

REVIEW

MAPLES OF THE WORLD. D. M. van Geldersen, P. C. de Jong, and H. J. Oterdoom. 1994. Timber Press, Inc., Portland, Oregon. 512 pp. ISBN 0-88192-000-2 (cloth). \$65.00.

Maples of the World, a monumental achievement and decades in preparation, is the first major world-wide monograph of the genus *Acer*. Maples are among the largest and most significant of woody plant groups in the Northern Hemisphere, with 124 species throughout the temperate zones. The dominant and colorful role of maples in the temperate deciduous forest, as well as their ornamental and economic uses, are only matched in importance by their taxonomic complexity.

The volume's first six chapters provide background information relating to the propagation, diseases and pests, structure, paleobotany and evolution, and finally, classification of maples. These are good chapters, but occasionally generalizations creep in where the authors try to summarize information about such a large and geographically diverse group. For example, the Aceraceae is circumscribed in a narrow, traditional, temperate-based sense with two genera—*Dipteronia* (two species in central China) and *Acer*—and not viewed more globally as relatives of a larger, tropical assemblage, the Sapindaceae. The traditional view of the family, however, will be familiar to those in the Northern Hemisphere.

The review of past classification schemes of maples and their weaknesses is meticulous, but soulfully lacks contemporary studies using molecular technologies, especially nucleic acids. However, when major molecular works with maples are done, they must be checked against some morphological monograph in which names and types have been accounted for. It will be this volume that will be the standard base-line reference. The authors do present an updated, phylogenetic system of classification based in large part on the previous work of Pojarkova (1933), de Jong (1976), and Delendick (1981). The volume's taxonomic synopsis of the family will be the beginning point for future maple systematic work.

The bulk of the text is devoted to species accounts, followed by the hybrids and cultivars. The 124 species, 95 subspecies, eight varieties, and a single form are divided by the authors into 15 sections with eight of these sections further subdivided into 19 series. Fourteen new combinations, 12 at the subspecific rank, one at the varietal rank, and one new section, are proposed. The detailed species descriptions are remarkably parallel, each with an extensive account of synonyms. Seven appendices contain relevant information that adds to the work's focus. No fewer than 35, double-column pages are required to list the cultivar names of the Japanese *Acer palmatum*, "akai washino o" to "yushide." Four cultivars are listed for *Acer pensylvanicum*, our native, eastern "moosewood" or "striped maple."

The exhaustive bibliography covering nearly 70 pages is one of most encyclopedic that I have seen. Contrasting with this inclusive documentation is the almost artistic presentation of maple diversity, much in color; all those gems of morphological variation unfold like variations on a Mozart concerto.

One familiar with the palmate leaves of "sugar maple" (*Acer saccharum*) is in for a fantastic surprise as one finds various simple and compound-leaved ma-

ples. These examples reveal our eastern North American "box-elder" or "ash-leaved maple" (*Acer negundo*) to be just another member of the family. In Southeast Asia, there are also evergreen (nondeciduous) maples—*Acer coriaceifolium* (China), *A. laevigatum* (China, Nepal), and *A. laurinum* (China, Malaysia to Philippines).

For students of vicariant plant geography, the book describes the Asian maples, all with parallel patterns of evolution and disjunction, on the opposite side of the world. Ecologically, plant-hardiness zones are cited for each species and cultivar. However, maps of plant-hardiness zones are only given for North America and Europe; none are presented for eastern Asia, which is a bit disconcerting since so many maple species and cultivars are east Asian in origin.

Timber Press should be commended on their devotion to high binding standards and editorial selection, neither of which have been neglected in this volume. This handsome volume will serve as the standard reference for students, specialists, and fanciers of maples for the next several decades, and perhaps longer. Its wide-ranging information is equally rewarding to scientists, landscape architects and designers, horticulturists, serious home gardeners, and all others with a genuine interest in trees. This book should be in every public library as well as on the shelf of anyone interested in temperate woody plants.

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