms.

This book, without question, is required on the bookshelf of all students of Asian butterflies. Indeed, persons interested in butterflies in general ought to consider the book due to its scientific treatment of this part of the world fauna of butterflies. The only comparable books for any area - with the same kind of intensive coverage of the fauna and a comparable number of color figures in large format - would be the recent books on South African butterflies (Living Butterflies of Southern Africa. Vol. 1, by Henning et al., 1997), on Moroccan butterflies (The Butterflies of Morocco, Algeria and Tunisia, by Tennent, 1996), and on Papua New Guinea butterflies (The Butterflies of Papua New Guinea, by Parsons, [1998]). Two comparable works in German are the recent works on Turkish butterflies (Die Tagfalter der Türkei, by Hesselbarth et al., 1997) and on Swiss butterflies (Tagfalter und Ihre Lebensräume, by the Swiss Society for Nature Conservation, 1987, 1997). There are few other books like this (one can think of recent books for Australia and Japan (the latter in Japanese, however), and the Gibb's book on New Zealand butterflies) as also in this category. Surprisingly, there is no really comparable work for North American butterflies, and only recently have similar books appeared for Venezuela and for the West Indies. The only deterrence to ownership is the high cost involved in the Hong Kong book, although the large number of color plates (most publishers are pricing books at about \$1 per color plate) and the deflated value of the US Dollar warrant the price (back in 1960, the price would have been perhaps only \$60 for a comparable book). Other works, like the extensive series on butterflies of the world by D'Abrera (or the outdated Seitz series), become mere illustrated catalogs compared to these encyclopedic and detailed scientific treatments for their respective faunas.

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