

BOOK REVIEW

Flora of Peninsular Malaysia: Series II: Seed Plants. Volume 3. Malayan Forest Records No. 49. Edited by R Kiew, RCK Chung, LG Saw & E Soepadmo. Forest Research Institute Malaysia, Kepong. 2012. 385 pp. ISBN 978 967 5221 73 6. RM100/USD60.

This *Flora* sets a high standard. The lavish allocation of space to text (seemingly as much as required), illustrations and maps provide a refreshing approach to writing a regional Flora. This volume, the fourth to be published (in two series), covers ten families: Chrysobalanaceae, Cleomaceae, Cucurbitaceae, Cycadaceae, Juglandiaceae, Lecythidaceae, Magnoliaceae, Nepenthaceae, Ochnaceae, Olacaceae and 123 species. The species accounts take up 313 pages of the text, almost three pages per species! Note that figure and map numbers start afresh with each family treatment. A section of colour photographs illustrating a large cross-section of the species included adds an additional dimension to the volume. Detailed instructions for authors are found online (Web ref. 1) and these serve as useful instructions for preparing a detailed *Flora* treatment.

Starting with an introduction to plant conservation in Peninsular Malaysia, all species are assessed according to the IUCN guidelines at a local level. A considerable number of species have some degree of conservation concern in the region, largely due to clearing of habitat. With a flora estimated at 8500 species, Peninsular Malaysia is very floristically diverse. The plan for the series is to publish about 100 species per volume, so another 80 or so volumes can be expected in due course—an ambitious project that is off to a very fine start.

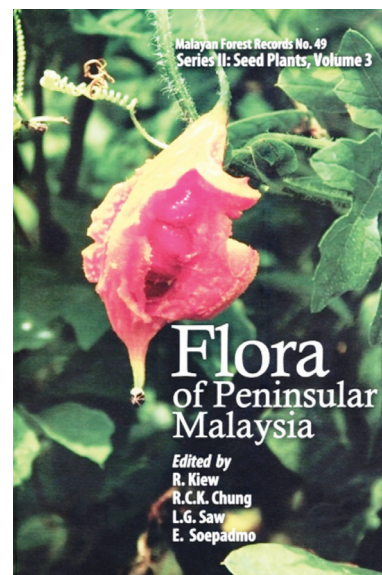
The *Flora of Peninsula Malaysia* follows on in style from the *The Tree Flora of Sabah and Sarawak* published between 1995 and 2007 by

Soepadmo et al. (a low resolution pdf version of these volumes

is available for freeonline; Web ref. 2). The taxonomic accounts provide descriptions of the families, along with bibliographic details, vernacular names, distribution, uses and taxonomy. Dichotomous keys and full descriptions are presented from genera down to infra-specific taxa.

Introductions are given to families and genera, with space allocated to discussion of particular points of interest (phylogenetic history, ethnobotanical usage etc). The derivation of epithets is also provided (where known). For species, full citation details, relevant synonyms and type details are included. Diagnostic features are emphasised in the descriptions with italic text. Other than types, no specimens examined are listed, though the maps consist of specimen-based points.

Authors are from various countries around the world but examination of the species included in the treatment, both in the herbarium and in the field, is stipulated as a requirement for all contributions. This requirement for a fresh re-evaluation of taxonomic concepts has led to the recognition of several new species in the course of preparing this volume, including a new species of *Cycas*, three new Lecythidaceae, a Cucurbitaceae and an Olacaceae. The case of *Cycas* is particularly noteworthy, as only four



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species occur in Peninsular Malaysia, with another of these only being named by Hill in 1999 (Hill & Yang 1999).

In several cases, multiple keys are provided to either flowering or fruiting material (e.g. Cucurbitaceae), which is very useful for such groups. In some cases, doubtfully recorded or questionably naturalised species are included in the keys but not discussed further in the text.

I found very few errors in the text, and none of consequence. Three lines of text have inadvertently been repeated on the following page in the introduction to Lecythidaceae (pp. 173–4).

There are a number of recent nomenclatural changes adopted in this volume. The break-up of *Cleome* L. is accepted but unfortunately, as with the *Flora of North America* and the *Flora of China*, the use of *Arivela* Raf. overlooks the earlier name *Corynandra* Schrad. ex Spreng. Further clarification of the application of the latter name is expected from Iltis and Cochrane in the near future. The inclusion of *Mukia* in an expanded *Cucumis* is not followed. While a larger number of genera have been recognised in Magnoliaceae in the region at various times in the past, an expanded circumscription is adopted here so that all species in the region are included under *Magnolia*. Looking afresh at the description and images of *Careya arborea*, the similarities to the northern Australian *Planchonia careya* are

unmistakable, and perhaps foreshadows the possibility that ongoing studies of the generic relationships may result in an expansion of *Careya* to include *Planchonia*.

A number of the species in Peninsular Malaysia extend widely across Asia, including to northern Australia. These include *Maranthes corymbosa*, several species of *Cleome* (s.l.), *Coccinia grandis*, *Luffa aegyptiaca*, *Barringtonia acutuangula*, *B. asiatica*, *Nepenthes mirabilis*, *Oxalis imbricata* and *Ximenesia americana*.

I have been through the entire book several times in preparing this review and consider it a valuable addition to my library. It is a high quality publication, a thorough regional treatment, and makes a significant contribution to knowledge of the flora of the broader Malesia region.

REFERENCES

- HILL KD & YANG SL. 1999. The genus *Cycas* (Cycadaceae) in Thailand. *Brittonia* 51: 48–73.
- Web ref. 1. <http://www.chm.frim.gov.my/Resources/Publications/Guides-for-Contribution.aspx> (Accessed 27 July 2012)
- Web ref. 2. <http://www.chm.frim.gov.my/Resources/Publications/Books/Floras/Tree-Flora-of-Sabah-and-Sarawak.aspx> (Accessed 27 July 2012)

Russell Barrett
Kings Park & Botanic Garden
Perth, Western Australia
russell.barrett@bgpa.wa.gov.au