

December 2010 was the centenary of the arrival of the first scientific expedition of the Smithsonian Institution to Panamá, and what better way to mark the event than by a splendidly illustrated work on fungi. Meike Piepenbring, who is based at the J. W. Goethe Universität in Frankfurt but also holds a position in the Universidad Autónoma de Chiriquí in Panamá, is well-known for her detailed and on-going investigations into the diversity of fungi of all kinds that occur in Panamá. Here she has joined forces with Gaston Guzmán, who has, and continues to, so energetically

promote mycology in the region.

It was pleasing to see a broad interpretation of macroscopic fungi adopted, encompassing not only larger basidiomycetes and discomycetes, but also a range of slime-moulds, pyrenomycetes, and lichens. In all, 226 species are treated in detail, with discussions of their microscopic as well as macroscopic features, differences from similar taxa, and references to pertinent literature; they are arranged alphabetically which facilitates their location. The colour photographs include some close-ups showing diagnostic features such as gill types, or slices through them to show the arrangement of perithecia in a stroma (that of *Hypoxylon haematostroma* on p. 136 is a striking example). According to the Abstract (p. ii), over 700 species are covered to some extent. There is a series of 13 keys to genera, and in some cases species, based on the gross morphology of the sporophores, an introduction including microscopic characters which is well-illustrated by clear line drawings, a glossary, taxonomic arrangement of taxa discussed, an appendix which includes further observations on 29 genera or groups of species (with especially informative discussions of several gasteroid groups), a taxonomic index which lists synonyms under treated species, and a main index

including entries by species epithet.

This lavishly illustrated book should do much to encourage both students and citizen scientists to take a deeper interest in fungi. While it is in Spanish, it is nevertheless easy to use by Anglophones with knowledge of a few key words and mycological terms. I just wish it had been available when I visited Barro Colorado Island in 1995, and was so fascinated by the array of *Xylaria* species sprouting from logs – 11 receive full treatment here, several of which I had not seen colour photographs of before. While the colour reproduction and quality of some of the photographs might have been better, and the taxonomy is in some cases conservative (e.g. the retention of *Coprinus* for *C. cinereus* and *C. stercoreus*), this production represents a tremendous achievement of which the authors can be justly proud.

The production of this book was made possible through the support of the Smithsonian Tropical Research Institute (STRI) in Panamá and eight other bodies. Only 500 copies have been printed, so if you work on, or are interested in, Central and South American fungi, it would be advisable to endeavour to secure a copy soon as it is sure to prove very popular in the region.

Champignons Comestibles des Forêts denses d'Afrique Centrale: taxonomie et identification. By Hugues E. Ndong, Jérôme Degreef & André De Kesel. 2011. ISSN 1784-1283 (hd copy), 1784-1291 (online PDF). Pp. viii+ 253, figs 151 (many col.), tables 1, backpocket. Brussels, Belgium: Royal Belgian Institute of Natural Sciences. [ABC Taxa Vol. 10.] Price: Free (developing countries), 15.45 € (other countries).



This work is one of series aimed at accelerating taxonomic capacity building in developing countries, and the first on fungi. The aim is to provide sufficiently detailed state of the art treatments to enable recipients to embark on the taxonomy of the group treated. Consequently, almost one third of the book is devoted to background information: current knowledge, ethnomycology, preparation for a collecting trip, field and laboratory requisites, collection, documentation, photography, description, microscopic preparations, measurements, preservation, and herbarium formation. In order to facilitate detailed descriptions there is a detailed account of anatomical and morphological features

illustrated by fine line drawings. A great deal of care has been taken to make sure a beginner would find all he or she needs to start to make contributions to the field, though a section on nomenclature could have been a useful addition. Inside the back cover, is a pocket including a sample recording card for descriptive information, where pertinent characters can be quickly circled to facilitate the rapid processing of specimens.

