

The Allure of Fungi

Alison Pouliot

2018, CSIRO Publishing

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“Fungi offer a metaphor for connectivity, unpredictability and spontaneity. They provide a way to attune to the dynamism of natural systems and move beyond ideas of individual entities, balance and control. My hope lies in the belief we find the curiosity and imagination to rethink fungi. This will be not just for a more sensitive coexistence, but as a model for an enriched understanding of all life.” So begins the last chapter in a wonderful new book by Australian author, and international forager, Alison Pouliot. This new book is a fun and educational read. Although more specific to the mycology scene in Australia, readers in North America will definitely enjoy seeing the parallels between attitudes and perceptions towards fungi on both continents. Populated initially by predominantly mycophobic settlers, we all are experiencing a fairly recent awakening to mycology—both from the standpoint of foraging for wild

mushrooms as food, as well as studying fungi scientifically. (Well, as far as foraging goes, the Aussies seem to be lagging behind us—morels are well-known there but not yet popular. Apologies to my Aussie friends who are about to be inundated with Yanks once the word gets out!) The very first Australian mushroom to receive a scientific name (in 1792) was *Aseröe rubra*; little changed until British cryptogamist Miles Joseph Berkeley kick-started the study of Australian fungi in 1836.

Pouliot has done a tremendous amount of research in unearthing a trove of mushroom lore and myth, most of it European of course. But she also provides very up-to-date natural history and ecology information on fungi as well. What I liked most about this book is the conversations with so many people about their attitudes towards fungi (mostly mushrooms of course), as well as uses (and fears) of them. *The Allure of Fungi* presents fungi through multiple perspectives—those of mycologists and ecologists, foragers and forayers, naturalists and farmers, aesthetes, artists, and philosophers. Pouliot explores how a history of entrenched fears and misconceptions about fungi has led to their near absence in Australian ecological consciousness and biodiversity conservation. Through a combination of text and visual essays (with lots of great, full-page photos), the author reflects on how aesthetic, sensate experience deepened by scientific knowledge offers the best chance for understanding fungi, the forest and human interactions with them.

—Britt Bunyard

Mushrooms: A Natural and Cultural History

Nicholas P. Money

2017, Reaktion Books, London

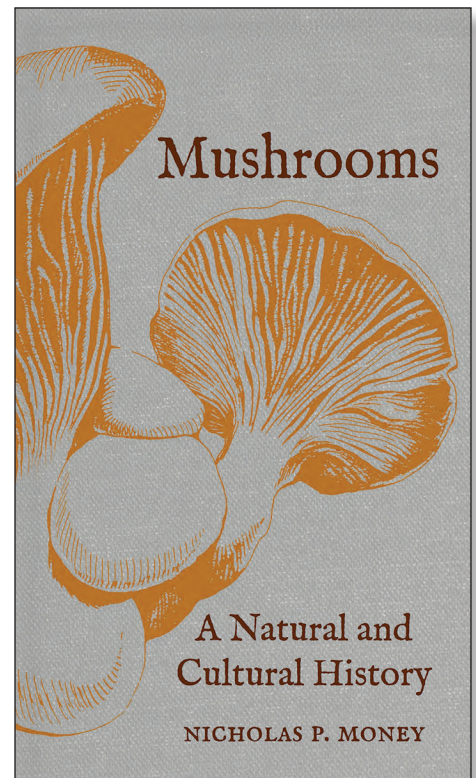
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“Mushrooms are loved, despised, feared and misunderstood. They have been a familiar part of nature throughout human history and occupy a special place in our consciousness. ...A mushroom is not a self-contained organism, like a jellyfish, for example. It is a reproductive organ produced by a colony, or mycelium which grows in soil or rotting wood. ...This book introduces the mythology and science of the spectacular array of fungi that produce mushrooms, the history of our interactions with these curious and beautiful organisms, and the ways that humans use mushrooms as food, medicine and recreational drugs.” So opens *Mushrooms: A Natural and Cultural History*, a brand new book by Nicholas P. Money. Money is Professor of Botany and Western Program Director at Miami University in Oxford, Ohio. He is the author of many popular mycological books, including two of the best ever written on the topic: *Mr. Bloomfield's Orchard: The Mysterious World of Mushrooms, Molds, and Mycologists* (2002) and *The Triumph of the Fungi* (2007).

Money has been on a roll of late, churning out many titles just in the past few years. Nothing of late, however, has lived up to the quality of his earlier works. His most recent efforts seem to be ever more brief, and reiterating much

of the same information. *The Amoeba in the Room: Lives of the Microbes* (2014) kept my attention for its 200 pages, *Mushroom* (2011) came in well under 200 pages, and he's had a pair of *Very Short Introductions* (a series from Oxford University Press) one on mycology, the other on microbiology, both under 100 pages. He even published a novella, *The Mycologist* (2017), a pleasant (if predictable) fictional tale. (The Ohio history woven into the story was very nice and *almost* offset the awkward, cringe-worthy sex scene.)

