

Book Reviews

The Little Book of Fungi

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Princeton University Press

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Hardback 160 pp.

160 x 105 mm

£8.99 from NHBS.com and other booksellers.

It could be considered an axiom perhaps that there is no such thing as a perfect book but this little gem certainly comes close. Its author is well known as the publisher and editor-in-chief of the excellent mycological journal *Fungi*, the widest-circulating mycology magazine in North America.

This is a physically small volume (readers may be reminded of the very popular Observers series of guides) but the author has somehow managed to distill his extensive knowledge within its 160 pages. There are 12 main chapters: *What is a Fungus?*, *Form and Function*, *Habitat and Ecology*, *Evolution, Lifestyle and Physiology*, *Reproduction, Mutualism and Competition*, *Study and Cultivation*, *Fungi and Humans*, *Threats and Conservation*, *Popular Culture*, and finally *Curious Facts*, plus a glossary.

Each of these chapters is further broken down into smaller sub-topics with each topic spanning a double page spread. Illustrations are mainly drawings and paintings with a scattering of photographs. The artwork is very nice, beautifully painted, simple and complementing the text very well.

I found the text to be very easy to read and full of interesting and often surprising facts (and I have read an awful lot of mushroom books!).

For example there is the story of the loss of many ash trees in North America caused by a wood-boring beetle and the subsequent loss of the Ash Bolete mushroom, *Boletinellus merulioides* (see opposite). It was widely considered to be a mycorrhizal species but is in fact a symbiont of an aphid that lives as a parasite on the roots of the ash tree. The fungus grows around the insects, forming dark black galls within which the aphid continues

to feed and with the bolete seemingly getting its nutrition from the insect. Fungi never cease to amaze. You can also read about the very strange *Psathyrella aquatica* which lives its life and fruits on the bottom of the Rogue River in Oregon. Mycologists are still trying to puzzle out the spore dispersal mechanisms of this remarkable underwater mushroom.

This book would make a great present for anyone interested in fungi; full of facts, stories, history, biology and interesting snippets.

Highly recommended and at a bargain price.

Geoffrey Kibby



Flora Agaricina Neerlandica**Vol. 8. *Cortinarius*****Thomas W. Kuyper, André de Haan *et al.***

Candusso Editrice

ISBN: 978-88-943710-7-9

£84.00 from summerfieldbooks.com and other booksellers

This volume follows the new style of this series, being full colour, 25 x 18 cm rather than the old, black and white, A4 format of the earlier volumes. It has 844 pages, printed on high quality paper so is a heavy volume.

A total of 281 *Cortinarius* species are described and the authors have chosen to retain the overall generic name rather than adopt the recent splitting of some parts of the genus into smaller genera. There are 281 colour photographs, most of a very high quality.

Extensive DNA sequencing has been undertaken and there are numerous phylogenetic trees scattered throughout the text.

As always it is interesting to compare the species concepts used here with those of other recent volumes, such as that by the Italian team, Caleda *et al.* (2021), the Swedish *Ädelsspindlingar* by Nitare *et al.* (2024) and the book by myself and Mario Tortelli (2022).

For the most part this new book is in close agreement with the other volumes but inevitably there will be some areas where species interpretations differ. The authors have adopted a more cautious approach when it comes to extremely similar species differing hardly at all in their DNA sequences, preferring to treat them as one species, possibly in the process of actively speciating.

Where an ex holotype sequence was unavailable and no neotype had been designated—for example *C. elatior*—they have avoided applying the name to any of their taxa and use instead more recently described species names, retaining *C. elatior* as a collective name until such time as neotypification takes place. This means that they have also avoided using such common names as *C. pseudosalar*, *C. mucifluoides* and *C. integerrimus* as no barcodes exist for these species either. They note that spore size also varies greatly, even within one collection,

making this a less than useful character for this difficult group.

On the whole I like this cautious approach. All too often with very similar species pairs the morphological characters overlap more than one would like and the sequences one obtains are so similar and so difficult to interpret unequivocally that it is often impossible to be sure which of two species you have. The authors' treatment of *C. parvannulatus* and *C. neofallax* is a very good example of this. They consider *C. parvannulatus* as a species currently undergoing speciation. In hindsight I wish our own volume had made this same decision.

The text throughout is in English as are the identification keys (A Dutch version of the keys is also provided). I look forward to testing the keys later this season. They seem eminently clear and well written.

There are also superb drawings of the spores of all the species described, certainly the best of any published work to date.

I would highly recommend this book to anyone with an interest in this difficult but beautiful group of mushrooms.

Geoffrey Kibby

References

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