

REVIEWS

Flora of Ethiopia and Eritrea. Addis Ababa, Ethiopia and Uppsala, Sweden, Vol. 3 (1989), Vol. 2-2 (1995), Vol. 7 (1995) and Vol. 6 (1997). Extensively illustrated. ISBN 91-971285-0-3, 91-971285-3-8, 91-971285-1-1, 91-971285-4-6. Price per volume c. SEK 300 (excl. VAT).

A joint project of the National Herbarium, Addis Ababa University, and the Department of Systematic Botany, Uppsala University, the Ethiopian Flora Project that was launched in 1980, continues to produce results since the first volume (in fact Vol. 3) was published. Many efforts have gone into fund raising, and SIDA, the Swedish International Development Cooperation (earlier SAREC), and the Ethiopian Government have contributed considerable sums of money to achieve the publication of the Flora of Ethiopia and Eritrea.

The editorial team in Uppsala, Addis Ababa and Eritrea has to be congratulated that within two years after the appearance of both volumes of 1995 another issue has left the press. In this extremely rich flora region, with altitudes ranging from below sea level to 4413 m above with a multitude of climatological areas and niches a complete Flora that works has been sorely missed. Endemism is considerable. After a rather slow start, not in the last place caused by political and financial reasons, the authors have apparently contributed their shares at a much more rapid pace. The history of the organization of the writing of the Flora of Ethiopia has been elaborated in the first volume which appeared, no. 3 (Flora of Ethiopia), and the other volumes (Flora of Ethiopia and Eritrea) report on the progress made. In the title the independence of Eritrea since 1993 is reflected. Taxon 41 (1992) 403 provided scant information for Vol. 3.

The contributing authors come from a wide botanical background: not only Sweden and Ethiopia, but also many other European countries and the United States of America. Many Ethiopian botanists have been trained abroad in the course of the project.

The Dicots follow a slightly modified Hutchinson sequence, but for the Monocots Dahlgren and Clifford's treatment has been used. The Flora is very complete for the treated taxa, apart from the keys and descriptions of families, genera and species, it also contains notes on collection and identification, and several other assets. The key to the families is adapted from Burger's key (Families of Flowering Plants in Ethiopia, Oklahoma Agr. Exp. Station Bull. 54, 1967) and given in the first volume which appeared, no. 3. Keys to the monocotyledons are published in vol. 6. The extensive lists of vernacular names in Amharic and other main languages of the region, and English are placed in an appendix and not in the main text. Compared with Cufodontis' Enumeration (1953–1972) considerable taxonomic changes have been necessary, sometimes resulting in either many more (e.g., *Pilea*, Melastomataceae) or many less taxa (e.g., *Argyrolobium*, *Lotus*, *Hibiscus*, *Combretum*, *Terminalia*). Often fewer varieties have been distinguished (e.g., *Hibiscus*, *Commelina*, *Asparagus*). The species are in systematic order, not in an alphabetical one, necessitating a more frequent use of the indices.

For the last volume a better use has been made of the collections in Alemaya and Wageningen, as shown by the specimens quoted for each species. Particularly material from the Hararge region had been incompletely examined.

The volumes, in large A4 format, have been printed in Addis Ababa by EMPDA, the Ministry of Education. Printing quality is very reasonable, although the black tones are uneven. The illustrations, many full-page sized, help identification considerably. The plates are especially prepared for the Flora, or have been reproduced with permission from, e.g., the Flora of Tropical East Africa and various journals. The proof reading is of excellent quality.

The following volumes have appeared so far: Vol. 3. 1989: Pittosporaceae to Araliaceae, eds. I. Hedberg & S. Edwards, 660 pp.; Vol. 2-2. 1995: Canellaceae to Euphorbiaceae, eds. S. Edwards, Mesfin Tadesse & I. Hedberg, 456 pp.; Vol. 7. 1995: Poaceae, by S. Phillips, eds. I. Hedberg & S. Edwards, 420 pp.; Vol. 6. 1997: Monocotyledones except Poaceae: Hydrocharitaceae to Arecaceae, eds. S. Edwards, Sebsebe Demissew & I. Hedberg, 568 pp.

So, both grasses and legumes, containing the economically most important crops and their relatives, have already been treated. This is a bonus for many genetic resources scientists, taking into account that Ethiopia and Eritrea form one of the world's most important centres of genetic diversity.

