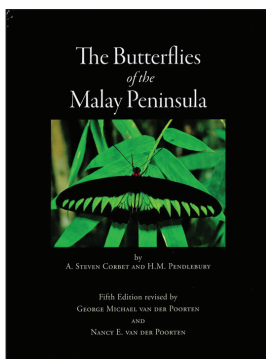


## BOOK REVIEW

*The Butterflies of the Malay Peninsula* (fifth edition) by A. Steven Corbet and H. M. Pendlebury, Fifth Edition revised by George Michael and Nancy E. van der Poorten. Hardback, 2020, 492 pp. including 342 text figures and 459 genitalia figures, 6 early stages colour plates plus 132 colour plates of adults. Published by Southdene Sdn. Bhd., Kuala Lumpur, ISBN 9789834488635. Errata sheets: Corrigenda and Addenda version 3 (available at <https://www.mothsofborneo.com/> and printable to fit the work). Price: £65.00.



The van der Poortens are to be congratulated on this much welcome 5th Edition of *Butterflies of Malaysia*. These authors have an excellent track record in publishing books on the butterfly fauna of Sri Lanka, which included many discoveries on local biology. They were thus well placed to take on the challenging task of this update. Because the plate originals by Bernard D'Abrera could no longer be sourced, this involved the authors photographing specimens for many plates anew, mostly at the Natural History Museum, U.K. and at the Lee Kong Chian Natural History Museum in Singapore (which contains the Fleming collection of Malaysian butterflies). The first edition of this work was published in 1934, so this may qualify for the longest running butterfly textbook in the world under one title. The fourth edition was revised in 1992 by John Eliot, containing 595 pages and 69 colour plates, yet the authors have managed to produce a fifth edition with identical shelf size, even though with additional taxa. Henry Barlow was a prime mover in helping drive forward this important update to completion.

The new work includes an updated butterfly checklist and bibliography, revised nomenclature, distributions (although there are no maps), improved layout, and much previously unpublished information, including on life history, with the early stage colour plates giving a sparse but broad overview of immatures within the fauna. Many of the line drawings have been redrawn for clarity. The basic structure of the work will be familiar to those using earlier editions, with very similar wording in the introductory chapters (introduction, life history, nomenclature and classification, biogeography, wing pattern, speciation, populations, historical study, and collection). The introductory chapters also include some new subjects, such as discussion of the role of the endosymbiont bacterium *Wolbachia* in the population chapter. There is clearly scope for updating other chapters in a future edition to keep pace with new discoveries.

The annotated bibliography that was in Edition 4 (pp. 455–510) is not included, however, saving considerable space, although Henry Barlow has made it available in pdf form on the Moths of Borneo website.

The *Butterflies of the Malay Peninsula* now covers 1051 species and 153 subspecies, plus information on species of doubtful occurrence (up from 1031 species and 135 subspecies in the 4th edition). The work thus comprises a really substantial source of information, not just for Malaysian butterflies, but for the fauna of the entire Oriental Region.

The work is also arranged in a 'traditional' systematic order (Papilionidae, Pieridae, Nymphalidae, Riodinidae, Lycaenidae and Hesperidae). If and when a sixth edition is contemplated, the arrangement should best be updated to the modern accepted order (i.e., the family topology given on page 1 of the Introduction). Then it would plainly reflect recent well supported systematic changes that are largely due to the major advances of molecular phylogenetics. It could also consider more information from DNA barcoding, a subject I did not see mentioned: for example, inclusion of Barcode Index Numbers, where known, could be very helpful because of the way they intermesh with the BOLD database, whether or not they fully align with traditional nomenclature, the potential disparities being then of great interest. There are, nevertheless, references made to recent molecular works in the systematic part of the text (e.g. for mycalesine satyrines), but for Hesperidae especially, there is little allusion to what might be considered the emergent subfamily and/or tribal structure from genomic works in the very last few years (e.g. no reference to Tagiadinae and Chamundinae). Once much of the fauna has been DNA sequenced, it should in any case be possible to provide a relatively stable system for the higher systematics all round. In fairness, for Hesperidae, a robust phylogenetic structure is not yet available for all Old World genera. Indeed, the skipper butterfly account is still divided into broad generic groups, much along the lines of systematics from the time of Evans. Indeed, apart from Nymphalidae, which follows a working phylogeny, a relatively up to date structure following a topological schema is not actually provided. Appendix E (Taxonomic and distribution notes), nevertheless, includes many useful notes (over 236) that summarise recent progress, while most of them concern species level or below.

The keys are basically the same as those in the 4th edition, but as the fauna has hardly much expanded certainly at species level, they are still very workable.

The species/subspecies accounts include one or more paragraphs comprising essential diagnostic and distributional information and where available, details of life history. The venational figures of representatives of most genera combined with the original male genitalia figures from lateral view, which have been updated for readability, are very useful to have still in one place, even though some are just still thumbnail sketches of relevant parts.

The colour plates of adults are of excellent reproduction quality and include the upperside and underside of photographs cut in half, with indications of sex and scale, and they are very helpfully cross referenced to the text (whereas the 4th edition included entire butterflies mostly to life size or close). The economy of publication is clearly justified with the new format.

The work, when including errata and corrigenda, is relatively free from fundamental errors and provides an essential textbook for all studying Old World butterflies, and certainly those from the Oriental and Indo-Australasian regions, and thus constitutes a really important update to the local fauna. At the price, integrating and updating as it does a long and rich heritage of taxonomic work for the region, this work presents really good value for any serious butterfly worker's bookshelf.

DAVID C. LEES

*Department of Life Sciences, Natural History Museum,  
Cromwell Road, SW7 5BD  
david@nhm.ac.uk*