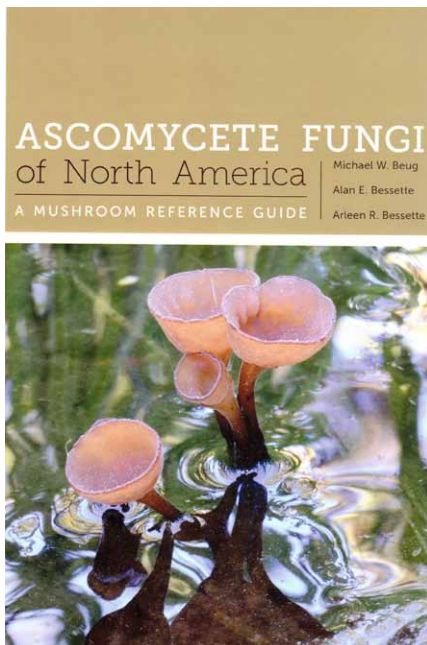


**Ascomycete Fungi of North America: a mushroom reference guide. By Michael W. Beug, Alan E. Bessette, and Arleen R. Bessette. 2014. Austin: University of Texas Press. Pp. xii + 486, illustr. colour. ISBN 978-0-292-75452-2. Price: US\$ 85.**



Just one year after the appearance of *Ascomycetes in Colour* (Thompson 2013; see *IMA Fungus* 4(1): (25), June 2013), devoted to the UK, it is a pleasure to welcome another beautifully illustrated work on the phylum. The treatment of the tens of thousands of ascomycete species that must occur in North America in a single printed work would clearly be impractical, and here the authors. "... have focussed on those species found in the continental United States and Canada that are large enough to be readily noticeable to naturalists, photographers, and mushroom hunters, and those that reproduce sexually. . ." (p. ix). Around 600 species are featured with macro-photographs that can only be described as stunning, with their own supplemented by ones which have been painstakingly sourced from a long list of contributors.

Following a brief introduction to the phylum with photographs of some microscopic features, is a "picture key" to the included ascomycetes where at the end of the last couplet reduced-size photographs are presented with cross-references to the pages on which they are mentioned; "mentioned" as some are different from those treated in detail in the main entries to help deal with the issue of "look-alikes", and their known

distributions are indicated by abbreviations for particular states or more general regions. The detailed treatments are organized into ten chapters. The first, on hypogeous taxa, is particularly comprehensive and is the only one to include a traditional dichotomous key to the treated genera. *Pezizomyces* and *Leotiomyces* are by far the largest chapters, between them occupying about half the book. Surprisingly, *Neoelectomyces* (with just two species in North America) has two pages, while what is probably the largest class of ascomycetes in the region, *Dothideomyces* has just four. The *Lecanoromyces*, sadly, do not appear at all even to introduce them in the way adopted for *Dothideomyces*.

The photographs of the individual species are almost all macroscopic, with microscopic features confined to short descriptions. In general the photographs are first-rate, but it would have been good to have closer shots of, for example, fungicolous species such as those of *Hypomyces* where infected basidiomes are figured but the features of the intended fungi are not or scarcely visible. Thumbnail size drawings of spores, such as those in Thompson (2013), would have been a valuable addition, though I would have preferred to see fuller sketches such as those used in Breitenbach & Kränzlin (1984) emulated. The end of dual nomenclature for pleomorphic fungi that became operational in July 2011 is noted, but sadly the idea is perpetuated here by the citation of separate names of anamorphs below the accepted names in the same-sized type; those names should have just been prefixed by "Synonym:" not "Anamorph"! Author citations are given, but with no reference or dates, and surprisingly are also given in full rather being abbreviated as is the commended practice; further, there are errors and inconsistencies in these; "Schroeter" and "Schröter" even appearing on adjacent lines (p. 301). The ": Fries" citations, to indicate sanctioned names, is used in some cases it applies, but omitted in others; there is even a "Persoon : Mérat" (p. 351) indicating a lack of understanding of sanctioning – still a too frequent occurrence even though it is 33 years after the notation

was introduced. Further, author citations are also given in full when species are mentioned in the notes, wasting space for no added information. They are best omitted in all but formal taxonomic and nomenclatural treatments; these have not been treated as an integral part of scientific names under the *Code* since 1999. Today, full citations of authors and bibliographic details for all scientific names are easily obtained free of charge through the *Index Fungorum* or MycoBank websites if required; they are not essential in works primarily directed at citizen scientists and naturalists.

The Comments sections of each entry are packed with information including discussions of separations from other species, treated and untreated. Synonyms are often also mentioned here, and in some cases references to key publications are included. No nomenclatural novelties are formally introduced here, but there is an English description of an as-yet undescribed *Xylaria* species, *X. atropictor*, from the Pacific Northwest (p. 348); it is to be hoped that that name will be validated before too long. The book concludes with an extensive glossary, 12 pages of references, photo credits, indices to both common and scientific names.

Notwithstanding the above remarks, this is a much-needed and super book which should do much to stimulate interest in North American ascomycetes, especially those most likely to be noted in the field by non-specialists. The authors, all extremely experienced field mycologists, but not professionally employed as mycologists, are to be congratulated on producing a visually striking major contribution to our knowledge of North American ascomycetes. In common with *Lichens of North America* (Brodo *et al.* 2001), it contributes to filling a gap that exists in the absence of comprehensive authoritative treatments of so many groups of North American ascomycetes. Updates of Ellis & Everhart (1892) and Seaver (1942, 1951), in particular, remain sorely needed . . .

Breitenbach J, Kränzlin F (1984) *Fungi of Switzerland*. Vol. 1. *Ascomycetes*. Lucerne: Verlag Mykologia.