BOOK REVIEW

Michael John Haddock and Craig C. Freeman. 2019. **Trees, Shrubs, and Woody Vines in Kansas, Revised and Expanded Edition.** (ISBN 978-0-7006-2768-4, pbk). University Press of Kansas, 2502 Westbrooke Circle, Lawrence, Kansas, 66045-4444, U.S.A. (**Orders:** www.kansaspress.ku.edu). \$26.95 US, 465 pp., 946 color photographs, 167 maps, glossary, references, index, 6" × 9".

Kansas is home to high plains, rolling hills, and river valleys including rivers, streams, creeks, and, waterways known as riparian habitats. Tree and shrub species diversity is higher along waterways and surprisingly 166 species of trees are found in Kansas, 138 are native. This tree species diversity counters the comments and perceptions of some visitors who may think of Kansas as just "one great big flat wheat field."

About the authors: It is good to see these two authors, Michael J. Haddock from Kansas State University and Craig C. Freeman from the University of Kansas collaborate together following a long period of collaboration between botanists and herbarium curators Ted Barkley at KSU and Ronald McGregor at KU, especially based on their monumental work *Flora of the Great Plains*. Rivalry on the sport field did not carry over to the botany field where these two botanists cooperated for many years on the Kansas flora. Haddock and Freeman continue this spirit of cooperation to the present day.

About this book: This book expands and updates the popular book *Trees*, *shrubs*, *and woody vines of Kansas* by H.A. Stephens. Published in 1969, Stephens described 114 woody species with all photographs in black and white. A lot has changed in the last 50 years to the woody flora of Kansas. This current book results in nomenclatural changes (15 percent), nearly 2,200 species of vascular plants (22 percent considered nonnative), 260 species of woody plants or 12 percent now make up the Kansas flora. Since 1969, 46 woody plant species have been newly documented and only 7 are considered native. Overlooked native species newly recorded (2) and one species new to science have also been added. Plant diversity changes over time, but this book brings the occurrence of woody plants in Kansas up to date.

This field guide is a "must buy" for all native Kansans interested in what grows in Kansas and to a broader readership interested in the flora of the great plains, both professionals and amateurs alike. There is a lot in this book to brag about! The nearly 1000 color photographs are of outstanding quality, 1 to 6 occupy each page for each species, highlighting habit, and morphological features of bark, leaves, flowers and fruits. Kansas has 105 counties with species represented by dot distribution maps.

Book content has keys to Species Groups and Species, pages 5 to 24, based mostly on leaf morphology. Each species identified in keys is located by page number along the right-hand margin. Species descriptions are organized alphabetically by family name. Each species description is represented by family and common name, scientific binomial, habit, twigs, leaves, inflorescences, flowers, fruits, trunk, habitat, status, and discussion. One of the special features of this book is the glossary defining botanical terms, approximately 400, in pages 393–408. This glossary aids in understanding more fully the species descriptions.

This book is reasonably priced and should be purchased by city and school libraries throughout the state, be available for sale in Kansas State Parks, Kansas turnpike entry points, National Tall Grass Prairie Preserve, County Conservation Districts, Kansas Nature Centers, and bought by individuals interested in Kansas land-scapes and trees located in street-lined avenues and their own backyard. Enjoy the flora of Kansas.

—Harold W. Keller, PhD., Professor Emeritus, Botanist and Mycologist, Researcher Fort Worth Botanic Garden | Botanical Research Institute of Texas, Fort Worth, Texas, 76107-3400, U.S.A.