

**THE ILLUSTRATED COMPANION TO GLEASON & CRONQUIST'S  
MANUAL: Illustrations of the Vascular Plants of Northeastern United States and  
Adjacent Canada**

by Noel H. Holmgren

Review by Patrick Garner

The 1998 New York Botanical Garden publication entitled, *THE ILLUSTRATED COMPANION TO GLEASON & CRONQUIST'S MANUAL* by Noel Holmgren is a "must-have" manual for all serious field and laboratory scientists. Containing more than 1000 new, enlarged or expanded illustrations, the *Illustrated Companion* updates the 1952 Henry A. Gleason's *New Britton and Brown Illustrated Flora*. Simply put, the publication of this work is an event, and the book a noteworthy addition to any library.

This new manual is a companion volume to be used in conjunction with the 1991 *Gleason and Cronquist Manual of Vascular Plants of Northeastern United States and Adjacent Canada* (New York Botanical Garden, reprinted in 1993 and 1995), which itself contains no illustrations. Prior to this date, botanists using the 1991 *Gleason and Cronquist Manual* could refer for illustrations to the 1952 *Illustrated Flora*, but found doing so was difficult. Taxonomic differences between the two works were great, with the 1952 *Illustrated Flora* still based on the long outmoded Englerian sequence of families, while the 1991 *Manual* used contemporary taxonomic changes. In addition, the 1952 *Illustrated Flora* was no longer in print. With the publication of the new *Illustrated Companion*, these frustrations are eliminated.

Aside from the sheer volume of illustrations and their taxonomic accuracy, drawings in the *Illustrated Companion* are spectacular. This feature alone is the manual's major attribute, and distinguishes this work from any other I know. Not only is the work comprehensive, its technical drawings are consistently clear, thoughtfully rendered and large enough to allow even seasoned botanists to easily confirm conclusions. The details are unambiguous and comprehensive. Illustrations are used from the prior publication, and new artwork, predominately by Laura Vogel, is added throughout. The plant specimens selected are from the New York Botanical Garden collection, which contains all those species listed in the 1991 *Gleason and Cronquist Manual*, with the exception of five unusual species and two hybrids. In a typical illustration sequence, the entire plant is shown, and beside it an enlarged floret, and then exploded views of diagnostic details such as spikelets, awns, ovaries, seeds, nutlets and stipules.

Unlike the *Gleason and Cronquist Manual*, the *Illustrated Companion* contains a thorough index to most common names, as well as the usual index of scientific names. The appendix also contains a helpful chart comparing scientific names used in the 1991 *Gleason and Cronquist Manual* to those names found in the 1993 and 1997 volumes of *Flora of North America* (volume 2, 1993, and volume 3, 1997).

One of the few criticisms I have of the work is that it is exceptionally large and heavy. Weighing in at over five pounds and at 8" x 11" across, the *Illustrated Companion* is not

a text most botanists would willingly carry to the field. Its size mandates that it be used in the laboratory. To create a similar work and a field guide as well would have entailed creating multiple volumes, rather than the single volume. The book's size is hardly a limitation, and I simply bring questionable species back to the office for later identification.

Most importantly, I have found that use of the new Illustrated Companion allows me to eliminate much of the crosschecking and multiple volume research I usually do for species identification. Particularly in identifying ferns, grasses and sedges, I have relied recently on the new Illustrated Companion, rather than the four or five works I usually view. My complaint about many specialized works that cover a particular family is that common species are typically illustrated, but the quality of many drawings is mediocre. Further, if I have not been able to convincingly key out a plant, and reference illustrations are poor, I always wonder if the specimen I hold is unusual or rare, or whether I have simply misidentified a key feature. Consequently, I go back and forth between numbers of volumes. The 1998 Illustrated Companion, used in conjunction with the 1991 Gleason and Cronquist Manual, allows me to work more quickly, with a greater level of confidence and with a single pair of books.

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