

Book reviews

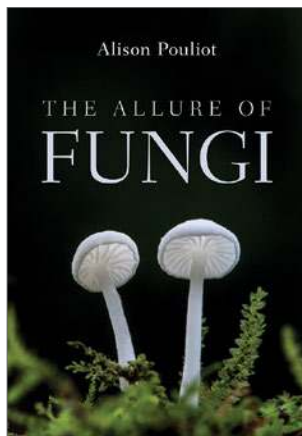
Allure of Fungi

280 pages, 245 x 170 mm, colour photographs, September 2019, CSIRO Publishing. ISBN: 9781486308576. Price AU \$49.99 (Paperback).

Having spent 1000 days in the forest thinking about and photographing fungi, Alison Pouliot has put out a book documenting a range of perspectives on this topic. In a combination of text and photographic essays (separate in definite sections), Alison lures us into the often mysterious world of fungi. She passionately explores fungal complexities and curiosities in a book that is not a reference or coffee table book nor field guide, more an enthusiastic documentation of our knowledge in this field.

The book covers a lot of diverse topics and has thought provoking sections to draw the reader; like 'disco in a cowpat' – who wouldn't want to read this? The organisation of the book takes a bit of time to get your head around and may not be as logical as some would like. For example, the taxonomic organisation of fungi and 'what makes a mushroom?' appears in chapter 6, rather than at the start, but this is just a comment not a criticism.

The human-fungus relationship is explored with stories of farmers, fungal enthusiasts and mycologists that the author visits in person (lamingtons in hand). This personal touch makes this book a great read and adds a nice dimension. Alison highlights the lack of acknowledgement of fungi in Australian environmental



management and conservation. Foraging is linked back to conservation with the section 'On morel grounds', which documents the protection of fungi in the Kooyoorra State Forest after commercial morel hunters began to visit the area.

The book also explores the habitats where fungi grow; from the desert to subterranean areas, to the more typical habitats of moist forests and woodlands. This section discusses some fungal hosts, and therefore their distribution, and how we are improving our knowledge in this area.

The language around fungi was especially interesting, since the words we choose affect the way fungi are seen and understood. Alison explores the origin and use of the word 'mushroom' and the negative associations of fungi in the English language. She points out that the more accurately fungi are written and talked about, the more likely they will increase in importance.

Last, but not least, the macrophotography at the end of each chapter makes the book worth picking up alone. Alison has used a small depth of field to her advantage by highlighting miniscule parts of a fungal fruiting body, mycelia, various fungal surfaces and beautiful lichens.

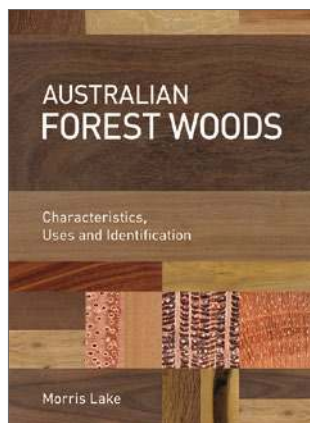
Michele Kohout

Australian Forest Woods. Characteristics, Uses and Identification

Morris Lake, x+218pp., colour illustrations, 2019, CSIRO Publishing. ISBN 978-1-4863-0778-4. Price AU \$69.95 (Hardback).

This beautifully presented book a companion to 'Australian Rainforest Woods, Characteristics, Uses and their Identification', contains ready and interesting information – primarily for people interested in trees, wood enthusiasts in Australia and for international audiences interested in the unique diversity of Australian trees and woods.