I found *Mushrooms: A Natural and Cultural History* to be pretty much a retread of his 2011 *Mushroom*, albeit with larger images but briefer text. The topics covered are mostly the same, the images (mostly from public domain) are similar to those of the earlier title: Old World paintings, with some photographs of mushrooms in the field. The images are better, but several of the photographs are mislabeled (e. g. *Gyromitra esculenta* on page 51 is another species; *Volvariella volvacea* on page 126 is certainly *V. bombycina*; the "black morel, *Morchella conica*" on page 128 is clearly *M. semilibera* [= *M. punctipes*]).

Money also makes some unfounded, in my opinion, claims. On page 90 "Relatively little attention has been given to women scientists who have shaped the study of mycology." Although a quick search online will turn up several titles devoted to the topic, it seems like a hollow complaint coming from an author who's written a book on mycological history—which has next to nothing in it about women mycologists. Tsk. On page 92 he discusses how matsutake mushrooms act as partners with their tree hosts, for a period of time then become pathogenic, and finally feeding off their host's killed roots. I've never heard that claim before, nor seen any evidence of it in nature. (It's fair to say you won't see any matsutake within a day's drive of the Miami U campus where Money teaches, so maybe he has some other mushroom in mind.) If only there were other sources of information on Tricholomas to turn to... Another, odd complaint: "There is no accessible comprehensive book on mycorrhizas..." This could not be further from the truth, as there are many and more continue to be published annually—many of them reviewed here in the pages of

FUNGI. I also had some quibbles about his discussion of mushroom parasites; the author seems to be interchanging "mushroom" and "fungus" and states that most are saprotrophs. Actually, most are probably parasites. (Indeed if you consider all species—any kingdom—have parasites and every unique species has at least one, and surely more than one, unique parasite, you quickly conclude most species on Earth are parasites.) Maybe he meant mushroom-producing fungi. But then in the same paragraph he discusses mushrooms that are pathogens of humans; few if any fungi that are human pathogens are mushroom producers (save rare cases of mycosis caused by *Schizophyllum*). Next come the mushrooms that parasitize other mushrooms, e. g. *Asterophora* (it's actually a saprobe of rotting mushrooms). When speaking of mushroom toxins, specifically amatoxins, Money repeats the almost baseless claim that *Conocybe* species produce amatoxins (this is based on a single citation that most likely was erroneous).

It's no secret that Money idolizes the great mycologist AHR Buller (1874–1944). Money has devoted many pages to Buller over the years. The lionization has now earned Buller a moniker, to wit: "His influence on the study of fungi is so important that he has been called 'the Einstein of mycology.'" That's according to Money, who began calling Buller that a few years ago. I've seen "Einstein" used nowhere else other than in publications by Money. But who knows, maybe it will catch on.

Mushrooms: A Natural and Cultural History wouldn't be complete without the favorite three dead horses that Money likes to beat (organized forays, cultivated mushrooms, and hallucinogenic fungi). The author rails against mycophiles—his very fan base—for their very destructive habit (in his eyes) of holding educational forays where wild mushrooms are collected and brought to a display table, only to then be thrown into the compost bin at the event's end. Still more objects of his ire are cultivated mushrooms. Seemingly all of them. "The popular cultivated mushrooms do not taste very strongly of anything..." They "have less taste than wet paper," range "from dullness to unpleasantness," and so forth. Of course, anyone that

knows mushrooms, knows this *can* be true when they're not fresh. The same could be said of any vegetable or piece of fruit. Freshly harvested cultivated mushrooms are wonderful and I invite the author to try them. There is a reason so many people have gone to so much trouble to grow them for centuries. But the misperceptions don't end there, they continue with how little nutrition they afford. "One could obtain greater sustenance by licking a postage stamp" [than from eating mushrooms]. He actually states this on page 135. This is far from the truth and there are several books to turn to for the facts on the nutrition of mushrooms and other fungi (a good one is *Food and Beverage Mycology*, second edition by L. R. Beuchat, 1987). And finally there are the hallucinogens. I don't know why the author always feels compelled to discuss (albeit barely) this topic. He begins with "This mycological topic is approached with some misgiving by the author..." Why? If you have no interest in, or knowledge of, a topic—any topic—you need not be compelled to mention it for the sake of mentioning.

Mushrooms: A Natural and Cultural History is part of a large series by Reaktion Books (London). I'm not entirely sure who their audience is, as the books are very short on content (maybe aimed at readers short on time or attention spans?). Another title by Reaktion, *Mushrooms, A Global History* has next to no information whatsoever about mushrooms.

If you have no other books on mycology or mushrooms and want a starting point, *Mushrooms: A Natural and Cultural History* might be for you. The author's writing style is engaging, humorous at times, and for general audiences. The book could easily be read in a single morning over a couple of cups of coffee (as I did). If you have other mycological overviews under your belt, you will not likely find anything new with this book.

–Britt Bunyard

Paleomicrobiology of Humans

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