Book Reviews

(Edited by A. Marshall)

M. Hamidah, L. S. L. Chua, M. Suhaida, W. S. Y. Yong & R. Kiew. Botanical Gazetteer for Peninsular Malaysia. Research Pamphlet No. 131. Pp. ix + 129, 6 colour plates, 2 maps. Malaysia, Forest Research Institute Malaysia, http://www.frim.gov.my, 2011. ISBN 978-967-5221-72-9 (hardback).

A Flora project is beneficial in so many ways — the published volumes aiding our understanding of the world’s plant biodiversity are the most obvious and conspicuous outputs, but numerous ‘spin-off’ products are generated. These include training for botanists (young and old), increased exploration, improved collecting effort, specimen determinations updated, international collaborations, online resources, production of phylogenetic data, and, of relevance to this review, improved data quality for mapping and understanding plant distributions. The Flora of Peninsular Malaysia project based at the Forest Research Institute Malaysia (FRIM) has published a hard-copy gazetteer of botanical localities in the Peninsula providing standard geographical data of immediate use for botanists and ecologists working in the region.

At the heart of any Flora project is the production of taxonomic treatments. There are many definitions of taxonomy, but one facet of the discipline is the understanding and analysis of organisms, their characters, and the utility of character variation for species delimitation, especially if they show discernible geographical segregation. In addition, modern taxonomic products, including the Flora of Peninsular Malaysia project, now give conservation assessments for each taxon treated. These are often generated following IUCN guidelines, which include two geographical standards — Extent of Occurrence (EOO) and Area of Occupancy (AOO) — and both of these require geographic specimen data. To better understand geographical variation and conservation priorities through mapping, it is essential to geo-reference localities, i.e., provide a latitude and longitude, particularly for historic collections/specimens where such data are lacking, and the gazetteer produced by the FRIM team will be a very valuable source of information to complete such tasks.

Rather than just select a set of places and localities in Peninsular Malaysia deemed important for botanical research, the authors have provided a comprehensive ‘botano-geographical’ index to Peninsular Malaysia using data collected from herbarium specimens in KEP and SING as well as botanical publications (but it does not include Singapore localities). The book is arranged in three sections: Places, Roads and Rivers and Streams, with localities cross-referenced depending on the type of locality, as well as differences in historic and contemporary Malay spelling. The Introduction explains the arrangement used and should be read before using. It must be noted, the gazetteer is not an index to every place, village, road and river in the Peninsula, but is rather produced to help locate and geo-reference herbarium specimens for the Flora (or other botanical research focused on the region). Naturally, as some out-of-the-way places are explored in the future, they will not be found in this gazetteer, but it is hoped, with ‘best collecting practice’, that collectors will not leave their GPS units at home (or run out of batteries), and/or forget to put the relevant information on their labels!

This book will be an extremely practical and handy resource for those undertaking any type of plant science in Peninsular Malaysia. The gazetteer will be placed online (and updated), and complements the already published gazetteers to Sarawak and Sabah — thus, botanically, the whole of Malaysia has complete geographic data coverage. The Malaysian government, the FRIM staff, and Flora of Peninsular Malaysia project, are to be congratulated on their continued support and energy in producing such high quality and useful publications.

T. M. A. Utteridge

R. Kiew, R. C. K. Chung, L. G. Saw & E. Soepadmo (eds). Flora of Peninsular Malaysia, Series II: Seed Plants Volume 3. Malayan Forest Records No. 49. Pp. ix + 385, 35 colour plates, many line drawings and distribution maps, map as endpaper. Malaysia, Flora of Peninsular Malaysia Project, Forest Research Institute Malaysia, 52109 Kepong, Selangor, 2012. Price RM 100/US$ 75. ISBN-13: 978-967-5221-73-6 (hardback).

South-East Asia is served by a number of Floristic endeavours ranging from local projects such as the Tree Flora of Sabah and Sarawak to the all-encompassing, but unfinished, Flora Malesiana treating all plants from the entire area of Peninsular Malaysia to Papua New Guinea. The most recent of these projects is the Flora of Peninsular Malaysia (FPM) project which was launched in 2005 (see Saw & Chung 2007), and has
an active programme of collecting and research based at Forest Research Institute Malaysia (FRIM). The FPM is publishing treatments in two series, the first treats Ferns and Lycophytes, whilst the second treats Seed Plants and recently Series II, Volume 3 has been published. The volume has an introductory section on conservation before the main body of taxonomic accounts treating 127 taxa in 10 families. An index to the families in the FPM, and their volumes when already published, is given in the volume’s back endpaper.

