

Book Reviews

Vascular Plants of the Russian Far East. Vol. 1. Edited by N. N. Tzvelev. 2003. Science Publishers, Inc., Enfield New Hampshire, USA. 506 p. US\$165.00 hardbound. ISBN 1-57808-290-0.

This new flora of the *Lycopodiophyta*, *Juncaceae*, and *Poaceae* of the Russian Far East (RFE) is the first of a ten-volume comprehensive flora that will be a valuable addition to the taxonomic botany of a region that is not often in the American news. The region covered in the flora is located from Vladivostok in the south, northward and somewhat inland along the northern Pacific coast, including the Kamchatka Peninsula, to the Eastern Cape opposite the Seward Peninsula of Alaska. The western boundary of the region described corresponds to the eastern boundary of the Yakut Republic and Chita Region. The Editor describes this area of the RFE as floristically rich, with a history of botanical research dating back about 250 years, most of it after World War II.

In its organization, the flora contains a brief introductory section, about 25 pages on the *Lycopodiophyta* (club mosses and quillworts), about 40 pages on the *Juncaceae* (rushes), and about 400 pages on the *Poaceae* (grasses). A brief bibliography of literature on chromosome numbers, and an index to the Latin names of families, genera and species close the book. The introductory section includes a brief Introduction—mainly to the history of taxonomic work in the region, a section showing the taxonomic system of the vascular plants of the RFE, a bibliography of the major relevant floristic literature, a section describing the main floristic districts of the RFE, and 20 pages of keys to the divisions, classes, subclasses and families of plants.

The sections on the 3 major taxa follow. Over 160 maps and 26 plates, most of them black-and-white drawings of plants species, enhance the typically abbreviated taxonomic descriptions of the plants. Only Latin names are given. Species descriptions include names and nomenclatural citations, morphological descriptions including the chromosome number with appropriately prioritized references, distribution by sub-region, months of sporing, flowering, seeding and fruiting, endemism, possible uses, means of conservation, and general distribution. Individual specimens described by and kept at particular herbaria are noted when relevant.

The species descriptions are terse and replete with abbreviations, in the manner of most floras, and appear generally well edited. The wording in the Table of Contents, and the syntax in the Introduction are awkward in places, and could have benefited from additional editing by a skilled English-speaking editor. The book seems reasonably free of typographical errors.

The production characteristics of the book include a solid binding and heavy, glossy paper. Printed in India, the book does show evidence of faint and fragmented printing in places despite the adequate paper. The marginal quality of the printing is inconsequential in the text, but does slightly impair the sharpness of the book's graphics, including the drawings of plants, and the book's maps. Despite these limitations, the book's production values are certainly adequate for its purposes.

Taxonomists, especially agrostologists, and grassland scientists and managers with regional interests may be attracted to *Volume 1* of *Vascular Plants of the Russian Far East*. The rich history of importation of species from the region into North America, along with the geologically historical land bridge between the region

and Alaska ensure that North American range management scientists will find many familiar genera and species in this regional flora.—*David L. Scarnecchia*, Washington State University, Pullman, Washington.

Tree Islands of the Everglades. Edited By. F. H. Sklar and Arnold van der Valk, with numerous text contributors. 2002. Kluwer Academic Publishers, Dordrecht, Netherlands. 541 p. US\$198.00 hardbound. ISBN 1-4020-1050-8.

The current broadening of the concept of *rangelands* to include non-agricultural, coastal wetlands and floodplains, as discussed at the annual meeting of the Society for Range Management (SRM) in Salt Lake City by Bob Budd, Past President of the SRM, makes *Tree Islands of the Everglades* more relevant to range management science than what might be thought at first glance. The ecological features of these islands or *hammocks*, including the complex overstory-understory relationships of their herbaceous and woody plant species, their role in a mosaic of land and vegetation types within a broad, extensively-managed landscape, and their importance to diverse wildlife are among the common conceptual traits they share with other rangelands. The recent book *Tree Islands of the Everglades* is, with some important additions, the published proceedings of a symposium held in July, 1998 at Florida Atlantic University, in Boca Raton, Florida. That scientific meeting was the first ever devoted entirely to tree islands. This book fills a conspicuous void in the scientific literature on a subject often casually noted but generally glossed over in the ecological literature.

The Preface and Introduction to *Tree Islands of the Everglades* by the Editors describe generally what tree islands are, and give some brief background on the basic spatial concepts tree island ecology, some environmental history of the Everglades inlands, and their place within the Comprehensive Everglades Restoration Plan (CERP). Chapter 2 by Paul Wetzel examines the tree island ecosystems of the world, including peat islands from places such as Minnesota and the Yucatan peninsula. The 15 chapters that follow address a variety of topics related to tree islands, and include titles such as *The Archaeology of Everglades Tree Islands*, *Analysis of Tree Island Vegetation Communities*, *Habitat-Use Patterns of Avian Seed Dispersers in the Central Everglades*, and *Occurrence of Wildlife on Tree Islands of the Southern Everglades*. Chapter 16, which presents some spatial simulations of tree islands for Everglades restoration, is the chapter most strongly oriented toward modeling. In the closing chapter (17), the Editors summarize what we do know and should know about tree islands.

The book contains a subject index and a species index at its end, appendices at the end of a few individual chapters, and lists cited literature at the end of each chapter. Most chapters contain a section entitled *summary*, *implications*, or *conclusions* at their ends. Dispersed throughout the book are a variety of tables, figures, and maps. A few of the chapters contain some black-and-white photographs, mostly landscapes. The technical content of the book is impressive in quality and quantity, and is presented effectively and attractively.

