

BOOK REVIEWS

Flora Malesiana, Series I. Volume 17 part 1. C. C. Berg, E. J. H. Corner[†] & F. M. Jarrett. Leiden: Nationaal Herbarium Nederland. 2006. vi + 154 pp. ISBN 90 71236 64 1. Price not yet available (paperback).

Flora Malesiana, Series I. Volume 17 part 2. C. C. Berg & E. J. H. Corner[†]. Leiden: Nationaal Herbarium Nederland. 2005. vi + 730 pp. ISBN 90 71236 61 7. €90 (paperback).

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At long last, witness the publication of E. J. H. Corner's legendary manuscript on the figs of Malesia! Corner's disagreement with *Flora Malesiana* editor C. J. J. G. van Steenis in 1972 delayed the appearance of this work for a remarkable 35 years. According to Corner, a genus as distinctive and diverse as *Ficus* could not possibly conform to the standard format of the *Flora*. He once remarked that the many forms of these incredible plants could alone assemble a forest as diverse as any (Corner, 1940), and his idiosyncratic views clashed with the central tenet of *Flora Malesiana* to provide parallel accounts and keys of all species, genera and families in the region. A comprehensive treatment of one of the most difficult genera in Malesia was to van Steenis proof of the *Flora* concept but to Corner it was the culmination of a monumental 40-year effort. A student of Corner's once said that argumentative letters with van Steenis even included derogatory name calling in Malay. The impasse seemed a sort of last colonial standoff in the botany of a region once divided between the Dutch and the British. After Corner's death in 1996 the manuscript that had languished in Leiden was passed to C. C. Berg who revised it so extensively that he became its primary author.

Corner had first-hand knowledge of more than 300 fig species in nature thanks to a long tenure at Singapore Botanic Gardens and extensive travel throughout Malesia. He examined 21,000 specimens and he reduced 2600 names to c.480 species. Berg applied his extensive taxonomic knowledge of the neotropical and afro-tropical *Moraceae* to revise Corner's work, recognizing the need to incorporate new information that had come to light during the 30-year stalemate.

The result is a volume in two parts, part 1 of which includes all genera of *Moraceae* other than *Ficus* and is co-authored by Corner's student F. M. Jarrett, who studied *Artocarpaeae*. We should like to know how Corner, in his own right a perceptive and erudite spokesman for plant life (Corner, 1964), ultimately regarded his favourite genus but this will remain a mystery because Berg recognizes substantially fewer fig species in part 2, only c.360. Berg described 32 additional species so an even larger number of Corner's species are not recognized than appears at first glance. Berg's revised classification of *Moraceae* genera and tribes for the most part brings clarity and organization to this very diverse and economically important family.

Part 1 begins with a detailed overview of *Moraceae* morphology and distribution in Malesia. Also reviewed are the classification, wood anatomy, pollen morphology, phytochemistry, reproductive biology, and economic uses of the family. The introduction concludes with keys to tribes and genera. Berg treats five tribes in part 1 and devotes all of part 2 to the tribe *Ficeae*. Keys based on vegetative and reproductive characters follow descriptions of tribes and genera. The complete synonymy and detailed descriptions of each species have great value but it is Corner's elegant and unmistakable hand that stands out most. His illustrations and those of R. van Crevel show an organic economy of line that sets the standard for representation of plant form. Corner's hand-drawn distribution maps, however, appear antiquated.

Berg's extensive taxonomic changes are published in a series of precursors to the *Flora Malesiana* volume (Berg, 2005). The changes are helpful for the most part but the introduction of two new tribes, *Antiaropsideae* and *Soroceae*, to remedy the heterogeneous tribe *Artocarpeae* ignores the recent phylogenetic classification of *Moraceae* (Datwyler & Weiblen, 2004) that recognized only four monophyletic tribes and transferred a few problematic genera from *Artocarpeae* to *Castilleae* or *Moreae*. The tribes *Antiaropsideae* and *Soroceae* are unnecessary and further confuse evolutionary relationships in the family. Most of volume 17 part 1 goes in the right direction but the expansion of *Moraceae* tribes is an unfortunate example of the opposite.

Part 2 begins with an excellent overview of Malesian fig diversity. Sections on morphology, distribution, ecology, wood anatomy, leaf anatomy, pollen morphology, pollination, dispersal and economic importance serve as an essential reference for the non-specialist and specialist alike. Berg's higher classification of *Ficus* is a great improvement over Corner's (1965), incorporating many new findings from molecular phylogeny and highlighting instances where relationships are still unclear. The most practical tools in the volume are the regional keys to species within *Ficus* sections. These workable keys have immense utility in understanding the dauntingly complex local species richness of the genus throughout the region. An interactive key thanks to Hans Nooteboom is provided on CD-ROM and includes images of many species not illustrated in the printed volume.

In some respects the *Ficus* treatment disappoints field botanists with knowledge of the regional flora. In several instances, the species concept that Corner refined over four decades of field experience and the careful examination of virtually every specimen known in his time has become muddled. For example, Berg lumps *F. stupenda* and *F. subsecta* under *F. crassiramea* whereas all three are good strangler fig species recognized by morphological differences (R. Harrison, pers. comm.). Similarly problematic is the treatment of New Guinea endemic species in *Ficus* sect. *Malvanthera*. For example, *F. xylosycia* is not a synonym of *F. hesperidiiformis*. The former is easily distinguished from the latter by smaller, oblong figs at maturity and their species-specific pollinators show substantial genetic divergence. Other taxonomic problems will no doubt come to light.

We reserve the last word for the eccentric Corner who built the solid foundation for this monumental work during his career as a mycologist (Watling & Ginns,

1998). In Singapore he pioneered the use of trained monkeys to collect specimens from the forest canopy (Corner, 1992), crossing borders with his caged macaques and remaining active even under house arrest during the Japanese occupation. Corner was once likened to that spiny and seemingly impenetrable fruit the durian, once properly opened revealing most improbable tastes. His insights into floral evolution and the ancestry of angiosperms (Corner, 1949) might be thought of in the same way. Peter Ashton remembers with humour Corner's tale of travelling to Europe in search of a type specimen only to discover the dried remains of a cheese sandwich in the crucial packet where figs were supposed to be found. Readers who have waited all these years for Corner's last word on *Ficus* may be similarly befuddled.

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Woody Plants of Western African Forests. W. D. Hawthorne & C. C. H. Jongkind, illustrated by R. Wise & M. Spitteler. Kew Publishing. 2006. 1040 pp. ISBN 978 1 84246 089 4. £69 (hardback).

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This monumental work by Hawthorne and Jongkind is amazing in its breadth and depth. It covers all the woody forest plants occurring from Senegal to Ghana. This accounts for 2200 species. What is even more remarkable is that in contrast to most taxonomic publications, species level identifications can be made without flowers and fruit using a combination of a leafy shoot and field characters, such as smell and the colour of the slash.

The book is very well illustrated with a combination of excellent line drawings and colour photographs. It was fascinating on a recent fieldtrip to watch an ecologist pick up this book, look at the photographs and say 'this is my kind of book'. What was even more informative was watching a taxonomist carefully read pages of the species keys and come to the same conclusion.