

X. REVIEWS

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HYLAND, B.P.M., T. WHIFFIN, D.C. CHRISTOPHEL, B. GRAY, R.W. ELICK & A.J. FORD. 1999. **Tropical rain forest trees and shrubs.** v. 95 pp, illus. CSIRO Publishing, P.O. Box 1139, Collingwood, Victoria, Australia. ISBN 0-643-06047-2. Price: USD 130.00. (For orders also: sales@publish.csiro.au or <http://www.publish.csiro.au>).

This is a CD-ROM intended to identify 1733 species of trees and shrubs of northern Australian rain forests, accompanied by a user guide in book form. The word 'shrubs' in the title is used in a very broad sense, as also *Araceae*, many *Asteraceae*, *Impatiens*, *Orchidaceae* and other herbs are covered!

In the guide, in the chapter 'Using the program', a picture of the opening screen is given. At the bottom is the status bar which, however, only appears on the screen if the Windows (NT) status bar is hidden! In the user guide it is explained how to do so. In the status bar the remaining number of species is indicated, and of importance because it is of no use to see the species list if there are still more than 15 species left. The following character sets are available: habit, bark (not in shrubs), leaf, flower, fruit, seedling, family, geographic area.

For each character set a window may be opened, which can be moved or resized. For each character or character state an explanation is provided, often illustrated, in the help. Often it is obligatory to use this help for a good interpretation of a character. E.g. lateral veins run from the midrib to the intramarginal vein. To be classed as an intramarginal vein rather than looping lateral veins there should not be any major bends (illustrated). Here I went wrong in identifying *Symplocos*, where a looped intramarginal vein usually is present. And also, don't call a contracted spike a fascicle (clearly illustrated), for you will not arrive at your species. The features selected for any character set will remain until a new specimen identification is started, even if the window is closed.

In the Species window (which may be opened when there are less than 15 species left) a list of all remaining species is shown, which is automatically updated as further features are selected or deselected. So you can see species disappearing as you come closer to the right one.

For all botanists and amateurs who want to identify Australian rain forest trees and shrubs this key is indispensable. Written keys, especially for large sets of taxa, always are cumbersome and difficult to use. Multi-access keys allow one to identify a taxon often in a few steps, making mistakes less likely. Moreover, the good and illustrated explanation of the character states provide an excellent help. Once you are near to the species you are trying to identify, illustrations are provided (at least an X-ray image of a leaf or leaflet, often also one or more colour photographs).

Of each species a description is given. So it is easy to control whether you have arrived at the right identification. By deselecting characters and selecting others you get other species, the names of which then appear in the species list, and you can verify if one of these is the right one by looking at the illustrations and/or the description.

To use the CD a PC is needed with a 486 or higher processor (preferably a Pentium), Microsoft Windows 3.1 or higher, at least 4 MB memory, 1 MB of available hard-disk

space, a VGA 640 × 480 or higher resolution video adaptor and monitor, 256-colour or higher screen display, a CD-ROM drive, and a mouse or a comparable device. — H.P. NOOTEBOOM

KENG, H., S.C. CHIN & H.T.W. TAN. 1998. **The concise Flora of Singapore. Volume 2: Monocotyledons.** xix, 215 pp, illus. Singapore University Press, National Parks Board. ISBN 9971-69-207-4.

This is the long-awaited second part, the first one on Gymnosperms and Dicotyledons appeared in 1990 and was reviewed in *Fl. Males. Bull.* 10 (1991) 346–347. In the present volume a number of the grievances mentioned before have persisted.

Keys may lead to several taxa without explaining how they differ. Generic diagnoses have still been omitted. When more species are present there are no keys to them and one has to go by the diagnostic descriptions, which are incomplete. These are, moreover, arranged alphabetically, not by similarity, so identification in for instance *Cyperus* with 36 taxa, *Dendrobium* with 35, *Bulbophyllum* with 32, *Fimbristylis* with 19, to name a few, is heavy going and will easily put off even an experienced user.

How complete the Flora is, is another question. I had the opportunity after the Fourth Flora Malesiana Symposium in Kuala Lumpur, 1998, to visit the herbaria of both the University (SINU) and the Gardens (SING) and was struck by the paucity of recent local collections, at least in the *Gramineae*. In SING there are hardly any after the late 1940s. The citation of voucher specimens collected by Hullett, Ridley, Sinclair, etc. is indicative of this, too, and these in no way support present occurrences. A collection of the common *Panicum sarmentosum* made during my stay turned out to be the first one brought into SING this century! SINU is much better, but small, and one wonders if it has been consulted for this Flora.

To write a modern flora extensive representative collecting is essential after which taxa not found in the past few decades are best omitted or mentioned in a note.

A survey of the Singapore herbaria and some small field trips in and around Kuala Lumpur and Singapore turned up quite a few new records [see Veldkamp, *Fl. Males. Bull.* 12 (1999) 231–239]; a more extensive survey no doubt will turn up more.

Taxa observed in these herbaria, but not included in the Flora are moreover *Cyrtococcum patens*, *Echinochloa picta*, and *Panicum paludosum*, to name a few.

The most important of all local grasses, *Oryza sativa*, rice, should have been treated; after all *Saccharum officinarum*, *Sorghum bicolor*, *Tripsacum dactyloides*, *Vetiveria zizanioides*, and *Zea mays* have been included, as well as *Zizania latifolia*, which is very dubiously still in cultivation.

Axonopus fissifolius probably does not occur in Singapore, at least I have seen no record of it both in the herbaria nor in the field. *Eragrostis elongata* is a misapplied name best forgotten, in fact an older synonym for the Australian/Papuan *E. diandra*. — J.F. VELDKAMP

RADCLIFFE-SMITH, A. 1998. **Three-language list of botanical name components.** 143 pp. Royal Botanic Gardens, Kew. ISBN 1-900347-52-0. GBP 9.99.

Some of us are occasionally fortunate enough to discover an undescribed taxon and then one of the great challenges is to coin an appropriate name. An easy way out is to use an

overused epithet like '*alba*', '*hirsuta*', '*grandiflora*', or the name of its provenance or discoverer. For the more adventurous it is, however, a sport to come up with something more original. Suggestions are often found in Backer (1936) (for the lucky ones who have access to a copy AND know Dutch), Brown (1956), or Stearn (1973, or another edition) or leaf through the numerous epithets in the *Index Kewensis* used in e.g. *Acacia*, *Bulbophyllum*, *Euphorbia*, *Rubus*, *Taraxacum*, or similar huge genera. For those Radcliffe-Smith's List will be another source. For many years he has published a great number of instalments in 'Botanical Forum' 3–18, a non-effectively published journal only available to the happy few at Kew and adjoining institutes. Although even I was allowed to publish a few notes in it, I only have been able to obtain copies of them through a 'mole', who obviously wishes to remain unnamed. Now, for the hoi polloi Radcliffe-Smith's endeavours have been made available in a well-presented booklet at a very reasonable price which should have a place in your reading room, next to the works named above.

It consists of three parts, a main list with pre- and suffixes, generic names, and numbers, alternatingly in Greek, Latin, and English. — J.F. VELDKAMP

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