By way of introduction, aspects of plant classification are presented for the angiosperms and gymnosperms from



an evolutionary context. The bulk of the book contains well illustrated treatments of 129 Australian forest trees. Species are described one per page at least. Standard information is provided including: the botanical and usually the trade name, synonymy where relevant, origins of the botanical name, botanical family name, other names by which the trees and woods are known, and geographical distribution. A description of the tree's botanical field characteristics with useful

and often interesting comments and anecdotes are given about the tree's historical and local significance. In each case, the wood is described with information about the colour, grain appearance, density, durability, drying properties, shrinkage characteristics and common uses. Sometimes potential uses, the latter exemplifies the versatility the Australian species rarely provided. Tree habit and the appearance of smooth side-grain (backsawn or occasionally quartersawn) of the wood are illustrated with colour photographs. In addition to the information provided, material from interesting anecdotal, personal experience is included for several woods, e.g., dead finish (*Archidendropsis basaltica* formerly known as *Albizia basaltica*), narrow-leaved red iron bark (*Eucalyptus crebra*).

A particularly unique aspect of this book is the inclusion of the end-grain photographs of skillfully sanded and polished specimens by Jean-Claude Cerre from France. Each of the woods including two softwoods (Conifers) and the remaining set of hardwoods (Angiosperms) featuring 46 species of eucalypts (*Eucalyptus*). Each species is represented by a low power (15x) and a high power (x90) colour macrograph of exquisite quality, the high-power images are close to rivaling transverse microscope sections. However, in the reviewer's opinion, the low power images are more useful and informative for macroscopic wood identification. Instead of the high-power image, another low power image of the species showing variation may have been beneficial. As an aside, it would have been useful to indicate somewhere the actual size of the low power image to enable scaling of features. Unfortunately, there are a few peculiarities with the editing, printing or photography of the macro images: *Casuarina* spp. (Casuarinaceae) (p.176 and 178) are placed under the banner of Gymnosperms with the softwoods, while the closely related *Allocasuarina* spp. (same family) are correctly placed under the Angiosperms. There are a number of other errors that will hopefully be addressed in future editions. Further, a note about the colour of the side-grain timber images: It seems that something has gone astray with either the photography or the printing process. The colour of many species illustrated lacks 'red' – images exhibit a greenish cast. Unfortunately, this is a detraction given the purpose of the book as a reference source. Interestingly, the various crafted items shown alongside are by and large representative of the wood colour. Viewing the images under a warm tungsten light helps to bring out the rich red colour of the red timbers, e.g., jarrah, red mahogany.

In continuation, scrutiny is required with the use of terminology: wood rays occasionally referred to as medullary rays is archaic. The use of "gum veins" instead of kino-veins in eucalypts is strictly inaccurate; while that may be common parlance among bushies and timber workers it is inaccurate in wood technology. Additionally, the discussion about the "Contender for the heaviest wood in the world" (p. 32) is convoluted and uses technical references which are difficult to unravel, e.g., basic density of the cellulosic compounds! Does that refer to the basic density of the bulk wood or purely wood compounds derived from saccharides excluding the polyphenolic lignins? Arguments presented about the moisture content of the illustrated block are confusing and unconvincing without further detail. The wood property data should have been referenced specifically, otherwise it is difficult to ascribe reliability. Occasional references to interlocked grain imparting "some strength" to the wood (e.g., *Acacia cana*, p16.) are inaccurate unless clarified. Technically, while interlocked grain makes chopping wood more difficult, in the context of structural design for which wood strength usually refers, deviation of grain away from the axial direction reduces wood strength and stiffness. Finally, the author's vision of "The new future of wood identification" is admirable but is not realistic. From the reviewer's point of view and experience, cross-sectional images on their own are inadequate without microscopy. There is just too much overlap among the macro wood anatomical features, and while the approach may work for a disparate group of species, sadly the information is insufficient from macro cross-sections alone (no matter how sophisticated the AI pattern recognition might be) to facilitate identification of "Any given wood specimen" (p. 174). Finally, the book's title suggests that it can be used to facilitate wood identification is strictly inaccurate given that there is no key provided nor a list of commensurate features.

In summary, this book is worth pursuing for the reference information it provides, the rarer species and particularly for the Cerre images, but as an authoritative document, it needs to be used with care.

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