BOOK REVIEW

Walter E. Sturgeon. 2018. **Appalachian Mushrooms: A Field Guide.** (ISBN-13: 978-0-8214-2325-7, pbk). Ohio University Press – Swallow Press, Alden Library, Suite 101, 30 Park Place, Athens, Ohio 45701-2909, U.S.A. (**Orders:** www.ohioswallow.com/book/Appalachian+Mushrooms). $35.00 US, 496 pp., 500 illustrations, 700 color photographs, 400 species descriptions, glossary, references, indices, 7" × 10".

About the book: It is available at a retail price of $35.00 in paperback and is a bargain for such a big book profusely illustrated with so many color photographic images. My concern about the book is the binding and stitching which may not stand the test of time if such a heavy book (2.6 bs) is used in the field.

Emphasis is on macromorphological characters seen in species descriptions: highlighted by scientific name, cap, flesh, gills, stem, spore print, ecology, edibility, and comments which circumscribes each gilled mushroom species. It is unfortunate that in the mushroom identification topical section an illustration of how to make a spore print and color of the paper was not included. In addition, there are ways to obtain spore prints of gilled mushrooms in the collecting basket but this was not discussed. Spore color cannot always be discerned in the field directly by observing the mushroom gills but it can be done in the collection basket with proper orientation of the specimen and use of paper or caps of other mushrooms. One outstanding feature of this book is the reliance on field and direct observations without the use of a microscope. This will facilitate beginners using the book to identify these gilled fungi.

Amanita is the first group of fleshy gilled mushrooms discussed in the book (14 taxa; 1–19 pages). Groups of fleshy gilled mushrooms with keys to species are as follows: *Russula* (13 species); *Lactarius* (20 species) and *Lactifluus* (8 species); *Hygrophorus* (8 species); *Hygrocybe* (9 species); *Gliophorus* (3); *Tricholoma* (10); *Chlorophyllum* (2).

Chlorophyllum molybdities is a common lawn mushroom that forms large fairy rings in the Dallas/Fort Worth area following rains in July and August, causing the majority of mushroom poisonings. It is highly toxic causing intestinal distress of severe vomiting, diarrhea, and dehydration but rarely death. Mature mushroom gills turn a noticeable greenish color due to the spores, a morphology rarely seen in mushrooms. Beware! These are large white-capped mushrooms that lure children to eat them but should be avoided at all costs.

Another gilled mushroom species, *Omphalotus illudens*, is highly toxic, occurs abundantly in the fall at River Legacy Park in Arlington, Texas, and its gills are bioluminescent and glow in the dark.

More gilled mushroom genera include *Mycena* (7 species); *Gymnopus* (4) perhaps more recognizable with the familiar name *Collybia*; *Cortinarius* (14); and many other genera with 1 to 4 species.

The boletes or capped fungi with pores include 60 species. The polypores include 55 species. The chanterelles and allies include 12 species. Club-like and coral-like fungi are a mixture of Basidiomycetes and Ascomycetes grouped by form (21 species). One of the more colorful species missing from this coral form group is *Clavaria zollingeri*, a brilliant striking purple to violet color frequently seen in the Great Smoky Mountains National Park. Spine fungi include 12 species. Puffballs and related fungi include 20 species represented in form by Basidiomycetes and Ascomycetes.

The remainder of the book includes form groups represented by cup or flat shapes, jelly or rubbery fungi, and lastly the morels and false morels. This latter group includes the highly prized wild edible springtime morel mushrooms.

This is a much-needed book that fills a fungal niche vacant for a long time! It was not written for the taxonomic specialist but for a more general lay audience of mushroom enthusiasts. All of the mushroom clubs in the U.S.A. and Canada better have this book on their bookshelves. Beginners learning mostly fleshy fungi for the first time will find this a welcome addition to their mushroom library. State and national parks and conservation agencies in the Appalachian region should have this book available for sale in their welcome centers. College, university, and public libraries will want to have this book available for the general public to enjoy the biodiversity of fungi. Naturalists, summer campers and hikers, and outdoor enthusiasts who may wish to learn more about the wonderful world of fungi beneath their feet will find this book a good place to start.

I highly recommend this book for all the myco-bibliophiles who want to enjoy fungi collecting in the field. I bought it!—*Harold W. Keller, Professor Emeritus, Botanist and Mycologist, Botanical Research Institute of Texas, Fort Worth, Texas, U.S.A.*

About the author: Walt Sturgeon has more than 45 years of field experience hunting, collecting, and identifying mushrooms in the Appalachian region of the U.S.A. His many years foraying with the Ohio Mushroom Society and contributing his field expertise to the Mushroom Log, the OMS Newsletter, has made him the foremost authority of mushrooms of this region. I personally know him from mushroom forays and workshops held in Ohio when I lived in Fairborn and participated in field trips throughout the state. He usually could put a name on any mushroom growing in the region simply by sight without the aid of a microscope. What is remarkable and special about this book is the organization based on field morphological characters that minimizes technical terminology and species descriptions that are enhanced by a glossary of terms at the back of the book along with photographic images, which are second to none. Walt has served as the mushroom authority at countless mushroom forays and festivals always contributing his mushroom collections and expertise at the mushroom display tables at the end of the weekend foray. He has been a speaker and foray leader at the North American Mycological Association annual forays held in the eastern states for many years. I wish we would have had this book when we were doing our tree canopy research in the Great Smoky Mountains National Park in the early 2000–2008 years because it would have been ideal for my students learning about field mushrooms.