

REVIEW

B. P. M. HYLAND, T. WHIFFEN, D. C. CHRISTOPHEL, B. GRAY, R. W. ELICK & A. J. FORD: **Tropical rain forest trees and shrubs**. CSIRO Publishing, Victoria, Australia, 1999. ISBN 0-643-06047-2. Price: USD 130. (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. 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 hide the windows status bar. In the status bar the remaining number of species is indicated, which is of importance because it is of no use to see the species list if there are 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 or character state an explanation is provided, often illustrated, in the help function. Often it is obligatory to use this help for a good interpretation of a character, for instance lateral veins run from the midrib to the intramarginal vein. To be qualified as an intramarginal vein rather than looping lateral veins there should be no major bends (illustrated). Here I went wrong in identifying *Symplocos*, where a looped intramarginal vein usually is present! Also, don't call a contracted spike a fascicle (clearly illustrated), for you will never arrive at the right name. The features selected for any character set will remain until a new 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 names disappearing as you come closer to the right identification. 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 check whether you have arrived at the right identification. By deselecting characters and choosing others you get other names, which you can verify by checking the illustrations and/or the descriptions.

To use this CD-ROM 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 comparable device.

Closing remark: The word shrub in the title is used in a very broad sense as also Araceae, many Asteraceae, *Impatiens*, Orchidaceae and other herbs are included!

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