At about 300 Swedish crowns (c. USD 37.50 or GBP 22.50 excl. VAT) per volume this Flora is really affordable thanks to the subsidy that has gone into this grand project. It is hoped that the remaining volumes of the monumental work can be treated according to schedule, the intention is to finish in a few years. In 1999 two more volumes are expected to reach the shelves. The work is now about halfway as far as number of species is concerned.

L.J.G. VAN DER MAESEN

K.M. KOCHUMMEN: Tree Flora of Pasoh Forest. Malayan Forest Records 44, 1997. XV + 461 pp., illus. ISBN 983-9592-69-6 (hardcover). Price: MYR 60. Available from: Forest Research Institute Malaysia, Kepong, 52109 Kuala Lumpur, Malaysia.

The Pasoh Forest Reserve covers an area of 6000 ha in the State Negeri Sembilan, West Malaysia. A 50 Ha plot has been established inside the reserve and since 1970 various studies have been conducted, leading to a large number of important publications. During 5 years every woody plant (except lianas) with a stem diameter of 1 cm or more has been tagged, mapped and identified. This extensive identification job has mainly been carried out by the author himself. Distribution data have been presented in a previous publication (Manokaran et al., 1992).

In the present publication 78 families, 290 genera and 814 species are treated, roughly 25% of the tree species of the West Malaysian tree flora. Chapter 2 treats the vegetative characters useful for tree identification. Distinction is made between field and herbarium characters. The latter are the only ones normally available to the herbarium taxonomist, whereas the first comprise characters of the crown, bark and bole, exudate and smell. Several vegetative characters are explained and illustrated. The author does not seem to rely on architectural models. Chapter 3 contains botanical keys to groups of trees sharing a distinct spot-character, e.g., trees with latex, bark scaly, leaves compound, etc. Chapter 4 gives descriptions of all taxa occurring in the 50 ha plot, with keys to the genera and species. These descriptions differ in detail, reference being often made

to existing descriptions in the well-known Tree Flora of Malaya (Whitmore & Ng, 1972–1989). Notes are added on distribution, but little on ecology. An index to scientific and Malay names concludes the book. In my copy the latter is incomplete, the last name being *Sepetir*, whereas there are several names starting with a T.

Although I found a number of printing errors, execution and presentation of the data are good. With the publication of this book we have for the first time a fully documented flora of a reasonably large area in SE Asia. The keys will enable anyone with basic taxonomic knowledge to identify nearly every tree in the Pasoh Forest Reserve. Since many species are widespread in Peninsular Malaysia the book will be found useful outside the Pasoh Forest Reserve. The author has rendered the Malesian botanical community a great service by completing this painstaking piece of work, for which he is to be warmly congratulated. It is to be hoped that a flora of the herbs and climbers will follow.

In July 1998 I happened to have a chance to visit Pasoh together with Dr. Peter Ashton. The forest had suffered from the drought. Still worse is the damage caused by wild boar. Pasoh Forest Reserve is surrounded on all sides by oil palm plantations. These provide a rich source of food for pigs which have lately reproduced heavily. They take a heavy toll on the forest undergrowth which they break off to build their nests. Natural enemies such as pythons and tigers have long disappeared. The local Malay population (Moslem) does not hunt pigs, whereas orang asli, who do, are absent from the area. It must be feared that pigs will form an increasing threat for this unique study area.

References

- Manokaran, N., et al. 1992. Stand Table Distribution of species in the 50 Ha Research Plot at Pasoh Forest Reserve. FRIM Research Data no. 1.
Whitmore, T.C. & F.S.P. Ng. 1972–1989. Tree flora of Malaya 1–4.

M. M. J. VAN BALGOOY

Note: Although we agree with Van Balgooy on the importance of local floras and the usefulness of the present book, a few remarks have to be made. The author often sticks to older nomenclature and systematics, using names that since long have been changed [*Talauma*, *Millettia* p.p., *Walsura chrysogune*, *Guioa fuscidula*, *Endospermum diademum*, Rosaceae (most taxa treated are Chrysobalanaceae), *Kibatalia*, *Madhuca*]. Missing in the keys are *Macaranga gigantea* (3.2.3) and *Endocomia* (3.2.5). The glands on the lower surface of *Vatica* leaves, and the large gland at the tip of leaves of *Trigonostrium hypoleucum*, are not discussed. There is no literature cited, and no index to families.

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