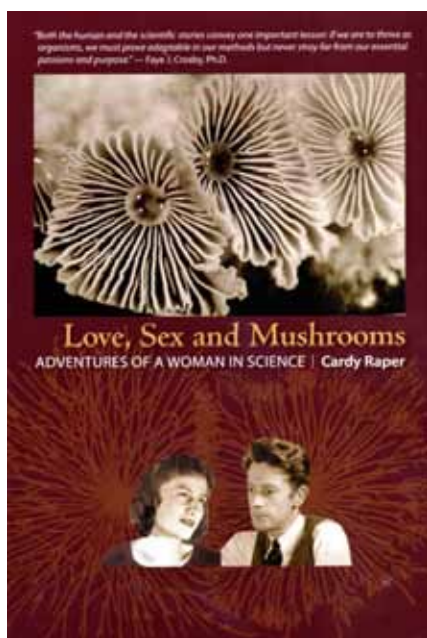
Accounts of 62 edible species follow, most with a text page facing a figure which includes well-executed coloured illustrations of intact sporophores and vertical sections, and also drawings of key microscopic features. In some cases photographs of fresh specimens

are also provided. The species are drawn from a wide range of genera, amongst which are *Amanita*, *Auricularia*, *Cantharellus*, *Cookeina*, *Lactarius*, *Marasmius*, *Polyporus*, *Russula*, *Schizophyllum*, and *Termitomyces*. The text has detailed macro- and microscopic descriptive data, information on ecology and distribution, and notes discussing the separation from similar taxa – but surprisingly not on preparation or taste. A comprehensive glossary is provided, and the reference list is extensive.

The authors, all who have experience of working in the region, have clearly put an immense amount of thought into the volume and it deserves to be widely distributed in central Africa. On the back cover, Bart Buyck states that the book should occupy prime position in the libraries of mycologists, particularly for the full introduction and practical approach; I totally concur with his sentiments. The concept of making this work freely available in developing countries can only

be applauded and was made possible by the foresight of the Belgian Development Cooperation. That is an aspect of capacity building which is too often overlooked in aid programmes. My one sadness is that the text is entirely in French, as an English translation would be so valuable for use in the non-Francophone countries in the region; it would be tremendous if additional funds to do that could be found.

Love, Sex and Mushrooms: adventures of a woman in science. By Cardy Raper. 2011. ISBN 978-0-615-43440-7. Pp. xii + 254, illustr. Burlington, VE: C. Raper. Price: US\$ 18.95.



This is a very personal, and in parts emotive, account of aspects of both the personal and professional life of Cardy Raper, the wife of the renowned fungal geneticist John R. Raper (1911–1974)¹ and well-known for his monograph on the genetics of

sexuality in macromycetes (Raper 1966). She recounts the trials she has experienced in establishing herself as a respected fungal geneticist in her own right, in an academic climate which often seemed to conspire against female scientists. She also documents the tedious and often frustrating attempts to obtain samples of hormones involved in the sexual behaviour of *Achlya*, and to obtain isolates of elusive mating types before their work changed its focus to *Schizophyllum commune* – a change in course largely due to graduate student Haig Papazian arriving from London. There are insights into her experiences as a faculty wife in the USA and as a mother, and into her personal life and relationship problems that she had to contend with. There are also, perhaps sometimes tongue-in-cheek, asides about other mycological luminaries she encountered or who influenced her, such as Karl Esser and Dirk Wessels. The actual science is not described in detail, however, though there are tantalizing tid-bits here and there; not being a fungal geneticist, I would have found citations and discussions

of actual papers illuminating (those by Cardy are, however, listed on her website, <http://cardyraper.com>).

Cardy comes over as a person determined to succeed and full of enthusiasm for her chosen area of science. This autobiography demonstrates that a scientific path can be long and hard, and that is something as true now as it was during Cardy's struggling years – especially when tenure is now so difficult to secure in many countries. The preliminary pages include comments from two distinguished fungal geneticists, Lorna Casselton and Peter Day. Lorna's ends with the phrase "This is the personal account of an exceptional scientist", and Peter's with the remark that she lived up to the slogan of a Harvard band, "*Illegitimum non carborundrum*: don't let the bastards grind you down". It could be seen either as a cautionary tale or as an inspiration to aspiring researchers, and of course will also be of interest to those wishing to know more of both John and Cardy's backgrounds.

¹Brother of Kenneth B. Raper (1908–1987).

Raper JR (1966) *Genetics of Sexuality in Higher Fungi*. New York: Ronald Press.