

BOOK REVIEW

ROBERT L. MATHIASSEN. 2021. **Mistletoes of the Continental United States and Canada.** (ISSN: 0883-1475; ISBN-13: 978-1-889878-66-9, flex-binding). Botanical Miscellany 58. Botanical Research Institute of Texas Press, 1700 University Dr., Fort Worth, Texas 76107-3400, U.S.A. (**Orders:** shop.brit.org, orders@brit.org, 1-817-332-4441). \$25.00 US, 220 pp., color throughout, illustrations, glossary, references, index, 6½" × 9½".

Dr. Robert Mathiasen spent over 50 years surveying, studying, and teaching about mistletoes in North America. Fortunately for us, most of his research is contained in his new book, *Mistletoes of the Continental United States and Canada*. It is a marvelous opus. This book presents the latest classification of mistletoes and updates earlier texts on dwarf mistletoes (*Arceuthobium* spp.) by Frank Hawksworth and Delbert Wiens in 1996 and dwarf mistletoes and leafy mistletoes (*Phoradendron* spp.) by David Shaw and Robert Mathiasen in 2013.

In Dr. Mathiasen's new text, species of dwarf mistletoes and leafy mistletoes are skillfully presented alphabetically with excellent photographs and text. I found the colored range maps to be particularly useful. Also especially helpful is the "host summary" for dwarf mistletoes where tree species are catalogued as "principal" hosts, "secondary" hosts, "occasional" hosts, "rare" hosts, or "immune" hosts, a quick reference guide. These and other terms are well defined and illustrated in the book's beginning pages.

For the taxonomist, the "General Description" section for each mistletoe explains the morphological features, flowering periods, and seed dispersal times that distinguish the particular mistletoe species. Artificial keys for identifying both dwarf mistletoes and leafy mistletoes are provided at the end of the book. Also, at the book's end are useful conversion tables, a complete glossary, valuable references, an index of mistletoe and host species, and an alphabetical listing of common mistletoe names.

For those who want to explore beyond the botanical details, there are sections on interesting topics about mistletoes including the "relationships of mistletoes with other organisms" such as birds, mammals, and insects; the "cultural significance of mistletoes" including mistletoes in mythology, art and music, Native-American customs, and medicinal uses; "should mistletoes be managed" as parasites that damage trees or as agents that provide for wildlife habitat or both objectives; and the relationship between "wildfire and dwarf mistletoes," an important topic in a changing climate.

My criticisms of the book are brief: a few more key references would have been useful although not necessary. Although the book is primarily a field guide for mistletoes in the geographical areas covered, some additional information on mistletoe management could have made the book more useful for arborists and forest resource managers.

Dr. Mathiasen's book is a valuable and easy to use field guide for the professional and amateur botanist, pathologist, entomologist, ecologist, arborist, silviculturist, and forester. The book is an excellent field guide and summary of the biology and importance of mistletoes in the US and Canada.

—Gregory M. Filip, Ph.D., Retired forest pathologist, USDA Forest Service and Oregon State University.

About the Author: **Dr. Robert Mathiasen** (retired) was Professor of Forest Health in the School of Forestry at Northern Arizona University, Flagstaff. He received his Ph.D. in plant pathology from the University of Arizona in 1977, a MS in botany from Colorado State University in 1974, and a B.A. in Biology from California State University, Stanislaus in 1972. He has studied mistletoes in the United States, Canada, Mexico, and Central America since 1973 and published more than 50 professional scientific and extension papers on dwarf and leafy mistletoes. His research has primarily concentrated on the impact, ecology, and taxonomy of dwarf mistletoes. He retired from Northern Arizona University in 2019 after serving in the School of Forestry for 23 years. Before that he worked as a forest pathologist for the Idaho Department of Lands in Coeur d'Alene and before that he was a plant pathologist with the USDA Forest Service, Forest Pest Protection branch in the Intermountain Region. He worked under the direction of Dr. Frank G. Hawksworth who was considered the World's leading authority on dwarf mistletoes until his passing in 1993.