Blumea 56, 2011: 203–204
www.ingentaconnect.com/content/nhn/blumea

doi:10.3767/000651911X592795

Kiew R, Chung RCK, Saw LG, Soepadmo E, Boyce PC (eds). 2010. *Flora of Peninsular Malaysia. Series II: Seed Plant*, *Volume 1*. FRIM Malayan Forest Records no. 49. 329 pp., colour plates, line illustrations, maps. ISBN 978-967-5221-32-3. Price: SGD 132.

It has been more than half a century since the last Flora for Peninsular Malaysia (Holttum 1954, revised 1968, Flora of Malaya 2: Ferns) was published and much has changed in the plant world since then, especially with the advent of molecular techniques. Therefore, the Forest Research Institute Malaysia (FRIM) launched a new landmark series – Flora of Peninsular Malaysia. The publication of the Flora and associated publications was made possible through funds provided by the Ministry of Science, Technology and Innovation (MOSTI). Through the National Council for Scientific Research and Development, MOSTI provided the financial support to enable the employment and training of young taxonomists, field collection and herbarium visits by both local and overseas collaborators. The project was initiated to document biodiversity by providing reliable and accurate accounts of plant families.

Being locally based, the Flora includes precise ecological information and correct scientific naming based on examination of specimen types. The Flora has also incorporated four new features not included in many Floras, namely:

– distribution maps (unless the species is widespread and common);
– conservation status of the species in Peninsular Malaysia;
– specimen identification lists online (http://www.chm.frim.gov.my); and
– colour photographs.

By compiling botanical information for specific groups within one volume, the Flora aims to provide baseline information that is essential for the management and conservation of plant biodiversity that is Peninsular Malaysia's natural heritage.

The first published instalment was in Series I, dealing with ferns and lycophytes. Now, also the first instalment in Series II, Seed plant, volume 1, has been published. This volume provides revisions for seed plant families that occur in the Peninsular Malaysia. Revisions for 26 families, 35 genera and 81 species are provided, that include descriptions and keys for the genera and species with conservation status and distribution maps provided for species. Representative species are illustrated by botanical plates and colour photographs.

It is excellent to see that this Flora is produced for the greater part by authors from Malaysia itself, showing the great value of the accompanied training scheme. Another great thing is that the project adopts the current APG-based classification of seed plant families, being the first tropical flora to do so. Furthermore, worth mentioning is that the Flora includes assessments of the species and their conservation status, and the online identification list.

Being the first volume, the present publication includes general chapters on the taxonomy adopted, giving a nice quantitative overview per family of the diversity at the generic and species level. A very informative chapter is devoted to an outline of the vegetation types. The last general chapter discusses the criteria for assessing the conservation status of the species.

I compliment the editors and authors with this beautifully produced book, and I hope that it will be able to complete this series in a reasonable span of time. I am looking forward to further cooperation towards e-taxonomy and web-based presentations of this most valuable source of biodiversity information in the region.

Marco Roos

McPherson S. 2010. *Carnivorous Plants and their Habitats*. 2 volumes. 1441 pp., 799 illustrations. Redfern Natural History Productions, England. ISBN 978-0-9558918-4-7. Price: GBP 35.

The author is renown for his spectacular publications on carnivorous plants, and this two volume work confirms this once more. This work profiles the distribution, botanical history, morphology, diversity, ecology, traditional uses, associated life, cultivation requirements and conservation status of all recognised carnivorous plant genera of the world (including the newly discovered genus *Philcoxia)*. Many plants documented in this work have been discovered only very recently, and in many cases, the photographs presented here are among the first to be published.

Volume One covers the following chapters: Introduction – Tables Turned: A New Natural Order – Carnivorous Plants of the World – Evolution of Carnivorous Plants – Associated Life: Mutualists and Infauna – Habitats of Carnivorous Plants – Snap Traps (*Aldrovanda*, *Dionaea*) – Pitcher Plants (*Darlingtonia*, *Heliamphora*, *Sarracenia*, *Nepenthes*, *Cephalotus*, *Brocchinia*, *Catopsis*);
Volume Two covers the following chapters: Sticky-Leaved Insect-Eating Plants (*Triphyophyllum*, *Drosera*, *Drosophyllum*, *Roridula*, *Byblis*, *Pinguicula*, *Proboscidea*, *Philcoxia*) – Corkscrew Plants (*Genlisea*) – Bladderworts (*Utricularia*) – The Future of Carnivorous Plants and their Habitats – Appendix – Glossary – Bibliography – Index.

The chapters on the genera, each include distribution pattern, botanical history, plant structure, overview of the species (in phenotypic or ecological groups), habitats and ecology, traditional uses, associated life, cultivation requirements, and conservation status. It needs no further comment that here again the natural history of the taxa is treated in an excellent way and in great detail, and is illustrated unsurpassed. It offers horticulturists specific information to achieve greater levels of success in cultivation.