An introduction and discussion of the approach of conservation assessments used for the FPM, toward the production of the *Malaysian Plant Red List*, is given in a previous volume of FPM (Chua 2010). In this volume, a new category of ‘Rare’ is introduced for taxa that are not exposed to extinction threats but do not qualify for the five IUCN threat categories (primarily Critically Endangered). It will be interesting to see what these changes in conservation status (‘downgrading?’) will have on conservation planning in the region. The conservation assessments given in the Flora are regional rather than national or global, i.e. they are an assessment of threats applicable to Peninsular Malaysian populations. Thus, a widespread plant such as *Ximenia americana* L. (Olacaceae, treated on p. 327) — with a pantropical distribution including America, Africa and India through Malaysia to the Pacific — is considered Vulnerable in Peninsular Malaysia. This is extremely useful for conservation planning in the Peninsula as it highlights areas of plant diversity not included in protected areas and also habitat types under threat. The organisers of FPM are to be congratulated on including conservation assessments, and they should be strongly considered for other Flora projects in the region (especially *Flora Malesiana*), to greater understand the effects of rapid habitat degradation in South-East Asia on the region’s plant life.

The main body of the volume is the taxonomic treatment. FPM Series II, Volume 3 includes revisions of one gymnosperm family (Cycadaceae: 1 genus with 4 species) and 9 families of dicotyledons, namely Chrysobalanaceae (6 genera, 14 species), Cleomaceae (3 genera, 3 species), Cucurbitaceae (19 genera, 28 species), Juglandaceae (1 genus, 4 species), Lecythidaceae (3 genera, 28 species), Magnoliaceae (1 genus, 15 species), Nepenthaceae (1 genus, 10 species), Ochnaceae (5 genera, 7 species) and Olacaceae (8 genera, 11 species). The Cleomaceae includes those herbaceous taxa sometimes included in the Capparaceae; Magnoliaceae includes only the genus *Magnolia* (now encompassing aggregate genera such as *Michelia*, *Talauma* etc.); and the Olacaceae is treated as traditionally circumscribed (rather than being split into smaller families such as Erythroxylaceae etc.).

Families are arranged alphabetically and keys to genera and species are given. Each taxon (family, genus and species) includes a full description with diagnostic characters given in italics, as well as supplementary information regarding vernacular names, distribution, conservation status, ecology and uses. Every taxon has a distribution map, including infraspecific taxa. In addition, many of the species accounts will be applicable to regions immediately adjacent to Peninsular Malaysia. An Index to Scientific Names and an Index to vernacular (mostly Malay) and English names are included. Distribution maps are provided for each species, and within each family account representative species are illustrated by botanical plates (some reproduced from published Floras and some new). A block of colour photographs at the back of the book is provided to give an idea of the plants in the field.

The FPM Series II, Volume 3 follows the comprehensive format set by the previous volumes and provides valuable information not currently found in all the *Flora Malesiana* volumes, particularly the conservation status and distribution maps for each taxon. These broaden the utility and appeal of the Flora to an audience outside the traditional botanical one based in herbaria, and highlight the baseline information that herbaria, Flora projects and botanists produce for facilitating plant conservation. Providing such data, especially in combination with an authoritative species taxonomy by experts benefitting from a modern fieldwork programme in the region, makes the continued production of the *Flora of Peninsular Malaysia* extremely important for those working in the conservation and management of Peninsular Malaysia’s biodiversity. The authors and FPM Editorial Committee are to be congratulated on the publication of this latest volume, and it is recommended to all workers in the region.

T. M. A. Utteridge

References

Chua, L. S. L. (2010). Species assessment and conservation in Peninsular Malaysia. In: R. Kiew, R. C. K. Chung, L. G. Saw, E. Soepadmo & P. C. Boyce (eds), *Flora of Peninsular Malaysia* Series II, 1: 47 – 54. Forest Research Institute Malaysia, Kepong.

Saw, L. G. & Chung, R. C. K. (2007). Towards the Flora of Malaysia. In: L. S. L. Chua, L. G. Kirton & L. G. Saw (eds), *Proceeding of the Seminar and Workshop Status of Biological Diversity in Malaysia and Threat Assessment of Plant Species in Malaysia*, 28 – 30 June 2005: 211 – 227. Ampang Press Sdn. Bhd., Kuala Lumpur.