

the increasing numbers of people living in the area in more and more crowded conditions.

As with any botanical garden, funding challenges provide a common thread for the story from the beginning when funds from private sources had to be raised before the city would provide the money to build the buildings and conservatory. Fortunately, the late nineteenth century was a time of great philanthropy and the garden buildings and grounds were well established before World War I, the Depression, World War II and inflation began to take their toll on staffing and maintenance.

It is incredible to read how many herbarium specimens poured in during the early years, both through exchange and through expeditions by garden staff, with many rooms filled for years with unmounted specimens until time could be found for processing. Even more amazing is the huge and ornate 1-acre conservatory that is the symbol of the New York Botanical Garden. From the beginning it had been engineered with twelve climate-controlled biomes for display of plants from all over the world. The original building stood for about seventy years before deterioration finally forced its demolition and meticulous re-building through the incredible generosity of Enid Haupt in the 1970s.

In addition to a chronological presentation of the history of the administration, building and grounds, Dunkak focuses on three major themes: the library (and herbarium), research, and education. Intriguing research such as the invention of puffed rice, faster growing rubber trees, and monitoring of pollution along the Bronx River, emphasize how much a part of the times the garden was, not only in its waxing and waning funding sources, but also the subjects of interest to the large scientific staff over the years.

This is a book about the history of the founding and administration of the New York Botanical Garden, not a botany book. The only plant names in the index are *Tsuga canadensis* and *Ginkgo biloba*. As such it should be of interest to anyone who has ever worked at or visited a botanical garden and wondered how it came to be. For me this book was especially interesting as I grew up in the vicinity of the Bronx River. I also eventually took botany classes out in the Bronx after an office work day in Manhattan and there developed the confidence to pursue my botanical studies professionally. To me it was and still is a miracle that the staff, facilities and grounds of such a beautiful and world-renowned institution are so available to the non-botanical public. As Dunkak's book demonstrates, it was planned to be that way from the very beginning.

-Joanne Sharpe, Coastal Maine Botanical Gardens,
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Cacti of Texas, a field guide: with emphasis on the Trans-Pecos species by A. Michael Powell, James F. Weedon, and Shirley A. Powell. 400 pages, 314 color photos, 124 maps, ISBN 978-0-89672-611-6 (paper \$24.95).

Powell & Weedon converted their extraordinary 2004 treatise *Cacti of the Trans-Pecos and Adjacent Areas* into an equally superb abridged version, a.k.a. field guide. See my review of their 2004 treatise in *PSB* 51(3): 110-112, which largely also applies to their 2008 field guide. In fact, due to some new photos, one additional co-author (Shirley Powell), and an especially seamless integration of figures with text, the field guide is better than expected. For each cactus taxon from Trans-Pecos Texas, the area between the Rio Grande and Rio Pecos, the authors not only include a relatively jargon-free description of the plant (so good that the glossary seems superfluous), habitat, and etymology, but also decent-sized photos of flowers and fruits, as well as a distribution map. All other cactus taxa in Texas are briefly described, including taxa native to the remainder of the state and introduced species. For any botanist traveling through west Texas, especially Big Bend, this is an invaluable field guide written by the true experts.

This volume is in a slightly larger format (6 x 9 inches, 15.25 x 22.75 cm) than many people would like to carry into the field. This could have been improved by moving the figure captions out of the margins, decreasing the spacing between lines of text, and shrinking the distribution maps.

Use of ploidy levels in the keys provides a difficult character for use in the field, unless you carry a microscope with you. On the other hand, while ploidy levels in the key of *Echinocereus* seem unnecessary, ploidy may provide the best or only way of keying out the confounding prickly pears, i.e. genus *Opuntia* s.s.

Cacti of Texas, a field guide is fairly error-free. I only spotted a few production errors, such as incorrect page reference to *Coryphantha minima* in the keys. Many combinations in this field guide supposedly will be published in a forthcoming chapter by Zimmerman *et al.* Unfortunately, one of Zimmerman's co-authors passed away over a decade ago, so these combinations may not be forthcoming any time soon. However, all in all, these are minor foibles in a beautiful field guide.

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