What is of special value is the chapter on the threats and conservation status of carnivorous plants as a whole, followed by a description of bona fide carnivorous plant growing firms world wide. The appendix is special because it includes the formal description of four new species of pitcher plants (*Nepenthes*) and an extensive discussion of the taxonomic status of a fifth one. Carnivorous plants have always attracted much attention and this book will stimulate this even more, giving full credit to their biological peculiarities. One might say that the graphic presentation of the phylogeny is more aesthetic than clear, but this is a minor point. Overall, *Carnivorous Plants and their Habitats* is an up-to-date, comprehensive, and visually beautiful study of all known carnivorous plant genera. It will be a valued source of information for all interested in carnivorous plants of the world, be it with a scientific or a horticultural focus.

Marco Roos

Seberg O, Petersen G, Barfod A, Davis JI (eds). 2010. *Diversity, Phylogeny, and Evolution in the Monocotyledons – Proceedings of the Fourth International Conference on the Comparative Biology of the Monocotyledons and the Fifth International Symposium on Grass Systematics and Evolution*. 663 pp., softbound, illustrations. Aarhus University Press. ISBN 978-87-7934-398-6. Price: Paperback USD 64.00, EUR 53.95 (includes 25% VAT).

Monocotyledons (monocots) form together with the Rosids and Asterids the three major clades of the Angiosperms. They comprise almost one fourth of all flowering plant species. Many monocot species are economically and ecologically crucial; especially in families such as the grasses and palms occur some of the most valuable plant species to humanity. Numerous monocot species have great ornamental value due to their spectacular flowers or characteristic structural features. Monocot species occur in arctic regions, wet tropical forests, and deserts, and have a wide range of life forms, including floating and rooted aquatic plants, geophytes, epiphytes, and lianas. They range in size from the smallest flowering plants, *Wolffia arrhiza*, little more than 1 mm across, to massive palm trees up to 40 m tall.

The present book presents 32 expert accounts on current research, based on presentations made at the Fourth International Conference on the Comparative Biology of the Monocotyledons and the Fifth International Symposium on Grass Systematics and Evolution, held in Copenhagen in 2008. Together they cover a wide array of topics. To mention some topics to which several contributions are devoted: mycoheterotrophy, extant and extinct aroids, orchids, palms, and of course grasses (with a special focus on molecular phylogenies).What I miss in this compilation of specialist research papers, is an introductory chapter uniting the contribution and presenting a review of the state-of-the-art in monocot phylogeny. Notwithstanding this, for those with a particular interest in the evolution and phylogeny of specific monocot taxa, this volume gives high quality in-depth information.

Marco Roos

Williams G, Adam P. 2010. *The Flowering of Australia's Rainforests – A Plant and Pollination Miscellany*. 216 pp., hardback. CSIRO Publishing, Sydney. ISBN 978-06-43097-61-2. Price: AUD 99.95.

This book, illustrated with colour photographs of major species, provides an overview of pollination in Australian rainforests, especially subtropical rainforests. It also examines the plant-pollinator relationships found in rainforests worldwide.

It contains the following chapters: 1) Flowers and pollination in lore and legend; 2) Categorising rainforest plants, in which the role of insects in the non-flowering vascular plants is discussed, in the context of the early evolution of land plants; 3) Rise of the angiosperms, and archaic vascular plants in Australia's rainforests, in which the early evolution of flowering plants is discussed and the evolutionary development of flowers; 4) Being a flower, treating several aspects of the role and function of colour, fragrance, rewards, temperature, form and mimicry; 5) Introduction to breeding systems, introducing asexual ways of reproduction as well as mechanisms promoting cross pollination like dioecy, protogyny and protrandry; 6) Spatial and temporal structure of rainforest: general mechanisms that influence pollination and reproductive ecology, going into aspects of phenology and structural synusiae; 7) Australian vegetation history and its influence on plant-pollinator relationships, elaborating on temporal and structural influences on plant-pollinator interactions, like e.g. attracting pollinators, mass-flowering, guilds; 8) Pollination and the Australian flora, providing a detailed account on the *Myrtaceae*; 9) Pollination syndromes: who brings the 'flower children' in rainforest?, presenting a detailed discussion and overview of abiotic, but especially biotic floral syndromes.

The book concludes with appendices on conservation and fragmentation, individual plant pollination case studies, and lists of relevant ecological or taxonomic groups. This book is special for several reasons. What I liked most is that it starts with non-flowering plants and that it gives an extensive account on the early evolutionary context. Furthermore, it has a focus on subtropical rainforests. It presents taxa in much detail and addresses many aspects of rainforest ecosystem dynamics, phylogeny, plant reproductive ecology and vegetation history; often placing pollination relationships in a worldwide context. This thorough review is highly recommended.

Marco Roos