In the closing chapter the Editor's concise summary of the diverse content of *Tree Islands of the Everglades* exemplifies the

value of editors of such collected works in unifying the diverse contributions of numerous contributors. This closing chapter provides effective synthesis, including some interesting, elementary generalizations such as the three defining characteristics of tree islands, namely that they are (1) an integral part of wetlands, (2) a feature only of wetlands with a directional water flow (i.e., riverine wetlands), and (3) dynamic in their hydrology, sedimentation and erosion. In their closing syntheses, the editors go on to examine the future needs for experimental research and modeling research on tree islands within the Everglades ecosystem.

Tree Islands of the Everglades is a diverse, balanced blend of landscape ecology and systems science, enhanced by effective editorial synthesis. The publisher, Kluwer, has a record of publishing edited books of excellence, and this exceptional, overdue book is no exception. It should be essential reading and a valuable reference for scientists involved with the Everglades ecosystem. Although technical in character, the book should be understandable to any intelligent, interested reader, and should be attractive to bibliophiles of Floridiana. For such interested individuals, any other publication related to these Everglades hammocks would pale next to *Tree Islands of the Everglades*. The book is an excellent complement to *Everglades: the Ecosystem and its Restoration* (1994) by Davis and Ogden (reviewed, *J. Range Manage.*, 48:478).—*David L. Scarnecchia*, Washington State University, Pullman, Washington.

The Cycads. By Loran M. Whitelock. 2002. Timber Press, Portland, Oregon. 532 p., with 505 color plates and 13 line drawings. US\$59.95 hardbound. ISBN 0-88192-522-5.

This remarkable volume on cycads was written by the proprietor of Cycads Gardens of Los Angeles. This proprietorship is less than conspicuous on the Internet, but what is apparent is that Mr. Whitelock is, in the opinion of some, the foremost expert on Cycads in the world. His book *The Cycads* was, according to his own Preface, designed to serve double duty as a reference for both gardeners and botanists.

The cycads, taxonomically classified as the order of plants *Cycadales*, are the most primitive of the surviving gymnosperms. The order includes 11 genera and about 290 species, restricted mostly to the subtropics and tropics. The plants are generally recognized by their showy, palm-like leaves and their colorful, pod-like cones. About 10 species are commonly seen as horticultural plants. The sago palm, *Cycas revoluta*, is the best-known, most widely planted species.

Mr. Whitelock's book offers most of what a professional botanist or amateur enthusiast would want in a botanical reading or a botanical reference, plus more. Chapters 1-7 and Chapter 9 are brief in length (they total 61 pages), but are informative in content. Chapters 1-7 examine diverse aspects of these curious plants, including their paleobotany (Chapter 1), general taxonomy (Chapter 2), morphology and reproduction (Chapter 3), cultivation (Chapter 4), propagation (Chapter 5), conservation and protection (Chapter 6), and their uses by humans (Chapter 7). These chapters provide excellent background on the cycads, and are enjoyable reading. Chapter 9 contains 10 pages of tables (about 30) grouping species of cycads that have particular morphological, horticultural, or ecological characteristics, e.g., *treelike cycads*, *temperate to warm temperate cycads*, or *cycads that tolerate salt*. These tables are convenient references. Following Chapter 9, the book contains a glossary and an extensive bibliography.

Most of *The Cycads* is contained in Chapter 8, which covers species in all 11 genera of cycads. These species descriptions are concisely worded and highly informative. They include origins of

the generic and specific epithets, morphology (vegetation and cones), habitats, ecology, cultivation, propagation distribution, conservation, curiosities—the diversity and comprehensiveness here are exceptional. The text is appropriately abbreviated in the taxonomic style in the taxonomic parts of these descriptions, but is much less abbreviated in the parts describing ecology, conservation and management.

Within the bounds of Chapter 8 are 2 sections that include 505 color plates of varying sizes but uniformly high quality, the product of the author's travels to seek out cycads around the globe. This section of plates is a *tour-de-force* of color photography – an artistic, *cycad-delic* collection of plants, cones, leaves, landscapes, and artifacts that unmistakably show that the author has intellectual and aesthetic enthusiasm for these curious plants beyond just science. These plates show the artistry of nature and humanity related to cycads in its many forms at its very best. They include such diverse art as complex, exotic tropical landscapes, huge, colorful cones of cycads in reproduction, a cycad-adorned Tiffany cigar box, and a Japanese cloisonné plate in a motif of *Cycad revoluta*. All of this diversity, particularly in the color plates, but also in the text, makes *The Cycads* more than just a botanical and horticultural reference; it is a technically thorough, aesthetically pleasing blend of taxonomy, ecology, horticulture, paleobotany, natural art and human art.

Genuine passion is generally required to produce work of quality, and *The Cycads* shows quality from start to finish. It shows the remarkable effort and skills of the author, and is an admirable product of the publisher, Timber Press. The book will be of particular interest to professional and amateur botanists, and professional and amateur horticulturists. But all readers interested in the science, the aesthetics, and the artistry of nature will appreciate the book.

Since its initial publication in 2002, *The Cycads* has already been reprinted once. At US\$59.95, the book is an exceptional value. Look for it to be reprinted again when this printing is exhausted. But in case this printing is the last, you will not be disappointed if you acquire a copy now. The book will, at the least, greatly enhance your appreciation of these interesting, primitive plants.—*David L. Scarnecchia*, Washington State University, Pullman, Washington.