

## BOOK REVIEW

B.S. Parris, R. Kiew, R.C.K. Chung, L.G. Saw & E. Soepadmo (editors). Malayan Forest Records No. 48: **Flora of Peninsular Malaysia, Series I: Ferns and Lycophytes. Volume 1.** Pp 249, 6 tables, 65 maps, 28 figures and 18 colour plates. Forest Research Institute Malaysia, 2010. ISBN: 978-967-5221-24-8 (hardback). Price: approximately 3,500 THB.

The *Flora of Peninsular Malaysia* is a new project, the aim of which is to provide a comprehensive revision of all species of vascular plants in Peninsular Malaysia. These will be published in two series: Series I for the ferns and lycophytes and Series II for the seed plants. Although the trees were treated in the *Tree Flora of Malaya* between 1972 and 1989 this will be the first complete revision of all vascular plants in Peninsular Malaysia since the seed plants were treated by Ridley between 1922 and 1925 and the ferns by Holttum in 1968.

The first volume to appear is volume 1 of Series I. This includes revisions of 9 fern and lycophyte families, 21 genera and 100 species which represents approximately one-sixth of the fern and lycophyte flora of Peninsular Malaysia. Introductory chapters contain an overview of all orders, families and genera to be treated in Series I, a key to the families, a history of botanical collecting (specifically of ferns and lycophytes) in Peninsular Malaysia, and a discussion of conservation issues and assessments. The revisions include keys to all genera and species, partial synonymy, descriptions for the families, genera and species, distribution maps for most species and ecological information and IUCN conservation assessments for all species. Approximately half of the 100 species are also illustrated with drawings and/or colour photographs.

Family recognition is based primarily, but not entirely, on Smith et al. (2006). The exceptions are the recognition of Grammitidaceae and Loxogrammaceae separately from Polypodiaceae, Hypodematiaceae separately from Dryopteridaceae and Nephrolepidaceae separately from Lomariop-

sidaeae. Generic delimitation also largely follows Smith et al. (2006) with minor alterations except in the Thelypteridaceae where Holttum's genera from *Flora Malesiana* are recognized rather than the much broader genus concepts mostly followed today.

The Forest Research Institute Malaysia and the editors are to be congratulated on launching this ambitious project and on the successful completion of this first volume. The inclusion of distribution maps for most species and conservation assessments for all species is particularly to be commended. There is also an extremely useful glossary to explain the often rather technical language used in fern Floras.

As always in a work of this scope there are a few problems and errors and things I would have preferred to have been done differently. Table 1 of the first chapter lists the genera to be recognized. While this is a useful guide to the proposed content of Series I some changes are already necessary. For example *Doryopteris* ought to be changed to *Calciphilopteris*, *Sphenomeris* (now recognized as a monotypic neotropical genus) should rather be *Odontosoria* and *Amphineuron* cannot be used as it is a later homonym. *Vaginularia* should also be recognized separately from *Monogramma* and *Osmolindsaea* separately from *Lindsaea*.

Table 1 in chapter 3 attempts to list the fern and lycophyte species that are endemic to Peninsular Malaysia however it contains three species that have been published as occurring in Thailand (*Doryopteris alleniae*, *Diplazium procumbens*, and *Selaginella strigosa*) and one species (*Tectaria*

*shahidaniana*) that, although not yet properly reported in print, has been known in Thailand for several years. The occurrence in Thailand of *Matonia pectinata* and *Cibotium barometz* has also been overlooked. These errors and omissions suggests a lack of consultation of the Thai literature and herbarium material despite the close relationship of the floras of southern Thailand and Peninsular Malaysia and the existence of an up-to-date online checklist of all Thai fern taxa (<http://rbg-web2.rbge.org.uk/thaiferns>).

The quality of the family accounts is also rather variable. The majority are expertly written, clear and concise. However I found problems with the accounts of Osmundaceae and Loxogrammaceae. In Osmundaceae the descriptions of the very similar, and probably synonymous, *Osmunda vachellii* and *Osmunda javanica* (see Hewitson, 1962) are not parallel making comparison extremely difficult. Additionally, some of the characters in the description of *O. javanica* (e.g. number of pinnae and relative length of fertile and sterile pinnae) conflict with the illustrations given for that species. In Loxogrammaceae the genus description for *Loxogramme* implies that all species have monolete-bilateral spores which is not true. At least 3 of the 5 species in Peninsular Malaysia (*L. avenia*, *L. centicola* and *L. subecostata*) have trilete-globose spores.

Wong Khoon Meng and Barbara Parris are particularly to be congratulated for their superb accounts of the Selaginellaceae and Grammitidaceae respectively. The identification of species in either of these families is a daunting task for most field botanists and these new accounts are certain to be of great value in both Peninsular Malaysia and in Peninsular Thailand.

I look forward to the coming volumes in both series I and II and again congratulate the authors and editors on the successful launch of this Flora.

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#### REFERENCES

Hewitson, W. (1962). Comparative morphology of the Osmundaceae. Annals of the Missouri Botanical Garden, 49: 57-93.

Smith, A.R., Pryer, K.M., Schuettpelz, E., Korall, P., Schneider, H. & Wolf, P.G. (2006). A classification of extant ferns. Taxon 55: 705-731.